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Fellow Texans:

Today, I am releasing this *Texas Health Care Claims Study – Special Report on Foster Children*. Children are our most precious resource and the foster children of Texas need special attention because the state has taken either temporary or permanent guardianship of them in effect making the state and all of its citizens their parent.

This report reveals shocking evidence of the system's failure regarding the care provided to our foster children. In addition, it raises many red flags pointing to areas of potential fraud and abuse that I am referring to the Office of Inspector General at the Health and Human Services Commission to investigate. In a separate report, *Review and Analysis of The Medicaid and Public Assistance Fraud Oversight Task Force*, I am recommending the Office of Inspector General report directly to the Governor and become an independent office.

I am making 48 recommendations to the Medicaid and Public Assistance Fraud Oversight Task Force in this report.

For example, I am urging the Office of Inspector General to fully investigate potential fraud and abuse identified in this report.

The Department of Family and Protective Services should hire a physician to serve as a fulltime medical director responsible for health care for Texas' foster children.

In April 2004, I recommended DFPS create a "medical passport" for each foster child, which would follow each child as they move from one placement to another. I again call upon DFPS to immediately implement this long-overdue recommendation that would dramatically improve health care for our forgotten children—which could be done by using a simple paper copy system until an electronic version is available.

The medical director should be responsible for ensuring that a foster child's medical passport be received by the foster child's caregiver within 48 hours of being placed in a foster home or facility.

HHSC should require prior authorization for prescriptions to address the dispensing of non-FDA approved psychotropic medications for children.

DFPS and the Department of State Health Services should seek lower-cost, less restrictive alternatives to psychiatric hospitalization and immediately develop rules for the psychiatric hospitalization of foster children.

The medical director and the Department of State Health Services should evaluate the case files of all medically fragile foster children and develop best practices for care.

DFPS in coordination with HHSC and the Department of State Health Services should study complementary treatments to psychotropic medications—such as therapy, diet, exercise, therapeutic activities and mentor programs.

The Office of Inspector General at HHSC and the State Auditor should review the quality of the physical environments in which foster children live and make recommendations to improve standards for living conditions.

My first investigation into the Texas foster care system in 2004—*Forgotten Children*—documented the tragic failure of the system. Part of the report focused on psychotropic medications and care prescribed to our foster children. The findings caused me deep concern and led to my decision in November 2004, to look into this aspect of the system more closely.

Out of concern for the foster children of the state of Texas and pursuant to my statutory obligation to review Medicaid claims for fraud under the Government Code Section §403.028, I reviewed the Medicaid claims of foster children in fiscal 2004 in depth. I am disappointed to report that the findings confirmed the conclusions of the *Forgotten Children* report.

Given the distressing findings contained in this report, I hope that the state will not delay in adopting recommendations, which have been crafted to help mend this broken system. My hope is that the state leadership and the health and human service agencies will work to make things better for our state's most vulnerable children. This report is available on the Texas Comptroller's Web site at www.window.state.tx.us.

Texas is great, but we can do better. We have to—for the sake of our children.

Sincerely,

A handwritten signature in black ink that reads "Carole Keeton Strayhorn". The signature is written in a cursive, flowing style.

Carole Keeton Strayhorn

Texas Comptroller

Chairman, Medicaid and Public Assistance Fraud Oversight Task Force

Texas Health Care Claims Study – Special Report

FOSTER CHILDREN



CAROLE KEETON STRAYHORN, TEXAS COMPTROLLER

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Executive Summary and Systemic Recommendations

“They’re everybody’s children, and nobody’s children. They are the forgotten children in the Texas foster care system. This report reveals shocking evidence of the system’s failure regarding the health care provided to our foster children. In addition, it raises many red flags pointing to areas of potential fraud and abuse that I am referring to the Office of Inspector General at the Health and Human Services Commission to investigate. This report, as the Forgotten Children report did, gives these children something they desperately need—a voice.”

**– Carole Keeton Strayhorn
Texas Comptroller**

The Comptroller’s Health Care Claims Study – Special Report of Foster Children has revealed many failures and tragedies – by connecting the dots between the state’s foster children and their Medicaid medical and prescription drug claims. The picture is bleak, and rooted in profound human suffering. It represents nothing less than a failure of the entire Texas foster care system.

Voluntary medication parameters and guidelines have been created and the Health and Human Services Commission (HHSC) and its allied agencies have issued a request for proposals (RFP) “to contract with a single Managed Care Organization (MCO) to develop a statewide Comprehensive Health Care Model for Foster Care.” But much more needs to be done. (See Appendix I for a history of psychotropic medications and foster children and Appendix III for a comparison of fiscal 2004 and 2005 foster care psychotropic prescriptions.)

The complex nature of the foster care system generates many opportunities for finger-pointing, but ultimately the responsibility

must lie at the top, with the government agencies that allowed this situation to develop. While not all foster care providers provide optimum care and treatment, HHSC and the Department of Family and Protective Services (DFPS) must be held accountable. They place the children and monitor them—or fail to—and they pay the medical bills.

One of the biggest differences between foster children and other children is that foster children often do not have an active and engaged guardian or caregiver in their lives like other children. While DFPS has a policy that requires foster care caseworkers to visit children on their caseloads at least once a month and visit them at their places of residence at least every three months – in reality this does not always happen.

Caseworkers rely on foster care providers or foster parents to ensure that children in their daily care are doing well and following their treatment regiment. In many cases this system works well and foster children receive the service they need. However, because the foster care population moves



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from place to place with frequency there is often no single person on a daily basis that watches out for the well being of the child. In addition, many foster children have very complex emotional and physical needs. Foster children are often prescribed numerous psychotropic medications. These powerful medications sometimes carry warnings from the U. S. Food and Drug Administration regarding their adverse effects that can be serious or even life threatening. Some foster children receive combinations of psychotropic medications, which can then create other side effects. Foster parents often do not have the training or expertise to be able to monitor these children.

Most children have biological parents or guardians, who know exactly what types of medical treatments, prescriptions, etc. their children have had. In fact, most biological parents or guardians know who their children's doctors are and how to reach them. However, in many instances foster care providers do not know a child's medical history or physician because they have not received any of the child's medical records. In addition, foster care providers don't normally know right away what to expect from a foster child, and in many cases do not have a chance to care for children for prolonged periods of time because they are moved so frequently. (As documented in the Comptroller's *Forgotten Children* report.)

To analyze the extensive amount of Medicaid prescription data, the Comptroller called on two internationally recognized and extensively published experts: Julie Magno Zito, Ph.D., a professor of pharmacy at the University of Maryland School of Pharmacy; and Dr. Daniel J. Safer, a psychiatrist and professor at Johns Hopkins University School of Medicine, Department of Psychiatry and Behavioral Sciences. These authorities guided the review team in examining and understanding these records, and making recommendations for improved care. This external review produced a number of key findings:

Key Points of The Zito / Safer External Review include:

- Most prescribed psychotropic medications for foster children are “off-label”, which means they are not FDA approved for this population or for a particular indication. Consequently, pertinent safety and efficacy information on medications is very limited for this age group.
- Increasing the number of concomitant medications increases the risks of adverse drug events.
- Random assignment, evidence-based, controlled, clinical trial data on psychotropic medications prescribed concomitantly for youth are essentially non-existent.

Medical Concerns

This report reveals a number of significant medical concerns within the state's foster care system.

Lack of Medical Histories

DFPS still does not provide its foster children with a “medical passport” explaining their medical history, including diagnoses and prescriptions although the passport is required by law. Instead, foster children often move from one placement to another, seeing new physicians or counselors who have little or no knowledge of their past medical histories. A medical passport would help provide more consistent care for these children.

In September 2006, DFPS stated that it “is working with HHSC on the development of the health passport, scheduled to be implemented September 2007”— more than three years after the Comptroller's first published recommendation.

Psychiatric Hospitalizations

DFPS has no rules, guidelines or monitoring procedures concerning the psychiatric hospitalization of foster children. In fiscal 2004, 1,663 Texas foster children were hospitalized for psychiatric care for a total of 33,712 days, at a cost of \$16 million based on daily rates of more than \$500 per day. More than 400 foster children spent more



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than a month each in psychiatric facilities in fiscal 2004.

Some of these foster children were “dumped” into psychiatric hospitals, by foster parents who decided that they could not deal with the child’s behavior. And DFPS caseworkers often left foster children in such facilities long after they were authorized for release.

Medically Fragile Children

The Comptroller’s office estimates that about 1,600 “medically fragile” children were in Texas foster care in fiscal 2004. These children have serious and continuing medical conditions requiring specialized care and treatment. About 49 percent of them were four years old or younger.

Many of these children were in “basic” service-level homes, because DFPS places more emphasis on behavioral conditions than on physical conditions and needs.

HIV and AIDS

DFPS has been particularly negligent in caring for foster children with fatal and incurable human immunodeficiency virus (HIV) or acquired immune deficiency syndrome (AIDS). These children are not receiving consistent care and counseling. Some have been enrolled in clinical trials and did not have advocates appointed for them. At least one foster facility that cared primarily for children with HIV and AIDS was closed due to poor living conditions and substandard care.

Twenty-six Texas foster children received at least one HIV medication and had at least one outpatient HIV procedure in fiscal 2004. More than 15 had at least one outpatient procedure with an HIV-related diagnosis code, but did not receive any HIV medications—a peculiar and disturbing pattern. Many of these children were categorized at the lowest, basic service level. In fiscal 2004, 63 foster children were raped while in care; of these, only 16 received HIV tests. Meaning that 75 percent

of those raped were not tested for HIV following the rape, as required by law.

One foster child with HIV who was also medically fragile had more than 600 outpatient claims and more than 200 prescription drug claims in fiscal 2004. This child lived in rural Texas, in a 1,300 square-foot mobile home with four other foster children, one of whom also was medically fragile. A review of the DFPS records indicated that this small home was not licensed to care for more than four children.

Sexually Transmitted Diseases


Some Texas foster children are suffering from sexually transmitted diseases (STDs). Many are sexually active or were sexually abused while in care, while others come into care with the disease. In fiscal 2004, more than 200 foster children were diagnosed with STDs. Most of them were teenagers between the ages of 15 and 19. DFPS should recognize this problem and actively address it through education, testing and appropriate treatment.

The review team found irregularities in prescribing practices and counseling delivered to foster children with STDs; females in foster care were *six times more likely* to be diagnosed with a STD than males.

Pregnant Foster Children

In fiscal 2004, 142 foster children delivered babies. The DFPS guidelines regarding birth control, pregnancy and abortion are vague and are not given to providers and foster parents.

Some pregnant foster teens received powerful psychotropic medications that are not recommended for use in pregnant women. And many were moved repeatedly throughout their pregnancies, because many residential treatment centers and foster homes will not take them. Texas has few specialty maternity homes that can offer services to these teens. Foster teens and their new babies, moreover, often were not placed in the



Some pregnant foster teens received powerful psychotropic medications that are not recommended for use in pregnant women.

same home in a timely manner following their discharge from the hospital.

Contraceptives and Foster Children

In fiscal 2004, Medicaid spent \$176,814 on more than 4,300 birth control prescriptions for more than a thousand Texas foster children. Medical claims for these children suggest that not all sexually active foster children receiving these medications were given their recommended yearly gynecology examinations.

A 15-year-old mentally retarded foster child received eight different prescriptions for birth control pills in fiscal 2004, but had no claims for a gynecological examination. And, a 17-year-old foster child received six different prescriptions for birth control patches in fiscal 2004, but had no claims for a pap smear or gynecological exam. This child was diagnosed with a sexually transmitted disease early in fiscal 2004.

Injuries and Deaths

In fiscal 2004, 46 Texas foster children died while in care.

DFPS determined that five of these deaths resulted from abuse and neglect, but 15 cases were left “open” and abuse and neglect were not ruled out. Many other foster children were taken to emergency rooms or hospitals with very severe injuries and medical conditions.

Medicinal Poisonings

More than 150 foster children were poisoned by medication in fiscal 2004, and not all of these cases were investigated by DFPS. Some foster children remained in the same foster homes after they survived the poisoning. DFPS and HHSC should ensure that every poisoning from medication is investigated.

The DFPS hotline received a report that a nine-year-old child was being overmedicated, but the agency did not investigate the case.

Foster Children and Clinical Trials

It was revealed in May 2005 that HIV positive Texas foster children had been enrolled in experimental clinical drug trials. This news sparked nationwide coverage of the topic, since the children were being exposed to potentially serious and even lethal side effects of the trial drugs.

Because of the confidential nature of clinical trials, it is not possible to find out details regarding Texas foster children enrolled in such studies, but some questionable indicators were uncovered – such as medications were billed with no record of medication payment and foster children that are HIV positive with no Medicaid billings for medications.


Section 6544 of the DFPS *Handbook* states:

...no HIV infected child in DFPS conservatorship may participate in any experimental drug therapy...unless the child or child's caregiver first secures the written approval of the child's physician or program director of the child's conservatorship unit.

The review team asked DFPS how many foster children participated in any experimental drug therapy or clinical trials from fiscal 2004 to 2006, and how such participation is reported or tracked and if there is detail by disease or condition. The agency responded as follows:

There are currently no clinical trials for HIV, so no children in foster care were enrolled in this type of trial between FY 2004 and FY 2006. A few children in foster care may be enrolled in other clinical trials.

This response is vague and it is clear DFPS either does not know how many foster children are in clinical trials—or chooses not to tell. According to the U.S. National Institutes of Health website in September 2006, there were 1,928 clinical trials under way in Texas, including several related to HIV.



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The Medications

In fiscal 2004, Texas Medicaid spent \$30 million for powerful, expensive psychotropic prescriptions for Texas foster children. Many of these children received multiple medications.

Psychotropic medications can have very serious side-effects and their use should be strictly monitored; a large number of them are not approved for use in children or adolescents. The review team found that Texas foster children receive more psychotropic medications than their counterparts in mid-Atlantic and midwestern states.

DSHS has set *voluntary* parameters for the use of psychotropics by foster children. These guidelines were released in February 2005 and were supposed to be revised annually. A committee met in August 2006 to discuss the revision; the first revised parameters were scheduled for release in October 2006.

Key concerns identified by this review include:

Costly Psychotropic Medications

In fiscal 2004, psychotropic drugs accounted for more than 76 percent of the cost of all medications prescribed to foster children, which totaled \$39 million for all medications. All other drug categories, including a wide variety of drugs from antibiotics to cancer medications, accounted for just over 23 percent of the total or \$9.2 million.

Of all drugs prescribed to children in foster care, three psychotropic drug classes—antidepressants, antipsychotics and stimulants—were the most frequently prescribed. In fiscal 2004, Texas Medicaid spent more money on antipsychotic drugs for foster children, more than \$14.9 million or 38 percent of the total, than on any other class of drugs. The average cost per prescription for psychotropic drugs was \$114.69. The average for all other drugs, by contrast, was \$52.17 per prescription.

Antipsychotics: In fiscal 2004, Texas Medicaid spent nearly \$15 million on 65,469 antipsychotic prescriptions for Texas foster children. These very powerful and expensive medications were prescribed despite a lack of studies demonstrating their safety and efficacy in children. There are questions regarding the long-term safety of these medications; documented serious side-effects include menstrual irregularities, gynecomastia, galactorrhea, possible pituitary tumors, hyperglycemia, type 2 diabetes and liver function abnormalities.

Close monitoring of these medications by physicians is essential; Texas foster children are not receiving this attention. In addition, more than 400 foster children were prescribed antidyskinetics drugs to control side effects from antipsychotics. Side effects from antipsychotics include tremors, tics, dystonia, dyskinesia and tardive dyskinesia.

Stimulants: In fiscal 2004, Texas Medicaid spent \$4.5 million on 45,318 stimulant prescriptions for more than 6,500 Texas foster children. Nearly all of these medications are Schedule II controlled substances, due to their high potential for abuse and severe psychological or physical dependence.

More than a quarter of all male foster children and nearly 15 percent of female foster children received prescriptions for stimulants in fiscal 2004; nearly 200 of these children were aged four or younger.

In addition, some foster children received many questionable high-cost, high-dose prescriptions. One prescription for a foster child was written for 360 pills of the stimulant Adderall XR 30mg—for a 30-day supply. Yet, Adderall XR is an extended-release medication meant to be taken only once daily.

Anticonvulsants (Mood Stabilizers): In fiscal 2004, Texas Medicaid spent nearly \$4.8 million on nearly 43,000 mood stabilizer prescriptions for about 4,500 Texas foster children. This included 133 children aged four and younger. These medications



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are used to treat bipolar disorder, anxiety and depression; some also are also used to treat seizures and epilepsy. Trileptal and Topamax, which together accounted for about 38 percent of all mood stabilizer prescriptions, have *no established efficacy* for psychotropic use in either children or adults.

Antidepressants: In fiscal 2004, Texas foster children received more than 66,000 prescriptions for antidepressant medications, making this drug class the most commonly prescribed medication. Antidepressant medications ranked fourth in the total cost of prescriptions for fiscal 2004, at \$3.8 million.

In June 2003, the U.S. Food and Drug Administration (FDA) began to investigate the use of antidepressants to treat children and adolescents. In October 2004, the FDA ordered drug manufacturers to place a “black box” warning on all classes of antidepressants stating that they may increase the risk of suicidal behavior in children and adolescents.

Anxiolytics (Anti-anxiety): In fiscal 2004, 688 foster children received 3,113 anti-anxiety prescriptions. The largest subclass of these drugs, and the most widely prescribed, are the benzodiazepines. These drugs have been used with success to treat anxiety, but their use is limited because they have sedating side effects and may be habit-forming when taken for a long time or in high doses. Anxiolytics are regulated under Schedule IV, by the U.S. Drug Enforcement Administration (DEA).

Hypnotic/Sedatives: In fiscal 2004, Medicaid spent more than \$72,000 on nearly 2,500 hypnotic/sedative prescriptions for about 1,000 Texas foster children, including 232 children aged four and younger. These medications are used to treat anxiety or sleep disorders. They can cause dependency in just a few days and tolerance in a few weeks.

Psychotropic Use by the Very Young

In fiscal 2004, 686 foster children aged four and under received more than 4,500 pre-

scriptions for psychotropic medications, the majority of which are not approved by the FDA for use in children.

A two year-old foster child with no diagnoses indicating psychosis received seven prescriptions for Risperdal, a powerful antipsychotic, totaling more than \$700.

Controlled Substances

In fiscal 2004, Medicaid spent \$4.6 million on more than 53,000 prescriptions for controlled substances for more than 9,600 Texas foster children. The U.S. Drug Enforcement Administration (DEA) has placed these substances on the controlled substances list because of their high potential for abuse.

More than 2,300 Texas foster children, including 871 children age four and younger, received more than 3,200 prescriptions for addictive narcotic syrups. A total of 177 foster children received more than 1,100 prescriptions for phenobarbital.

Long-term Risks and Polypharmacy

The Zito & Safer External Review notes that the widespread use of antipsychotics in children and adolescents raises particular concerns regarding long-term safety. Serious questions exist regarding this issue, which involves documented, side effects. Little is known about the long-term effects of early and prolonged exposure to psychotropic medications on the development of children’s brains.

These findings underline the importance of further research to determine the safety and efficacy of pediatric psychotropic drugs and polypharmacy.

The use of psychotropics in the Texas Medicaid population of children and adolescents tripled from 1996 to 2000. A 2004 Texas study by the HHSC’s Office of the Inspector General revealed that foster children receive more psychotropic drugs on average than other Texas Medicaid children.



The Zito & Safer External Review notes that the widespread use of antipsychotics in children and adolescents raises particular concerns regarding long-term safety.

Psychotropic use by Texas pre-school-aged foster children was three times higher than among similar foster children in the Mid-Atlantic states.

Instances of “polypharmacy,” the prescription of two or more psychotropics for one person—has increased rapidly as well. Complex psychotropic drug therapy tends to result in ever-increasing combinations that tend to increase in continuously enrolled populations and present risks for long-term safety in developing youth.

Off-label Usage

Most psychotropic medications have not been studied extensively for efficacy and safety in children. The National Institutes of Mental Health notes that about 80 percent of psychotropic drugs are not approved for use in children or adolescents. Their use in this population is described as “off-label.” Yet the off-label use of these drugs in children is common.

Efficacy Questions

Many medications prescribed to Texas foster children have been shown to have no or minimal efficacy. Among antidepressants, for instance, FDA findings from clinical trials showed little or no efficacy from the use of escitaloram (Lexapro), paroxetine (Paxil) and venlafaxine (Effexor). Yet prescription patterns among foster children appears to ignore such findings from clinical trials that show a lack of or minimal efficacy. In fiscal 2004, Texas foster children received the following:

- escitaloram (Lexapro): nearly 12,000 prescriptions totaling \$763,000.
- paroxetine (Paxil): more than 550 prescriptions totaling almost \$50,000.
- venlafaxine (Effexor): about 3,000 prescriptions totaling more than \$300,000.

Many anticonvulsant drugs are being used as mood stabilizers for Texas foster children, including oxcarbazepine and topiramate. These drugs have been found to be ineffective for psychiatric purposes. Nev-

ertheless, they were widely prescribed to Texas foster children in fiscal 2004:

- oxcarbazepine (Trileptal): nearly 13,000 prescriptions totaling \$1.98 million.
- topiramate (Topamax): more than 3,300 prescriptions totaling more than \$500,000.

Compound Drugs

In fiscal 2004, 572 foster children received nearly 2,000 prescriptions for compound drugs. The FDA is concerned that such drugs carry a risk of contamination and the efficacy and potency can be effected. Fraud and abuse can also be a factor in compound drug prescriptions.

Recommendations to improve the Texas Foster Care system that should be implemented immediately:

- 1. The Health and Human Services Commission, Office of Inspector General should fully investigate areas of concern and cases of interest identified in this report.**
- 2. DFPS should hire a full-time physician to serve as its medical director, to oversee the care, treatment and medications provided to Texas foster children.**

The medical director should evaluate medical care provided to foster children and report the results to the DSHS and HHSC annually. The medical director should establish an analysis team to assist with the evaluation. The team should consist of psychopharmacologists and child and adolescent psychiatrists from medical schools.

- 3. The newly created DFPS medical director should be responsible for ensuring that all foster care parents and facilities receive “medical passport” information within 48 hours of the foster child’s placement.**

Executive Summary and Systemic Recommendations

The “passport” should be updated consistently and should document all medical treatments, prescriptions, psychological diagnoses and counseling to provide continuity of care.

4. **DSHS should review this report and begin implementing its recommendations as soon as possible, including those from the external review by Zito/Safer.**
5. **DFPS, in coordination with DSHS and HHSC, should examine the best practices of successful foster care providers to develop and implement means to reduce the system’s reli-**

ance on psychotropic medications to treat foster children.

6. **DFPS should establish strict rules regarding participation by foster children in any type of clinical trial. In addition, DFPS should track and monitor all foster children who are enrolled in clinical trials.**

All foster parents and providers should be made aware of the rules and the potential risks of clinical trials.

Additional recommendations more specific to each problem are made in later chapters in this report.

Reducing the Reliance on Psychotropic Prescriptions in Texas Foster Care

Key Findings

- *An innovative therapeutic foster care provider has been successful in lowering the number of psychotropic medications given to foster children in its care.*
- *The DFPS survey of foster children does not ask the “right” questions to learn what foster children really think of the quality of their care.*
- *Not all foster children who need counseling are receiving it on a regular basis.*
- *DFPS is not doing all it can to promote mentorship for foster children.*

Since publication of the Comptroller’s *Forgotten Children* report in April 2004, the Department of Family and Protective Services (DFPS), the Health and Human Services Commission (HHSC) and the Department of State Health Services (DSHS) have been addressing psychotropic medication use by foster children. DSHS has established medication parameters to help monitor and reduce the number of prescriptions. Yet many psychotropic medications still are being prescribed to all ages of foster children.

While medication may be beneficial in treating mental disorders, a “pill” cannot solve all of the emotional issues and problems foster children face while in care. The Zito/Safer External Review states, “poverty, social deprivation and unsafe environments do not necessarily require complex drug regimes.”

Often when foster children experience emotional problems they undergo psychiatric evaluations and are then taken to a physician, frequently a psychiatrist (but not always) who then prescribes one or more medications to help treat the problem.

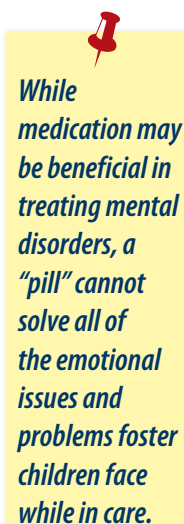
Some foster children receive counseling services, but not all do, and others do not receive consistent counseling. According to the American Counseling Association, “Professional counselors help clients identify goals and potential solutions to problems which cause emotional turmoil; seek to improve communication and coping skills; strengthen self-esteem; and promote behavior change and optimal mental health. Counseling is a technique that can be used by individuals coping with a mental illness, recovering from a trauma, managing stress, or dealing with family issues.”

While some foster children suffer from severe mental illness, others have milder problems. The various options described below may help to reduce the number of psychotropic prescriptions prescribed to Texas foster children.

Innovative Therapeutic Provider

One Texas therapeutic foster care provider consciously uses a different approach to treat very troubled foster children, most of whom are classified by service level as specialized. This facility employs intensive therapeutic intervention that focuses on teaching children appropriate ways to problem-solve and make healthy and positive choices in their lives.

In an interview regarding the usage of psychotropic medications, a staff member stated that children at this facility are held accountable for their actions and are taught to manage their behavior with as few psychotropic medications as possible. He also said that some children come into their program so heavily medicated that they are “drool-



While medication may be beneficial in treating mental disorders, a “pill” cannot solve all of the emotional issues and problems foster children face while in care.

ing.”¹ A check of this provider’s Medicaid claims for foster children in its care showed that their usage of psychotropic medications decreased.

Environmental Causes

It is also important to analyze underlying causes that can affect mental health. Britain’s Mental Health Foundation has observed that, “An integrated approach, recognizing the interplay of biological, psychological, social and environmental factors, is key to challenging the growing burden of mental ill-health in western nations.”²

Researchers are discovering how aspects of environment and social class can be as-

sociated with children’s poor health and behavior.³ Britain’s National Health Service has found that mental health problems are more common among people in poor living conditions, members of certain minority groups and the disabled.⁴

In *Forgotten Children* and its subsequent studies, the Comptroller’s office has found that Texas foster children often come from unhealthy living environments, and some remain in unstable and unsafe living conditions while in the foster care system. These include medically fragile children living in very small homes with many children, in mobile homes and in remote, isolated areas of the state.

Administrators at psychiatric hospitals told the review team that some children they treat have refused to return to their previous placements because they were so unhappy there.

Medical records revealed about 200 claims for scabies and multiple claims for the treatment of parasites in fiscal 2004, involving about 1,500 prescriptions at a cost of \$80,000. Scabies often is found among people living in crowded and unsanitary conditions.

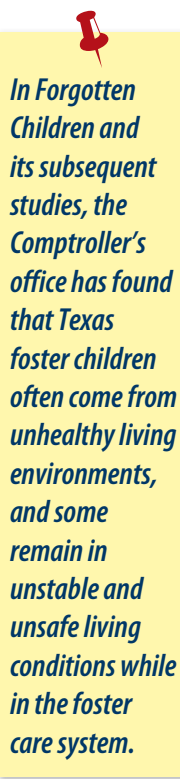
An unhealthy living environment can affect the mental health of already emotionally fragile children.

Alternatives to Psychotropic Medications

Psychotherapy

Psychotherapy is a common treatment that can help children understand and resolve their problems and modify their behavior. It can come in many forms, including individual, family and group therapy, play therapy and cognitive behavioral therapy.⁵

Many foster children need therapy because they have been removed from their homes, which can be very stressful. According to the American Academy of Child and Ado-



*In **Forgotten Children** and its subsequent studies, the Comptroller’s office has found that Texas foster children often come from unhealthy living environments, and some remain in unstable and unsafe living conditions while in the foster care system.*

DFPS SURVEY OF FOSTER CHILDREN

While DFPS, like all state agencies, is required by law to survey its customers, in the past it chose to survey providers rather than the children in its care. Senate Bill 6, the foster care reform legislation, requires DFPS to conduct an annual random survey of foster children who are at least 14 years of age.

The survey must include questions about the quality of the care they receive and any improvements that could be made to better support them. S.B. 6 became effective on September 1, 2005, and the agency conducted its first survey during summer 2006, but the results of this survey are not available at this writing.

A review of the survey instrument, however, revealed the following concerns:

- the survey is not concise and appears to be written for adults rather than adolescents.
- topics such as the quality of housing and transportation are listed together, even though they clearly are separate issues.
- under the topic of health, including first aid and personal hygiene, there is no question regarding anything related to diet or the quality and selection of food.
- there are no questions regarding how children are treated by their foster parents or caregivers and caseworkers, or any regarding concerns about placement changes.

lescent Psychiatry, about 30 percent of children in foster care have severe emotional, behavioral or developmental problems.⁶ In Texas, 37.4 percent of all Texas foster children received a prescription for psychotropic medications in fiscal 2004. According to the *External Review* by Dr. Julie Zito and Dr. Daniel Safer, Texas foster children had a 47.1 percent greater likelihood of being medicated with psychotropics than those residing in the Mid-Atlantic States.

Many foster children receive therapy, but Medicaid records reveal that this therapy often is inconsistent, with months passing between sessions, and some children in need of therapy never receive it.

Diet and Exercise

Diet and nutrition are important to a healthy lifestyle. *Forgotten Children* revealed numerous incidents in which foster children received remarkably poor diets; Medicaid records indicate that there were more than 2,000 claims for the diagnosis of “child neglect nutrition” in 2004. While some of these children were new to the system, others had been in the foster care system for years. Furthermore, special diets often are crucial to the more than 1,600 medically fragile children in foster care, and their diets should be monitored closely.

In August 2006, the *Houston Chronicle* reported how two brothers in foster care “were at risk of dying from the lack of proper food.”⁷ The young boys who were in foster care from 1999 to 2002, said they were forced to stay in a garage and ate dog food. The child who was 10 at the time weighed 56 pounds and the younger brother age 9 weighed 59 pounds.

In April 2005, the *Dallas Morning News* reported that a review of DFPS records showed an investigation of a foster mother who “withheld water on a hot day and withheld food as punishment.”⁸ (See, In Her Own Words: *The Story of a Texas Foster Child*.)

According to the National Institutes of Health,

People who get regular exercise, eat healthfully and avoid tobacco have a lower risk of chronic diseases that lead to premature death, such as heart disease, high blood pressure, diabetes and certain cancers. They also have reduced rates of disability, better mental health and cognitive function, and lower health costs.⁹

Dr. Andrew McCulloch, the chief executive of Britain’s Mental Health Foundation, has stated,

There is a growing body of evidence, and a number of significant voices are championing the role of diet in the care and treatment of people with mental health problems. The potential of dietary interventions in treating depression and Attention Deficit Hyperactivity Disorder, for example, are being increasingly recognized. We would be foolish to underestimate their importance.... Diet is a cornerstone of this integrated approach.¹⁰

The Mental Health Foundation report *Feeding Minds* states that depression can be linked to low intakes of fish, but diets rich in complex carbohydrates as well as certain foods also are thought to decrease the symptoms of depression. Studies have shown that people with schizophrenia have lower levels of polyunsaturated fatty acids and lower levels of antioxidant enzymes. Children with attention deficit and hyperactivity disorder, interestingly, often have diets low in iron and fatty acids.¹¹ The U.S. Department of Agriculture’s Agricultural Research Service confirms that shortages of certain minerals in the diet may affect human behavior.¹²

Exercise is not only physically beneficial, but has been shown to improve mood and alleviate depressive symptoms dramatically. Several studies have found that patients who exercise regularly have increased self-confi-



There is a growing body of evidence, and a number of significant voices are championing the role of diet in the care and treatment of people with mental health problems.

dence.¹³ Many case studies indicate numerous anti-depressive and anti-anxiety benefits.¹⁴

Exercising also provides an outlet for increased socialization, which helps the depressed patient further.¹⁵ Exercise can stimulate higher self-confidence and boost self-esteem. Exercise therapy, moreover, is low in cost and easily available, and improves physical health as well. In many cases, exercise combined with other therapy can be most effective.

Mentorship

Mentorship is a notable aspect of treatment. The Comptroller's *Forgotten Children* Report recommended that DFPS partner with volunteer and advocacy organizations to develop a Texas Foster Grandma and Grandpa Program. Although this proposal was enacted in S.B. 6, DFPS has not implemented the program.

Foster children can benefit greatly from the presence of a person willing to act as an advocate, a role model and a friend. Involvement in the community, through local organizations or community projects, also is beneficial and therapeutic. Access to programs that focus on positive personal development through activities such as nature camps, sport clubs and dance can help normalize foster children's lives.

A new program was started in September 2006 at a San Antonio residential treatment center for young foster children, to provide abused and neglected foster children with positive adult role models. The partnership with Big Brothers Big Sisters appears to be the first of its kind in Texas. The vice president of the center said, "this new program will provide the child with an established mentor throughout their time in foster care, and will also allow us to track the progress of the child throughout his or her childhood. It's a perfect marriage of two programs." For additional information on this program see **Appendix VIII**.

Recommendations

- 1. DFPS, in coordination with DSHS and HHSC, should study complementary treatments to psychotropic medication, such as therapy, diet, exercise, therapeutic activities and mentor programs.**

They then should develop best-practices guidelines for all foster care providers regarding these treatments.


- 2. DFPS, in coordination with DSHS, should study programs and providers that have successfully lowered the number of psychotropic medications given to foster children, and develop best-practices guidelines to help other providers emulate their success.**

- 3. HHSC's Office of the Inspector General, in coordination with the State Auditor's Office and advocacy groups, should review the quality of the physical environments in which foster children live.**

This should be accomplished by reviewing records related to abuse and neglect and poor health, and by site visits to foster homes around the state, including those in rural locations. The group should make recommendations to DFPS for standards to improve the living conditions of foster children.

- 4. DFPS, in coordination with HHSC's Office of the Inspector General and advocacy groups, should develop a new format for the 2007 foster child survey.**

It should be made more adolescent-friendly and feature basic questions regarding the quality of housing, relations with foster parents or providers, diet and opportunities to exercise.



Foster children can benefit greatly from the presence of a person willing to act as an advocate, a role model and a friend.

Endnotes

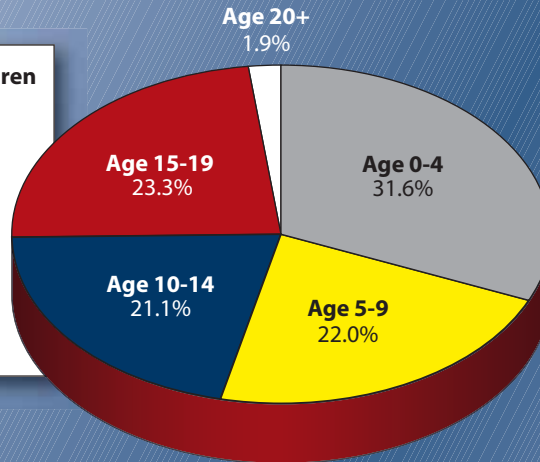
- ¹ Interview with John Smith, assistant director of placement, Camp Comanche and Pegasus School, Lockhart, Texas, June 13, 2006.
- ² The Mental Health Foundation, *Feeding Minds, The Impact of Food on Mental Health* (London, England, January 2006), p. 1.
- ³ Barbara Starfield, M.D., "Study Demonstrates a Powerful Association Between Decreasing Social Class and Poor Health and Behavior Problems in Children," *Ambulatory Pediatrics* (July/August 2002), pp. 238-246.
- ⁴ The National Health Service, "Mental Health," <http://www.nhsdirect.nhs.uk/articles/article.aspx?articleID=653>. (Last visited August 26, 2006.)
- ⁵ American Academy of Child & Adolescent Psychiatry, *Facts for Families No. 86* (January 2003), p. 1.
- ⁶ American Academy of Child & Adolescent Psychiatry, *Facts for Families No. 64*, p. 1.
- ⁷ Eric Hanson, "Once-starving boys testify they ate garbage, dog food," *Houston Chronicle* (August 26, 2006), front page.
- ⁸ Randy Lee Loftis and Pete Slover, "Abuses found at foster homes," *The Dallas Morning News* (April 17, 2005), p 1A.
- ⁹ U.S. National Library of Medicine and the National Institutes of Health, "Diet and Exercise: The Real Fountains of Youth," http://www.nlm.nih.gov/medlineplus/news/fullstory_36687.html. (Last visited August 28, 2006.)
- ¹⁰ The Mental Health Foundation, *Feeding Minds, The Impact of Food on Mental Health*, p. 1.
- ¹¹ The Mental Health Foundation, *Feeding Minds, The Impact of Food on Mental Health*, pp. 5 – 6.
- ¹² U.S. Department of Agriculture, "Nutritional Deficiencies Affect Behavior," by Judy McBride, Washington, D.C., January 29, 1997, <http://www.ars.usda.gov/is/pr/1997/970129.htm>. (Last visited August 28, 2006.)
- ¹³ Western Washington University, *The Root of Disease: Treatment* (Bellingham: Western Washington University, 2006), pp. 3-4.
- ¹⁴ The Mental Health Foundation, *Up and Running? Exercise Therapy and the Treatment of Mild or Moderate Depression in Primary Care* (London, England, March 2005), p. 25.
- ¹⁵ Western Washington University, *The Root of Disease: Treatment* (Bellingham: Western Washington University, 2006), pp. 3-4.

Snapshot Demographics

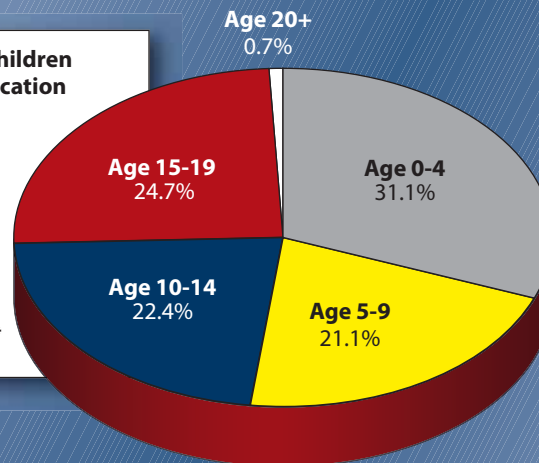
EXHIBIT 1

Texas Foster Care Demographics by Age Fiscal 2004

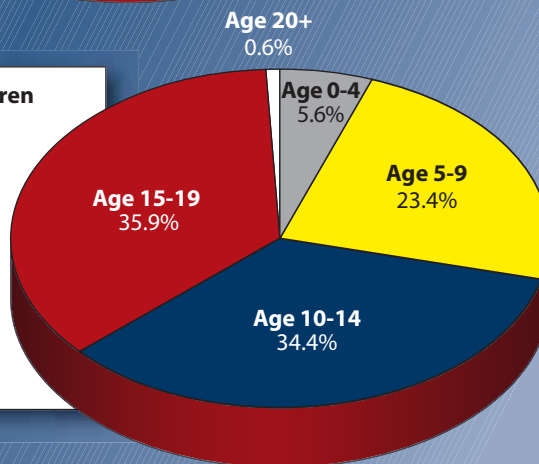
Total Number of Children in Foster Care	
Age	Number of Children
0 to 4	10,362
5 to 9	7,213
10 to 14	6,921
15 to 19	7,639
20+	638
TOTAL	32,773



Number of Foster Children Receiving Any Medication	
Age	Number of Children
0 to 4	7,449
5 to 9	5,070
10 to 14	5,380
15 to 19	5,928
20+	156
TOTAL	23,983*



Number of Foster Children Receiving Psychotropic Medication	
Age	Number of Children
0 to 4	686
5 to 9	2,864
10 to 14	4,218
15 to 19	4,399
20+	78
TOTAL	12,245*



About half of all foster children prescribed medications receive a psychotropic drug.

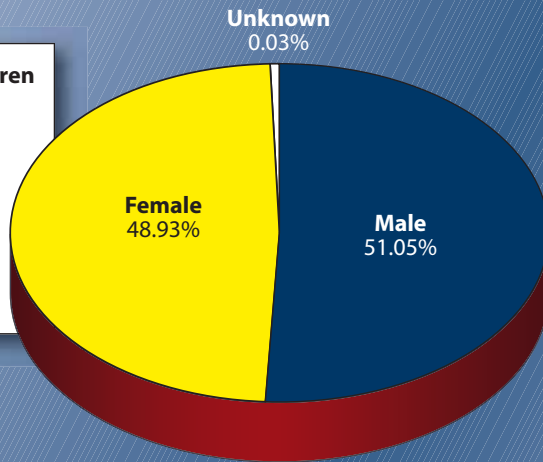
*Note: These totals vary slightly in Exhibits 1, 2 and 3 due to an error in DFPS' data files.
Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 2

**Texas Foster Care Demographics by Sex
Fiscal 2004**

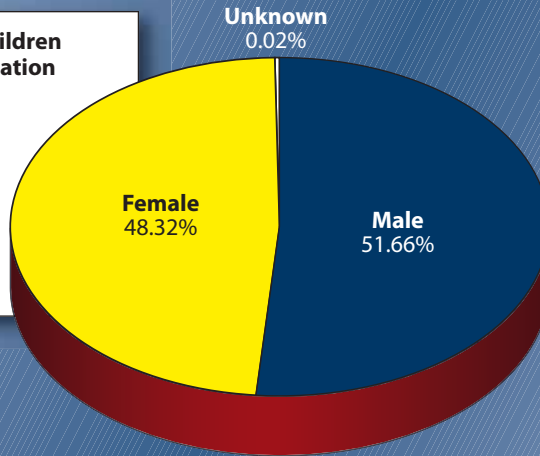
**Total Number of Children
in Foster Care**

Sex	Number of Children
Male	16,729
Female	16,035
Unknown	9
TOTAL	32,773



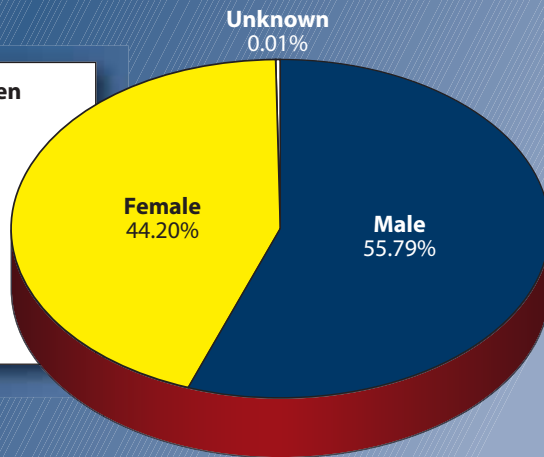
**Number of Foster Children
Receiving Any Medication**

Sex	Number of Children
Male	12,391
Female	11,589
Unknown	5
TOTAL	23,985*



**Number of Foster Children
Receiving Psychotropic
Medication**

Sex	Number of Children
Male	6,831
Female	5,412
Unknown	1
TOTAL	12,244*



Male foster children are slightly more likely to receive psychotropic medications than females.

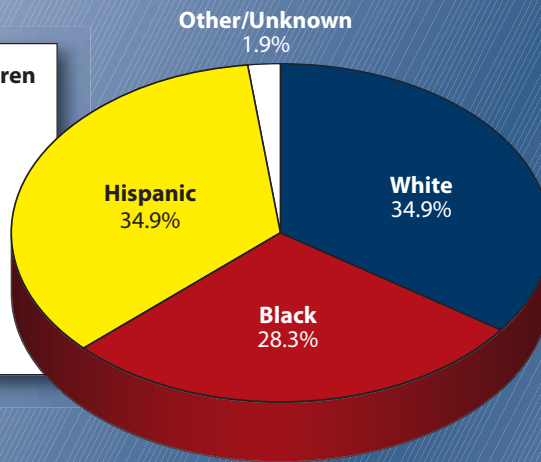
*Note: These totals vary slightly in Exhibits 1, 2 and 3 due to an error in DFPS' data files.
Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 3

**Texas Foster Care Demographics by Race
Fiscal 2004**

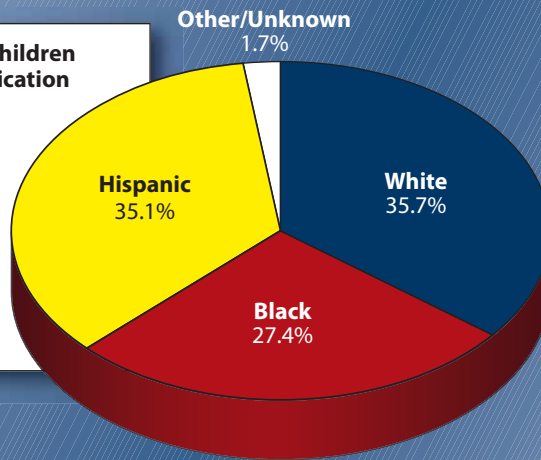
Total Number of Children in Foster Care

Race	Number of Children
White	11,448
Black	9,291
Hispanic	11,423
Other/Unknown	611
TOTAL	32,773



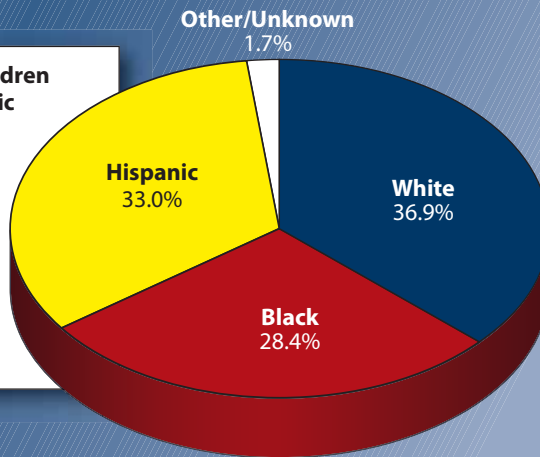
Number of Foster Children Receiving Any Medication

Race	Number of Children
White	8,566
Black	6,581
Hispanic	8,426
Other/Unknown	412
TOTAL	23,985*



Number of Foster Children Receiving Psychotropic Medication

Race	Number of Children
White	4,524
Black	3,476
Hispanic	4,038
Other/Unknown	206
TOTAL	12,244*

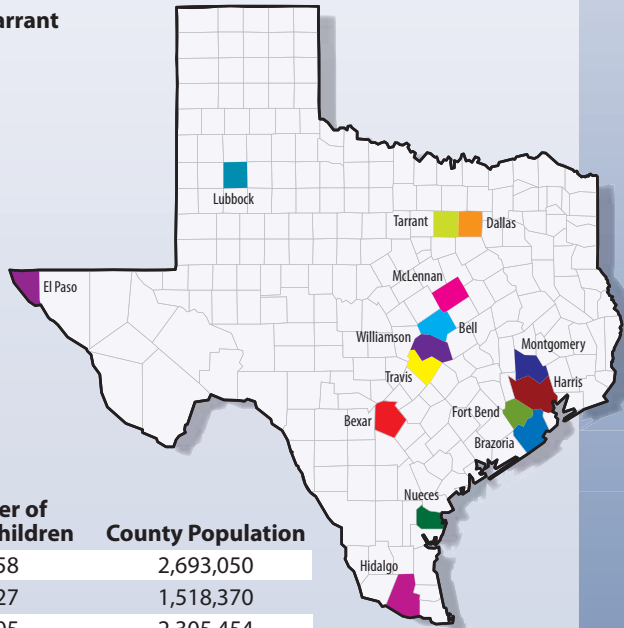
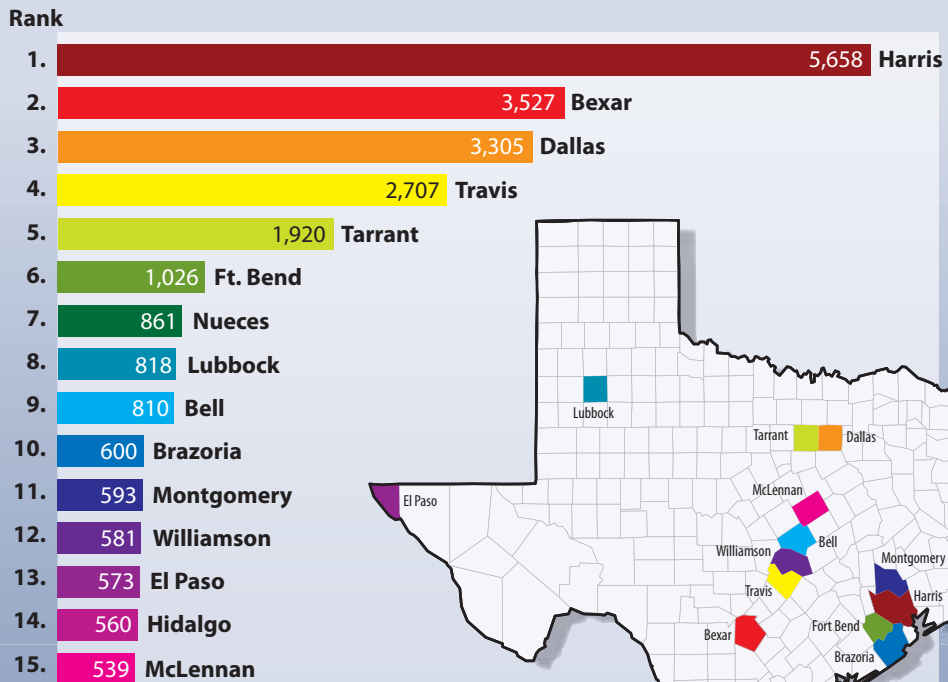


White foster children are slightly more likely to receive psychotropic medications than their minority counterparts.

*Note: These totals vary slightly in Exhibits 1, 2 and 3 due to an error in DFPS' data files.
Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 4

**Number of Foster Children for the Top 15 Counties
Fiscal 2004**



County	Number of Foster Children	County Population
Harris	5,658	2,693,050
Bexar	3,527	1,518,370
Dallas	3,305	2,305,454
Travis	2,707	888,185
Tarrant	1,920	1,620,479
Fort Bend	1,026	463,650
Nueces	861	319,704
Lubbock	818	252,284
Bell	810	256,057
Brazoria	600	278,484
Montgomery	593	378,033
Williamson	581	333,457
El Paso	573	721,598
Hidalgo	560	678,275
McLennan	539	224,668

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

External Review:

A Pharmacoepidemiologic Analysis of Texas Foster Care for Fiscal 2004

- I. External Review Summary: Background, Findings and Recommendations
- II. External Review: A Pharmacoepidemiologic Analysis of Texas Foster Care
- III. Curriculum Vitae

To analyze the extensive Medicaid prescription data for fiscal 2004, provided by the Health and Human Services Commission – the Comptroller called on two internationally recognized and extensively published experts: Julie Magno Zito PhD, a professor of pharmacy at the University of Maryland School of Pharmacy and Dr. Daniel J. Safer, a psychiatrist and professor at Johns Hopkins University School of Medicine, Department of Psychiatry and Behavioral Sciences. These authorities helped the review team examine and understand the data and make recommendations for improved care.



Zito/Safer

External Review:

Background, Findings and Recommendations

Background

- Most prescribed medications for youths are off-label (i.e., not FDA authorized for this population or for a particular indication). This is largely because there is little incentive for pharmaceutical companies to conduct systematic and expensive clinical trials for children. Consequently, pertinent safety and efficacy information on medications is very limited for this age group.
- Increasing the number of concomitant medications increases the risks of adverse drug events.
- Authorization restrictions for the reimbursement of prescribed patent-protected pharmaceuticals by managed care companies and government agencies (e.g., Medicaid) have been increasing in recent years largely due to cost pressures.
- Random assignment, evidence-based, controlled, clinical trial data on psychotropic medications prescribed concomitantly for youths are essentially non-existent.

Findings

These are based on a random sample of 472 Texas foster children covered by Medicaid.

- Half of the foster children in the sample received 3 or more different psychotropic medication classes concomitantly and 27.5 percent received 4 or more.
- Antidepressants and antipsychotic medications are the two psychotropic classes most commonly prescribed concomitantly.
- Foster children aged 10-14 were more likely than those aged 15-19 to receive psychotropic medications (39.2% vs 33.9%).
- 37.3 percent of Texas foster children received one or more prescriptions for psychotropic medications during 2004. This is 47% higher than the Medicaid foster care rate in a Mid-Atlantic state in 2000. In this two-state comparison, Texas foster care youths were 2.9 times more likely to be prescribed an antipsychotic drug (p. 6). Likewise, psychotropic drug use was 3 times more common in Texas preschool-aged foster children than for their Mid-Atlantic counterparts (2.35% vs 0.74%).

Stimulants

- The prevalent use of amphetamines for Texas foster care youths increased such that in 2004 it was nearly equivalent to the use of methylphenidate—even though its side effect profile is comparatively less well known.
- Less than half (59/127) of the foster care youths diagnosed with ADHD were prescribed stimulant medications—even though stimulants are the customary first line treatment for this disorder.

Antidepressants

- Antidepressants –particularly selective serotonin reuptake inhibitors (SSRIs) --were the most common psychotropic medication class prescribed for foster care youths, with escitalopram (Lexapro) and sertraline (Zoloft) being the most commonly prescribed.
- Only one antidepressant, fluoxetine, has been approved by the FDA for the treatment of depression in youths. Nonetheless, this generic drug was far less commonly prescribed for foster care youths than patent-protected SSRIs.
- The safety and efficacy of venlafaxine (Effexor) which was often prescribed for foster care youths in 2004 had been reviewed by the FDA staff in 2004 and was found to lack efficacy for depression in children and to have a significant degree of adverse effects.

Antipsychotics

- Antipsychotic medications are the second most common psychotropic medication class prescribed for foster care youths, followed by stimulants.
- Atypical antipsychotics were prescribed to more than 99% of foster care youths who received an antipsychotic in 2004, although these drugs do not have an FDA indication for treating psychiatric disorders in this age group.
- Recent olanzapine (Zyprexa) clinical trials of 3 and 6 weeks duration in adolescents revealed that this drug caused significant increases in liver enzymes, cholesterol, glucose, prolactin, triglycerides and weight.

Anticonvulsants

- The anticonvulsants oxcarbazepine (Trileptal) and topiramate (Topamax) have no established psychotropic benefit for youths and adults. Yet these drugs are often used as ‘mood stabilizers’ for children.
- No anticonvulsant medication has been FDA approved for the treatment of bipolar disorder in children and adolescents.

Recommendations

- The concomitant use of three or more psychotropic medication classes should be the basis for a clinical review given that such drug use for youths lacks research support and is off-label in almost all instances. Essentially, such treatment has inadequate evidence for a therapeutic benefit and for medication safety.
- Formulary restrictions should be increased to limit the use of psychotropic drugs for youths with Medicaid insurance if there are serious concerns about a drug's safety record or if a less expensive equivalent drug is available.
- Clinical educational approaches to improve physician prescribing should be utilized by an academic detailing team when 3 or more psychotropic classes are used concomitantly.
- Resources should be increasingly allocated to assure assessments of baseline health status, drug monitoring and drug treatment outcome, particularly when a drug is known to have frequent or serious side effects or questionable benefits.
- The widespread use of antipsychotics, and anticonvulsants used as ‘mood stabilizers’ should be challenged based on a lack of established efficacy and the risk of adverse events.
- Divalproex (Depakote) is not appropriate for women in their child bearing years because such treatment during pregnancy prominently increases the risk of fetal anomalies. If divalproex is prescribed for such women, it should be done with great caution and with appropriate education.
- Olanzapine (Zyprexa) should be restricted to very short term use (e.g., 2 weeks maximum) and prescribed only when other antipsychotics have failed.

EXTERNAL REVIEW: *A Pharmacoepidemiologic Analysis of Texas Foster Care*

- DDAVP medication for nocturnal enuresis should be limited since conditioning approaches are less expensive and more effective.
- Great caution should be used when prescribing non-stimulant psychotropic medications (e.g. antipsychotics, anticonvulsant 'mood stabilizers' and antidepressants) for pre-school children. Furthermore, such treatment should merit a clinical review to establish appropriateness.

External Review: A Pharmacoepidemiologic Analysis of Texas Foster Care

by

Julie M. Zito, PhD, University of Maryland, Baltimore
and

Daniel J. Safer, MD, Johns Hopkins Medical Institutions

This report responds to a request for an external review of the medications prescribed to Texas foster children, and to a review of psychotropic drug guidelines and parameters for foster children developed by the Texas Department of State Health Services (DSHS).

Section I of this report begins with a critical assessment of the seven criteria for psychotropic review identified in the DSHS guidelines and parameters, which are intended to improve the quality of psychotropic drug prescribing for foster children. Representatives of five Texas health and mental health professional organizations reviewed these criteria before promulgation.

These criteria, often called "quality indicators," were published in a 2005 report entitled *Psychotropic Medication Utilization Parameters for Foster Children (DSHS, 2005)*. This report will be referred to as "Parameters 2005" throughout this report. A follow-up report, *Use of Psychoactive Medication in Texas Foster Children State Fiscal Year 2005*, reviewed the use of psychotropic medication by foster children in the five months before Medicaid providers received copies of the new guidelines and compared it to usage patterns in the five months after the guidelines were distributed (HHSC, DSHS & DFPS, 2006). This report will be referred to as 'DSHS Study 2005' throughout this report.

Section II of this report is a pharmacoepidemiologic analysis of Texas foster care practice patterns for fiscal 2004, the most recent year for which information was available. This external review, prepared by Zito and Safer, will be referred to as 'External Review Fiscal 2004' throughout this report.

Section III concludes with recommendations for improving the quality of psychotropic medication prescribing for the treatment of psychiatric and behavioral health conditions in foster youths, based on clinical oversight including educational approaches, population-based assessment approaches (including outcomes), individual case reviews and directed formulary approaches.

I. Criteria Selected for Review in DSHS Study 2005

'Parameters 2005' presents 7 criteria considered to be quality indicators, i.e., indicating the need for further review of a child's clinical status. The following criteria were identified as practices judged to be assessable from administrative claims data for DSHS Study 2005:

1. Five or more psychotropic medications prescribed concomitantly
2. Prescribing:

- i. 2 or more concomitant antidepressants;
 - ii. 2 or more concomitant antipsychotic medications;
 - iii. 2 or more concomitant stimulants except when a long- and short-acting product is combined;
 - iv. 3 or more concomitant mood stabilizers
For the purposes of this document, polypharmacy is defined as the use of 2 or more medications for the same indication (i.e., specific mental disorder).
3. Psychotropic medications are prescribed for children of very young age, including children receiving the following medications with an age of:
- i. Antidepressants: less than 4 years of age;
 - ii. Antipsychotics: less than 4 years of age;
 - iii. Psychostimulants: less than 3 years of age.

Assessing the strengths and weaknesses of these criteria depends to some extent on the level of risk and uncertainty acceptable at the health department level as well as at the societal level. From a practical child psychopharmacologic standpoint (Foster Care Committee, 2006), the first criterion is overly broad and presents opportunities for therapeutic misadventure. The use of 3 or more medications concomitantly should be the basis for clinical review given that most drug use is off-label in the pediatric population (Committee on Drugs, 2002) and often has inadequate evidence for safety (Jensen et al., 1999). Additionally, using claims data as the only basis for clinical review means that reliable diagnostic information is not available to assure that complex therapy is indeed necessary.

Across Medicaid categories (foster care and others) as well as for commercially insured populations, the second criterion is generally recognized in the case of antidepressants and antipsychotics. Many indicators of quality assessment from various health systems would flag multiple antidepressants or antipsychotics which have the same fundamental mechanism of action (Stahl, 2004; Jensen et al., 1999). Furthermore, there is insufficient evidence regarding enhanced effectiveness or adequate safety to support the simultaneous use of a long-acting and short-acting stimulant. Changes in dose or time of administration or switching to a different stimulant should be tried before adding a second ADHD medication. There is no clinical research support for the use of 3 concomitant mood stabilizers (e.g., lithium plus 2 anticonvulsant mood stabilizers, e.g., divalproex and carbamazepine). While lithium and a single anticonvulsant may be useful in adult treatment-resistant patients, such combinations in children as young as 4 years old are without justification. Generalizing from adults to youth, especially to the most prevalent age group of 10-14 year olds, can readily lead to risk without a sufficient means of ensuring close monitoring of the outcome of such intensive therapy. It is remarkable that such a 3-drug mood stabilizer regimen could be added to an antipsychotic or antidepressant without generating a flag of concern about appropriateness or risk.

Some clarification of the program's definition of polypharmacy is warranted. In the Texas guidelines (Parameters, 2004) polypharmacy is defined as "...the use of two or more medications for the same indication (i.e., specific mental disorder)." Does use for a specific mental health disorder mean that 4 diagnoses would be acceptable for the use of 4 drug classes so long as 2 are not applied for a single diagnosis? Given the substantial overlap in behavioral and emotional symptoms among youth, this broad standard of care permits significant concomitant therapy and tends to obscure the focus of treatment (Pincus, Tew, & First, 2004). The quality indicator for the use of 5 or more psychotropic medications concomitantly is likely to be without merit in most pediatric treatment situations.

The third criterion relates to age and it is worthwhile that cases are flagged when antipsychotics and antidepressants are used in youth less than 4 years of age and stimulants are used in those less than 3 years of age. However, the antipsychotic rule has no restrictions on diagnosis. As a

result, in the case of selection of an antipsychotic for a behavior disorder, there is no criterion for prior failure of a stimulant, the generally preferred treatment for behavioral disorders.

DSHS Study 2005 Formulary Issues

The Texas formulary presents some questions for review with respect to the drugs included in the formulary and their maximum daily dosage. Each of the drug classes will be reviewed below.

Antidepressants

Among antidepressants, the use of escitalopram, paroxetine and venlafaxine ignores FDA meta-analytic findings from clinical trials showing a lack of or minimal efficacy (Jureidini et al., 2004; Safer, 2006). Essentially all of the drugs on the list are questionable except for fluoxetine for the treatment of obsessive compulsive disorder (OCD) or depression. In addition, the analysis showed that moderate to severe adverse events led to discontinuation in significant proportions (Safer & Zito, 2006). In the NIMH-funded Treatment of Adolescent Depression study (TADS), adolescent depression results showed both fluoxetine efficacy and a significant degree of adverse events (March et al., 2004). The medication was most effective in conjunction with cognitive behavior therapy. DSHS Study 2005 (p. 5) reports that fluoxetine, fluvoxamine and sertraline are approved for anxiety but they are actually only approved for obsessive compulsive disorder, which is a more serious and rare condition than typical anxiety disorder. In terms of dosage criteria, suggested maximum daily dosage for 5 of the 7 antidepressants for children is the same as for adolescents, a criterion that should be validated. The additional cost for patent-protected escitalopram is difficult to justify given its poor efficacy data (Wagner, Jonas, Findling, Ventura, & Saikali, 2006).

Antipsychotics

Atypical antipsychotics arrived in the 1990s with great promise based on the expectation of lower extrapyramidal side effects. Use in children grew in substantial proportions since risperidone was marketed in 1993. For example, trends in antipsychotic use in the total Texas Medicaid population of children and adolescents (1996-2000) showed 3-fold increase in a five year period (Patel, Sanchez, Johnsrud, & Crismon, 2002). A later study showed similar growth in use across 3 state Medicaid-insured populations (Patel et al., 2005). Likewise, Cooper and colleagues showed a 5-fold increase in antipsychotic prescription visits from 1995 to 2002 based on national treatment survey data among 2-18 year olds (Cooper et al., 2006). This rapid, widespread use is of concern in regard to the long-term safety of these drugs (Correll & Carlson, 2006). Hyperprolactinemia associated with risperidone, olanzapine and ziprasidone has been documented and puts youth at risk for menstrual irregularities, gynecomastia, galactorrhea, decreased sexual drive and possibly pituitary tumors. Metabolic problems with olanzapine, risperidone and quetiapine have also been documented (Correll & Carlson, 2006) and lead to weight gain, and in susceptible individuals, to hyperglycemia, and type 2 diabetes (Koller & Doraiswamy, 2002). Lipid abnormalities may result in reduced high density lipoprotein (HDL) and increased triglycerides as well as liver function abnormalities (Tohen et al., 2006). In view of the relatively recent exposure of children to atypical antipsychotics beginning in 1993 and the rapid expansion in their use for non-psychotic conditions, methods for close monitoring of atypical antipsychotic use are essential. Monitoring should be geared to the significant physical health risks related to liver function, metabolic and hormone related risk concerns that are emerging from widespread use in community treated populations. Some comments on dosage of antipsychotics is warranted. In contrast to the guideline recommendation of 30 mg. maximum in adolescents for aripiprazole, 20 mg for haloperidol and 6 mg for risperidone, a meta-analysis of published controlled studies of adults resulted in recommendations of far lower maximum doses: 10 mg for aripiprazole, 10 mg for haloperidol and 4 mg for risperidone (Davis & Chen, 2004). Given that these are recommended adult doses for psychotic

conditions, it is difficult to justify going above these doses for off-label treatment primarily for behavioral conditions in youth.

ADHD Medications

Formulary drugs for the treatment of ADHD include patent-protected products of amphetamine (Adderall XR) and methylphenidate (Concerta, Ritalin LA and Metadate-CD). The cost of long-acting products needs to be reviewed from a cost-efficiency standpoint particularly when a second short-acting drug must be introduced. The use of tricyclic antidepressants (i.e., imipramine and nortriptyline) for the treatment of ADHD reflects a weak standard because of limited efficacy (Winsberg, Kupietz, Yepes, & Goldstein, 1980) and is difficult to justify in view of the cardiac effects, seizures and deaths that have been reported (Brown, Winsberg, Bialer, & Press, 1973; Winsberg, Goldstein, Yepes, & Perel, 1975; Riddle et al., 1991; Alderton, 1995).

Anticonvulsants for Mood Stabilizer (ATC-MS) Use

Anticonvulsant drug use for mood stabilization is a poorly evidenced area of psychopharmacology for children and adolescents. Some open studies and case series suggest these drugs are somewhat useful in managing conduct disorder. However, serious adverse events have been accumulating. For example, polycystic ovary syndrome, weight gain and hepatotoxicity are associated with divalproex and related products (Correll & Carlson, 2006). Adolescent females in the child-bearing years are at substantial risk of increased fetal anomalies (Wyszynski et al., 2005). Oxcarbazepine and topiramate have no established psychotropic effect for either adults or youth. They have been found to be ineffective for psychiatric purposes (DelBello et al., 2005; Wagner et al., 2006). Lithium is approved for use in youth 13 years and above. However, a double blind controlled lithium maintenance study for bipolar disorder in adolescent outpatients with mania was found to be ineffective compared with placebo (Kafantaris et al., 2004). Some positive results for lithium in inpatients have been reported although the efficacy is offset by the difficulties of maintaining adherence to lithium treatment in outpatients (Malone, R., personal communication). Lamotrigine causes rash more commonly in children than adults. In a small proportion of these cases, the rash leads to Stevens Johnson syndrome or other life-threatening events. Verapamil is a calcium channel blocker approved for use in the treatment of adult cardiovascular conditions e.g. angina, tachyarrhythmias and hypertension. Its use in psychiatric treatment of youth warrants robust supportive data. Propranolol is another cardiovascular drug that is listed in the miscellaneous group of the formulary with which there is little experience in youth.

The miscellaneous category of the formulary is puzzling because it includes a wide range of drugs. Gabapentin is an anticonvulsant but apparently would not be counted in the mood stabilizer anticonvulsant rule found in criterion 2.iv. Gabapentin is approved for the treatment of seizures and herpes zoster pain. Its use in youth for psychiatric indications is puzzling. The common use of desmopressin (DDAVP) for nocturnal enuresis in children less than 6 years is discussed later in the report.

II. External Review Fiscal 2004 Study List of Tables:

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Method

Because of questions about the operational definition of polypharmacy and age-specific criteria for drug selection in DSHS Study 2005, an alternative population-based analysis was undertaken to identify potentially inappropriate prescribing patterns from 2 data sources. First, the total foster care population (n=29,820) in the Texas Medicaid system for one year (August 2003 to September 2004) was analyzed for psychotropic utilization patterns. Drugs within subclass and class categories were defined for ages 0-17 (Appendix 1). Total prevalence and age-, gender- and race-specific prevalence was analyzed. This information was compared with similar data from a mid-Atlantic state Medicaid program for the calendar year 2000. Second, a random sample (n=472) representing approximately 7.3% of the 6,459 Texas foster care youth who had received one or more psychotropic drugs in the month of July 2004 was analyzed. This sample excluded mentally retarded and medically fragile youths. The exclusion was based on the specialized nature of care for these vulnerable populations and the influence such groups might have in the relatively small dataset of 472. To be meaningful, analysis of these groups should be separate from the typical foster care youth population.

External Review Fiscal 2004 has two parts: first is a total population analysis for the year and the second is an analysis of the random sample.

Results

Population-based analysis

Table 1 shows the annual prevalence of use of psychotropic drugs among the entire foster care Medicaid-enrolled population including mentally retarded and medically fragile youths from External Review Fiscal 2004. Compared with the total use among the year 2000 mid-Atlantic state foster care enrolled population (Zito, Safer, Zuckerman, Gardner, & Soeken, 2005), Texas youth had a 47.1% greater likelihood of being medicated. It is likely that the 4 year gap accounts for some of the difference but data from Texas in 2000 for those less than 20 years old showed a similar prevalence disparity for antipsychotic drug use among all Medicaid enrollees not just foster care youth (Patel et al., 2002). The year 2000 annual antipsychotic prevalence was 1.4% for mid-Atlantic Medicaid-insured youth (age <20) compared with 2.0% in Texas—a 42.8% greater use among Texas Medicaid-insured youths. Similar disparities apply when 3 other Medicaid states are compared with Texas (Patel et al., 2005).

Gender differences in psychotropic use show a narrower difference between males and females in Texas foster care (M:F= 1.31:1) compared with a mid-Atlantic gender ratio of 1.76:1. Clinical

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epidemiology and practice experience with psychiatric and behavioral conditions in youth do not support this equivalent gender pattern for psychotropic drug use. Overall, the rank order of the leading psychotropic drug classes in the Texas youth was: stimulants (23.45%), antidepressants (22.95%), antipsychotic agents (21.20%) and anticonvulsants-total (13.05%). Compared with year 2000 mid-Atlantic foster care youth (Zito et al., 2005), Texas youth were 2.91 times more likely to receive antipsychotic treatment while being 1.34 times more likely to receive a stimulant. **The use of antipsychotics for behavioral dyscontrol is the likely explanation of its frequent use since the diagnostic groupings show a very low prevalence of psychotic disorders in the Texas sample (see discussion of table 5 below).** A pattern of relatively high antipsychotic use in the total Texas Medicaid population was established in a previous study (Patel et al. 2002) and is evident in these data which were extracted before the Parameters 2005 were promulgated. The high use of anticonvulsants is difficult to compare as the analysis did not separate mood-stabilizer from epileptic or other usage. However, it is reasonable to assume the vast majority of anticonvulsant use is associated with mood stabilizer use if Texas patterns follow that of other Medicaid populations (Zito, Safer, Gardner, Soeken, & Ryu, 2006).

Table 1. Annual percent prevalence (External Review Fiscal 2004) of use of psychotropic drugs (total and gender specific) among 29,820 foster care youths* 0-17 years old (89.86% foster care, 3.52% mentally retarded and 6.62% medically fragile). These data are compared with mid-Atlantic Medicaid (MAM) year 2000 foster care youth (row 15 and 16) for total and gender-specific psychotropic use.

Drug class	Total=29,820		Males=15,334		Females=14,477	
	N	%	N	%	N	%
Any Psychotropic	11,128	37.32	6,303	41.10	4,825	33.33
Stimulants	6,993	23.45	4,488	29.27	2,505	17.30
Antipsychotics	6,322	21.20	3,759	24.51	2,563	17.70
Anticonvulsant-total	3,893	13.05	2,226	14.52	1,667	11.51
Antidepressant	6,844	22.95	3,474	22.66	3,370	23.28
Alpha-agonist	2,904	9.74	1,916	12.50	988	6.82
Hydroxyzine	694	2.33	367	2.39	327	2.26
Anxiolytics	606	2.03	287	1.87	319	2.20
Lithium	465	1.56	269	1.75	196	1.35
Antidyskinetics	388	1.30	250	1.63	138	0.95
Hypnotics	245	0.82	107	0.70	138	0.95
No psychotropic	18,692	62.68	9,031	58.90	9,652	66.67
MAM Foster care	Total=12,925		Males=6,637		Females=6,288	
Any Psychotropic	3,279	25.37	2,089	31.5	1,190	18.9

Table 2 illustrates that age in External Review Fiscal 2004 was related to *total* psychotropic medication use in a linear fashion through age 17. Notably, as in other recent Medicaid prevalence studies, 10-14 year olds now equal or exceed psychotropic drug use in the 15-17 year old group. This has implications for the safety of extended use over time as well as long-term effectiveness.

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Added to this issue is the complexity associated with polypharmacy suggesting the need for close monitoring of physical as well as mental health status for concomitant medications most of which are off-label in the pediatric population (Foster Care Committee, 2006).

In contrast to previous studies showing racial disparities in the use of psychotropic medications, there are only slight differences by race in the treatment of Texas foster care youth in External Review Fiscal 2004. Annual psychotropic use was 38.9 vs. 37.2 vs. 35.5 per 100 for White, Black and Hispanic youth 0-17 years old, respectively. By comparison, foster care youth in mid-Atlantic Medicaid system in 2000 (Zito et al., 2005) had the following prevalence ranking: 35.0 vs. 20.4 vs. 19.5 per 100 for White, Black and Hispanic youth. These data suggest that in Texas foster care in 2003-2004, race had a negligible effect on the prescription of psychotropic medications. In terms of the age distribution by race, Black and Hispanic 15-17 were less likely to receive medication, a fact that may be associated with higher school drop out rates or greater dissatisfaction with drug therapy. In younger aged groups, the discrepancies are negligible.

As a proportion of all foster care youth, psychotropic use was 3 times more likely in the Texas preschoolers (0-4 year olds) than in the mid-Atlantic state (MAM) (2.35% (702/29,820) vs. 0.7% (95/12,925), respectively (Tables 2 and 3). Age-specific rates are a proportion of all enrollees in a given age group and show substantially greater Texas use than in MAM. Specifically, the use is nearly double for 10-14 year olds and more than double for 15-17 year olds: 6.77% (0-4); 39.79% (5-9); 60.96% (10-14) and 62.68% (15-17) contrasted with 5.0%; 29.2%; 31.5% and 23.5% respectively in MAM foster care youth. One implication of these relatively high rates is that complex psychotropic drug therapy tends to result in ever-increasing combinations that tend to increase in continuously enrolled populations and present risks for long-term safety in developing youth.

Table 2. Psychotropic drug use by race and age for the Texas foster care population.

Age	White n=10381		Black n=8409		Hispanic n=10482		Other & UNK n=548		Total 29,820	
	n	%	n	%	n	%	n	%	n	%
0-4 years	228	2.20	201	2.39	264	2.52	9	1.64	702	6.78*
5-9	1,015	8.68	836	8.99	977	8.50	42	6.87	2,870	39.79*
10-14	1,498	13.08	1,254	13.49	1,396	12.20	71	11.62	4,219	60.96*
15-17	1,298	15.35	1,169	12.58	1,391	12.17	80	13.09	3,337	62.68*
Total 0-17	4,039	38.91	3,478	37.20	4,052	35.47	134	33.55	11,127[^]	37.30

*For the specified age groups, denominators are as follows: 10,362 (0-4); 7,213 (5-9); 6,921 (10-14); 5,324 (15-17). [^]One case discrepancy occurred when total (table 1) medicated youths are split into gender and age groups.

Table 3 shows contrasting psychotropic data from the mid-Atlantic state foster care population (calendar year 2000) and contrasts sharply with the Texas data (study year fiscal 2004) in regard to racial disparities, W/B 37.2/21.8 vs. 38.9/37.2. Outcome data are needed to assure that the reduced disparity in Texas means better care.

Table 3. Annual prevalence (N, %) of psychotropic medication use (total and by age, gender and race) for a mid-Atlantic state foster care population in the year 2000 (n=12,925)

Age Groups	WHITE									BLACK								
	M			F			T			M			F			T		
	n=1521			n=1450			n=2971			n=4887			n=4584			n=9471		
	D*	n*	%	D	n	%	D	n	%	D	n	%	D	n	%	D	n	%
0-4 (n=1907)	205	17	8.3	213	16	7.5	418	33	7.9	735	37	5.0	645	19	2.9	1380	56	4.1
5-9 (n=4181)	474	206	43.5	369	115	31.2	843	321	38.1	1682	577	34.3	1502	282	18.8	3184	859	27.0
10-14 (n=4499)	532	283	53.2	532	193	36.3	1064	476	44.7	1671	608	36.4	1627	287	17.6	3298	895	27.1
15-17 (n=2338)	310	143	46.1	336	132	39.3	646	275	42.6	799	155	19.4	810	99	12.2	1609	254	15.8
Total (n=12925)	1521	649	42.7	1450	456	31.4	2971	1105	37.2	4887	1377	28.2	4584	687	15.0	9471	2064	21.8

Age Groups	HISPANIC/OTHER									TOTAL								
	M			F			T			M			F			T		
	N=229			n=254			n=483			n=6637			n=6288			n=12925		
	D*	n*	%	D	n	%	D	n	%	D	n	%	D	n	%	D	n	%
0-4 (n=1907)	58	5	8.6	51	1	2.0	109	6	5.5	998	59	5.9	909	36	4.0	1907	95	5.0
5-9 (n=4181)	78	26	33.3	76	13	17.1	154	39	25.3	2234	809	36.2	1947	410	21.1	4181	1219	29.2
10-14 (n=4499)	58	23	39.7	79	22	27.8	137	45	32.8	2261	914	40.4	2238	502	22.4	4499	1416	31.5
15-17 (n=2338)	35	9	25.7	48	11	22.9	83	20	24.1	1144	307	26.8	1194	242	20.3	2338	549	23.5
Total (n=12925)	229	63	27.5	254	47	18.5	483	110	22.8	6637	2089	31.5	6288	1190	18.9	12925	3279	25.4

*=Denominator for the row percent; n=numerator for the row percent. Columns percents are not shown but can be calculated using the total n shown in the row below gender.

Random Sample Analysis

As described previously, the second data source in the external analysis of the Texas foster care population is a random sample (n=472) extracted from the total July 2004 foster care population. The sample represents approximately 7.3% of the 6,459 youth enrollees with one or more psychotropic medications during the study month. The sample excludes youth with mental retardation (approximately 3% of the total) and medically fragile (approximately 6-7% of the total) to avoid mixing very complex special cases with the general foster care population. The smaller sample allowed more sophisticated analysis related to polypharmacy, a major issue in the quality of psychotropic drug therapy. The age group in this analysis includes youths 0-19 years of age.

Table 4 describes the sample characteristics in terms of age, gender and race/ethnicity. In this one month sample, age-specific psychotropic medication prevalence of use for the 10-14 year old group exceeded the 15-19 year olds (39.2% vs. 33.9%).

TABLE 4. AGE, RACE, AND GENDER OF THE RANDOM SAMPLE (N=472)

Age Group	White (n=182)				Black (n=119)				Hispanic (n=166)				Other* (n=5)				Total (n=472)							
	M		F		M		F		M		F		M		F		M		F		T			
	N	%	n	%	n	%	N	%	n	%	n	%	n	%	n	%	n	%	n	%	N	(%)		
0-4	4	3.8	0	-	2	3	4	8	6	7	7	8	0	-	0	0	0	-	12	5	11	5	23	5
5-9	20	18.9	20	26	17	26	9	17	20	24	18	22	0	-	0	-	0	-	57	22	47	22	104	22
10-14	39	36.8	25	33	34	52	25	47	34	41	24	29	3	100	1	50	110	42	110	42	75	35	185	39
15-19	43	40.6	31	41	13	20	15	28	23	28	34	41	0	-	1	50	79	31	79	31	81	38	160	34
Total	106		76		66		53		83		83		3		2		258		214		472			

*Other race/ethnicity includes Asian, American Indian and unknown.

Table 5 illustrates the distribution of diagnostic groups by age and gender. Of this sample, 34.4% of psychotropic medication recipients were diagnosed with ADHD or ODD/CD, which are primarily disruptive behavior disorders. The diagnosis of bipolar disorder in youths is usually based on the irritability symptom, representing anger dyscontrol. Adding the 12.2% from the bipolar category raises the disruptive behavior diagnostic spectrum to 46.6% and suggests that feasible non-pharmacologic approaches to disruptive behavior are needed as an important adjunctive intervention. As expected from clinical experience, ADHD and adjustment disorder predominate among younger ages while depression predominates in older groups. Surprisingly, the 10-14 year olds show equivalent depression frequency to the more typical 15-19 year olds.

Table 5. Frequency of Diagnostic Groups by Age and Gender (n=472)

Diagnosis	Age 0-4				Age 5-9				Age 10-14				Age 15-19			
	M		F		M		F		M		F		M		F	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
ADHD	6	40.0	4	40.0	30	27.3	21	27.3	62	27.7	23	14.3	35	24.3	17	11.2
Adjustment/ Anxiety	4	26.7	0	-	34	30.9	26	33.8	44	19.6	32	19.9	24	16.7	30	19.7
Bipolar	1	6.7	1	10.0	7	6.4	6	7.8	40	17.9	16	9.9	21	14.6	17	11.2
CD/ODD	1	6.7	3	30.0	13	11.8	7	9.1	25	11.2	19	11.8	21	14.6	20	13.2
*Chld Ab/ DevDlys/Misc	3	20.0	2	20.0	12	10.9	4	5.2	17	7.59	16	9.9	16	11.1	16	10.5
Depression	0	-	0	-	14	12.7	13	16.9	36	16.1	55	34.2	27	18.8	52	34.2
	15		10		110		77		224		161		144		152	

*Child abuse, developmental delays and other serious health or social conditions

Table 6 illustrates the distribution of psychotropic medications in the random sample during one month. It shows the relatively high usage of antipsychotics in contrast to stimulants. Antipsychotic use (22.2%) exceeded stimulant use (19.6%) despite the relatively rare diagnosis of a psychotic disorder. The prevalent use of amphetamines which is nearly equivalent with methylphenidate use raises questions about the appropriateness of amphetamines in terms of higher cost compared with generic methylphenidate as well as recent questions about their safety relative to the more widely known methylphenidate (Nissen, 2006). Antidepressant use exceeded all other medication groups and suggests an area for intensive clinical monitoring since much use is occurring in young children for whom efficacy data are lacking.

Table 6. Total class or subclass psychotropic medication use (N=472)

Class & Subclass	N	% of youths	Subclass proportion
ATC- MS	155	27.3	
Alpha agonist	91	17.6	
Antianxiety	27	5.1	
Hydroxyzine	13		48.1
Benzodiazepine	8		29.7
Other	6		22.2
Antidepressants	350	56.8	
SSRI	183		52.3
TCA	16		4.6
Other	151		43.1
Antipsychotics	286	53.6	
Atypical	284		99.3
Conventional	2		0.7
ADHD drugs	303	55.7	
Amphetamine	124		40.9
Methylphenidate	129		42.6
Atomoxetine	50		16.5
Lithium	11	2.3	
Miscellaneous	66	12.9	

Table 7 shows the distribution of monthly number of concomitant medications by age, race and gender. The mean by age is 1.5 (0-4); 2.6 (5-9); 3.0 (10-14) and 2.7 (15-19). The average number of concomitant medications is 2.73. This suggests the difficulty of managing children on psychotropic drugs perhaps because of limited drug effectiveness over time or because generalizing from adult efficacy is proving to be inaccurate. It also suggests that the practice tends to be one of adding when presented with poor response. When this happens, the chances increase that one is treating drug-induced behavioral symptoms, i.e., behavioral toxicity.

Table 7. Proportional monthly utilization of drug classes by age, race, and gender (n=472)

Age Grp	White						Black						Hispanic						Other						Total	
	M			F			M			F			M			F			M			F			N	%
	N	%		N	%		N	%		N	%		N	%		N	%		N	%		N	%			
0-4	1	14.3	0	-	0	-	0	-	0	-	1	11.1	2	16.7	0	-	0	-	0	-	0	-	4	11.4		
	1	14.3	0	-	1	33.3	1	25	0	-	0	-	0	-	0	-	0	-	0	-	0	-	3	8.6		
	0	-	0	-	0	-	0	-	0	-	2	22.2	1	8.3	0	-	0	-	0	-	0	-	3	8.6		
	4	57.1	0	-	1	33.3	0	-	3	33.3	4	33.3	4	33.3	0	-	0	-	0	-	0	-	12	34.3		
	0	-	0	-	0	-	1	25	0	-	0	-	1	8.3	0	-	0	-	0	-	0	-	2	5.7		
	1	14.3	0	-	1	33.3	2	50	3	33.3	3	25.0	3	25.0	0	-	0	-	0	-	0	-	10	28.6		
	0	-	0	-	0	-	0	-	0	-	1	8.3	1	8.3	0	-	0	-	0	-	0	-	1	2.9		
Total	7				3		4		9		12		35													
5-9	3	5.4	2	4.4	3	7.7	1	3.8	4	6.8	4	9.8	0	-	0	-	0	-	0	-	0	-	17	6.4		
	7	12.5	12	26.7	9	23.1	6	23	10	16.9	13	31.7	0	-	0	-	0	-	0	-	0	-	57	21.4		
	10	17.9	7	15.6	4	10.3	5	19	6	10.2	0	0.0	0	-	0	-	0	-	0	-	0	-	32	12.0		
	11	19.6	9	20.0	6	15.4	4	15	15	25.4	6	14.6	0	-	0	-	0	-	0	-	0	-	51	19.2		
	1	1.8	1	2.2	0	-	1	3.8	0	-	2	4.9	0	-	0	-	0	-	0	-	0	-	5	1.9		
	23	41.1	14	31.1	15	38.5	7	27	15	25.4	13	31.7	0	-	0	-	0	-	0	-	0	-	87	32.7		
	1	1.8	0	-	2	5.1	2	7.7	9	15.3	2	4.9	0	-	0	-	0	-	0	-	0	-	16	6.0		
	0	-	0	-	0	-	0	-	0	-	1	2.4	0	-	0	-	0	-	0	-	0	-	1	0.4		
Total	56		45		39		26		59		41		266													

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Age Grp	White						Black						Hispanic						Other						Total				
	M			F			M			F			M			F			M			F			N	%			
	N	%		N	%		N	%		N	%		N	%		N	%		N	%		N	%						
10-14	22	15.9		9	12.2		4	4.5		10	13.2		13	13.0		6	8.6		3	21.4		3	21.4		1	33.3		68	12.1
	32	23.2		26	35.1		17	19.3		23	30.3		23	23.0		28	40.0		4	28.6		4	28.6		1	33.3		154	27.4
	7	5.1		5	6.8		11	12.5		4	5.3		8	8.0		2	2.9		1	-		1	-		0	-		38	6.8
	36	26.1		16	21.6		22	25.0		14	18.4		23	23.0		16	22.9		3	21.4		3	21.4		1	33.3		131	23.3
	1	0.7		0	-		1	1.1		1	1.3		1	1.0		3	4.3		0	-		0	-		0	-		7	1.2
	32	23.2		13	18		25	28.4		19	25.0		26	26.0		13	18.6		1	7.1		1	7.1		0	-		129	23.0
	7	5.1		5	6.8		7	8.0		5	6.6		5	5.0		1	1.4		1	7.1		1	7.1		0	-		31	5.5
	1	0.7		0	-		1	1.1		0	-		1	1.0		1	1.4		0	-		0	-		0	-		4	0.7
Total	138			74			88			76			100			70			13			3			562				
15-19	19	16.4		16	19.0		5	12.2		6	17.6		8	12.3		11	13.9		0	-		0	-		1	33.3		66	15.5
	25	21.6		34	40.5		10	24.4		11	32.4		19	29.2		37	46.8		0	-		0	-		0	-		136	31.9
	8	6.9		3	3.6		2	4.9		0	-		2	3.1		3	3.8		0	-		0	-		0	-		18	4.2
	31	26.7		15	17.9		11	26.8		10	29.4		13	20.0		11	13.9		0	-		0	-		1	33.3		92	21.6
	2	1.72		2	2.4		0	-		0	-		5	7.7		4	5.1		0	-		0	-		0	-		13	3.1
	25	21.6		12	14.3		9	22.0		5	14.7		14	21.5		11	13.9		0	-		0	-		1	33.3		77	18.1
	3	2.59		5	6.0		4	9.8		2	5.9		3	4.6		1	1.3		0	-		0	-		0	-		18	4.2
	3	2.59		1	1.2		0	-		0	-		1	1.5		1	1.3		0	-		0	-		0	-		6	1.4
Total	116			88			41			34			65			79			0			3			426				

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Table 8 reveals that the average number of psychotropic medication claims for a Texas foster child in July 2004 was 2.73 (1289/472). Certain psychotropic medication classes are more likely to be prescribed as part of a concomitant (3 or more) drug regimen. These are: "mood stabilizer" anticonvulsants (ATC-MS) 83% (128/155); alpha-agonists 77% (70/91); antipsychotics 73% (209/286); antidepressants 67% (235/350), and ADHD drugs 61% (186/303).

Table 8. Drug class and subclass psychotropic use in monotherapy or concomitant medication users (N=472)

	1		2		3		4		>=5	
	n=100	%	n=138	%	n=104	%	n=86	%	n=44	%
Alpha agonist	1	1	20	14	20	19	25	29	25	56.8
Antipsychotics	15	15	62	45	73	70	76	88	60	136.4
Atypical	14	93	62	100	72	99	76	100	60	100.0
Conventional	1	7	0	0	1	1	0	0	0	0.0
Antidepressants	34	34	81	59	84	81	92	107	59	134.1
SSRI	20	59	43	53	43	51	43	47	34	57.6
TCA	2	6	5	6	2	2	4	4	3	5.1
Other	12	35	33	41	39	47	45	49	22	37.3
Antianxiety	7	7	5	4	6	6	5	6	4	9.1
Hydroxyzine	7	100	2	40	1	17	2	40	1	25.0
Benzodiazepines	0	0	3	60	2	33	2	40	1	25.0
Others	0	0	0		3	50	1	20	2	50.0
ADHD Drugs	36	36	81	59	74	71	71	83	41	93.2
Amphetamine	13	36	34	42	33	44	30	42	14	34.1
Methylphenidate	15	42	30	37	36	49	28	39	20	48.8
Atomoxetine	8	22	17	21	5	7	13	18	7	17.1
ATC- MS	5	5	22	16	38	37	44	51	46	104.5
Lithium	0	0	1	1	4	4	5	6	1	2.3
Miscellaneous	2	2	4	3	13	13	26	30	21	47.7
Total	100		276		312		344		257	

Table 9 shows the range of concomitant psychotropic drugs ranged from 2-12. By using a poly-pharmacy indicator of 5 or more drugs, DSHS Study 2005 ignored 40% of the youth having 3 or 4 concomitant drugs. The quality of 3 and 4 drug regimens deserves scrutiny to determine if benefits outweigh risks since such combinations do not have randomized double blind controlled clinical trial data to support their efficacy. Reliance on open-label studies has proven in the past to produce biased findings since the results are often negative when adequately designed studies are undertaken.

Table 9. Concomitant use defined as medications prescribed within a one month time period (July 2004 or latest available month prior to July)

Number of Drugs	Number of Youths	Percent
1	100	21.19
2	138	29.24
3	104	22.03
4	86	18.22
5	21	4.45
6	17	3.6
7	2	0.42
8	3	0.64
12	1	0.21
Total	472	100

Table 10 displays the leading medications within their respective subclasses and classes. The use of oxcarbazepine and topiramate are costly and without justification for psychiatric indications. Valproate requires close monitoring for adolescent women in the child bearing years. Escitalopram and sertraline are more frequently used despite questions about efficacy and cost while fluoxetine, available as a generic at much lower cost and with moderate efficacy findings, is used to a much lesser extent. DDAVP (desmopressin) is a costly alternative to the conditioning treatment modality which has promise of more long lasting benefit.

Table 10. Drug entities within class and subclass for a one month period (N=472)

Class and Subclass	n	Proportion
ATC- MS	155	
Valproate	73	47.1
Oxcarbazepine	52	33.5
Topiramate	16	10.3
Alpha agonist	91	
Guanfacine	23	25.3
Clonidine	68	74.7
Antianxiety	27	
Hydroxyzine	13	48.1
Benzodiazepine	8	29.6
Other	6	22.2
Antidepressants	350	
SSRI	183	
Escitalopram	70	38.3

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Class and Subclass	n	Proportion
Sertraline	66	36.1
Fluoxetine	21	11.5
TCA	16	
Imipramine	11	68.8
Other	151	
Trazodone	67	44.4
Mirtazapine	54	35.8
Bupropion	28	18.5
Antipsychotics	286	
Atypical	284	
Risperidone	105	37
Quetiapine	82	28.9
Aripipazole	60	21.1
Ziprasidone	14	4.9
Conventional	2	
ADHD drugs	303	
Amphetamine	124	40.9
Methylphenidate	129	42.6
Atomoxetine	50	16.5
Lithium	11	
Miscellaneous	66	
DDAVP	43	65.2

** The percentages in each of the subclasses do not sum to 100% because only the leading products are listed within subclass or class.*

In a sample of 472 youths, 41.9% had a diagnosis of ADHD, 41.1% had a diagnosis of adjustment or anxiety disorder and 41.7% had a diagnosis of depression. That ADHD and depression would be equally common is not consistent with most epidemiologic surveys since depression tends to be less common in a pediatric population. The medication use pattern shows great overlap regardless of diagnosis and suggests that target symptoms are equated with full blown DSM diagnostic categories. Consequently, nearly equivalent proportions of antipsychotic drugs occur regardless of the diagnoses children receive—all of which are non-psychotic conditions. Such treatment is largely off-label.

Table 11: Medication use in 3 leading diagnostic groups

Class	ADHD (n =198)				Adjust/Anxiety (n= 194)				Depression (n=197)			
	1-2		3 or more		1-2		3 or more		1-2		3 or more	
	n	%	N	%	n	%	N	%	n	%	n	%
Antidepressant	20	15.7	90	23.1	34	29.6	68	25.8	30	40.5	103	30.7
Stimulants	59	46.5	108	27.7	37	32.2	64	24.2	19	25.7	66	19.7
Alpha Agonists	12	9.4	40	10.3	3	2.6	23	8.7	1	1.4	30	9.0
Antianxiety	2	1.6	2	0.5	5	4.3	7	2.7	0	-	8	2.4
Antipsychotics	32	25.2	89	22.8	28	24.3	56	21.2	12	16.2	72	21.5
ATC-MS	2	1.6	35	9.0	8	7.0	34	12.9	10	13.5	41	12.2
Lithium	0	-	1	0.3	0	-	0	-	0	-	4	1.2
Miscellaneous	0	-	25	6.4			12		2		11	3.3
	127		390		115		264		74		335	

Table 12 reveals that psychiatrists prescribed 92.9% (1172/1262) of the psychotropic medications for foster children in this one month sample. There are few differences in the usage except that there was more antipsychotic prescribing by psychiatrists and more ADHD drugs prescribed by primary care providers. Educational or oversight programs should consider all specialties in their outreach.

Table 12. Provider specialty visits and medications dispensed to 472 youth during one month*

Subclass	Psychiatrist n=1172		Family Practice or Other n=90		
	n	%	Subclass	n	%
Alpha agonist	84	7.17	Alpha agonist	5	5.6
Anxiolytics	15	1.3	Anxiolytics	7	7.8
Hydroxyzine	3	20	Hydroxyzine	7	100.0
Benzodiazepine	7	46.7	Benzodiazepine	-	-
Other	5	33.3	Other	-	-
Antidepressants	316	27.0	Antidepressants	22	24.4
SSRI	170	53.8	SSRI	9	40.9
TCA	10	3.2	TCA	6	27.3
Other	136	43.0	Other	7	31.8
Antipsychotics	269	23.0	Antipsychotics	14	15.6
Atypical	267	99.3	Atypical	14	100
Conventional	2	0.7	Conventional	-	-
ADHD drugs	275	23.5	ADHD drugs	25	27.8
Amphetamine	114	41.5	Amphetamine	9	36
Methylphenidate	118	42.9	Methylphenidate	11	44
Atomoxetine	43	15.6	Atomoxetine	5	20

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Subclass	Psychiatrist n=1172		Family Practice or Other n=90		
	n	%	Subclass	n	%
ATC- MS	148	12.6	ATC- MS	6	6.7
Lithium	11	0.9	Lithium	-	
Miscellaneous	54	4.6	Miscellaneous	11	12.2

* Bolded lines show the frequency of the class prescriptions written by the specialty. Subclass is not bolded and shows the proportion of the prescribed class.

Table 13 illustrates the classes involved in 2 drug combinations. The table lists the number of youth receiving the class pair. For example, 22 of the 138 youths received an antidepressant and a stimulant concomitantly. Frequently occurring pairs that deserve clinical review include antipsychotic and stimulants (26/138); antidepressants and stimulants (22/138) since these are potent drugs without the support of randomized data. In the case of a stimulant with fluvoxamine, Abikoff et al. did not observe a benefit (Abikoff et al., 2006). Some pairs pertain to a single class, e.g. 17 youths received 2 antidepressants during the month while 3 youths received 2 antipsychotics.

Table 13. Two-drug combinations among 138 youths

Combinations			Combinations	
Antidepressants	22		Antipsychotics	26
Stimulants	22		Stimulants	26
Antidepressants	12		Antipsychotics	3
Antipsychotics	12		(Only)	
Antidepressants	8		Antipsychotics	10
ATC-MS*	8		ATC-MS	10
Antidepressants	1		Antipsychotics	5
Antianxiety	1		Alpha Agonist	5
Antidepressants	17	34 Rx	Antipsychotics	2
(Only)			Antianxiety	2
Antidepressants	2		Antipsychotics	2
Alpha Agonists	2		Miscellaneous	2
Antidepressants	2		Antipsychotics	1
Miscellaneous	2		Lithium	1
Stimulants only	8	16 Rx	Antianxiety	1
			(Only)	
Stimulant	12		Alpha Agonists	1
Alpha Agonists	12		ATC-MS	1
Stimulant	3			
ATC-MS	3			

* ATC-MS= mood stabilizer anticonvulsant

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Table 14 shows the 3 drug combinations. Frequently used combinations that deserve clinical review include: antidepressant/antipsychotic/stimulant; antidepressant/antipsychotic/anticonvulsant-mood stabilizer; as well as the use of 3 concomitant antidepressants. The widespread use of anticonvulsant-mood stabilizers should be challenged because of the lack of efficacy and risk of adverse events.

Table 14. Three-drug combinations among 104 youths

Antidepressants	14		Antipsychotics	8	
Antipsychotics	14		Stimulants	8	
Stimulants	14		ATC-MS	8	
Antidepressants	5	10 Rx	Antidepressants	1	
Antipsychotics	5		ATC-MS	1	2 Rx
Antidepressants	1		Antipsychotics	1	2 Rx
Antipsychotics	1		Antidepressants	1	
Antianxiety	1				
Antidepressants	12		Stimulants	1	2 Rx
Antipsychotics	12		ATC-MS	1	
ATC-MS	12				
Antidepressants	5	10 Rx	Antipsychotics	11	
Stimulants	5		Stimulants	11	
			Alpha Agonist	11	
Antidepressants	5		Stimulants	4	8 Rx
Antipsychotics	5		Antipsychotics	4	
Miscellaneous	5				
Antidepressants	6		Stimulants	1	3 Rx
Stimulants	6				
Alpha Agonist	6				
Antidepressants	5		Antianxiety	1	2 Rx
Stimulants	5		Antidepressants	1	
ATC-MS	5				
Antidepressants	3	6 Rx	ATC-MS	1	2 Rx
ATC-MS	3		Antipsychotics	1	
Antidepressants	1	3 Rx	ATC-MS	2	4 Rx
			Antidepressants	2	
Antidepressants	1		Antipsychotics	1	
Stimulants	1		Antianxiety	1	

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Miscellaneous	1		ATC-MS	1	
Antidepressants	1		Alpha Agonist	1	2 Rx
Alpha Agonist	1		Stimulants	1	
Miscellaneous	1				
Antidepressants	2		Antipsychotics	1	2 Rx
Stimulants	2		Miscellaneous	1	
Antianxiety	2				
Antipsychotics	1	2 Rx	Antipsychotics	3	
Stimulant	1		Stimulants	3	
			Miscellaneous	3	
Stimulants	1		Antipsychotics	2	
ATC-MS	1		ATC-MS	2	
Lithium	1		Lithium	2	
Antidepressants	1		Antipsychotics	1	
Stimulants	1	2 Rx	Miscellaneous	1	
			Lithium	1	

Table 15 shows increasing complexity in a smaller group of youths. These examples would be excellent cases for individual case review. Similarly, tables 16 and 17 illustrate the combinations in other groups of complex, difficult to manage patients. The major drug in the miscellaneous category was desmopressin (DDAVP). Table 17 describes the class associated with regimens of 6, 7, 8 or 12 medications. Counting down the first set (a single patient) with 6 concomitants shows the regimen involves 2 alpha agonists, 1 antipsychotic, 1 anticonvulsant mood stabilizer and 2 stimulants.

Table 15. Four drug combinations in youth (N=86)

Antipsychotics	1	Antidepressants	3	6 Rx	Alpha agonist	2	Antidepressants	2	4 Rx
ATC- MS	1	Antipsychotics	3		Antidepressants	2	ATC- MS	2	4 Rx
Miscellaneous	1	Miscellaneous	3		ATC- MS	2			
Stimulants	1				Stimulants	2			
Alpha agonist	7	Antidepressants	7		Antidepressants	1	2 Rx	Alpha agonist	3
Antidepressants	7	Antipsychotics	7		Antipsychotics	1		Antipsychotics	3
Antipsychotics	7	Stimulants	7	14 Rx	Lithium	1		ATC- MS	3
Stimulants	7							Stimulants	3
Antianxiety	1	Alpha agonist	1	2 Rx	Antianxiety	1		Antianxiety	1
Antipsychotics	1	Antidepressants	1		Antipsychotics	1		Antidepressants	1
Stimulants	1	Antipsychotics	1		ATC- MS	1		Stimulants	1
					Lithium	1			
Antianxiety	1	Antidepressants	2	4 Rx	Antipsychotics	3		Alpha agonist	3
Antidepressants	1	Antipsychotics	2	4 Rx	ATC- MS	3		Antipsychotics	3
Antipsychotics	1				Miscellaneous	3		Miscellaneous	3
ATC- MS	1				Stimulants	3		Stimulants	3
Antidepressants	4	Antidepressants	2		Antidepressants	1		Antidepressants	1
Antipsychotics	4	Antipsychotics	2		ATC- MS	1		ATC- MS	1
ATC- MS	4	ATC- MS	2		Stimulants	1	2 Rx	Lithium	1
		Miscellaneous	2						

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Antidepressants	8		Antidepressants	3	6 Rx	Antidepressants	1	Alpha agonist	1
Antipsychotics	8		Miscellaneous	3		Antipsychotics	1	Antipsychotics	1
ATC- MS	8		Stimulants	3		Stimulants	1	Stimulants	1
Stimulants	8								
Alpha agonist	2		Antidepressants	3	6 Rx	Antipsychotics	4	Antidepressants	4
Antidepressants	2	2 Rx	Antipsychotics	3		ATC- MS	4	Antipsychotics	4
Stimulants	2		Stimulants	3				Miscellaneous	4
								Stimulants	4
Alpha agonist	1		Antidepressants	2		Antidepressants	3	Alpha agonist	1
Antianxiety	1		Antipsychotics	2		Stimulants	3	Antidepressants	1
Stimulants	1	2 Rx	Miscellaneous	2	4 Rx			Miscellaneous	1
								Stimulants	1
Alpha agonist	1		Antidepressants	1		Antidepressants	1	4 Rx	
Antidepressants	1		Antipsychotics	1					
Antipsychotics	1		ATC- MS	1					
Miscellaneous	1		Lithium	1					
Antidepressants	1	3 Rx	Antipsychotics	1		Alpha agonist	1	Alpha agonist	1
Stimulants	1		ATC- MS	1		ATC- MS	1	Antidepressants	1
			Lithium	1		Miscellaneous	1	Antipsychotics	1
			Stimulants	1		Stimulants	1	ATC- MS	1

Table 16. Five drug combinations in youth (N=21)

Antidepressants	1	2 Rx	Antidepressants	1	
Antipsychotics	1	2 Rx	Antipsychotics	1	
ATC- MS	1		ATC- MS	1	2 Rx
			Stimulants	1	
Antianxiety	1		Alpha agonist	1	
Antidepressants	1		Antidepressants	1	2 Rx
Antipsychotics	1		Antipsychotics	1	
ATC- MS	1	2 Rx	ATC- MS	1	
Alpha agonist	1		Antianxiety	1	
Antianxiety	1		Antidepressants	1	
ATC- MS	1		Antipsychotics	1	
Stimulants	1	2 Rx	ATC- MS	1	
			Stimulants	1	
Alpha agonist	1	2 Rx	Antidepressants	1	
Antipsychotics	1		Antipsychotics	1	
Miscellaneous	1		Miscellaneous	1	
Stimulants	1		Stimulants	1	2 Rx
Antipsychotics	1	2 Rx	Antidepressants	1	2 Rx
ATC- MS	1	2 Rx	Antipsychotics	1	
Miscellaneous	1		Misc	1	
			Stimulants	1	
Antidepressants	2		Alpha agonist	1	
Antipsychotics	2		Antidepressants	1	
ATC- MS	2		Antipsychotics	1	
Miscellaneous	2		Stimulants	1	2 Rx
Stimulants	2				
Alpha agonist	1		Alpha agonist	1	
Antidepressants	1	2 Rx	Antidepressants	1	
Antipsychotics	1		Miscellaneous	1	
ATC- MS	1		Stimulants	1	2 Rx
Antidepressants	1	2 Rx	Antipsychotics	1	
Antipsychotics	1		ATC- MS	1	3 Rx
ATC- MS	1		Lithium	1	
Miscellaneous	1				
Antidepressants	1	3 Rx	Alpha agonists	1	
Antipsychotics	1	2 Rx	Antidepressants	1	
			ATC- MS	1	2 Rx
			Stimulants	1	
Alpha agonist	2				
Antidepressants	2	4 Rx			
Antipsychotics	2				
Stimulants	2				

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Table 17. Six or more concomitant psychotropic medications (N=23)

6 concomitant medications			Antipsychotics	1	
Alpha agonists	1	2 Rx	ATC- MS	1	
Antipsychotics	1		Miscellaneous	1	2 Rx
ATC- MS	1		Stimulants	1	2 Rx
Stimulants	1	2 Rx			
Antidepressants	1	2 Rx	Antidepressants	1	
Antipsychotics	1		Antipsychotics	1	3 Rx
Miscellaneous	1		Miscellaneous	1	
Stimulants	1	2 Rx	Stimulants	1	
Alpha agonists	1		Alpha agonists	1	
Antidepressants	1	3 Rx	Antipsychotics	1	
Antipsychotics	1		ATC- MS	1	
ATC- MS	1		Miscellaneous	1	2 Rx
			Stimulants	1	
Alpha agonists	1	2 Rx	7 concomitant medications		
Antidepressants	1		Alpha agonists	1	2 Rx
Antipsychotics	1	2 Rx	Antidepressants	1	
Stimulants	1		Antipsychotics	1	2 Rx
			ATC- MS	1	
			Miscellaneous	1	
Antianxiety	1		Alpha agonists	1	
Antidepressants	1		Antidepressants	1	2 Rx
Antipsychotics	1		Antipsychotics	1	
ATC- MS	1		ATC- MS	1	
Miscellaneous	1		Miscellaneous	1	
Stimulants	1		Stimulants	1	
Antidepressants	3	6 Rx	8 concomitant medications		
Antipsychotics	3	6 Rx	Antidepressants	1	3 Rx
ATC- MS	3	6 Rx	Antipsychotics	1	
			ATC- MS	1	2 Rx
			Miscellaneous	1	
			Stimulants	1	
Antidepressants	1	2 Rx	Antidepressants	1	2 Rx
Antipsychotics	1	2 Rx	Antipsychotics	1	2 Rx
Stimulants	1	2 Rx	ATC- MS	1	2 Rx
			Miscellaneous	1	2 Rx

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Alpha agonists	1	2 Rx	Antidepressants	1	2 Rx
ATC- MS	1	2 Rx	Antipsychotics	1	3 Rx
Stimulants	1	2 Rx	ATC- MS	1	
			Miscellaneous	1	
			Stimulants	1	
Alpha agonists	1	2 Rx	12 concomitant medications		
Antipsychotics	1	2 Rx	Antidepressants	1	2 Rx
ATC- MS	1	2 Rx	Antipsychotics	1	4 Rx
			ATC- MS	1	4 Rx
			Stimulants	1	2 Rx
Antidepressants	1	4 Rx	Alpha agonists	1	
Stimulants	1	2 Rx	Antidepressants	1	
			Antipsychotics	1	2 Rx
			ATC- MS	1	
			Stimulants	1	
Alpha agonists	1				
Antipsychotics	1	3 Rx			
Stimulants	1	2 Rx			

III. Recommendations

Based on this review of prescribing patterns for Texas foster care youth, we suggest 5 opportunities to change practice and to evaluate the benefits and risks of such changes. From an ethical perspective, it seems insufficient to make changes based on cost savings alone or in keeping with population-based quality indicators alone. As the law of unintended consequences suggests, such practices can lead to unforeseen changes in practice in which neither benefits nor risks are known. Consequently, a blend of the following approaches should be considered to assure that quality improvement is an on-going process:

- **Formulary restrictions** are a means to achieve cost efficiency. It should be approached within a decision-making framework that is equitable from a societal perspective and beneficial from a youth perspective. In other words, foster care should be treated as well as other Medicaid-insured youths. Applying the ethical principle of beneficence means that the formulary restrictions should not deprive youths of a beneficial treatment.
- **Clinical educational approaches**, namely, an academic-detailing team, could be comprised of clinical pharmacists led by a psychopharmacologist experienced with community-care for foster children. Research has shown this approach to be effective (Soumerai & Avorn, 1990) although it would be wise to build a program that is well versed in local medical and psychiatric specialty issues and is sympathetic to the frustrations of clinicians working with foster children and their caregivers.
- **Quality assessment** of systems has evolved into 2 main approaches, measurement based quality improvement (MBQI) and evidence-based practices (EBPs) (Hermann, Chan, Zazzali, & Lerner, 2006). In terms of measurement-based approaches, Texas has a great deal of experience, e.g., DSHS Study 2005. However, population-based assessments to review confor-

mance require stricter criteria for more reasonable operational definitions of polypharmacy, e.g., for 3 or more in a month when the drugs overlap for >14 days.

- **Prevalence data** on psychotropic use in foster care youths compared with other Medicaid-insured groups, e.g. disabled and TANF or S-CHIP continues to be relevant. Questions about why, on average, foster care youths should exceed the use of psychopharmacologic drugs observed in disabled youths deserves to be explored from a broader, societal perspective. Poverty, social deprivation, and unsafe environments do not necessarily require complex drug regimens. Data show that complex, poorly evidenced regimens continue to increase in complexity over the age span suggesting that polypharmacy is not effective in managing the multiplicity of problems of foster care youths. This is particularly true when observing youths with repeated hospitalizations.
- **Drug monitoring advances.** In general, it is apparent that the increased complexity of psychopharmacology requires improved methods of drug monitoring. Resources should be allocated to assure baseline physical health measures, e.g. height, weight, liver function tests, glucose, lipids, and electrocardiogram. Simple tools should be made available for physician and caregiver monitoring of behavioral and emotional symptoms, academic and social functioning as well as adverse events. This emphasis reflects the growing concern about mortality and suicidality associated with the use of newer classes of drugs which have increased dramatically since the mid-1990s, for example, atypical antipsychotics, amphetamine salts, and SSRIs). Newer products cannot necessarily be interpreted as safer drugs regardless of proprietary claims.

Cost Issues for all Medicaid-insured Youth

Utilization review is routine in for-profit and non-profit managed care and it can be done in Medicaid through tightening the formulary. Texas is currently engaged in this process but several challenges are discussed below.

Costly, Patented Psychotropic Medications

In the Texas Medicaid prescription expenditures listed for FY 2004, it is noteworthy that there were 16 psychotropic medications that each cost the state over \$500,000. The costs for these 16 added up to \$28.7 million, which totaled over 73% of the \$39 million paid by the state that year to cover these purchases. The 16 medications include the following:

- 1) Antipsychotics: Risperidal (risperidone), Zyprexa (olanzapine), Seroquel (quetiapine), Abilify (aripiprazole), and Geodon (ziprasadone)—all of which are off-label for youths.
- 2) ADHD drugs: Concerta (methylphenidate), Adderall (amphetamine salts), Strattera (atomoxetine). These are labeled indications for youths aged 3 and up (Adderall) and 6 and up (Concerta and Strattera).
- 3) Antidepressants: Zoloft (sertraline), Lexapro (escitalopram), Wellbutrin-XL (bupropion-XL), and Remeron (mirtazapine)—all are off-label for children except for Zoloft which is approved for the treatment of OCD in children aged 6 and over.
- 4) Anticonvulsants used primarily as 'mood stabilizers': Depakote (divalproex), Trileptal (oxcarbazepine), and Topimax (topiramate)—all of which are off-label for psychiatric treatment of youths.
- 5) Medication to treat primary nocturnal enuresis: DDAVP (desmopressin) –approved for the treatment of enuresis in youths age 6 and over.

In 2004, all the above mentioned drugs were under patent protection, which largely accounts for the high costs incurred for their purchase by the state.

Off-Patent Designations

Of the top 10 psychotropic medications prescribed to foster care children—listed on Table 3 of DSHS Study 2005—8 were under patent-protection. These drugs accounted for 80% (10261/12842) of the total psychotropic medications prescribed for foster children. The list includes many of the drugs in the top 16 listed above. These are: Lexapro, Zoloft, Adderall, Concerta, Depakote, Risperidal, Seroquel and Abilify. The only off-patent (generic) exceptions on the top 10 list were clonidine and trazodone.

In addition, cost is accompanied by effectiveness questions as reflected in the few FDA approved indications in child psychiatric treatment. Notably, Lexapro and Zoloft primarily prescribed for the treatment of depression in youths are not approved for that indication, whereas fluoxetine (available as a generic) is approved. But the ratio of use of patented, off-label (and expensive) Lexapro and Zoloft compared to generic, labeled indication (and inexpensive) fluoxetine was approximately 5:1. Moreover, Lexapro recently was evaluated in a double-blind, placebo-controlled (DB-PC) study (Wagner et al. 2006a) for the treatment of depression in youths and the results were negative. In addition, the DB-PC research on Zoloft for depression in youths was evaluated by the FDA and was found to be negative (Shen, 2003) or effective only in the group of adolescents (Wagner et al., 2003). Seroquel and Abilify have not had such sophisticated studies in children. Topimax and Trileptal were listed among the most prescribed 16 (above), although both have had recent negative DB-PC studies for children with bipolar disorder (DelBello et al., 2005; Wagner et al., 2006b).

Off-label Use and Inadequate Evidence of Efficacy and Safety

In the pediatric population, most medications lack information on efficacy and safety and their use is described as 'off-label' (Roberts, Rodriguez, Murphy, & Crescenzi, 2003). The prevalence of off-label use in children is common because there has been little research or incentives for companies to conduct complex studies. Consequently, the safety and in most cases the efficacy of these drugs have not been established for children. For example, the application of paroxetine for MHRS (the British regulatory authority) approval based on an indication for the treatment of depression in children was quietly dismissed. The recent application for risperidone use in children was not approved by the FDA. Many of the manufacturers of the other psychotropic (non-stimulant) compounds have not applied for FDA approval for treatment indications for children despite widespread use in children. These circumstances result in widespread but inadequately supported use—because generalizing from adults to children has proven incorrect in terms of effectiveness (Jureidini et al., 2004) or safety (Safer et al., 2006). Clinicians who adopt a skeptical attitude to new medications may find that the initial enthusiasm for new products diminishes as the evidence in community-based populations grows. New products usually have a minimal safety record because rare adverse events cannot be identified in the typically small (500-3,000) number of individuals studied in clinical trials. Consequently, observational studies in community-treated populations, e.g., the Texas Medicaid population, can produce evidence of safety if an investment in the methods for such work would be undertaken. In summary, both clinical efficacy and safety should be considered in formulary restrictions.

Potential Formulary Restrictions

- 1) Enuresis treatment with DDAVP is not only costly (\$1.55 million in FY 2004) but, in contrast to conditioning apparatuses, does not maintain an effect after the medication is stopped. DDAVP is not as beneficial as the less expensive conditioning apparatuses for enuresis (Schulman, Colish, von Zuben, & Kodman-Jones, 2000; Caldwell, Edgar, Hodson, & Craig, 2005) –which have been shown to have longer-lasting benefits.

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- 2) Olanzapine cost \$2.9 million in FY 2004. In two recent large scale DB-PC studies for the treatment of bipolar disorder (3 weeks) and schizophrenia (6 weeks) in adolescents (Tohen et al., 2006; Kryzhanovskaya et al., 2006), this drug improved sleep and lessened behavioral deviancy. However, the drug treatment led to significant increases in liver enzymes, cholesterol, glucose, prolactin, triglycerides, and weight. Maybe it could be used safely for 1-2 weeks in very problematic acute cases, but the benefits appear to be outweighed by the safety concerns and should require close monitoring of metabolic functioning for longer periods of use.
- 3) Oxcarbazepine cost \$1.98 million in FY 2004 and its use was primarily for off-label psychiatric indications as it is approved only for seizure disorders. In a recent DB-PC study of oxcarbazepine for youths with bipolar disorder (Wagner et al. 2006b), the drug was no more efficacious than placebo and 11 of the 59 youths withdrew from the 7 week trial due to adverse events, which was 3 times greater than the rate for placebo).
- 4) Effexor (venlafaxine) was evaluated for the treatment of depression in youths. Its effectiveness was not significantly different than placebo treatment but it caused a significant level of agitation and suicidality in children (Hammad, 2004). This drug should be considered for removal from the formulary.
- 5) Depakote is not appropriate for women of childbearing age, since it prominently increases the risk of fetal anomalies (Alsdorf & Wyszynski, 2005; Wyszynski et al., 2005). Texas DSHS could join an existing registry to participate in gaining new knowledge on the risk of fetal anomalies in pregnant female adolescents in foster care who failed to avoid the medication at the time of pregnancy. Such visibility to this problem would likely lead to heightened avoidance of the risk in women in the child-bearing years.

Several specific problems were noted while reviewing claims records of Texas foster care psychotropic prescribing patterns. The administrative claims records of Dr. G and Dr. K revealed numerous problems. Examples include the following:

- 1) Violations of age ranges
 - a. Risperidone administered 3-5 times/day to children age 4 and above. There is no pharmacokinetic justification for prescribing risperidone more than twice daily and in most cases to adolescents more than once daily.
 - b. Gabapentin, risperidone, oxcarbazepine, escitalopram and quetiapine prescribed for 2 and 3 year olds.
 - c. Ziprasadone and aripiprazole prescribed for 3 and 4 year olds.
 - d. DDAVP to a 5 year old is questionable since the age of 6 is required to qualify for a diagnosis of enuresis.
- 2) Unnecessary dosing intervals
 - a. Aripiprazole administered twice daily despite once a day dosing in adults since the elimination half-life is 75 hours.
 - b. Escitalopram administered 2-3 times daily is unnecessary since the mean elimination half-life is 30 hours.
- 3) Excessive doses
 - a. Quetiapine prescribed at doses of 300-600 mg/day to 3 & 4 year olds
 - b. Aripiprazole 15-30 mg/ day to 5 year olds

In summary, this section described the rationale for restricting formulary access to medications that are hazardous or have relatively little evidence to support their use in youths.

Conclusions

State Medicaid programs are in a cost crunch in 2006 and a sizable part of this is due to the high cost of patent-protected psychotropic medications. Foster children almost exclusively receive full coverage Medicaid insurance and are prescribed psychotropic medications at a rate that far exceeds that of non-foster children. No doubt, foster children have more medical and psychiatric difficulties than their peers, but it is not at all clear that the number and type of psychotropic medications these youths are prescribed are efficacious and safe, and whether most patented prescribed medications are worth the additional expense when there are reasonable generic alternatives. Cost savings are important but given the large differentials of the most commonly used drugs in the Texas Medicaid system, the argument for restricted use can also be made from an inadequate evidence base for effectiveness and safety.

Educational approaches and clinical oversight that involves an individualized level of review should be undertaken. Clinical education ('academic-detailing') should be developed and aimed at showing the weak benefit-risk ratios that pertain to many patented drugs for psychiatric or behavioral treatment of youths. Patented drugs with no clear benefit-risk assessment for youth should be reserved by prior authorization or by close monitoring requirements.

Population-based data and the use of selected quality indicators are useful in understanding the level of conformance with well established criteria. However, in the absence of outcomes of community care, it is difficult to be confident that quality is assured. Rule-based improvement does not necessarily equal true clinical improvement. To overcome this formidable challenge, a random sample of outliers could be reviewed and a case developed, made accessible via the Internet and providing CME credit. This would be a perquisite for the clinician and a benefit for DSHS by requiring such training in psychopharmacology as a condition of participation in the Medicaid system. The ultimate beneficiaries, of course, are the difficult to treat foster care youths.

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Education:

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Publications:

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Books:

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Psychotherapeutic Drug Manual (revised 3rd ed.). New York:
John Wiley & Sons.

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Book Chapters:

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Papers read at scientific or professional meetings since 1990:

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Grants and Contracts:

Twelve totaling more than \$3 million

Honors and Awards:

Maryland Public Health Association 2000 Award for Individual Achievement
Who's Who of American Women, Millennium Edition (2000 – 2005)
Who's Who in America, Year 2000 (1999)
University of Minnesota Dissertation Research Award (1983)
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Professional Societies:

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American Psychiatric Association
Associate Member, 1962 – 65
Member, 1965 – 1974
Fellow, 1974 – 1996, Life Fellow, 1996 –
Maryland Psychiatric Society, 1966 –
American Orthopsychiatric Association, 1980 –
American Academy of Child and Adolescent Psychiatry, 1997 –

Grants:

Four grants totaling more than \$500,000.

Books:

Safer, D.J. and Allen, R.P. *Hyperactive Children: Diagnosis and Management*,
Baltimore, University Park Press, 1976.
Safer, D. J. (with collaborators). *School Programs for Disruptive Adolescents*,
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Book Chapters:

Wrote 13 Book Chapters

Articles:

Wrote 88 peer reviewed articles

CHAPTER 1

The Cost of Medications and Health Care for Texas Foster Children



A total of \$150 million was spent on Texas foster children in fiscal 2004 for medication and medical costs. Outpatient costs accounted for \$79 million and inpatient cost were \$32.5 million. About one quarter of this cost (\$39 million) was for medications and of that about 77 percent were for high cost psychotropic drugs. Of 436,480 prescriptions written for Texas foster children in fiscal 2004, 60 percent or 260,784 were for psychotropic drugs. Three psychotropic drug categories—antidepressants, antipsychotics and stimulants—were the ones most frequently prescribed, with antipsychotics being the most costly.

In fiscal 2004, Texas Medicaid spent \$14.9 million on antipsychotic drugs. This category includes Zyprexa, Seroquel and Risperdal, which typically cost an aver-

age of \$229 per prescription, while the average cost per prescription for all medications prescribed to foster children was \$90. As noted in this report, many physicians have questioned the use of some psychotropic medications prescribed to foster children.

Several cost containment tools (the implementation of a preferred drug list and prior authorization) have been put in place to address the high cost of medications that are being paid by Medicaid. But, the Health and Human Services Commission (HHSC) – the Medicaid administrator for Texas – has been slow to address the concern that many of these powerful medications are not U. S. Food and Drug Administration (FDA) approved for use in children and adolescents. This report offers a recommendation to address this issue.

The Cost of Medications and Health Care for Texas Foster Children

Key Findings

- *Sixty percent of all drugs prescribed to Texas foster children are psychotropic medications.*
- *Of all drugs prescribed to children in foster care, three psychotropic drug classes—antidepressants, antipsychotics and stimulants—are the ones most frequently prescribed.*
- *Psychotropic drugs accounted for 77 percent of the cost of all medications prescribed to children in foster care, which totaled almost \$30 million in fiscal 2004.*

Background

The purpose of this chapter is to describe the medical costs associated with Texas foster children. In fiscal 2004, about \$112 million was spent on inpatient and outpatient costs – \$39 million was spent on medication alone, with the bulk of it on psychotropic medications (**Exhibits 1 and 2**). These medications can be very costly and there are concerns regarding their safety, efficacy and even sometimes how appropriate they are for children.

Texas foster children are prescribed a variety of drugs, ranging from antibiotics used to treat infections to psychotropic drugs used to treat depression and other behavioral disorders. Foster children are eligible for assistance from the Texas Medicaid program, which covers the cost of their medical care and medications.

To conduct a comprehensive review of the types and costs of medications used by Texas foster children, the Comptroller's office categorized drugs based on the categories published by the U.S. Pharmacopeia, the official standards-setting authority for all prescription medicines, the American Hospital Association Formulary Service and other sources.¹ The complete drug categories and the types of drugs included in them are listed in **Appendices VII and XII**.

Previous studies of medications given to children in foster care have tended to focus on only commonly prescribed psychotropic drugs. The Comptroller's review team applied a more comprehensive approach, to ensure that all psychotropic drugs given to children in foster care were identified; determine how these drugs compared to other categories of drugs prescribed to foster children; and, finally, to allow for additional study of some non-psychotropic drugs, such as narcotics and HIV drugs. **Appendix VI** lists psychotropic drugs included in this study versus those identified in previous works.

Well over half of all drugs prescribed to Texas foster children are psychotropic medications used to treat psychiatric problems such as anxiety, conduct disorder and



Well over half of all drugs prescribed to Texas foster children are psychotropic medications.

EXHIBIT 1

Number of Inpatient and Outpatient Claims in Texas Foster Children in Fiscal 2004

Type of Service	Number of Claims	Total Amount Paid
Inpatient	4,797	\$32,531,818
Outpatient	654,792	\$79,158,108
Total	659,589	\$111,689,926

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 2

**Cost of Medications Prescribed to Texas Foster Children, By Number of Prescriptions
Fiscal 2004**

	Number of Prescriptions	Total Amount Paid	Average Cost Per Prescription	Average Cost Per Day
Psychotropic	260,784	\$29,909,584	\$114.69	\$3.86
Infections	45,874	\$1,965,583	\$42.85	\$3.78
Allergy/Cough/Cold	39,471	\$1,452,602	\$36.80	\$1.67
Anti-Inflammatory (Steroid)	16,740	\$994,900	\$59.43	\$3.13
Gastrointestinal	11,028	\$630,885	\$57.21	\$2.15
Urology	10,734	\$1,699,658	\$158.34	\$5.39
Respiratory	10,579	\$751,354	\$71.02	\$3.51
Anti-Inflammatory (Nonsteroid)	6,247	\$104,496	\$16.73	\$1.44
Pain Relief (Narcotic)	4,982	\$54,253	\$10.89	\$1.39
Supplements	4,866	\$87,287	\$17.94	\$0.54
Reproductive	4,474	\$182,464	\$40.78	\$1.23
Pain Relief (Non-Narcotic)	4,398	\$63,625	\$14.47	\$1.47
Other Central Nervous System	3,464	\$287,786	\$83.08	\$2.98
Skin Conditions	3,146	\$221,814	\$70.51	\$4.00
Endocrinology	2,655	\$316,510	\$119.21	\$4.03
Cardiovascular	1,984	\$54,366	\$27.40	\$0.89
Parasiticide	1,537	\$80,510	\$52.38	\$8.11
Other Ear, Eye, Nose and Throat	1,345	\$44,019	\$32.73	\$1.78
Musculoskeletal	1,105	\$73,130	\$66.18	\$2.59
Immunosuppressant	365	\$82,002	\$224.67	\$10.57
Syringe	251	\$6,897	\$27.48	\$0.92
Dental	237	\$2,932	\$12.37	\$0.50
Miscellaneous	162	\$2,749	\$16.97	\$0.86
Cancer	52	\$7,027	\$135.13	\$6.06
Total	436,480	\$39,076,433	\$89.53	\$3.51

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

psychotic disorders. Of 436,480 prescriptions written for Texas foster children in fiscal 2004, 60 percent or 260,784 were for psychotropic drugs; 11 percent or 45,874 were medications used to treat infections (including antibiotics, antiviral and anti-fungal drugs); 9 percent or 39,471 were for allergy, cough and cold medications; and 4 percent or 16,740 were for anti-inflammatory (steroidal) medications (**Exhibit 2**).

Within the psychotropic drug category, four drugs—antidepressants, antipsychotics, stimulants, and anticonvulsants [This category refers only to the anticonvulsants that are used as mood stabilizers]—were most frequently prescribed to foster children.

Antidepressant and antipsychotic drugs alone accounted for about a third (131,835 prescriptions) of all the medications prescribed to Texas foster children in fiscal 2004

EXHIBIT 3

**Texas Foster Care:
Psychotropic Prescriptions, By Amount Paid, Fiscal 2004**

Drug Category	Number of Prescriptions	Amount Paid	Average Paid Per Prescription	Unduplicated Number of Children
Antipsychotics	65,469	\$14,975,359	\$228.74	6,913
Anticonvulsants (Mood Stabilizers)	42,826	\$4,750,680	\$110.93	4,515
Stimulants	45,318	\$4,455,503	\$98.32	6,551
Antidepressants	66,366	\$3,842,585	\$57.90	7,699
Other ADHD Drugs	32,844	\$1,685,162	\$51.31	4,342
Anti-anxiety	3,113	\$104,976	\$33.72	688
Hypnotics/Sedatives	2,498	\$72,487	\$29.02	1,002
Antidyskinetics (Controls Side Effects)	2,350	\$22,832	\$9.72	430
Total	260,784	\$29,909,584	\$114.69	*

*The count of children is unduplicated within each category but the same child may have received drugs from more than one category. The column cannot be totaled.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

(Exhibit 3). Stimulants were the third most frequently prescribed psychotropic, with 45,318 prescriptions. Anticonvulsants (mood stabilizers) were not far behind, with 42,826 prescriptions.

Medication Use and Costs

Psychotropic drugs accounted for about 77 percent of the cost of all medications prescribed to children in foster care in fiscal 2004, totaling almost \$30 million. The next most expensive category included drugs that fight infection, such as antibiotics; it came in a distant second, accounting for only 5 percent—\$ 1.9 million—of all medication costs (Exhibit 4). Therefore, examining the cost of psychotropic drugs is an important issue for managing foster care expenditures.

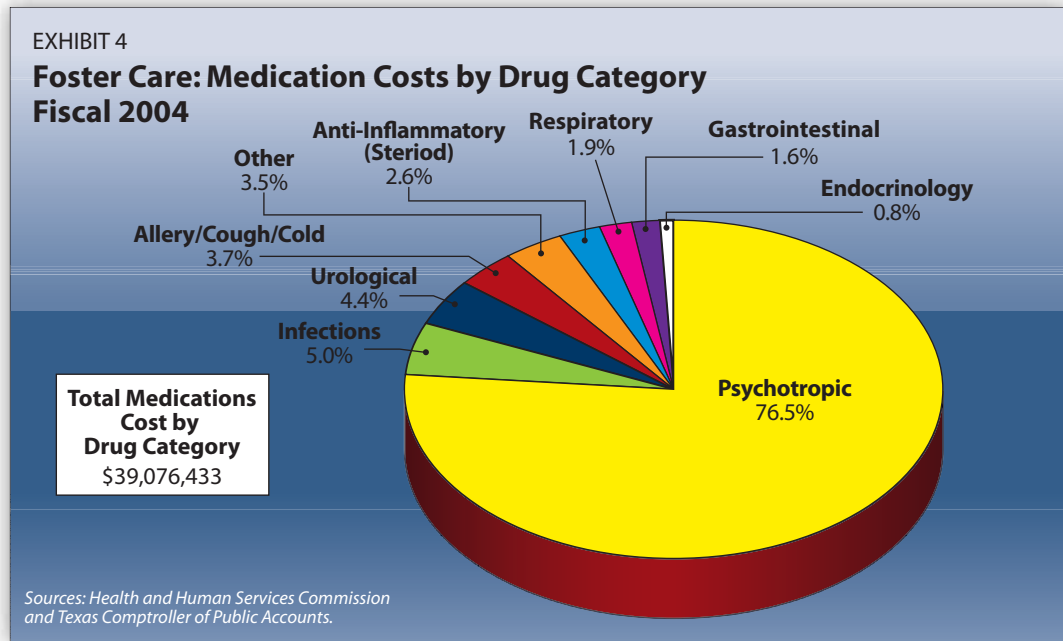
Within the psychotropic drug category, Texas Medicaid spent more money on antipsychotic drugs for foster children—more than \$14.9 million or 38 percent of the total—than on any other category of psychotropic drugs (Exhibit 3). This category includes Zyprexa, Seroquel and Risperdal, which typically cost an average of \$229 per prescription.

The next most expensive psychotropic drug category for foster children was the anticonvulsants (mood stabilizers)—\$4.8 million or 12 percent—which include drugs frequently prescribed to treat rapid mood swings. The Medicaid program spent an average of \$111 per prescription on anticonvulsants (mood stabilizers) such as Depakote, Trileptal and Topamax.

The third and fourth most expensive psychotropic drug categories were the stimulants and antidepressants. Medicaid spent almost \$4.5 million on stimulants for children in foster care and another \$3.8 million for antidepressants.

Money spent on drugs used to fight infection, such as antibiotics, ranked a distant second after psychotropic drugs, amounting to about \$1.9 million in fiscal 2004 compared to \$30 million for psychotropics. Another \$1.7 million was spent on urology drugs and almost \$1.5 million for allergy, cough and cold drugs.

The remaining 20 drug categories, which include gastrointestinal, respiratory, endocrinology, cardiovascular, immunosuppressant,



The average cost per prescription for all drugs prescribed to foster children in fiscal 2004 was \$90.

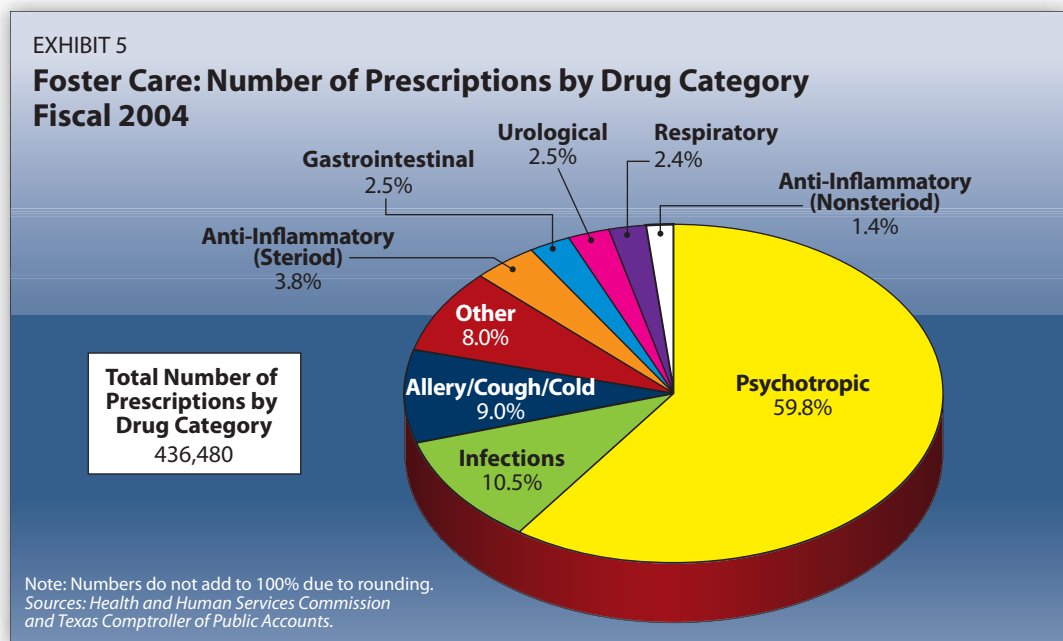
musculoskeletal, cancer, dental and ear, eye, nose and throat drugs, among others amounted to a combined \$4 million.

The average cost per prescription for all drugs prescribed to foster children in fiscal 2004 was \$90. These costs ranged from \$11 for narcotic pain relief drugs to \$225 for immunosuppressant drugs and \$115 for psychotropic drugs. Psychotropic drugs had more of a financial impact, however,

because they accounted for 60 percent of all drugs prescribed to foster children.

Other drug categories with high average costs per prescription included urology at \$158, cancer drugs at \$135 and endocrine-related drugs at \$119 per prescription (Exhibit 2).

Medications used to treat chronic and life-threatening illnesses were among the most expensive, but fewer prescriptions were



written for these drugs. For example, while cancer-fighting drugs averaged \$135 per prescription in fiscal 2004, foster children received only 52 prescriptions for these drugs.

The four drug categories with the highest average price per prescription—immunosuppressants, urology, cancer and endocrinology-related drugs—include some of the most expensive medicines. For example, the very expensive immunosuppressant drug CytoGam, which is used to treat patients who receive organ transplants, cost Medicaid \$655 for a 2.5 gram vial in fiscal 2004. In the same year only 365 immunosuppressant prescriptions were filled for foster children.

Similarly, medications used to treat endocrine system problems, such as growth and development in children, are among the most expensive medications per prescription. For example, a 10 milligram vial of Nutropin, a hormone used to stimulate growth in children, cost the Medicaid program \$110 per day. Only 2,655 endocrinology prescriptions were filled for foster children in fiscal 2004.

A dozen of the most expensive urology drugs used to treat foster children's urinary disorders and kidney disease pushed up the average price per prescription for this category of drugs to \$158. In fiscal 2004, foster children received 10,734 prescriptions for these drugs.

In fiscal 2004, combined spending on these expensive drug categories—immunosuppressants, urology, cancer and endocrinology—was only \$2.1 million, compared to \$30 million spent on psychotropic drug prescriptions. Similarly, these four categories combined accounted for only 13,806 prescriptions to foster children compared to 260,784 prescriptions for psychotropic drugs.

Cost Containment Tools

Private health plans generally rely on a *formulary*, a list of medicines the plan will cover, to reduce their drug expenditures. Private formularies generally include the

medications of pharmaceutical manufacturers willing to give the plan a price reduction. With Medicaid drug spending rising by 15 percent or more annually over the last ten years, many states are employing a variety of cost-containment mechanisms similar to those utilized in the private sector to reduce their drug expenditures.

Many states including Texas have recently created a *preferred drug list* (PDL), a list of generic and cost-effective brand-name drugs, and require physicians to obtain prior authorization (PA) from the state before prescribing a drug not on the PDL. To enhance and support their PDLs, many states also have adopted supplemental rebate programs that require drug manufacturers to provide additional rebates for brands included on the PDL.

In a January 2003 report, *Limited Government, Unlimited Opportunity*, the Texas Comptroller recommended that the state should establish a Medicaid PDL, prior authorization and negotiate state supplemental rebates.² The 2003 Texas Legislature's House Bill 2292 directed the Health and Human Services Commission (HHSC) to implement a PDL for Medicaid and the Children's Health Insurance Program by March 1, 2004. HHSC began implementing the first phase of the Medicaid PDL on February 23, 2004. The state also has a supplemental state rebate program that applies both to brand-name and generic drug manufacturers. Texas was the first state to require generic manufacturers to provide a state supplemental rebate for their drugs to be placed on the PDL.

The implementation of the Texas Medicaid PDL and prior authorization is producing a shift in prescribing patterns. For example, between fiscal 2004 and 2005, the number of prescriptions to foster children for the antipsychotic Zyprexa declined 49 percent, most likely because that medication was listed as a non-preferred drug requiring prior authorization. Similarly, the number of prescriptions given to foster children for the



Many states including Texas have recently created a preferred drug list (PDL), a list of generic and cost-effective brand-name drugs, and require physicians to obtain prior authorization from the state before prescribing a drug not on the PDL.

PHARMACEUTICAL AND THERAPEUTIC (P&T) COMMITTEE

The Texas Pharmaceutical and Therapeutics Committee (P&T), appointed by the governor, provides HHSC with recommendations for drugs to place on the PDL based on their clinical efficacy, safety and cost-effectiveness. The P&T Committee has 11 members representing diverse medical and pharmaceutical specialties and different geographic areas and practices.

The P&T Committee has decided that only a few generics would be non-preferred and would require prior authorization, for reasons related to safety, effectiveness or cost. Many generic products, however, are listed on the PDL as Premium Preferred, because their manufacturers offered the Texas Medicaid Program a supplemental rebate. Since pharmacies decide which generic drugs to stock, on December 1, 2004, pharmacies that dispense Premium Preferred Generics began receiving a 50-cent increase in their dispensing fee for those products.

The Texas Medicaid PDL includes many psychotropic drug classes, including atypical and SSRI antidepressants, atypical antipsychotics, sedative hypnotics and stimulants and related agents. Some psychotropic drug classes—*anxiolytics, anitconvulsants (mood stabilizers) and the tricyclic antidepressants*—are not included in the PDL.

Drugs used to treat cancer, HIV/AIDS, hemophilia and multiple sclerosis also are not reviewed for placement on the Texas Medicaid PDL. H.B. 2292 directed HHSC to study the dangers of placing drugs used to treat patients with chronic and life-threatening illnesses on the PDL and subjecting them to prior authorization.

HHSC contracted with the Center for Pharmacoeconomic Studies at the University of Texas at Austin (UT) to perform this study; it concluded that, due to limited information on the impact of prior authorization on these drug classes, the agency should consider risks and benefits before adding them to the PDL.⁴ HHSC decided to exclude drug classes used to treat cancer, HIV/AIDS, hemophilia and multiple sclerosis.



*Some psychotropic drug classes—**anxiolytics, anitconvulsants (mood stabilizers) and the tricyclic antidepressants**—are not included in the PDL.*

antipsychotic Clozaril declined 33 percent when that drug was listed as non-preferred.

Customizing Prior Authorization Criteria

Federal law requires that non-preferred drugs excluded from a state PDL must be made available through prior authorization. In addition, states must follow certain federal criteria.

HHSC worked with the P&T Committee and the Drug Utilization Review (DUR) Board to develop Texas' initial prior authorization (PA) criteria based on generally accepted medical practices and other states' experi-

ences. The DUR Board, comprising Texas physicians and pharmacists appointed by the HHSC commissioner, accepts public comments and makes recommendations to HHSC on changes to the state's PA criteria.

For atypical antipsychotics, SSRI antidepressants and atypical antidepressants, HHSC made an exception to the prior authorization requirements to maintain continuity of care; Medicaid patients who are stable on a non-preferred drug in one of these three classes are allowed to continue receiving it without prior authorization. If a patient is new to Medicaid, however, or if HHSC is not aware that a patient is stable on a non-preferred mental health drug, the physician's office must call and request prior authorization.

ACS-Heritage Information Systems, a clinical management and pharmacy cost containment consulting company, provides prior authorization services for HHSC through a call center with a toll-free number.

If the patient's history does not meet the state's PA criteria, the pharmacy receives a message saying the prescriber must call the Texas Prior Authorization Call Center. HHSC authorizes the physician's staff to request a prior authorization and not just the physician. HHSC acknowledges that this policy, along with broad prior authorization criteria, results in high approval rates and is responsible for Texas' inability to generate as much of a shift in prescribing patterns as some other states have achieved.⁵

The Texas DUR Board and P&T Committee can modify prior authorization on an ongoing basis as more information becomes available on various drugs. HHSC proposes specific PA criteria for certain PDL drug classes based on "written input from stakeholders, other states' and private sector experience, and generally accepted medical practices."⁶

For example, in summer 2004, HHSC implemented more specific criteria for proton

pump inhibitors (gastric acid reducers), lipotropics, statins (cholesterol-lowering drugs) and minimally sedating antihistamines. In August 2004, HHSC implemented the DUR Board's recommendation concerning beta agonist bronchodilators used for asthma treatment.⁷

HHSC continues to customize PA criteria. On November 4, 2005 HHSC accepted the P&T Committee's recommendation requiring prior authorization for the use of Ambien CR and Rozerem (sedative hypnotics) in recipients under 18 years of age. Prior authorization for this recommendation was implemented on January 25, 2006.⁸

Other states with a Medicaid PDL also customize their prior authorization criteria as needed. Pediatric, age and sex requirements often become part of the criteria language. For example, in Michigan some medications require prior authorization when prescribed to females of reproductive age, children younger than a certain age, males or elderly patients. The Michigan Medicaid P&T Committee also has recommended that pediatric consideration become part of the PA criteria language for specific drugs.⁹

At the May 4, 2006 Texas DUR Board meeting, a pediatrician on the board requested that HHSC add pediatric information to the PA criteria. Well over half of all medications prescribed to children in foster care are psychotropic medications. Yet many of these medications are *not* approved for use in patients younger than 18 years of age. Even more troubling is the fact that little is known about the long-term effects of early and prolonged exposure to psychotropic medications on child brain development. It would be beneficial if the Texas P&T Committee customized its prior authorization criteria to address pediatric concerns, as exemplified above in the recommendations concerning sedative hypnotics Ambien and Rozerem.

Recommendation

The Texas P&T Committee should customize its prior authorization criteria to address pediatric concerns regarding the use of psychotropic medications that are not FDA-approved for use in children. Reducing unnecessary or inappropriate use of psychotropic drugs would reduce the costs of the most prevalent and expensive category of drugs prescribed to foster children.

Endnotes

- ¹ Several sources of information were used in the classification, including the United States Pharmacopeia and Medline, a service of the U.S. National Library of Medicine and the National Institutes of Health, report these categories. Specific information for individual drugs can be found at the following sources: American Society of Health—System Pharmacists American Hospital Formulary Service, *AHFS Drug Information for 2004* (Rockville, MD, 2004); U.S. Pharmacopeia, *USP Dictionary of USAN and International Drug Names* (Bethesda, Maryland, 2003), <http://www.usp.org/> (last visited August 30, 2006); and U.S. National Library of Medicine, MedlinePlus, <http://www.medlineplus.com/>. (Last visited August 4, 2006.)
- ² Texas Comptroller of Public Accounts, *Limited Government, Unlimited Opportunity* (Austin, Texas, January 2003), p. 421-422.
- ³ Texas Health and Human Services Commission, *Preferred Drug List Annual Report* (Austin, Texas, January 2005), p. 9.
- ⁴ Health and Human Services Commission, *Preferred Drug List Annual Report*, p. 14.
- ⁵ Health and Human Services Commission, *Preferred Drug List Annual Report*, p. 9.
- ⁶ Health and Human Services Commission, *Preferred Drug List Annual Report*, p. 8.
- ⁷ Health and Human Services Commission, *Preferred Drug List Annual Report*, p. 8.
- ⁸ Texas Health and Human Services Commission, "HHSC Preferred Drug List (PDL) Decision On Drug Classes Reviewed by the Pharmaceutical and Therapeutics Committee," Austin, Texas, November 4, 2005. (Information Sheet.)
- ⁹ Michigan Department of Community Health, *Michigan Pharmaceutical Product List (MPPL)* (Lansing, Michigan, February 1, 2006).



HHSC continues to customize PA criteria. On November 4, 2005 HHSC accepted the P&T Committee's recommendation requiring prior approval for the use of Ambien CR and Rozerem (sedative hypnotics) in recipients under 18 years of age.

CHAPTER 2

Health Care Concerns

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Thousands of Texas foster children have very severe physical and mental conditions. An analysis of the Medicaid claims files for Texas foster children has revealed notable concerns regarding the diagnosis, care and treatment received by some foster children. The “cases of interest” reveal instances of potential abuse and neglect that should be thoroughly investigated by the HHSC Office of the Inspector General.

The Department of Family and Protective Services (DFPS) is socially and fiscally irresponsible for allowing so many Texas foster children to have psychiatric hospitalizations; they have no rules or monitoring procedures regarding psychiatric hospitalization. Private psychiatric hospitals expressed concerns that sometimes foster children are “dumped” into their facilities by foster parents that could not deal with the child’s behavior. Also, there are very high costs associated with these hospitalizations – which average more than \$500 per day in comparison to a residential treatment center which has a daily rate of about half that.

This review also discovered that medically fragile foster children are underestimated in the DFPS system, because they are not identified effectively. DFPS’ payment structure is based on behavioral problems rather than physical ailments (**Appendix XI**).

This review identified foster children diagnosed with sexually transmitted diseases and even HIV/AIDS. However, the diagnosis, treatment and care these children are receiving may not be up to par. In addition, some foster children are also being “poisoned” by psychotropic medications according to Medicaid hospital claims.

There are some girls getting pregnant and delivering babies while in foster care. DFPS does not always ensure consistent medical care or a stable living environment. While other girls in foster care are receiving birth control, records indicate they are not receiving recommended medical check-ups.

Foster Children with Psychiatric Hospitalizations

DFPS is socially and fiscally irresponsible for allowing so many Texas foster children to have psychiatric hospitalizations.

Key Findings

- *DFPS has no rules, guidelines or monitoring procedures concerning the psychiatric hospitalization of foster children.*
- *In fiscal 2004, 1,663 Texas foster children were admitted for 33,712 days of psychiatric hospitalization at a cost of \$16 million; 418 Texas foster children spent a month or more in psychiatric hospitals during the year.*
- *Limited placement options and other factors have prompted an over reliance on costly psychiatric hospitals, which charge daily rates of more than \$500.*
- *DFPS' successful Exceptional Care Pilot cared for very emotionally disturbed foster children at a daily rate of \$277, but it was not continued because of funding limitations.*
- *Some foster children have been "dumped" into psychiatric hospitals by foster parents or residential centers that decided they could not deal with the children's behavior.*
- *DFPS caseworkers often left foster children in hospitals long after they were authorized for discharge.*
- *The lack of a "medical passport" prevents proper treatment by psychiatric hospitals of foster children, because they often do not have the medical history of the child.*
- *Due to HHSC changes in Medicaid reimbursement to psychiatric hospitals,*

the total number of beds available for foster children is dropping.

Background

In fiscal 2004, 1,663 Texas foster children were admitted into hospitals for psychiatric treatment for many different mental illness diagnoses. Many were admitted multiple times or remained in psychiatric hospitals for prolonged periods.

DFPS does not have any rules or procedures regarding the psychiatric hospitalization of foster children. As a result, any foster parent or other provider can simply deliver a foster child to a hospital for psychiatric treatment without the approval of DFPS.

Texas Medicaid spent more than \$32 million on inpatient hospital care for Texas foster children in fiscal 2004; 50 percent or \$16 million of this total was for psychiatric hospitalizations. Psychiatric inpatient claims represented 62 percent of all hospital claims or 2,964 of 4,797 hospital claims in that year (**Exhibit 1**).

Psychiatric Hospitalization Should be a Last Resort

Psychiatric hospitalization, especially for children and adolescents, should be a last resort. The American Academy of Child and Adolescent Psychiatry has stated:

...that inpatient hospital treatment may have both desirable and undesirable effects and requires the commitment of costly resources, [so] the decision for admission and continued treatment must be very carefully considered.¹



Psychiatric hospitalization, especially for children and adolescents, should be a last resort.

EXHIBIT 1

All Inpatient Hospitalizations and Psychiatric Hospitalizations For Texas Foster Children Fiscal 2004

	Number of Hospital Claims	Number of Unduplicated Foster Care Children	Total Amount Paid
All Inpatient Hospitalizations	4,797	3,992	\$32,531,818
Psychiatric Inpatient Hospitalizations	2,964	1,663	\$16,206,577
Psychiatric Inpatient Hospitalizations as Percent of Total	62%	42%	50%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Psychiatric hospitalization often is unnecessary and traumatic.

The Academy also said that other, less restrictive treatment choices should be considered before psychiatric hospitalization is considered.² The Academy recommends that families ask why the child is being hospitalized, and inquire about alternative treatments, the expected length of stay and the availability of follow-up treatment before consenting to a child’s psychiatric hospitalization.³

Psychiatric hospitalization often is unnecessary and traumatic. As one study noted:

Hospitals are the most intensive, restrictive, and structured environments for children and adolescents, and research has shown that 40 percent of (psychiatric) hospital placements of children may be avoidable...and in some cases, traumatic to the child or his or her family.⁴

Over three decades, a series of court decisions have stated that adults who are involuntarily hospitalized for psychiatric reasons should receive treatment in the “least restrictive environment” to enable the person to live as normal a life as possible.⁵ The least restrictive environment is usually considered to be first the home, then a foster care or group home, then a residential setting and lastly a psychiatric hospital.

Mental health providers seek to follow this standard in their treatment of children as well as adults.⁶ Providers of psychiatric ser-

vices strive to provide services for children that comply with this principle and it is one of the criteria used to study the appropriateness of psychiatric care for children.⁷

In the least restrictive environment approach, a child’s physician is expected to prescribe appropriate psychotropic medications and monitor their use in their home to determine which drugs work best for the patient. The patient also receives other forms of complementary therapy and support as needed. Patients under psychiatric care are not expected to be admitted to a psychiatric hospital unless the outpatient treatment failed. In some communities, crisis stabilization teams from a local mental health center work with troubled youths to attempt to avoid a psychiatric hospitalization.⁸

Admissions to a psychiatric hospital are expected to be most likely for patients who had received no outpatient treatment or who had ceased taking their medication. If someone is admitted to a psychiatric hospital, they would be expected to remain in the hospital for a limited period of time to stabilize their condition and then return to outpatient treatment and avoid readmission.

The American Psychiatric Association reports:

Because medical research has produced highly effective treatments, people who suffer from mental

illness today recover from severe episodes much more quickly than the past.⁹

In addition, the Association notes that the average stay for adults in U.S. psychiatric facilities is 12 days.

Texas Foster Children with Psychiatric Hospitalization

Psychiatric hospitalizations are for persons with severe symptoms of mental illness. The three most frequent diagnoses for foster children entering a hospital for psychiatric care were for the diagnoses “manic-depressive,” “affective psychosis,” and “bipolar affective.” **Appendix X** provides a list of the top 50 diagnosis claims by total amount paid and **Appendix IX** shows all the psychiatric inpatient claims for Texas foster children.

Length of Stay and No Monitoring

It is difficult to monitor psychiatric hospital stays under the current Medicaid system because claims are not necessarily tied to the actual length of stay.

Usually, hospital staff bill Medicaid for services they deliver to a foster child for a particular time period. For most types of hospitalizations, the time period covered by the billing claim is simply the length of a relatively short hospital stay.

In the case of psychiatric hospitalizations for foster children, however, hospital-billing claim dates are often not the same as admission and discharge dates. Psychiatric hospitalizations for many foster children can be relatively lengthy and a child may have multiple “back-to-back” claims, even if he or she remained hospitalized without a break.

According to interviews with staff at several psychiatric hospitals, Texas Medicaid will pay for two weeks of psychiatric hospitalization for any child, including foster children. The hospitals then must apply for a two-week extension; these extensions then

become a new claim.¹⁰ In addition, some hospitals appear to issue a new claim at the beginning of each month; a new claim also can be made if the child is transferred from one psychiatric facility to another.

Often, then, psychiatric hospitals are merely submitting new claims for a child that has *not* left the facility; the claims are simply “daisy-chained,” or connected to one another. Even with access to Medicaid psychiatric hospital claims, it is difficult to determine how long a child has been hospitalized in psychiatric facilities without extensive analysis.

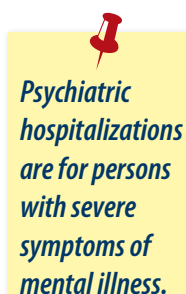
Psychiatric Hospitalization and Service Levels

In fiscal 2004, many foster children were in low service levels of foster care before they were admitted to psychiatric hospitals. Some 234 were at the lowest, the basic service level, when they were admitted to a psychiatric hospital; 558 were in the moderate service level. (See **Appendix XI** for a description of the service levels.) This raises the question of whether there may have been a more appropriate treatment alternative (such as a residential treatment center) for these children rather than hospitalization or if the children’s service levels were inappropriate. There were 175 foster children admitted to psychiatric hospitals from emergency shelters.

There were 712 foster children admitted that were at the specialized service level, and 113 who had been at the intense level and who were already receiving psychotropic medications. Despite higher levels of psychotropic medication and more intensive therapies, these children did not avoid psychiatric hospitalization (**Exhibit 2**).

Hospital Admissions

Texas foster children with psychiatric diagnoses were admitted to psychiatric hospitals much more often than to full care or children’s hospitals. Almost 79 percent or 2,337 of the fiscal 2004 hospital psychiatric claims for foster children were made by psychiatric




Psychiatric hospitalizations are for persons with severe symptoms of mental illness.

EXHIBIT 2

**Service Levels of Texas Foster Children Before Psychiatric Inpatient Hospitalization
Fiscal 2004***

Service Level Before Hospitalization	Number of Hospital Claims	Number of Unduplicated Foster Care Children	Total Amount Paid
Basic	317	234	\$1,590,848
Moderate	781	558	\$4,103,884
Specialized	1,119	712	\$6,329,769
Intense	188	113	\$1,093,852
Emergency Shelter	238	175	\$1,260,548
Unknown	312	161	\$1,788,703
Total	2,955	N/A*	\$16,167,604

* Exhibit provides unduplicated counts of children in each service level; they cannot be totaled because some children may have gone from one level to another between hospitalizations. Other totals very slightly from those in other tables due to DFPS data errors.
Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

 *Almost 79 percent or 2,337 of the fiscal 2004 hospital psychiatric claims for foster children were made by psychiatric hospitals.*

hospitals. Among these, 228 claims or 8 percent were from state psychiatric hospitals; 2,109 or 71 percent were from nonprofit and private psychiatric hospitals; 588 hospital claims or about 20 percent were from full care hospitals, which usually have psychiatric units; and 39 or 1 percent were from children's hospitals (**Exhibits 3 and 4**).

For simplicity's sake, from this point on all of these types of hospitals will be referred to as psychiatric hospitals.

Of the 228 hospital claims for foster children who received care in state psychiatric hospitals in 2004, Austin State Hospital had 69 and cared for 61 foster care children. (**Exhibit 5**).

Very Young Children in Psychiatric Hospitals

Six children aged four and under were admitted to hospitals for psychiatric diagnoses in 2004, as were 280 children aged five to nine. In all, one in six of the Texas foster children admitted to a psychiatric hospital in 2004 was nine years old or younger. Al-

EXHIBIT 3

**Texas Foster Children Psychiatric Inpatient Hospitalizations
Fiscal 2004**

Hospital Type	Number of Hospital Psychiatric Claims	Number of Unduplicated Foster Care Children	Total Amount Paid
State Psychiatric Hospitals	228	128	\$1,235,858
Private and Nonprofit Psychiatric Hospitals	2,109	1,412	\$12,076,032
Psychiatric Hospitals Subtotal	2,337	1,540	\$13,311,890
Full Care Hospitals	588	457	\$2,498,724
Children's Hospitals	39	33	\$395,967
Total	2,964	N/A*	\$16,206,577**

*The number of children cannot be totaled across types of hospitals because a child may have been treated at more than one type of hospital during the fiscal year. ** Does not total due to rounding.
Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

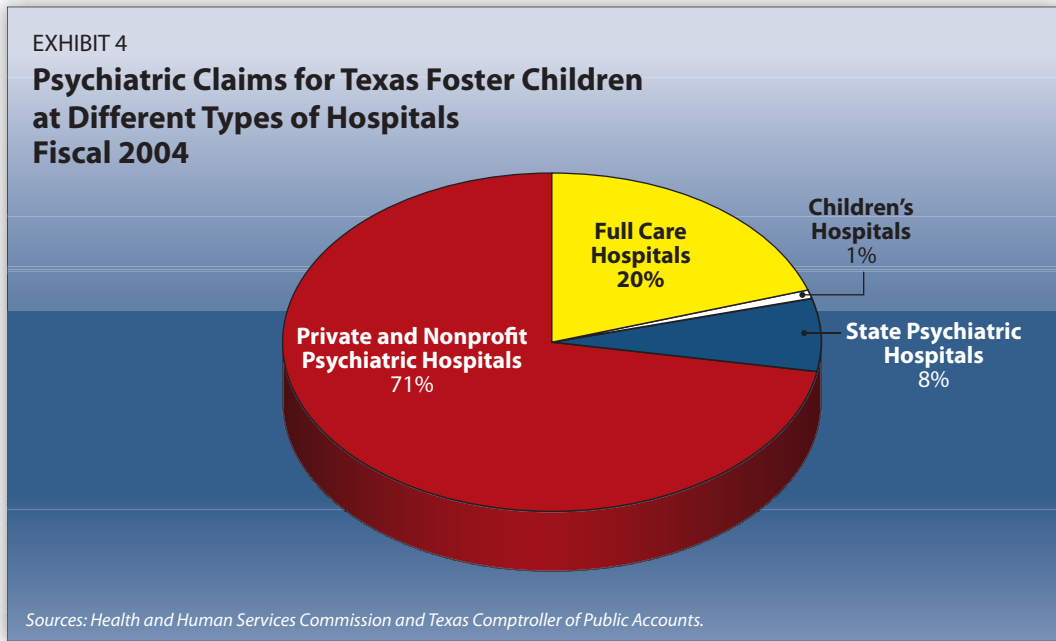


EXHIBIT 5
Texas Foster Children in State Psychiatric Hospitals Fiscal 2004

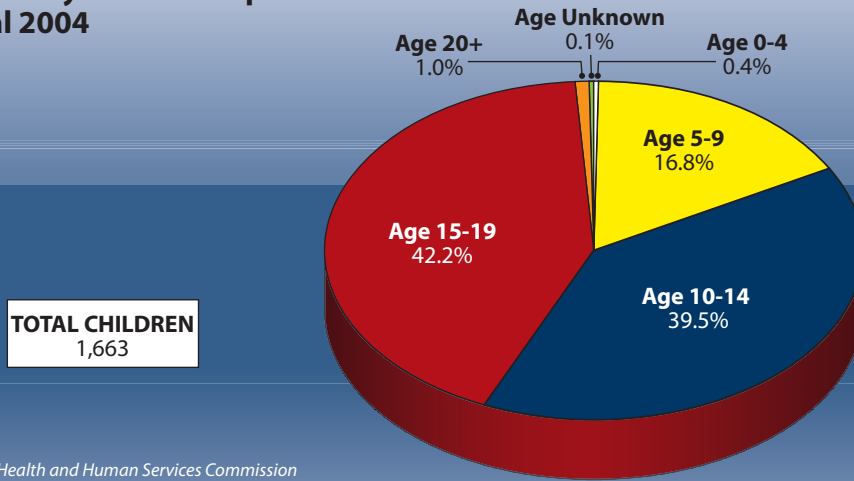
	Number of Hospital Psychiatric Claims	Number of Unduplicated Foster Care Children	Children and Adolescent Hospital Beds*
Austin State Hospital	69	61	33
San Antonio State Hospital	39	19	32
Terrell State Hospital	53	14	35
El Paso Psychiatric Center	15	14	11
North Texas State Hospital – Wichita Falls Campus	24	10	32
North Texas State Hospital – Vernon Campus	21	4	75
Rusk State Hospital	3	3	0
Big Spring State Hospital	2	2	0
Rio Grande State Center	2	1	0
Total	228	N/A*	218

Notes: North Texas State Hospital Vernon campus is a forensic unit. *Children's units provide services to patients who are 12 years old and younger; and adolescent units have patients who are 13 to 18.
 *The number of children cannot be totaled across types of hospitals because a child may have been treated at more than one type of hospital during the fiscal year.
 Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Of interest is the fact that three state hospitals do not have facilities for children, but in fiscal 2004 seven foster children were placed into these adult care facilities despite this fact.

EXHIBIT 6

Number of Texas Foster Children by Age With a Psychiatric Hospitalization Fiscal 2004



TOTAL CHILDREN
1,663

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 7

Psychiatric Hospitalization Claims for Foster Children by Age Fiscal 2004

Age	Psychiatric Hospitalization Claims		
	Number of Children	Number of Claims	Total Amount Paid
0 to 4	6	7	\$42,789
5 to 9	280	470	\$2,588,747
10 to 14	657	1,143	\$6,480,352
15 to 19	702	1,314	\$6,989,499
20+	17	29	\$99,438
Unknown	1	1	\$5,753
Total	1,663	2,964	\$16,206,577

Note: Numbers do not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 8

Psychiatric Hospitalization Claims for Foster Children by Race Fiscal 2004

Race	Psychiatric Hospitalization Claims		
	Number of Children	Number of Claims	Total Amount Paid
White	622	1,099	\$6,138,310
Hispanic	575	1,046	\$5,281,743
Black	452	795	\$4,647,361
Other and Unknown	14	24	\$139,163
Total	1,663	2,964	\$16,206,577

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 9

Psychiatric Hospitalization Claims for Foster Children by Sex Fiscal 2004

Sex	Psychiatric Hospitalization Claims		
	Number of Children	Number of Claims	Total Amount Paid
Male	831	1,453	\$8,116,885
Female	831	1,510	\$8,083,939
Unknown	1	1	\$5,753
Total	1,663	2,964	\$16,206,577

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

most 40 percent were aged 10 to 14 and a little over 40 percent were 15 to 19 years old (Exhibits 6 and 7).

Other demographic characteristics were less remarkable. More than 37 percent of the 1,660 Texas foster children with at least one psychiatric hospital claim in fiscal 2004 were white; 34 percent were Hispanic and 27 percent were black. Males and females were equally likely to have at least one psychiatric hospital claim (Exhibits 8 and 9).

Lengthy Stays

Foster children are often prone to emotional problems, due to the dissolution of their families and the trauma they may have experienced due to neglect or abuse. However, DFPS is allowing psychiatric hospitalization as a high-cost alternative that may not always be in the best interest of already troubled children.

In fiscal 2004, 1,663 Texas foster children were admitted for 33,712 days of psychiatric hospitalization. One child was in psychiatric hospitals for 49 weeks out of the year, and another for 42 weeks. Some 37 Texas foster children were hospitalized for a total of three months or more during the year; 418 were in psychiatric hospitals for more than a month (Exhibit 10).

In view of these findings, the frequency with which Texas foster children enter psychiatric hospitals raises serious questions about the adequacy of the medical and therapeutic treatment they are receiving. Many foster children are already receiving psychotropic medications before they enter a psychiatric hospital and—if appropriate medical procedures are being followed—would not be expected to be admitted to a psychiatric hospital if their treatment was working.

Lack of Alternative Placements

A lack of alternative placements may help explain why so many foster children are placed in—and remain in—psychiatric hospitals. As one study noted,

For children who are in state custody, psychiatric hospitalization often serves as a transition between placements....Thus factors other than clinical needs—for example, need for a new placement—may especially affect the use of inpatient psychiatric services for children who are wards of the state.¹¹

EXHIBIT 10

Total Weeks of Psychiatric Hospitalization for Texas Foster Children Fiscal 2004

Total Weeks of Psychiatric Hospitalization	Number of Foster Children	Cumulative Total of Foster Children
49	1	1
42	1	2
33	1	3
28	1	4
21	2	6
20	1	7
18	3	10
16	4	14
15	7	21
14	4	25
13	5	30
12	7	37
11	6	43
10	12	55
9	18	73
8	23	96
7	38	134
6	47	181
5	89	270
4	148	418
3	199	617
2	425	1,042
1	593	1,635
Less than 1	28	1,663
TOTAL	1,663	-

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

In Texas, the lack of alternative placements seems to be a particular problem. The review team spoke with administrators and clinicians at four psychiatric hospitals who treated 44 percent of the foster children with at least one psychiatric hospitalization in fiscal 2004. These hospitals revealed that foster children tend to stay longer than private-pay or other Medicaid children.

According to hospital administrators and clinicians, this is because alternative placements often cannot be found for these children. In addition, they complained that DFPS caseworkers frequently do not return their telephone calls; do not attend staff meetings reviewing the children's progress and planning for their discharge; and do not pick up foster children when they are approved for dismissal.

The staff at these psychiatric hospitals explained that foster children often are "dropped off" at the hospital by foster parents or residential facilities that simply do not want to care for them anymore. The children had acted out or were aggressive, and few foster homes or residential treatment centers want to take care of children that have been "branded" as difficult enough to require psychiatric hospitalization. And so such children remain in the psychiatric hospital, often long after they have been treated.¹²

A 2005 article from the *Austin American Statesman* described the troubling use of psychiatric hospitals as "holding pens":

He was 15 years old, and, once again, no one wanted him. The bipolar teenager was a troubled foster kid, one who burned through private homes and residential centers with his aggressive behavior. Now a quick trip to Austin State Hospital for a medication change expected to last a few weeks, tops –was stretching into months because Child Protective Services could not find anyone willing to take him. And so,


behind the locked doors of Austin's public psychiatric hospital, the boy waited for the agency to find him a home. It took three months.¹³

As the senior physician at the Austin State Hospital's Adolescent Psychiatric Service Unit noted, "The longer he stayed, the more agitated he'd become...he'd have blowups and needed to be medicated." He also explained that foster children can get worse in psychiatric care if left too long. "They feel like they're unwanted...they feel like they've done better and want to get out. They get very discouraged." This doctor reported that he had one child at Austin State Hospital who had been refused by 25 residential treatment facilities and shelters.¹⁴

Texas Exceptional Care Pilot Project

DFPS has already piloted one approach to alternative care for very emotionally troubled foster children. In 2001, DFPS estimated that about 180 foster children had such intense needs that they required a very high level of care and supervision. DFPS noted that some children had to be placed in a psychiatric hospital or emergency shelter for a time to receive care because there was no residential facility that could meet their needs. The 180 children they estimated accounted for only one tenth of the 1,663 children receiving psychiatric hospitalization in fiscal 2004 – DFPS has greatly underestimated the need.

The intent behind the Exceptional Care Pilot, which began in March 2001, was to serve foster children in a residential treatment setting rather than in a hospital. It provided such care to 20 of the most difficult-to-place foster children. To be eligible, these children had to have exhibited extreme emotional disturbances and be unable to cooperate in their care; have had multiple placement failures in other intensive-level residential facilities; and showed aggression or self-destructive behavior, impaired perception of reality, communication and hygiene or a need for one-on-one supervision and constant checks around the clock.¹⁵ DFPS paid a special rate



The staff at these psychiatric hospitals explained that foster children often are "dropped off" at the hospital by foster parents or residential facilities that simply do not want to care for them anymore.

of \$277 a day for the children in this pilot.¹⁶ (See **Appendix XI**)

DFPS discontinued the pilot in August 2002. A study done by the University of Texas, School of Social Work determined that the pilot had successful outcomes and helped secure foster care placements for these children, who may have otherwise had no placement options. DFPS stated, “that the study also provided recommendations for future implementation of such a program however, due to funding limitations the project was not continued. DFPS has continued efforts to place children at Intense levels (and all other levels) in the least restrictive settings.”

In fiscal 2004, psychiatric hospitalization of foster children cost Texas Medicaid a range of rates depending on Medicaid’s contract with each psychiatric hospital. Some psychiatric hospitals reported rates from \$525 to \$650 a day.²³ In the same year, the cost of an intense residential treatment center care in Texas was \$202 a day, less than half that of a psychiatric hospital. The daily rate for the Texas Exceptional Care pilot was \$277 a day, still only about half the cost of psychiatric hospitalization.

To the contrary – DFPS places very emotionally disturbed foster children into restrictive psychiatric hospitals at a rate of more than \$500 per day – that is paid for out of HHSC’s budget, rather than use a less restrictive residential treatment center approach at \$277 per day, which is paid from the DFPS budget.

Treatment Alternatives

The University of New Mexico provides a variety of outpatient treatment programs that offer alternatives to inpatient psychiatric hospitalization.

These include residential treatment care (around-the-clock behavioral treatment for children who cannot maintain safe behaviors at home); treatment foster care (provided by

highly trained and supervised parents); a Partial Hospital Program (a structured day-time program that includes school, therapy and medication management); outpatient therapy (in which the child lives at home and attends weekly individual or family therapy); behavioral management services (in which a worker helps the parents and child learn and practice new skills); and case management services (in which a case manager helps parents locate and obtain food and housing assistance, school services, child care, therapy and other necessities).¹⁷

California Lawsuit Requires Community Care

On March 14, 2006, a federal district court ordered the state of California to provide community mental health services to foster children in their homes and communities and end psychiatric hospitalization and large group homes. The court allowed 120 days for the state to comply with its order.

In his decision in the class action lawsuit *Katie A. v. Bonta*, the judge ordered the state to provide wraparound services and therapeutic foster care, which he said “actually saves the State money, compared to alternatives involving institutionalization.”¹⁸ Wraparound programs employ multiple funding sources to provide a wide variety of services to provide community based, noninstitutional care.¹⁹

Patrick Gardner, deputy director of the National Center for Youth Law, has noted that:

...without appropriate services, children, with mental disabilities bounce between foster home placements and group homes. When their worsening mental condition renders them “unplaceable,” they are abandoned to languish in institutions or pushed into the juvenile justice system.²⁰

The federal judge’s intent in California was to add services to California’s Medi-Cal pro-



To the contrary – DFPS places very emotionally disturbed foster children into restrictive psychiatric hospitals at a rate of more than \$500 per day – that is paid for out of HHSC’s budget, rather than use a less restrictive residential treatment center approach at \$277 per day, which is paid from the DFPS budget.

gram to bring in additional dollars, since the federal government reimburses the state for about half the cost.²¹ The Comptroller's report *Forgotten Children* discussed similar ways in which Medicaid dollars could be used to help fund wraparound services for Texas foster children.²² In Texas, the federal government pays for about 60 percent of the cost of Medicaid.

State Policy to Reduce Hospitalizations

Local community mental health and mental retardation centers (CMHMRs) have long been required, in their contracts with the Texas Department of State Health Services, to minimize the use of psychiatric hospitalization. These CMHMR contracts include financial incentives that require them to pay for their patients' psychiatric hospitalizations in state hospitals. Thus the CMHMRs have a financial as well as legal and clinical incentives to make psychiatric hospitals stays for their patients as few and as short as possible, and to provide community-based care.²⁴

The Department of Family and Protective Services (DFPS) does not have a similar policy for foster children. When a foster child is placed into a psychiatric hospital for care Medicaid picks up the bill, therefore DFPS apparently does not have any incentive to avoid these costly and sometimes harmful stays.

Private Psychiatric Hospitals are Closing Beds for Texas Foster Children

Texas' psychiatric hospitals are closing beds for foster children and adolescents because of a change in Medicaid reimbursements made by HHSC. Fewer available beds for treatment may mean more foster children end up in county juvenile detention, hospital emergency rooms and emergency shelters. All of these options are unsuitable – juvenile detention may not provide adequate counseling and care, hospital emergency rooms are a very short term fix and emergency shelters are unstable and unprepared to handle these children.

Emergency shelters have a higher client to staff ratio and the staff are not trained to handle severely emotionally disturbed children.

As noted above, psychiatric hospitals have provided a “safety valve” for the foster care system, as places for the intensive treatment of foster children with behavioral and psychological problems in a system that offers few alternative placements and few community-based wraparound services. A change in Medicaid reimbursements that began on September 1, 2006, however, will cause most private psychiatric hospitals to reduce the space they offer to adolescents and children; in effect, many will virtually cease to treat Medicaid children, including foster children.


This change in Medicaid rate calculations will, in the words of one hospital official, cause hospitals to lose money on every child they treat. One hospital reported, “We will lose \$100 a day per child.”²⁵ With no way to make up this deficit, hospitals have already begun to restrict their treatment of foster children and to reduce the number of beds they have in children's and adolescent units to the level that the private insurance market will support.

HHSC changes in Medicaid reimbursement will create a shortage of psychiatric hospital beds for foster children. Psychiatric hospitals may be overused and not in the best interest of some foster children, but without other alternatives a placement crisis may be looming for very emotionally disturbed foster children.

Lack of Clinical Information

Psychiatric hospital staff also complained of the lack of information they receive when a child enters their care. Clinicians often do not receive children's medical and social histories, and do not know what medications the child has had or is on at present.

Usually, physicians try different psychotropic drugs at different dosages until they find one that changes behaviors in a posi-



Local community mental health and mental retardation centers (CMHMRs) have long been required, in their contracts with the Texas Department of State Health Services, to minimize the use of psychiatric hospitalization.

CASES OF INTEREST

Toddler Placed in a Psychiatric Hospital

Boo had just turned three when she was placed in a private psychiatric hospital for a ten-day stay at a cost of \$4,789. She had been in foster care about six months before she was hospitalized. At the time of her hospital admission, she was diagnosed with developmental delay, oppositional disorder, impulse control, ADHD and depressive disorder.

Before the toddler's psychiatric hospital stay she had been prescribed an array of psychotropic medications, including two different antipsychotics, two different antidepressants, a hypnotic/sedative, a stimulant and a mood stabilizer. Many of these medications are not approved for use by children under the age of 18. After her hospitalization she returned to the same foster home.

Note: The Zito/Safer External Review states:

One implication of these high rates (of psychotropics) is that complex psychotropic drug therapy tends to result in ever-increasing combinations that tend to increase in continuously enrolled populations and present risk for long-term safety in developing youth.

Since this child began receiving so many psychotropics at such a young age, one can only wonder what her future holds.

"Mystery medications"

Julia was a minority 10-year-old foster child living in an urban area along with several other foster children. She had been living with foster parents and was classified as needing basic care and services, although she had been receiving counseling services for an oppositional disorder.

In December 2003, she was placed into a psychiatric hospital for 13 days at a cost of \$7,816, with a diagnosis of psychosis. Shortly before her admission, she received two psychotropic medications, a stimulant and an antipsychotic; these were the only psychiatric prescriptions on her Medicaid records.

After her hospitalization, she was placed in an emergency shelter for about a month, then moved to a residential treatment center (RTC). While at the RTC, she had 16 different claims over five months billed by providers for monitoring her medications. Yet there is no Medicaid record of payments for medications prescribed. This begs the question of whether the billings were fraudulent or whether the medications were provided by another source, such as free doctor's samples or a clinical trial.

tive way. This makes it especially important to know a patient's medication history. If physicians know such details, the child may not need to stay as long in the psychiatric

Basic child with psychiatric hospitalizations

Colin was an 11-year-old male minority foster child who had been in foster care a couple of years. DFPS classified him as a "basic" foster child in early fiscal 2004, while he was receiving three psychotropic medications—one ADHD medication, one antidepressant and one antipsychotic.

In September and October 2003, Colin lived in a foster home with one other foster child; in November, he was moved to an emergency shelter for about a month. In December, he moved again, to a small nearby town. At the end of January 2004, he was placed into a psychiatric hospital for a stay of about two weeks. After the psychiatric hospitalization he was still categorized as basic.

Colin then was moved to another home with two other foster children in another small town near the same urban area. He stayed there a couple of months and again was sent to the same psychiatric hospital for another two-week stay. After this stay, he was sent to an RTC and his level of care was raised to "specialized." The cost of his psychiatric hospital stays was \$16,934 for 28 days in fiscal 2004.

344 days in psychiatric hospitals in one year

Millie was an 18-year-old minority foster child who spent almost the entire year in psychiatric hospitals in fiscal 2004.

She spent 344 days out of fiscal 2004 in three different psychiatric hospitals, one private and two state-operated, for a total cost of \$108,000. She was diagnosed as bipolar, depressed, schizophrenic and having conduct disorder. She had 14 inpatient claims and had 181 outpatient claims for conditions including skin problems, bronchitis, chest pain, asthma, urinary disorders, vomiting, headaches, backache, insect bite, abdominal pain, hypertension, open wounds, vaginitis and joint pain.

After many incidents related to her forearm, including injury, wounding and infection, and four visits to the emergency room, her forearm was amputated. After this procedure, she was sent to a different psychiatric hospital.

One must question the care this foster child received; she obviously had severe emotional problems, but what sort of care did she receive that allowed her to acquire wounds so severe that they led to amputation?

facility and may avoid being given powerful drugs to which they have not responded well in the past.

Yet, DFPS caseworkers often have no knowledge of the children's medications and clinical history and are unavailable to respond to questions from hospital staff. Some psychiatric hospital staff reported receiving more information about medications and health history from court-appointed special advocate (CASA) volunteers and attorneys that represent these children than from DFPS.²⁶

Lack of Attention

Often, a child's DFPS caseworker does not even know that the child is in a psychiatric hospital. The foster home or the residential treatment facility has simply left the child there without informing the state, because DFPS has no guidelines.

The psychiatric hospital is required by law to obtain a signed consent form from DFPS before it can begin prescribing medications. Interviews with staff revealed, however, that the psychiatric hospital often cannot find the appropriate caseworker or supervisor or get them to return telephone calls. A child may be left for days without necessary medications if a DFPS supervisor cannot be found.²⁷

Drug Stoppage

Psychiatric hospitals often release children with a 30-day refill of their medications; the next placement is supposed to arrange follow-up appointments with a psychiatrist in the community who will continue providing prescriptions. The new placement can be a foster home, emergency shelter or a residential treatment center.

Because there are a limited number of psychiatrists who treat foster children and take Medicaid, however, obtaining an appointment in time to obtain the next prescription before the medication runs out can be difficult. This is potentially dangerous because an abrupt stoppage of psychotropic medication can cause serious harm.²⁸

Recommendations

1. The Department of Family and Protective Services (DFPS), in cooper-

ation with the Department of State Health Services, should immediately develop rules and guidelines for the psychiatric hospitalization of foster children.

These costly and restrictive placements should be used as a last resort. Foster parents and other providers should not be allowed to simply "drop off" difficult foster children at psychiatric hospitals.

2. DFPS should create alternatives to psychiatric hospitalization for the treatment of foster children. This should involve creating a new higher service level to care for very emotionally disturbed foster children.

DFPS should work with communities to develop a spectrum of services to avoid psychiatric hospitalizations and shorten stays. These could include services such as those offered at the University of New Mexico, or wraparound services.

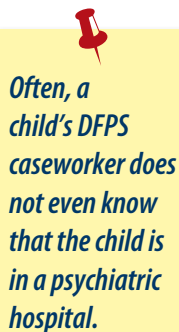
DFPS also should contract for the services of residential treatment centers that specialize in very emotionally disturbed children.

3. DFPS and the Health and Human Services Commission (HHSC) should work with Medicaid and Texas communities to fund community mental health programs.

HHSC and DFPS should examine funding of alternative programs in other states and look for options to maximize federal funding and pool federal, state and local dollars.

4. The new DFPS medical director should monitor psychiatric hospitalizations of foster children and seek ways to reduce the length and number of such stays.

5. The Texas Medicaid program should reconsider and change its reimburse-



Often, a child's DFPS caseworker does not even know that the child is in a psychiatric hospital.

ment for psychiatric care for foster children, to avoid a sudden drop in psychiatric beds available until other alternatives for foster children can be established.

- 6. DFPS caseworkers should be required to attend staff meetings at psychiatric hospitals for foster children in their care and should be required to respond to telephone calls from these providers within 12 hours.**

Endnotes

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- ⁸ Marian Benjamin, "Home-Based Care May Be Best Choice for Youths in Psychiatric Crisis," March 2000, Vol. XVII, Issue 3.
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CHAPTER 2: Foster Children with Psychiatric Hospitalizations

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Medically Fragile Foster Children

Key Findings

- *The Comptroller's office estimates that Texas had about 1,600 medically fragile foster children in its care in fiscal 2004.*
- *The Texas foster care system does not identify medically fragile foster children effectively. DFPS' count of medically fragile foster children was one sixth of the number identified in this study.*
- *In fiscal 2004, 49 percent of medically fragile foster children were four years old or younger.*
- *DFPS uses behavioral and mental health conditions when assigning service levels, but assigns considerably less weight to medical conditions.*
- *A total of 44 percent or 717 of the medically fragile foster children were on psychotropic medications in fiscal 2004.*

Background

A child with a serious, ongoing illness or chronic condition lasting for 12 or more months is considered to be “medically fragile.” These children usually require daily, ongoing medical treatments and should be monitored by trained personnel.¹

The Comptroller's office used Medicaid claim information on diagnoses to estimate that, in fiscal 2004, the Department of Family and Protective Services (DFPS) had 1,622 medically fragile children in its care. That represented 5 percent of the 32,773 foster children in 2004, or one in 20. (See **Appendix XIII** for a list of the medically fragile diagnoses.)

The Comptroller's estimate is about *six times higher* than the 264 children report-

ed by DFPS in its 2004 *Data Book*.² DFPS' count seriously underestimated the number of medically fragile foster children.

This underestimate could be due to a number of factors. The Comptroller's study *Forgotten Children* noted that DFPS caseworkers often do not report information on whether a child is medically fragile.³

Every foster child is required to have a physical within 72 hours of placement, as well as mental and dental examinations within the first week. Based on these assessments, a caseworker is supposed to recommend a service level for each child: Basic, Moderate, Specialized, Intense or Emergency.

If the caseworker determines that a foster child is medically fragile, information on the child is sent to Youth for Tomorrow (YFT), a nonprofit firm headquartered in Arlington, Texas that assesses children for DFPS and assigns them to a service level category based on their needs and the services they require. The service level also dictates the payment amounts the care provider will receive (see **Appendix XI**).

Caseworkers, however, are trained in how to make *behavioral* assessments, not medical assessments. The entire placement system, in fact, is built around behavioral assessments; the more difficult the child's behavior, the higher the service level and the higher the reimbursement. YFT stated that children with emotional problems receive higher service levels because of the time needed to deal with them; children that are classified as medically fragile “have a Medicaid card and nursing services” to aid the caregiver.⁴

A child with a serious, ongoing illness or chronic condition lasting for 12 or more months is considered to be “medically fragile.”

As a result, many medically fragile children are placed in basic-level foster homes, according to the caseworker's initial assessment, and may never be reviewed by YFT.

Best Practices in Other States

Other states have more effective ways of caring for medically fragile foster children.

West Virginia, for example, requires that children with extraordinary medical needs be examined by a physician within seven days before placement; the physician must affirm that the child can be cared for in a home setting, and document the child's medical records, any orders for medication, treatment and diet and any other special medical or developmental procedures needed.⁵ The state also requires foster parents to receive special training in the care of these children before placement, and to maintain a daily medication log.

Since 1976, *Oregon* has had a Medical Foster Parent Program in Multnomah County (the Portland area) for newborns and medically fragile children. Similar programs have been implemented in other counties in the state.

The Multnomah County program requires foster parents to complete a minimum of 30 hours of medically relevant training each year. In addition, it has four tiers of increasing requirements for the care of medically fragile children, defining the type of children who should be cared for in each tier and the skills the foster parents should have.

Tier 1 includes infant and Child CPR certification and active participation in monthly support groups. Tier 1 homes care for drug-exposed infants and those with "Failure to Thrive," a description applying to children whose current weight or rate of weight gain is significantly below that of other children of similar age and sex. Tier 4 foster home applicants, by contrast, must meet all requirements for the lesser tiers and have a licensed registered nurse, pediatric experience and the highest level of specialized training. For

example, Tier 4 foster caregivers must be able to administer intravenous injections and may treat infants who are less than eight months old with severe medical complications.

In addition, the program also requires that foster parents live in reasonable proximity to the emergency services appropriate to a child's specific needs.⁶ Oregon's higher-tier Medical Foster Parent homes receive higher payments for their extra costs and services.⁷ **Appendix XIV** provides materials from Oregon describing their system.

In *Florida*, the state pays *medical foster care parents* at a higher rate than other foster parents. The state's Children's Medical Services Division in the Florida Department of Health has a Multi-Disciplinary Assessment Team that coordinates medical care and determines each medically fragile child's service level.⁸

Other states that pay a different rate for medically fragile children include Kentucky, Nevada, Mississippi, Connecticut, Iowa, Missouri, Nevada, New York, New Hampshire and Tennessee.⁹

Medically Fragile—and Very Young

At least 47 percent or 825 of the medically fragile foster children identified by the review team were four years old or younger in fiscal 2004 (**Exhibit 11**).

Complex, Long-Term, Expensive Conditions

The majority of DFPS' medically fragile children have conditions that are congenital, or present from birth. Common diagnoses include cerebral palsy, cystic fibrosis, hydrocephalous, spina bifida, cancer and complete or partial paralysis.

The 1,622 medically fragile foster children identified by the review team received 175,766 outpatient services in fiscal 2004; 409 of them were hospitalized, many of them multiple times. Texas spent more than \$11.4 million on Medicaid inpatient and outpatient care for these children in fiscal 2004 (**Exhibit 12**).



The majority of DFPS' medically fragile children have conditions that are congenital, or present from birth. Common diagnoses include cerebral palsy, cystic fibrosis, hydrocephalous, spina bifida, cancer and complete or partial paralysis.

EXHIBIT 11

Distribution of Texas Foster Care Medically Fragile Children by Age, Sex and Race

Age Group	All Males	All Females	All Unknown Sex	All Totals	Black	Hispanic	White	Oriental/ American Indian	Unknown Race
Unknown	4	19	0	23	3	12	7	0	1
0-4	451	351	0	802	196	312	268	4	22
5-9	165	131	0	296	72	120	94	4	7
10-14	143	94	0	237	67	89	72	1	7
15-19	119	145	0	264	69	95	96	1	3
Totals	882	740	0	1,622	407	628	537	10	40

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 12

**Diagnostic Groups of Medically Fragile Texas Foster Children
Fiscal 2004**

Rank by Cost	Diagnosis Group*	Number of Children with Inpatient Claims**	Total Inpatient Amount Paid	Number of Children with Outpatient Services*	Total Outpatient Amount Paid	Combined Inpatient and Outpatient Amounts Paid
1	Congenital Anomalies (Down syndrome, hydrocephalus, microcephalous, etc.)	26	\$730,780	664	\$3,132,596	\$3,863,376
2	Nervous System (cerebral palsy, spina bifida, strokes, complete or partial paralysis, etc.)	9	\$106,040	514	\$3,682,918	\$3,788,958
3	Digestive (spleen, liver, cystic fibrosis, and gastrointestinal)	8	\$81,613	439	\$1,248,047	\$1,329,660
4	Respiratory (tuberculosis, tracheotomy, etc.)	8	\$137,826	95	\$811,380	\$949,206
5	Circulatory (blood disorders, cardiovascular diseases, cerebral hemorrhages, etc.)	14	\$191,216	344	\$489,808	\$681,024
6	Cancer	8	\$448,577	141	\$157,864	\$606,441
7	Genitourinary (kidney and bladder)	0	\$0	32	\$185,844	\$185,844
8	Transplants	1	\$32,483	20	\$27,008	\$59,491
	Total Costs		\$1,728,535		\$9,735,465	\$11,464,000

*Only primary medically fragile diagnoses are counted. Illnesses such as upper respiratory infections, allergic sinusitis and bladder infections are not counted.

**Some children have multiple medically fragile diagnoses, such as a congenital anomaly and a respiratory complication. Therefore, the counts of children are unique only within each diagnosis group.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

More than \$11 million of a total \$33.5 million was spent on the children's primary medical conditions, with the remaining \$22 million covering complications from their primary condition or other illnesses.



Almost half (44 percent) or 717 of the medically fragile foster children were on psychotropic drugs in fiscal 2004.

Medically Fragile Children and Psychotropic Drugs

Almost half (44 percent) or 717 of the medically fragile foster children were on psychotropic drugs in fiscal 2004. The most common psychotropic medications prescribed to these children were antidepressants, followed closely by antipsychotics and stimulants (Exhibit 13).

Unspecialized Care

In fiscal 2004, DFPS placed five out of every 10 medically fragile foster children (752 out of 1,622) in basic service-level homes. An additional two out of 10 (345 out of 1,622) were cared for in moderate-level foster homes (Exhibit 14).

Basic foster homes are licensed to provide primary medical services, such as taking the child to frequent appointments with

providers; working with and accepting training from physical and occupational therapists and nurses who visit the child at the caregiver's home; and developing and maintaining a daily schedule of medical and non-medical activities designed to meet the child's special needs.

If foster children have only "mild medical disabilities," DFPS considers that they do not require the services of a specialized foster home and places them in basic care foster homes with the caveat that the "child's needs are met and are identified in the child's service plan."¹⁰

Catastrophic Case Management and Guidelines

Forgotten Children recommended that HHSC implement a Medicaid catastrophic case management program for medically fragile foster children in DPFS care.¹¹ Catastrophic case managers of chronically ill patients arrange for home-based services; help parents and patients understand how to provide treatment and administer medications; monitor patient conditions, often by phone; review medical reports; and provide feedback to physicians. These services are intended to reduce hospitalizations and other health care

EXHIBIT 13
Psychotropic Drug Categories for Medically Fragile Texas Foster Children Fiscal 2004

Rank	Psychotropic Drug Category	Number of Children per Category*
1	Antidepressants	359
2	Antipsychotics	347
3	Stimulants	310
4	Mood Stabilizers	296
5	Other ADHD Drugs	271
6	Anti-anxiety	115
7	Hypnotics/Sedatives	96
8	Controls Side Effects	35

* Some children receive drugs from multiple categories. Therefore, the counts of children are only unique within each drug category and cannot be totaled across categories. Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 14
Medically Fragile Foster Children by Type of Foster Home Fiscal 2004

Service Level	Number of Medically Fragile Foster Children
Basic	752
Moderate	345
Specialized	198
Emergency	65
Intense	25
No information	237
Totals	1,622

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

costs while ensuring that chronically ill patients remain as healthy as possible.

The Comptroller's office reported in a Texas Performance Review that California has implemented catastrophic case management to reduce medical expenditures as well as to provide better care for Medicaid patients. These programs save money primarily by reducing hospitalizations and expensive tests and procedures. Chronically ill patients that can be maintained and treated in their homes are less expensive to treat than those whose condition repeatedly deteriorates and who must be hospi-

talized. For this reason, large private sector companies often initiate such programs for their high cost, chronically ill patients.¹²

Catastrophic case managers usually are nurses under contract. Medically fragile children could be provided this support through the Medicaid program, either within or outside of any foster care managed care contracts. Medicaid could enter into contracts with private sector disease management companies or nonprofit community providers such as children's hospitals to provide this service.

CASES OF INTEREST

Medical Neglect of a Quadriplegic Child

Tancy was a nine-year-old minority foster child living on the outskirts of a metropolitan area. She had been in foster care for a couple of years and was diagnosed with cerebral palsy and quadriplegia, or paralysis of the arms and legs. In fiscal 2004, she was hospitalized twice, once for intestinal obstruction and once for acute pancreatitis, and had 603 outpatient medical claims. In that year, someone reported to the DFPS hotline that she had been moved to another foster home.

The new home discovered that Tancy's medication had not been used. The old foster home's medical log indicated that she received her medication every day, but a check with the physician and pharmacist revealed that it had never been refilled. The caller stated that the old foster home asked to be closed voluntarily, but feared that it would simply wait a few weeks and open again under a different child placing agency. (This can occur since DFPS does not track foster parents as they move from one child placing agency to another; it is not uncommon for a foster parent to be discharged from one child placing agency because of problems and then to be approved by another agency.)

Note: DFPS was still investigating this case and the results were "pending" eight months after it was reported.

Foster Child with a Liver Transplant

Grace was a 16-year-old minority foster child living in an urban area in East Texas. Grace had a liver transplant and in fiscal 2004 received 54 prescriptions and about 75 medical claims related to her liver transplant. Grace was twice diagnosed with scabies, which is caused by a tiny parasitic mite that burrows into the skin.

Foster Child with Malignant Brain Cancer

Joe was a three-year-old minority foster child living in a very small town in South Texas. He lived with his foster parents and three other foster children, two of whom were also medically fragile, in a very small home. Joe had been diagnosed with brain cancer and received more than 200 medical outpatient claims for chemotherapy, IV therapy, MRIs and other related auditory and visual services in fiscal 2004. Late in the year, however, DFPS lowered Joe's service level from specialized to moderate, a lower level for care and payment.

EXHIBIT 15

**Nursing Services Provided to Foster Children
Fiscal 2004**

Type of Nursing Service	Number of Providers	Number of Children	Number of Claims	Number of Services	Total Amount Paid
Home Health LPN/LVN	65	289	7,930	43,517	\$14,142,144
Private Duty RN	6	7	294	827	\$192,909
Private Duty LVN	7	7	249	714	\$167,027
Totals	78	303	8,473	45,058	\$14,502,080

Note: Does not include services of advanced nurse practitioners.
Sources: Texas Health and Human Services Commission and Texas Comptroller of Public Accounts.

Forgotten Children also recommended that HHSC implement a Medical Review Team to review the cases of medically fragile children and establish best-practices guidelines for their evaluation, placement and care. As noted above, DFPS makes no systematic effort to link chronically ill children to appropriate resources or to collect data on the number of children with these conditions.

A Medical Review Team could provide DFPS with policy guidelines developed by clinicians with expertise in the conditions that medically fragile children have, such as cerebral palsy, HIV, hepatitis, hemophilia and organ transplants, and conditions requiring ventilators and gastrointestinal feeding tubes.

Professional Nursing Services

In fiscal 2004, a total of 303 foster children (many of whom are medically fragile) received home health care or nursing services. During fiscal 2004, Texas foster children received three types of nursing services from three types of professional nurses:

- home health services from licensed practical/vocational nurses;
- private duty services from registered nurses and licensed vocational nurses; and
- routine health services from advanced practitioner nurses.

Home Health Services

Home health services include nursing care such as respiratory treatments, skin care and medications that are administered in a patients’ home environment. These services usually are arranged through a home health (HH) agency, an organization that provides medical care and health care supplies in a patients’ home. Private-duty nursing services are simply the same services provided by independent nurses, in the patients’ home, at an inpatient hospital or in a nursing home. Advanced nurse practitioners perform physical and/or mental examinations of patient for the diagnosis and treatment of illness or injuries.

Most of the services performed by LPN/LVNs were provided through HH agencies—43,517 (96.6 percent) services out of 45,058 billed to the Medicaid program, for a total of \$14.1 million. Of the total 65 HH agencies receiving Medicaid funds, three received more than \$2 million in reimbursements for caring for foster children (**Exhibits 15 and 16**).

Most of the children receiving this care were medically fragile, with diagnoses such as cerebral palsy, convulsions, severe respiratory illnesses and congenital disorders or disabilities (**Exhibit 17**).

The Texas Medicaid program reimburses for professional nursing services provided through home health agencies and independent nurses.

EXHIBIT 16

Top Five Home Health Agencies Serving Foster Children Fiscal 2004

Rank	Home Health Agency Name	City	Total Amount Paid
1	Agency A	Austin, Columbia, Corpus Christi, Fort Worth & Houston	\$2,332,180
2	Agency B	Austin, Abilene & El Paso	\$2,107,182
3	Agency C	Temple	\$2,087,260
4	Agency D	Grand Saline	\$699,790
5	Agency E	Houston	\$621,087
Subtotal for the Top 5 Agencies	N/A	N/A	\$7,847,499
Total	Total for All Agencies	N/A	\$14,142,144

Sources: Texas Health and Human Services Commission and Texas Comptroller of Public Accounts.

Private duty nursing services must be authorized in advance by the Medicaid program and supervised by a Texas-licensed and Medicaid-enrolled physician. Independent RNs and LVNs providing private duty nursing services must be enrolled as Medicaid providers through the Texas Health Steps Comprehensive Care Program (TxHSteps-CCP).

All nursing services performed through home health agencies or TxHSteps-CCP must be authorized in advance by the Medicaid program; they also require a physician's order and a plan of care signed by the physician. These services are subject to post-payment reviews either by the Health and Human Services Commission's (HHSC's) Office of the Inspector General or its claims contractor, currently the Texas Medicaid & Healthcare Partnership. Documentation requirements include dated/timed entries of care every one to two hours describing medications, treatments and feedings administered. Medicaid pays home health agency LVNs/LPNs and independent LVNs and RNs are reimbursed at \$14.18 for each 15 minutes of care provided.¹³

Nurse practitioners bill for their services using physician visit codes or a specific lab procedure code. They are reimbursed at 85 percent of the physician's reimbursement fees.

In the past three Medicaid reviews (2001, 2003 and 2005) performed during the Texas Health Care Claims study, home health providers had the fewest errors of eight different categories of health care that included inpatient, outpatient, physicians, mental health, etc. The most common error found in the home health category was medical re-

EXHIBIT 17

Ten Most Common Diagnoses Treated by LPN/LVNs and RNs

Rank	Diagnosis
1	Cerebral Palsy
2	Convulsions
3	Shaken Infant Syndrome
4	Perinatal Chronic Respiratory Disease
5	Congenital Quadriplegia (paralysis of all limbs)
6	Brain Damage
7	Asthma
8	Encephalopathy (brain disorder)
9	Chronic Respiratory Failure
10	Lung Anomaly (disease or disorder)

Sources: Texas Health and Human Services Commission and Texas Comptroller of Public Accounts.

cords lacking the documentation required by the Medicaid program.¹⁴

Recommendations

- 1. The Department of Family and Protective Services (DFPS), in coordination with the Department of State Health Services and an advisory group of medical experts, should evaluate the case files of all medically fragile foster children.**

The advisory group should include at least eight private-sector physicians with specialties in nervous system disorders, congenital anomalies, digestive, respiratory and circulatory disorders, cancer and transplants. The expert group should examine the children DFPS characterizes as medically fragile as well as those who meet the Comptroller's criteria.

The advisory group should develop best practices to follow in caring for medically fragile foster children. At minimum, these should address placement; access to emergency medical services and standard medical care; training and selection of foster parents and child placing agencies; and diet. This group should establish criteria and a process to use in setting appropriate service levels for these children. The group also should evaluate the large number of psychotropic medications medically fragile children receive and determine whether these medications are appropriate.

- 2. DFPS should establish new service levels specifically for medically fragile foster children.**

This should involve evaluating the service levels presently assigned to all medically fragile foster children and adjusting the payment levels according to their needs and the services they require, as well as the time spent by their caregivers. Other states' programs

should be reviewed in creating the new service level and child placing agencies that care for medically fragile children should be consulted as well.

- 3. The DFPS medical director should create a special Medically Fragile team at the central office to track and provide information to all providers caring for medically fragile children.**
- 4. DFPS should teach its nonspecialized caseworkers how to identify medically fragile children in its basic job-training program, based on the new criteria called for in recommendation 1.**
- 5. HHSC should implement a catastrophic case management program funded by Medicaid for medically fragile foster children in DFPS care.**
- 6. DFPS should review its policies and create policies and procedures that support the care of medically fragile foster children.**

This includes reviewing the definition of medically fragile children and policies requiring identification and monitoring of care.
- 7. HHSC should examine the home health professional nursing services provided to foster children to ensure procedures are billed correctly with proper documentation.**
- 8. HHSC should conduct a random survey of the top five home health professional nursing providers to determine how well medically fragile children are cared for by their foster parents.**

Endnotes

- ¹ Health and Human Services Commission, Department of Family and Protective Services, *Handbook* (Austin, Texas, June 2006), Section 6334, “Primary Medical Needs Care,” http://www.dfps.state.tx.us/handbooks/CPS_Handbook/6300-6499.htm#6334%20Primary%20Medical%20Needs%20Care. (Last visited June 16, 2006.)
- ² Health and Human Services Commission, Department of Family and Protective Services, *2004 Data Book* (Austin, Texas, June 2006), p. 74, available in pdf format at http://www.dfps.state.tx.us/About/Data_Books_and_Annual_Reports/2004/databook/default.asp. (Last visited August 5, 2006.)
- ³ Texas Comptroller of Public Accounts, *Forgotten Children* (Austin, Texas, April 2004), pp. 209-212.
- ⁴ Interview with Ed. Liebgot, executive director, Youth for Tomorrow, Arlington, Texas, September 12, 2006.
- ⁵ West Virginia Code of State Rules, Title 78, Legislative Rule West Virginia Department of Human Services, series 2; Child Placing Agencies Licensure, 78-2-9, The Child’s and The Child’s Family’s Basic Rights.
- ⁶ Multnomah County, Oregon, “Medical Foster Parent Program Tier Requirements” (foster parent training handout).; and “Medical Foster Parent Designation Certifier’s Annual Check List” (foster parent training handouts).
- ⁷ Oregon Department of Human Services, “DHS Child Welfare Policy,” Salem, Oregon, April 1, 2004.
- ⁸ E-mail communication from LeNee Carroll, legislative policy analyst, Florida Legislature Office of Program Policy Analysis and Governmental Accountability, September 7, 2006.
- ⁹ Los Angeles County Department of Children and Family Services, “Nationwide Foster Care Rates,” compiled in December 2005, <http://dcfs.co.la.ca.us/policy/hndbook%20fce/E070/NationalRates.htm>. (Last visited September 8, 2006.)
- ¹⁰ Health and Human Services Commission, Department of Family and Protective Services, *Handbook*, Section 6334.
- ¹¹ Texas Comptroller of Public Accounts, “Forgotten Children,” (Austin, Texas, April 2004), pp. 211-212.
- ¹² Texas Comptroller of Public Accounts, “Smaller, Smarter, Faster Government,” (Austin, Texas, April 2000), pp. 219-222.
- ¹³ Texas Health and Human Services Commission, *2004 Texas Medicaid Provider Procedures Manual*, pp. 40-66 – 40-69.
- ¹⁴ Texas Office of the Comptroller, *Texas Health Care Claims Study* (Austin, Texas), p. I-31.

Foster Children and Sexually Transmitted Disease

Key Findings

- *In 2004, more than 200 Texas foster children were diagnosed with sexually transmitted diseases (STDs).*
- *Females in foster care are six times more likely to be diagnosed with a STD than males.*
- *The review team found irregularities in prescribing practices and counseling delivered to foster children with STDs.*

Some Texas foster children are suffering from sexually transmitted diseases. Many are sexually active while in care or were sexually abused while in care, while others came into care with the disease. DFPS should recognize this problem and actively address the issues through testing, proper treatment and education.

Sexually transmitted diseases are spread from person to person mainly through sexual contact. They are caused by pathogens including viruses, bacteria, parasites and fungus.

Bacterial, fungal and parasitic diseases may be cured with antibiotics and antifungal treatments; viral STDs cannot be cured, but their symptoms may be reduced with medication.

About 65 million Americans are infected with STDs. Each year 1 in 4 teens contracts an STD.

The Centers for Disease Control (CDC) are concerned about STDs because they are often under-diagnosed and underreported. According to the CDC:

In addition to the physical and psychological consequences of STDs, these diseases also exact a tremendous economic toll. Direct medical costs associated with STDs in the United States are estimated at \$13 billion annually.¹

In fiscal 2004, 1,793 Texas foster children were tested for sexually transmitted diseases. Of these, 220 or about 12 percent were diagnosed with STDs, including unspecified venereal disease, syphilis, gonorrhea, genital warts, genital herpes and chlamydia, but not all children that come into care are tested (**Exhibit 18**). In the same year, according to the Texas Department of Family and Protective Services' *Data Book*, a total of 6,794 children were confirmed victims of sexual abuse.²


 *Some Texas foster children are suffering from sexually transmitted diseases. Many are sexually active while in care or were sexually abused while in care, while others came into care with the disease.*

EXHIBIT 18

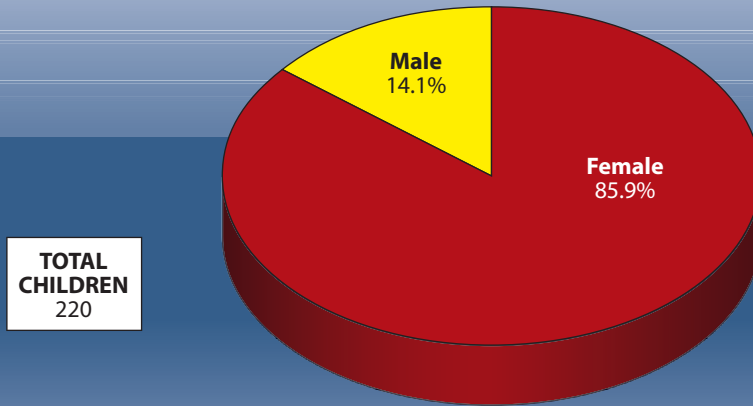
Sexually Transmitted Disease Diagnoses of Texas Foster Children, Fiscal 2004

Disease	Number of Diagnoses
Unspecified Venereal Disease	61
Chlamydia	61
Gonorrhea	35
Genital Herpes	30
Syphilis	25
Genital Warts	8
All STDs	220

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 19

Sexually Transmitted Disease Diagnoses of Texas Foster Children, by Sex Fiscal 2004



Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.



Most foster children with STDs were teenagers between the ages of 15 to 19.

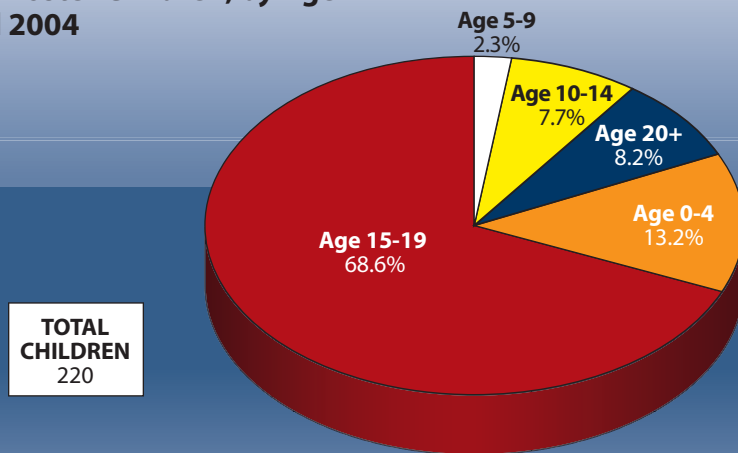
Because of the large number of foster children who act out sexually or are abused while in foster care, some children may have contracted STDs while in foster care, while others undoubtedly were infected before entering the program. In either case, however, these children need the best care, education and counseling Texas can provide.

Females in foster care were six times more likely to be diagnosed with a STD than males (**Exhibit 19**).

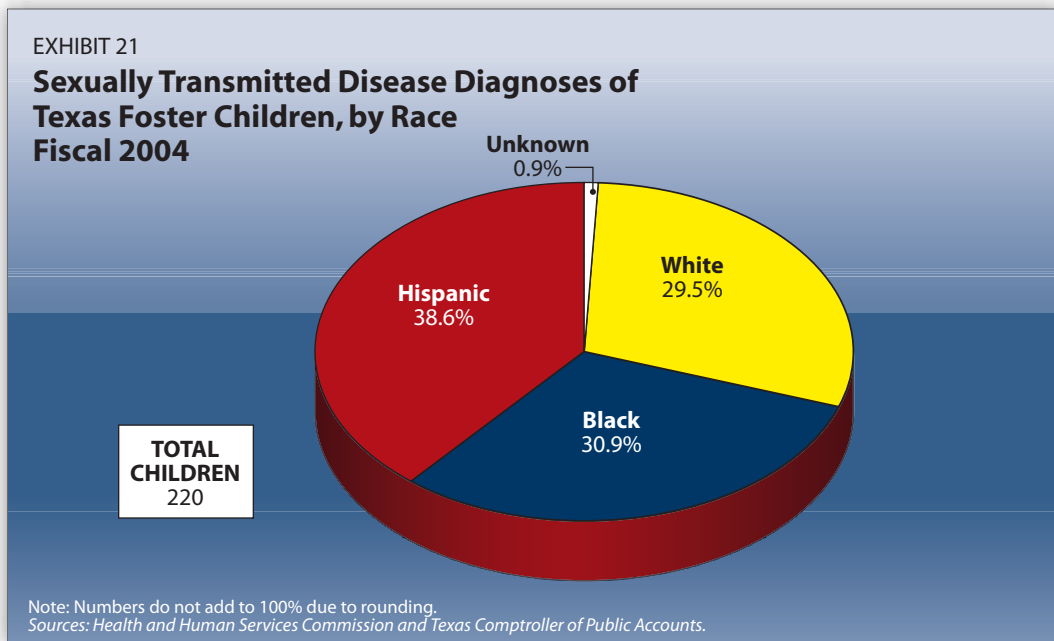
Most foster children with STDs were teenagers between the ages of 15 to 19. Hispanic children had the largest number of STD diagnoses, followed by African American children (**Exhibits 20 and 21**).

EXHIBIT 20

Sexually Transmitted Disease Diagnoses of Texas Foster Children, by Age Fiscal 2004



Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.



STD Types

Chlamydia is one of the most common STDs, and because half of all cases do not produce obvious symptoms, it often goes untreated. Chlamydia is a bacterial infection caused by a bacterium called *Chlamydia trachoma*; it usually infects the male or female genitals, but can also affect the throat, eyes and rectum. Chlamydia can be treated with antibiotics.

According to the Texas Department of State Health Services, 71,621 Texans had diagnosed cases of chlamydia in 2005. Among these Texans, children under 14 years of age accounted for less than 2 percent; 37 percent were persons under 19.

The disease is more commonly found in women. Texas cases among persons aged 15 to 19 years included 3,202 males and 22,025 females.³

If Chlamydia infection goes untreated, it can progress into pelvic inflammatory disease (PID), which can cause reproductive problems and infertility.

Syphilis is a bacterial infection caused by an organism called a spirochete. It may be

contracted by oral, anal or vaginal sex or by intimate touching or kissing. In some cases, mothers can pass it to their babies by touching chancre sores and then touching their children. It can be treated with antibiotics.

If untreated, syphilis can lead to damage to the brain and nervous system. Mental deterioration, loss of balance, vision and sensation, leg pain and heart disease are side effects of untreated infections. If a pregnant woman remains untreated, she incurs a high risk of birth defects to the fetus.

Gonorrhea, a particularly common STD, can be acquired through sexual contact and also can be spread from mother to baby during delivery. Infected females commonly exhibit few or no symptoms, but if left untreated it can cause serious and permanent health problems in both males and females. It is another common cause of PID.

Gonorrhea also can spread to the blood or joints, which can be life-threatening. Those with gonorrhea, moreover, can contract HIV more easily than uninfected persons. Several antibiotics can be used to treat gonorrhea, but the number of drug-resistant strains is increasing.

Chlamydia is one of the most common STDs, and because half of all cases do not produce obvious symptoms, it often goes untreated.

CASES OF INTEREST

Sexually active teen with genital herpes

Rachel is a 16-year-old minority foster child living in an urban area who suffers from genital herpes (an incurable disease) and depression. (According to the CDC - regardless of the severity of symptoms, genital herpes frequently causes psychological distress in people who know they are infected and may play a role in the spread of HIV.) In one year, she lived primarily in a specialized foster home and had 45 outpatient claims for depression, herpes and dysmenorrhea (menstrual cramps) as well as an emergency room visit. Rachel received regular counseling from two different providers, but went without counseling for a month during the summer.

During fiscal 2004, Rachel was prescribed a variety of medications for her infection, including Amoxicillin, Valtrex, Sulfamethoxzol and Bactroban. To treat her emotional problems, she received the antidepressant Zoloft, the antipsychotic Seroquel and the mood stabilizer Lamictal. She also received two different prescriptions for birth control, Yasmin and the Ortho Evra Patch.

Her second prescription for birth control came from a different physician than the first, and her prescription for Valtrex began in April 2004 and ended in July 2004. The new physician that prescribed the Evra Patch did not prescribe anything to treat her herpes infection.

In all, she received prescriptions from *nine different physicians* in a single year, although she continued living in the same metropolitan area.

Eight-year-old with gonorrhea

Michelle is an eight-year-old minority foster child who is diagnosed to have neurotic depression, post-traumatic stress syndrome, parasites and an acute gonococcal infection (gonorrhea) involving her reproductive organs. In fiscal 2004, her medications included two parasiticides, two ADHD medications, stimulants, antidepressants and antipsychotics. She had been in foster care since fall 2003, but the acute gonococcal infection was not diagnosed until summer 2004. (It is not possible to determine if she contracted the STD before she came into care or if she was infected after she was a foster child, but if she had been tested when she came into care, it would have then been possible to make this determination.)

Infant with congenital syphilis

Sandi is a newborn foster child living with her foster mother in a small Texas town. She came into foster care as an infant. Shortly after birth, she was diagnosed with congenital syphilis, which can be passed from mother to child during fetal development or birth.

During fiscal 2004, she had eight different outpatient visits with 17 procedures related to this disease at a county hospital, but only one prescription for the infection. It is interesting there would be so many procedures related to syphilis and just one prescription with no refill.

Two types of viral infections, both characterized by periodic outbreaks and painful sores, cause *herpes*. Herpes simplex virus (HSV) 1 and 2 are contracted through sexual contact. Although herpes cannot be cured, it can be treated with antiviral medications that reduce symptoms and help to prevent future outbreaks of sores.

Herpes infection can be passed to a child through pregnancy.

Nationwide, about 45 million people over the age of 12 are infected with HSV, or in other words about one in five of all teenagers and adults. Women, however, are more commonly infected than men and in the U.S., one in every four women is infected with HSV-2.⁴

According to the CDC, herpes can be particularly severe in persons with weak immune systems, and frequently causes psychologi-

cal distress in people who know they are infected. Because the herpes virus makes its hosts more susceptible to infection, it may play a serious role in the spread of HIV.⁵

Recommendations

- 1. To ensure the health and safety of Texas foster children, all children whom DFPS suspects may have been victims of sexual abuse or have been sexually active should be tested for sexually transmitted diseases (STDs) upon entering foster care.**
- 2. Any foster child who becomes a victim of sexual abuse while in foster care, or who becomes involved in sexual activity with other foster children or others, should be tested for STDs.**
- 3. The Department of Family and Protective Services foster care “medical director,” in coordination with the Texas Department of State Health Services (DSHS), should annually analyze data related to all foster children who have been diagnosed with STDs. They should ensure that children are being diagnosed and treated properly for STDs.**
- 4. The medical director should obtain input from DSHS to help prevent the spread of STDs in foster children and to ensure that they receive appropriate treatment, education, counseling and prevention services. All caseworkers should receive specific training on STDs.**
- 5. The medical director, with the assistance of DSHS, should create educational literature regarding STDs that should be circulated to all foster care providers and foster parents.**

Endnotes

- ¹ U.S. Centers for Disease Control and Prevention, *Trends in Reportable Sexually Transmitted Diseases in the United States, 2004*, <http://www.cdc.gov/std/stats/trends2004.htm> (Last visited August 28, 2006.)
- ² Texas Department of Family and Protective Services, 2004 Data Book (2004) p. 54.
- ³ Texas Department of State Health Services, “Texas HIV/STD Surveillance Report: 2005 Annual Report,” Austin, Texas, pp. 16-17, available in pdf format at http://www.dshs.state.tx.us/hivstd/stats/pdf/surv_2005.pdf. (Last visited August 22, 2006.)
- ⁴ Centers for Disease Control and Prevention, “Genital Herpes Fact Sheet,” <http://www.cdc.gov/std/Herpes/STDFact-Herpes.htm>. (Last visited June 7, 2006.)
- ⁵ Centers for Disease Control and Prevention, “Genital Herpes Fact Sheet.”

CHAPTER 2: Foster Children and Sexually Transmitted Disease

Foster Children with HIV and AIDS

Note: The Comptroller's office is aware of the patient confidentiality and anti-discrimination requirements of federal and state laws related to HIV and AIDS. It is our intent that all of these requirements be met regarding foster children with HIV and AIDS.

Key Findings

- Nearly 1,100 Texas foster children were tested for HIV in fiscal 2004.
- In the same year, 26 Texas foster children were identified as having been prescribed at least one HIV medication and having had at least one outpatient HIV procedure.
- More than 15 children had at least one outpatient procedure with an HIV-related diagnosis code, but were not prescribed any HIV medications.
- Some children with HIV received primary care from pediatricians or general practitioners without specific experience in HIV or infectious diseases.
- Some children with HIV did not receive consistent medications to treat their infections.
- Many foster children with HIV and AIDS in Texas are categorized at the lowest service level, "basic."
- In fiscal 2004, 63 foster children were raped while in care; of these, only 16 received HIV tests, which means that 75 percent of those raped were not tested for HIV following the rape, as required by law.

Background

The Department of Family and Protective Services (DFPS) has been negligent in car-

ing for foster children with human immunodeficiency virus (HIV) or acquired immune deficiency syndrome (AIDS).


Foster children suffering from this incurable disease deserve the best treatment and counseling. Yet DFPS does not track the number of foster children with HIV and AIDS and has no program to monitor their specific illness.¹ DFPS often classifies children diagnosed with this life-threatening illness as "basic," meaning they receive only the lowest level of service and care.

According to the Health and Human Services Commission, 26 Texas foster children were diagnosed as having HIV in fiscal 2004. The children were evenly divided between male and female; 16 were under the age of 15. Half of the children were African American (**Exhibit 22**).

HIV and AIDS

HIV is the human immunodeficiency virus that causes AIDS, which in turn is characterized by a weakening or collapse of the immune system, according to the Centers for Disease Control. In the mid-1990s, powerful therapies were introduced to treat but not cure this condition. In 2004, Texas ranked fourth among states in its cumulative number of AIDS cases reported.²

Foster children are at particular risk for HIV due to sexual abuse, early sexual behavior and mothers with the disease. Moreover, adolescents who have been victims of sexual abuse are more likely to engage in sexual behavior that increases their risk of acquiring HIV infection and other sexually transmitted diseases.³



DFPS often classifies children diagnosed with this life-threatening illness as "basic," meaning they receive only the lowest level of service and care.

EXHIBIT 22


Demographics of Texas Foster Children with HIV as Identified by Diagnosis and Medication Fiscal 2004

Age	Number
0 – 4	7
5 – 9	9
10 - 14	7
15 - 19	2
20+	1
Total	26

Sex	Number
Male	13
Female	13
Total	26

Race	Number
Black	13
Hispanic	7
White	4
Unknown	2
Total	26

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

 The survey found that there are no special guidelines given to providers regarding the care of children with HIV or other types of communicable diseases.

In 1989, the U.S. Department of Health and Human Services (HHS) issued a report estimating that between 16 and 22 percent of all HIV-infected children in the country will be placed in foster care at some point.⁴

Other key HHS findings related to HIV/AIDS include the following:

- Foster care agencies should establish written policies to formalize practices and provide education to foster parents,
- Most children with HIV are minority and poor,
- Foster care agencies need a clearly defined training program,
- There are compelling reasons to test all at-risk children in foster care for HIV,
- Child welfare agencies have given low priority to HIV infected children, and

- There is a need to determine the number of HIV infected children and examine their special needs.

The HHS report also provided guidelines for HIV testing of sexually abused children. HHS stated that testing should be performed at the time of the initial assessment, with repeated serologic testing at six weeks, three months and six months after the incident.⁵

Service Levels and Inadequate Care

Many states recognize that children living with HIV may require special services to meet their often complex needs, but Texas does not.

New York, for example, with three board and care rates available for foster children, places children with HIV in the highest rate categories.⁶ Oregon’s Department of Human Services provides individually negotiated rates for HIV foster children.⁷ In North Carolina, the Department of Health and Human Services provides foster parents caring for children with HIV and AIDS with supplemental payments.⁸

DFPS, by contrast, classifies many Texas foster children who have HIV at the lowest service level, “basic.”

Foster care providers were surveyed to determine what rules or guidelines DFPS has regarding children with HIV. The survey found that there are no special guidelines given to providers regarding the care of children with HIV or other types of communicable diseases. The only requirement is that providers know the universal precaution in dealing with bodily fluids, injuries, etc. In fact, a child’s HIV status is not disclosed to the direct foster care provider and if it is discovered for some reason by the daily care provider, they are forbidden to tell anyone about the child’s status by law.

At this time, it is completely left up to the provider and the doctor to determine the best course of action with regard to the daily treatment and medical care of these children.

Many residential treatment centers conduct their own HIV tests of foster children. Providers told the review team that they would like to know if a child in their care has HIV, and that they would like more guidance from DFPS in how to care for these children appropriately.

HIV Testing, Counseling and Reporting

The Texas Administrative Code (§700.1401) and the DFPS Handbook require HIV testing for foster children at high risk for exposure to HIV, and for children that have been sexually abused. The law requires that DFPS “must ensure that the child is tested for HIV antibodies at least three times at the following intervals”:

- when staff determine that a criterion (for exposure) has been satisfied;
- six weeks after the initial test; and
- six months after the initial test.

The Medicaid records indicate that DFPS is not meeting these requirements.

It is not clear whether this is due to simple negligence or to a lack of reports of instances of sexual abuse. In fiscal 2004, 63 foster children were raped while in care; of these, only 16 received HIV tests, which means that 75 percent of those raped were not tested for HIV following the rape, as required by law.

The DFPS *Handbook* also requires (through rule CPS 94-14) that:

DFPS must ensure that every child who is tested for HIV antibodies receives counseling and information appropriate to his age and emotional development both before and after testing, regardless of the results. When a child’s test results are positive, DFPS must ensure that the child receives ongoing counseling and information appropriate his age....

Texas Medicaid files revealed that some HIV-positive foster children are receiving *no* counseling on their disease, while others receive very limited HIV counseling.

Under rule CPS 94-14, DFPS is required to refer each HIV-infected child in its conservatorship to the Texas Department of State Health Services’ (DSHS’) HIV/STD -Medication Program. In May 2006, DSHS told the review team that these referrals are not being made.⁹

An infectious disease expert at a leading Texas medical school told the review team that the diagnosis and treatment of HIV-positive children is very important and they should be treated by specialty HIV/AIDS clinics, with trained teams of infectious disease medical experts and counselors.¹⁰

Texas Clinical Drug Trials

The 1989 HHS report questioned whether children in foster care were being enrolled in experimental drug trials or treatment protocols. This is of concern because of the risks sometimes involved in these trials.

In May 2005, the Associated Press revealed that Texas HIV-positive foster children had in fact been used in HIV/AIDS drug trials funded by the National Institute of Health.¹¹ A Texas physician associated with the trials stated that he did not recall appointing advocates for these children, or providing them with the basic protection afforded by federal law.

The Traurig Faith Home

The Traurig Faith Home in Austin was founded in 1988 to house medically fragile foster children, many of whom had HIV or AIDS. According to the *Austin American Statesman* newspaper, DFPS conducted 15 investigations of the facility between January 2000 and December 2003, none of which identified any violations.¹²

In 2004, however, after numerous complaints about abuse and neglect to the DFPS hotline, DFPS closed the home. Deficien-



Providers told the review team that they would like to know if a child in their care has HIV, and that they would like more guidance from DFPS in how to care for these children appropriately.

CASES OF INTEREST

Lack of Counseling

Felicity was a 10-year-old minority child with HIV who came into foster care very shortly after her birth. DFPS classified her service level as “moderate.” In fiscal 2004, she received three different medications to treat HIV, including Eпивir, Viracept and Zerit, as well as antipsychotic and stimulant prescriptions. She had only five counseling visits during the year.

She had two placements during the year, since DFPS closed the home she was staying in; she was moved to a new foster home about 100 miles away. Her new placement was a mobile home she shared with several very medically fragile children.

Foster Child with HIV Living in an Over-crowded Mobile Home

James was an eight-year-old foster child with HIV as well as many other health issues; his service level was “specialized.”

He had more than 600 outpatient claims and more than 200 prescription drug claims in fiscal 2004. James had a feeding pump and urinary incontinence, and also was diagnosed with apnea, esophageal reflux, asthma, stomach ulcer, convulsions and anemia. He also had claims for counseling for attention deficit and hyperactivity, learning problems and speech therapy. He also went to the emergency room to be treated for gastrointestinal hemorrhaging.

James lived in rural Texas in a 1,300 square-foot mobile home with four other foster children, one of whom also was medically fragile. A review of the DFPS records found that the home was licensed for four children, not five.

Inconsistent Medical Care

Barry was a ten-year-old minority foster child who had just come into foster care in an urban area. During his first three months in the foster care system, he resided at an emergency shelter.

While at his first placement, he was diagnosed with HIV, oppositional disorder and manic depression, and began receiving one prescription medication (Videx) for HIV infection, along with two different mood stabilizers (Trileptal and Depakote) and one antipsychotic (Abilify). The same physician a general practitioner (GP), prescribed all of these medications.

During his second month in care, Barry was diagnosed with convulsions, and received additional prescriptions from two doctors, the GP and a psychiatrist. The GP wrote another prescription for Videx, Trileptal and Abilify while the psychiatrist wrote two separate prescriptions for Depakote (250mg and 125mg), another prescription for Trileptal and a new prescription for Lexapro.

The next month Barry was sent to a residential treatment center in another city, where he was prescribed Depakote, Abilify, Trileptal, Lexapro and Seroquel. What was conspicuously missing was any prescription medication to treat HIV.

cies documented on the DFPS inspection form included:

- children left unsupervised;
- clutter that could cause bodily harm;
- an unattended dog;
- dust and strong smells of urine;
- a trash can overflowing with dirty diapers;
- lack of a “contagious room” for sick children;
- lack of privacy for children;
- medication stored in an unlocked room that was accessible to children;
- uncovered food and drink products;
- lack of documentation on staff training; and
- poorly documented personnel records.¹³

DFPS allowed this facility to operate for years even though the facility had been investigated numerous times.

Recommendations

1. **The Department of Family and Protective Services (DFPS), in coordination with the Texas Department of State Health Services’ HIV/STD Program should create an HIV-AIDS Task Force to address the care provided to foster children living with HIV and AIDS.**

At minimum, this task force should include three pediatric infectious disease specialists from different areas of the state; three community-based HIV professionals; two Texas representatives from the Ryan White Planning Council (which works to improve the quality of life and advocate for those infected with HIV/AIDS by taking a leadership role in the planning and assessment of HIV resources); and two private-practice social workers with expertise in HIV and AIDS counseling.

2. **The HIV-AIDS Task Force should create policies and procedures for foster children for testing, treat-**

ment, counseling and consistency of care, as well as a means to enforce these policies and procedures.

3. **The HIV-AIDS Task Force should develop training and educational materials for foster care providers and foster children.**
4. **DFPS, in coordination with the HIV-AIDS Task Force, should evaluate the service level and placement of each foster child with HIV or AIDS and ensure that their setting is appropriate to their needs.**

This may involve the development of a special, higher service level to ensure the best care for these children.

5. **DFPS should train specific caseworkers in HIV and AIDS counseling and assign them to children diagnosed with HIV or AIDS, as well as those who have also been exposed to the illness, to ensure that they receive proper counseling and care.**

Endnotes

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- ⁴ U. S. Department of Health and Human Services, *A Report on Infants and Children with HIV Infection in Foster Care*, p. 3.
- ⁵ U. S. Department of Health and Human Services, *A Report on Infants and Children with HIV Infection in Foster Care*, p. 4.
- ⁶ The New York State Office of Children and Family Services, *NYS Foster Parent Manual* (December 2003), p. 6.
- ⁷ State of Oregon, *Department of Human Services – Children, Adults & Families, Client Services Manual* (January 7, 2003) p. 3.
- ⁸ North Carolina Department of Health and Human Services, "Becoming a Foster Parent," http://www.dhhs.state.nc.us/dss/c_srv/cserv_fostercare.htm. (Last visited August 29, 2006.)
- ⁹ Interview with Richard Armor, HIV/STD Surveillance Team lead, Department of State Health Services, Epidemiology and Surveillance Unit, Austin, Texas, May 22, 2006.
- ¹⁰ Interview with Dr. Janak A. Patel, director for Pediatric Infectious Disease and Immunology at the University of Texas Medical Branch, Galveston, Texas, August 18, 2006.
- ¹¹ John Solomon, "Researchers Tested AIDS Drugs on Children," *SFGate.com* (May 4, 2005), pp 1-4.
- ¹² Andrea Ball, "Foster Home Decides to Give Up License: Faith Home, Which Cares for Medically Fragile Kids, is Under Investigation by State," *Austin American-Statesman* (April 22, 2005), p. B-1.
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CHAPTER 2: Foster Children with HIV and AIDS

Pregnancies in the Foster Care System

Key Findings

- *Surveyed foster providers stated that DFPS does not provide them with guidelines regarding birth control, pregnancy or abortion for foster children.*
- *Some pregnant foster children are receiving prescription medications (including psychotropics) not recommended for use in pregnant women.*
- *Some pregnant foster children undergo repeated placement changes while pregnant.*
- *Too few pregnant foster children can live in “specialty maternity” homes that can provide them with the best care and treatment.*

Background

A limited number of studies have examined pregnancy rates among foster children across the country, and none have examined Texas. Nevertheless, there are indications that foster children are more likely to become pregnant than children outside the foster care system.

One 2003 study found that the pregnancy rate for children in foster care across the U.S. was more than double that for children outside the foster care system. This study found that 17.2 percent of female foster children had at least one live birth while in care, compared to just 8.2 percent of unmarried teen women in the U.S.¹ Other studies have shown that foster children have a higher rate of sexual activity than teens not in foster care. One study reported that 90 percent of 19 year-old foster children had had sexual intercourse, compared to 78 percent of 19 year-olds not in the foster care system.²

DFPS Pregnancy Policies and Procedures

The review team conducted a telephone survey of 28 foster care providers representing residential treatment centers (RTCs), child placing agencies (CPAs) and independent foster homes. The providers were asked ten questions regarding the daily care and medical care of the children they serve.

The survey participants were asked what rules or guidelines DFPS had provided them regarding birth control, pregnancy and abortion. It emerged that DFPS is providing no such rules or guidelines; all decisions are left up to the caseworker and the child, if she is at least 14 years old and mentally competent. *Note: The DFPS Handbook provides limited vague guidelines for pregnant foster children, but these do not appear to be passed along to providers and foster parents.*

DFPS has no special service level for pregnant and parenting foster children, and no method for tracking them. Utah, by contrast, has established a special service level for pregnant and parenting foster teens.³

DFPS allows its charges to take birth control, have children and have abortions. DFPS can pay for birth control and prenatal care and will allow newborns to live with their mothers while they are in foster care, if a placement for both can be found.

Most RTCs surveyed said that they do not serve pregnant children, and that most pregnant teens reside either in maternity centers or in basic foster care homes.



One 2003 study found that the pregnancy rate for children in foster care across the U.S. was more than double that for children outside the foster care system.



DFPS has no special service level for pregnant and parenting foster children, and no method for tracking them.

Pregnancy Tests

In fiscal 2004, more than 3,000 pregnancy tests were performed on more than 1,500 Texas foster children at a cost of more than \$27,000.

These children received pregnancy tests while having a variety of accompanying diagnoses including abdominal pain, absence of menstruation, child sexual abuse, pelvic inflammation, urinary tract infections and venereal disease.

Hundreds of pregnancy tests were given to foster children even when the accompanying diagnoses did not suggest a need for the test. For example, children diagnosed with hay fever, bipolar disorder, depression, drug abuse, poor eyesight, medication poisoning, strep throat and even ingrown nails also received pregnancy tests. Such instances may represent questionable claims for services that were billed and never provided.

Outpatient Claims

In fiscal 2004, there were almost 11,000 outpatient medical claims for pregnancy-related treatments given to 477 foster children, an average of about 23 treatments each. These treatments cost the state more than

\$400,000. The costs included some costs for deliveries as well as for doctor's office visits, blood typing tests, sexually transmitted disease tests and genetic exams.

Deliveries

In fiscal 2004, 142 foster children gave birth while in the state's care. These deliveries cost the state more than \$340,000.

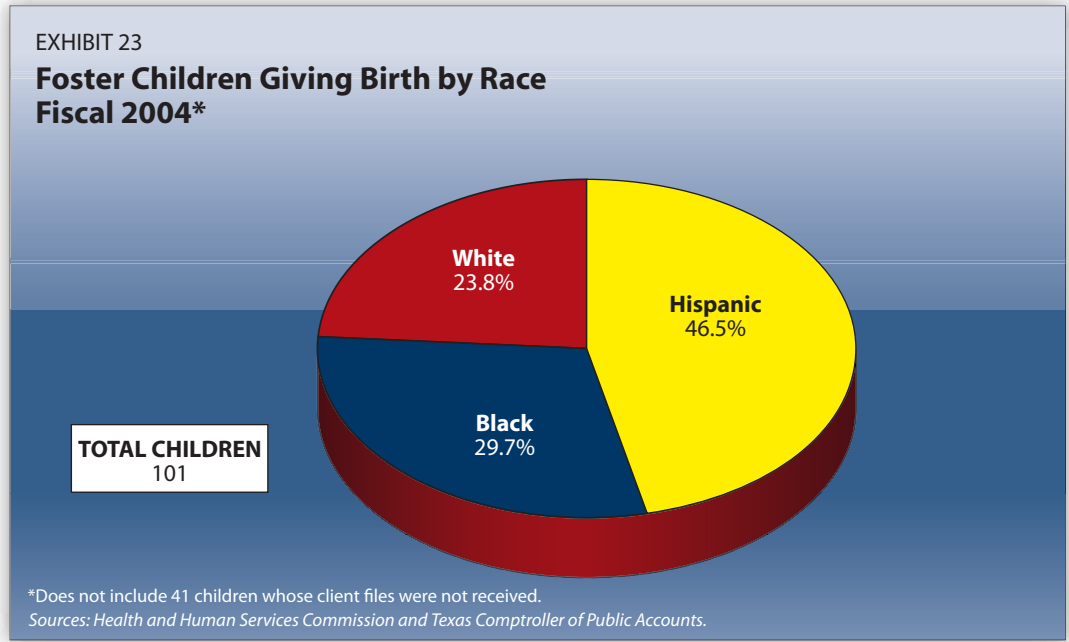
The review team was provided with 101 of the 142 client files. Of these 101 files, 46 did not state where the children were living when they gave birth. Either these files were incomplete or the children were not living in a foster home or a residential treatment facility when they gave birth.

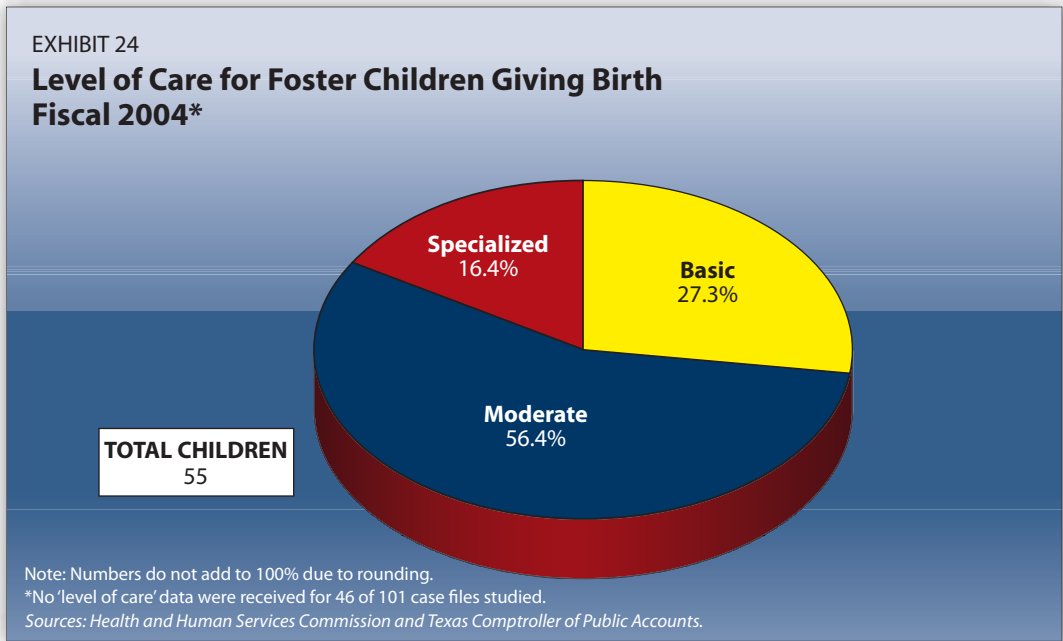
Nearly half (47) of the 101 foster children whose files were examined by the review team were Hispanic (**Exhibit 23**).

The majority of foster children giving birth were classified as needing "moderate" care (**Exhibit 24**).

Among the 55 children with files indicating their living arrangements, most lived in individual foster homes (**Exhibit 25**).

In fiscal 2004, more than 3,000 pregnancy tests were performed on more than 1,500 Texas foster children at a cost of more than \$27,000.





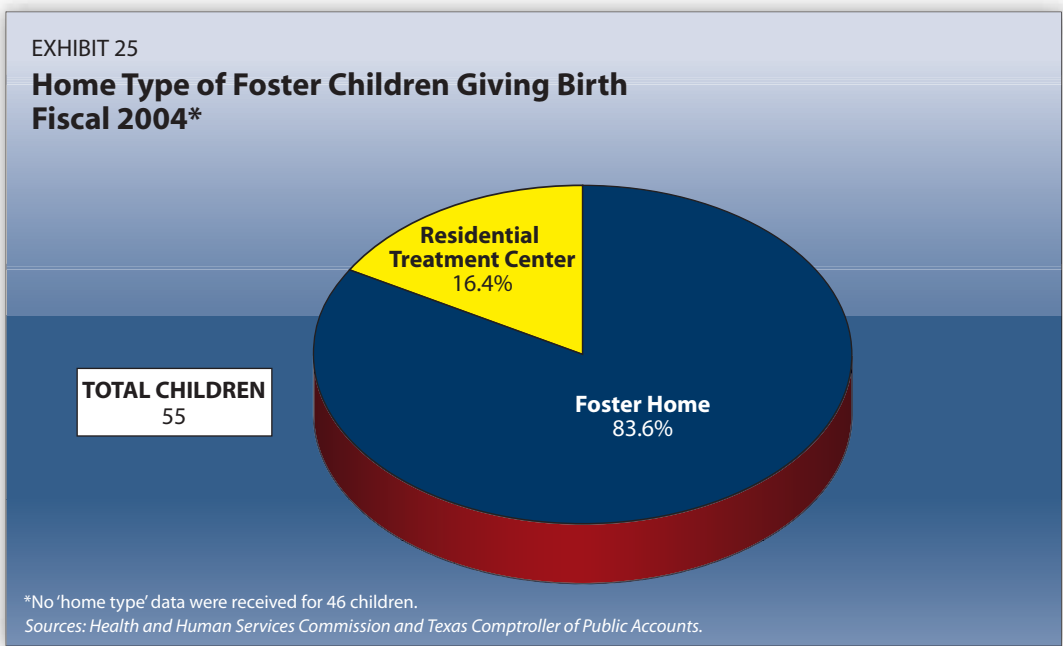
Pregnant Texas foster children often are moved from home to home over the entire term of their pregnancies. Some have lived in up to five different homes during their pregnancies, a stressful arrangement for the pregnant teen as well as her unborn child.

Where They Live

A 1995 report by the New York Youth Advocacy Center (YAC) examined ways to improve care for foster teen mothers and their children. The study found many troubling issues in New York's foster care system, such as the forced separation of mothers and new babies, lack of appropriate placements, delays of placements and a shortage of group homes and foster homes that specifically aid mothers and babies in foster care.⁴

Although no similar studies have been conducted in Texas, Medicaid claims data and DFPS client records indicate that Texas' system has similar problems.

Pregnant Texas foster children often are moved from home to home over the entire term of their pregnancies. Some have lived in up to five different homes during their pregnancies, a stressful arrangement for the pregnant teen as well as her unborn child.



Every effort should be made to keep pregnant girls in the same home, or at least in the same city and with the same caseworker, to ensure stability and continuity of medical care during pregnancy.

In the YAC study, New York foster girls stated that they felt afraid, living in an environment not solely for pregnant foster children. One foster child stated, “I was waiting for a long time before they could find me a maternity shelter.... Over there kids got real wild and everything and I was just scared I was gonna get hit on the stomach....”⁵ One social worker stated, “Getting them [to a maternity shelter] is vital...because there are a lot of kids around them who can be violent at times. There is a very limited ability for staff to...intercede and protect them based on their medical condition.... [T]hat becomes very scary for the staff.”⁶

While most Texas foster girls who gave birth in fiscal 2004 were living in foster homes, others were living in residential treatment centers, which care for children who are troubled and even violent. They may not provide a safe environment for pregnant girls.

Maternity Homes

One Texas “maternity home,” Annalee House in Austin, provided therapeutic group foster care for pregnant and parenting adolescents. The home was a division of Marywood Children and Family Services. The client files examined by the review team included several girls who were living at Annalee House when they gave birth.

In December 2004, Marywood closed Annalee House due to a continuous shortfall in state funding and high maintenance costs. This closure removed a vital resource for young pregnant foster girls.⁷ Texas foster girls need a safe, stable home environment while they are pregnant and after they give birth. Homes such as Annalee House can provide this type of environment—if they can find the funding to keep their doors open.

DFPS maintains a list of about 17 maternity homes on their Web site, including the capacity of many homes. However, it is impossible to tell how many pregnant and parenting foster girls there are in Texas since many pregnant foster children live in foster homes. Through the Medicaid claims files and client files the review team identified and called two homes that specialize in maternity care.

One maternity home that is still operating in Austin has room for only six pregnant or parenting foster girls; another in Houston can accommodate eight. These homes allow the girls to stay after they have delivered for as long as they desire, or until they age out of the system. Staff at both homes stated that girls come from other cities specifically to live there because they often cannot find comparable homes in their home towns.⁸

Both maternity homes offer services to the pregnant and parenting foster teens to help them learn the life skills they need to survive when they eventually age out of the system. The homes help with job training, parenting and independent living classes and provide transportation to doctor’s visits. The home in Austin also offers day care so that parenting foster teens can have a part-time job if desired.⁹

These homes are a great resource for pregnant and parenting foster teens. Unfortunately, the state simply does not have enough of these facilities.

Placements for Mother and Child

Another problem in Texas’ system occurs after foster children have given birth. While some foster parents are willing to take foster children and their newborns, others cannot or will not. This requires the caseworker to locate a new home for the mother and newborn. Usually, this cannot be done immediately, and the mother and newborn must live in an emergency shelter in the meantime. Others may be forced to remain in the hospital while a new placement is found—at a considerable cost to the state.



Every effort should be made to keep pregnant girls in the same home, or at least in the same city and with the same caseworker, to ensure stability and continuity of medical care during pregnancy.

CASES OF INTEREST

Multiple Moves and High-Risk Pregnancy

Lannie was a 15-year-old foster girl who entered the foster care system in May 2002. During fiscal 2004, Lannie was shifted among four different homes.

She was living in an emergency shelter in East Texas during January 2004, and then was moved more than 150 miles to a Central Texas foster home. She was moved again in April, to another foster home 170 miles away in East Texas. In July, she was moved to an emergency shelter 23 miles away from her previous home. In the same month, she was moved once again, to a Central Texas residential treatment center more than 180 miles away.

Lannie was pregnant or a new mother during all of these moves. She was not prescribed any prenatal vitamins during fiscal 2004, and the constant moves prevented her from having a regular physician. Instead, she received her prenatal care from hospitals and health clinics.

Lannie had a rather difficult pregnancy. She was diagnosed as having a high-risk pregnancy, with poor fetal growth, insufficient prenatal care and an early onset of delivery. She was admitted to the hospital twice during her pregnancy, once two months prior to the baby's birth, due to poor fetal growth.

In February 2004, she was taken in an ambulance to a Central Texas hospital for early onset delivery. She did not give birth on this occasion, but was sent home instead. Four days later, she was taken to the hospital where she delivered her baby. She was diagnosed with obstetrical trauma and injury to pelvic organs. The baby remained in foster care while Lannie lived in another home during February and March. In April, Lannie and her baby briefly lived in the same foster home until they were moved to two separate homes about 40 miles apart from each other.

Mentally Retarded Foster Child and Her Baby

Leanne was a 17-year-old mentally retarded pregnant teen living in foster care. Leanne first entered the system in April 2002. She became pregnant sometime in late fiscal 2003 or early fiscal 2004.

During fiscal 2004, she lived in two different placements. While living in an emergency shelter, Leanne was diagnosed with a high-risk pregnancy as well as an unspecified venereal disease, and her fetus was diagnosed with a fetal abnormality. In February 2004, Leanne was moved to a Central Texas maternity home that has since closed, where she was categorized as needing only basic services.

While living there, Leanne received constant care from the same obstetrician / gynecologist. She visited the same doctor three times in the month leading up to her delivery. During this time, her fetus was diagnosed as having an unspecified abnormality and poor growth. In March 2004, Leanne delivered her baby. The files show that Leanne's baby did not live in the same home as her following its birth and it is not clear where the baby was placed.

One staff member at the Austin maternity home stated that many girls chose to stay there after delivering because they cannot find foster homes that will take both them and their babies.¹⁰

Dangerous Drugs

Many medications that are not recommended for pregnant women are in fact being prescribed to Texas' pregnant foster chil-

dren. The review team found several cases in which pregnant foster children received pregnancy "category D" medications such as Depakote and phenytoin. The U.S. Food and Drug Administration places medications in this category because investigational or post-marketing data show clear risks to the fetus, although in some cases potential benefits may outweigh the risks.

The manufacturer of Depakote has warned that mothers receiving the drug during the first trimester face an increased risk of giving birth to children with spina bifida. Craniofacial defects, cardiovascular malformations and other anomalies of body systems also have been reported following treatment with Depakote.¹¹

Similarly, phenytoin carries an increased likelihood of birth defects. Children born to women taking phenytoin have an increased incidence of congenital malformations such as cleft lip, cleft palate and heart malformations. There have also been isolated reports of cancers including neuroblastomas in children whose mothers received phenytoin while pregnant.¹²

Other pregnant foster children have received pregnancy category C medications, including antidepressants and antipsychotics. The FDA places medications on the pregnancy “category C” list when they have found that risk to the fetus cannot be ruled out, although in some cases potential benefits may outweigh the potential risks.

Some of the antidepressants commonly prescribed to pregnant foster girls include fluoxetine (Prozac), Zoloft and Lexapro. The manufacturer of Prozac warns that it should be used during pregnancy only when the potential benefit justifies the risk to the fetus. Newborns that have been exposed to Prozac during the third trimester have developed complications requiring prolonged hospitalization, respiratory support and tube feeding. There have also been cases of respiratory distress, seizures, temperature instability, feeding difficulty and vomiting.¹³

Similarly, the makers of Zoloft and Lexapro have warned that there have been no adequate studies in pregnant women and that these drugs should be used only when the potential benefit outweighs the risk to the fetus.¹⁴

Recommendations

1. The Department of Family and Protective Services (DFPS) should

implement policies and procedures that would allow it to track the number and identity of foster children in the system who have given birth or become pregnant.

Tracking of pregnancies and deliveries would help ensure that pregnant girls receive the prenatal care they need.

2. DFPS should offer sexual education training for caseworkers and foster parents, stressing how to talk to foster children about practicing safe sex.

Pamphlets with information on practicing safe sex should be given to caseworkers to be distributed to foster children and foster parents.


3. DFPS should work with foster care providers and child placing agencies to establish more maternity homes to ensure that pregnant foster teens are not shuffled from home to home during pregnancy.

This would help ensure that pregnant foster teens have a safe and stable living environment and continuous medical care. DFPS should publish a list of these maternity homes and provide it to all caseworkers.

4. DFPS should establish a higher-paying service level specifically for pregnant or parenting foster children, similar to the service level currently in place in Utah.

Many of the services that maternity homes provide are costly and this service level would help them cover these costs.

5. DFPS should ensure that foster children and their babies are placed together.



Children born to women taking phenytoin have an increased incidence of congenital malformations such as cleft lip, cleft palate and heart malformations.

Caseworkers should ensure a placement prior to the due date so that when the mother and baby are discharged from the hospital, a stable home has already been found.

Endnotes

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- ⁸ Interviews with staff at C.A.T.P House, Austin, Texas, September 1, 2006; and interviews with staff at the Roo Agency, Houston, Texas, September 1, 2006.
- ⁹ Interviews with staff at C.A.T.P House and the Roo Agency.
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- ¹² Thomson Healthcare Inc., *Physicians' Desk Reference, 60th ed.*, p. 2,153.
- ¹³ Thomson Healthcare Inc., *Physicians' Desk Reference, 60th ed.*, p. 1,775.
- ¹⁴ Thomson Healthcare Inc., *Physicians' Desk Reference, 60th ed.*, pp. 2,585 and 1,196.

CHAPTER 2: Pregnancies in the Foster Care System

Contraceptives and Foster Children

Key Findings

- *Texas foster children received more than 4,000 prescriptions for birth control in fiscal 2004.*
- *Medical claims indicate that not all foster children are receiving proper examinations before receiving reproductive medications.*
- *Foster children often receive brand-name medications rather than lower-cost generics.*

Contraceptives are used to prevent pregnancy. Three types of female contraceptives were prescribed to Texas foster children in fiscal 2004—oral (for example Ortho Tri-Cyclen), intravaginal (for example NuvaRing) and transdermal (for example Ortho Evra) medications.

These contraceptives contain estrogen and progestin, two female sex hormones that work together to prevent ovulation. These hormones also change the lining of the uterus to prevent pregnancies from developing and alter the mucus at the cervix to prevent

sperm from entering. They do not prevent sexually transmitted diseases.

Oral contraceptives also can be used to treat other conditions, such as acne, heavy or irregular menstruation and endometriosis, a condition in which uterine tissue grows into other areas of the body, causing pain and heavy or irregular menstruation. Women that have given birth recently should wait at least four weeks to start the use of oral contraceptives.

Female contraceptives were prescribed to 1,024 Texas foster children in fiscal 2004. These children received a total of 4,324 prescriptions at a cost of \$176,814, for an average of about \$173 per child and about \$41 per prescription. The five most common birth control medications prescribed cost the state \$108,500, or about 60 percent of the total cost of all birth control medications prescribed in that year (**Exhibit 26**).

About 42 percent of the foster children receiving birth control were white; Hispanics

Female contraceptives were prescribed to 1,024 Texas foster children in fiscal 2004.

EXHIBIT 26

Top Five Birth Control Medications Prescribed Fiscal 2004

Medication	Total Number of Prescriptions	Total Amount Paid	Average Paid per Prescription
Ortho Tri-Cyclen	739	\$33,521	\$45.36
Ortho Evra Patch	696	\$32,266	\$46.36
Ortho Tri-Cyclen Lo	393	\$18,063	\$45.96
Yasmin	280	\$12,805	\$45.73
Trinessa	314	\$11,845	\$37.72
Total	2,422	\$108,500	\$44.80

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 27

**Foster Children Receiving Birth Control by Race
Fiscal 2004**

Race	Number of Children with Birth Control Prescriptions by Race	Percentage of All Children Receiving Birth Control
White	427	41.7%
Black	246	24.0%
Hispanic	339	33.1%
Other & Unknown	12	1.2%
Total	1,024	100%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

accounted for 33 percent, while blacks represented 24 percent of the total (**Exhibit 27**).

Foster children as young as 12 received birth control medications, but most were 15 or older (**Exhibit 28**).

In addition to prescriptions for birth control pills, patches, and intravaginal rings, one foster child received a prescription for a medication called Preven, an emergency contraceptive commonly called the “morning-after pill,” which can be used within three days of intercourse to prevent pregnancy. This child received Preven after she

was raped while living in a foster home, according to Medicaid claims data.

In several cases, foster teens received birth control sooner than the recommended wait time of four weeks following delivery. (In one case, a girl was prescribed birth control just three weeks following the delivery of her child. This prescription was written by a psychiatrist.)

Prescribing Physicians

The review team found that foster children’s birth control medications were being prescribed not only by gynecologists and the physician’s assistants and nurses who work for them, but also by other types of practitioners with limited experience in gynecology. Prescription payment claims for birth control medications show prescriptions written by pathologists, orthopedic surgeons, anesthesiologists, neurologists and even psychiatrists.

Medical Examinations and Treatment Continuity

It is widely accepted in the medical community that women taking birth control should have an annual examination, including a complete physical, a pap smear, blood pressure check, breast exam and pelvic exam.¹ The review team found that this advice was not always followed in the case of foster children.

One 16-year-old foster girl was given 13 different prescriptions for birth control pills

One child received the “morning-after pill” after she was raped while living in a foster home.

EXHIBIT 28

**Foster Children Receiving Birth Control by Age
Fiscal 2004**

Age	Number of Children with Birth Control Prescriptions
12	1
13	32
14	69
15	139
16	208
17	263
18+	312
Total	1,024

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Foster children as young as 12 received birth control medications, but most were 15 or older.

EXHIBIT 29

**Generic Birth Control Alternatives
Fiscal 2004**

Drug Name	Number Children	Total Number of Prescriptions	Total Amount Paid	Amount Paid per Prescription
Ortho Tri-Cyclen	180	739	\$33,521.08	\$45.36
*TriNessa	110	314	\$11,844.84	\$37.72
*Tri-Sprintec	43	121	\$3,351.32	\$27.69
*Tri-Previfem	1	1	\$33.31	\$33.31

*These are generic medications.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

in fiscal 2004 and received no claims for a gynecological examination. A 15-year-old, mentally retarded foster girl with a service level of “moderate” received eight different prescriptions for birth control pills in fiscal 2004 but had no claims for a gynecological examination.

While it is possible that some foster children are taking contraceptives for other purposes, such as acne treatment, some cases definitely involved sexually active girls receiving birth control without the necessary examinations.

One 17-year-old foster girl received six different prescriptions for birth control patches in fiscal 2004 and received no claims for a pap smear or a gynecological exam. This child was diagnosed with a venereal disease in early fiscal 2004.

In addition, the Medicaid claims records suggest that many foster children are stopping birth control abruptly. Birth control pills will prevent pregnancies effectively *only* when taken regularly.²

According to the Medicaid records, one 16-year-old girl went on an off oral contraceptives three times in one year; another 14-year-old girl, took oral contraceptives for at least four months, stopped taking them when she moved to a residential treatment center, and then resumed taking them five months later. Yet another girl of 16 took

oral contraceptives for eight months, then stopped taking them after changing homes in May 2005.

Generics vs. Brand Names

Generic medications often are available in lieu of brand-name drugs. The review team noted several examples in which an expensive brand-name medication was prescribed to foster children despite the ready availability of low-cost alternatives. For instance, Ortho Tri-Cyclen is a brand-name medication; in fiscal 2004, there were three low-cost generic alternatives to the drug, TriNessa, Tri-Sprintec and Tri-Previfem. TriNessa and Tri-Sprintec entered the market in December 2003 and Tri-Previfem became available in April 2004.³

Of 739 prescriptions for Ortho Tri-Cyclen written for Texas foster children in fiscal 2004, 258 were written and filled *after* the generic medications became available. These 258 prescriptions cost Texas taxpayers \$11,943.38.

If the least expensive generic medication (Tri-Sprintec) had been prescribed instead, at about \$27.69 per prescription, the state would have paid only \$7,144.02—\$4,799.36 or about 40 percent less (**Exhibit 29**). In most cases, prescribing a brand-name medication when a generic version is available is fiscally irresponsible.



One 17-year-old foster girl received six different prescriptions for birth control patches in fiscal 2004 and received no claims for a pap smear or a gynecological exam. This child was diagnosed with a venereal disease in early fiscal 2004.

Recommendations

- 1. DFPS caseworkers and foster parents should be made aware that many foster children are on birth control and should be able to provide information on the subject if necessary.**
- 2. DFPS should ensure that all foster children receiving prescriptions for birth control receive the recommended regular medical examinations.**

Endnotes

- ¹ U.S. National Library of Medicine and the National Institutes of Health, "Estrogen and Progestin (Oral Contraceptives)," <http://www.nlm.nih.gov/medlineplus/druginfo/medmaster/a601050.html>. (Last visited August 30, 2006.)
- ² U.S. National Library of Medicine and the National Institutes of Health, "Estrogen and Progestin (Oral Contraceptives)."
- ³ Watson Pharmaceuticals Inc., "Watson Pharmaceuticals Launches TriNessa™ Oral Contraceptive," Corona, California, December 29, 2003 (press release); Barr Pharmaceuticals, "Barr Launches Generic Version of Ortho Tri-Cyclen® Tablets," Woodcliff Lake, New Jersey, December 29, 2003 (press release); and Teva Pharmaceuticals USA, "News and Events 2004," <http://www.tevausa.com/default.aspx?pageid=81>. (Last visited July 6, 2006.)

Injuries and Deaths of Foster Children

In fiscal 2004, 46 foster children died while in care. DFPS determined that five of these deaths resulted from abuse and neglect, but 15 cases had been left “open,” and DFPS has not ruled out abuse and neglect as the cause of death in these cases (**Exhibit 30**).

Many foster children were taken to either emergency rooms or hospitals for treatment of severe injuries and conditions. While it is not possible to determine if these were a result of abuse and neglect solely from medical claims, these claims can be an indicator of abuse and neglect. Currently, no agency is reviewing the Medicaid claims of foster children to look for abuse and neglect because DFPS is responsible for foster children and HHSC is responsible for Medicaid.

CASE OF INTEREST


 Jake was a teenage foster child living near a major Texas city. He lived in the same foster home with five other foster children the entire year. He had been prescribed the following psychotropic medications during fiscal 2004: an antidepressant, a hypnotic/sedative and a mood stabilizer. The only other prescription medication he received was acetaminophen for pain relief. During the year he was hospitalized twice, once for a bi-polar condition and once for a skull fracture and coma. Jake underwent brain surgery at a cost of \$35,700. He also had outpatient claims for injuries to the hand, finger, face, spinal cord, abdomen, forearm, problems breathing and headache over a three-month period. HHSC and DFPS should review cases like this to find out the cause of these severe injuries and to determine whether any were the result of abuse or neglect.


EXHIBIT 30

Child Fatalities in DFPS Conservatorship for Fiscal 2004

Abuse and Neglect	5
Not Abuse and Neglect	26
Open Case	15
Total Number of Deaths	46

Source: Texas Department of Family and Protective Services.

The HHSC Office of Inspector General has all of the data necessary to be able to review the Medicaid claims for foster children and look for signs of abuse and neglect, whether it is for rape, poisonings, medical neglect or physical abuse. HHSC should review these claims because medical providers do not appear to be reporting all cases of abuse and neglect to the DFPS hotline, and DFPS does not thoroughly investigate all the cases that are reported.

 Many foster children were taken to either emergency rooms or hospitals for treatment of severe injuries and conditions.

Recommendations

1. **The Health and Human Services Commission, Office of Inspector General (OIG) should regularly examine the Medicaid claim files and review all cases for foster children who were admitted to emergency rooms and hospitals that were treated for injuries or conditions that may be the result of abuse and neglect.**
2. **If OIG determines that an investigation is warranted, this should be done in coordination with the Department of Family and Protective Services and pertinent law enforcement. OIG**

should examine the Medicaid claims for the following diagnosis:

- **injuries to the head/brain, limbs, face and body;**
- **fractures and contusions;**
- **cardiac arrest, cardiac dysrhythmia and chest pain;**
- **poisoning and toxic effects;**
- **rape;**
- **hemorrhage;**
- **altered consciousness;**
- **shock;**
- **shaken infant syndrome;**
- **amputations.**

Medicinal Poisonings of Foster Children

Key Findings

- *More than 150 Texas foster children were poisoned by medications in fiscal 2004.*
- *Not all of the cases of medicinal poisoning are being investigated by DFPS.*
- *Some foster children are left in the same foster homes after they survive medicinal poisoning.*

Background

According to the Medicaid claims records, 157 Texas foster children were diagnosed with poisoning from medications in fiscal 2004.

These records indicate that the largest number of these poisonings were due to “unspecified” medications, followed by antidepressants and tranquilizers (**Exhibit 31**). It is not possible from these data to determine how the poisonings occurred, whether they were due to overdoses or whether caregivers or the children themselves administered the medications.

Most foster children poisoned by medications received intensive treatment in hospitals. Sometimes this involved complicated procedures such as CT head scans, intravenous therapy, coronary care, electrocardiograms, numerous assay tests, drug screens, blood gas tests, radiological services, respiratory services and urinalysis.

Investigations Involving Medications

The Comptroller review team reviewed DFPS’ Child Care Licensing Intake and Investigation reports from fiscal 2004 for a variety of foster care placements. The purpose was to determine the frequency and type of abuse

and neglect allegations involving medication. DFPS provided information on various foster care providers in Texas, including emergency shelters, independent foster homes, residential treatment centers, therapeutic camps, and child placing agencies (CPAs).

The review indicated that allegations of abuse regarding children’s medication occurred in all placement types, including emergency shelters, CPAs and DFPS foster homes, therapeutic camps and residential

EXHIBIT 31

Texas Foster Children Poisoned by Medication, by Medication Type Fiscal 2004

Type of Medication	Number of Children (unduplicated)
Medicinal - Unspecified	93
Antidepressants	13
Tranquillizers – Benzodiazepine and Phenothiazine	12
Anticonvulsants	11
Psychostimulants and Central Nervous System Stimulants	11
Antipsychotics	9
Psychotropic	7
Tranquillizers	1
Total	157

Note: There are poisonings from other medications and chemical agents that have not been included in this table. Also, more than 360 billings related to “toxic effects” could represent medicinal overdoses or poisonings as well.
Sources: Texas Health and Human Services Commission and Texas Comptroller of Public Accounts.

CASES OF INTEREST

Reported Overmedication and No Investigation

Marti was a nine-year-old minority foster child living in a small Texas town with several other foster children. An anonymous person called the DFPS hotline to report her foster mother for physical abuse and neglect. The caller stated the home was very small and run down, and filled with trash. The caller reported concern about Marti's physical condition.

At age nine, Marti reportedly weighed about 50 pounds and wore a size four. She had very pungent body odor and matted hair that smelled strongly of cigarette smoke. The caller also stated that she might be overmedicated because she could not hold her head up, and claimed that medications are lying all over the kitchen counter.

A cross-reference to medical claims revealed that the child was prescribed four psychotropic medications in the months before the hotline report, including two different stimulants, one mood stabilizer and one medication for ADHD.

DFPS administratively closed this case without an investigation.

Poor Foster Care Supervision and Investigation

Stanley was about two-and-a-half years old when a caller to the DFPS hotline reported that he had been taken to the hospital because he swallowed too many pills. The caller explained that the foster mother was going to give him his medication with juice, but the pill bottle apparently fell from her pocket and the pills must have fallen out. The foster mother found the pill bottle empty and asked Stanley what happened to the pills; he pointed to his mouth. The foster mother called EMS and the child was taken to a local hospital by ambulance.

Medical claim records reveal interesting facts regarding this child and the event. DFPS categorized Stanley as a "basic child," meaning that he had only basic needs. Stanley's records revealed a different story.

In one year, he had 151 different outpatient claims for numerous diagnoses, including explosive disorder, adjustment reaction, hearing loss, bronchitis, fever, insomnia, chest pain, attention deficit, lack of normal physical development, hyperkinetic behavior with developmental delays, speech therapy and a ventricular septal defect. He received an array of medication including a stimulant and Clonidine, which is used to treat hypertension as well as ADHD.

Stanley survived the medication overdose after a two-day stay in the hospital, where he was diagnosed with anti-hypertension medication poisoning. An investigation by DFPS, however, ruled out abuse and neglectful supervision, stating that he "was not at risk or harm or any health risk and . . . that the home had qualified adult caregivers." Stanley remained in the same foster home after the incident.

Poor Investigation of a Overmedicated Foster Child

Bernie was a six-year-old minority foster child living in an urban area. Someone called the DFPS hotline to report concerns about his care in Winter 2004. The caller stated that he was enrolled in school but was not being provided with school supplies or proper clothing. (Records reveal that Bernie was classified as a "specialized to moderate" child and that his foster parents received higher funding for this level.)

The caller also said that Bernie came to school very sedated one day and could not walk without assistance. He appeared to be drunk and could not communicate clearly. The foster parent sent her daughter to school to pick him up that morning. Bernie's medical claims revealed he was on a stimulant and an antipsychotic medication.

DFPS investigators ruled out abuse and neglect, however, because "there was not a preponderance of evidence." Bernie remained in the same foster home and shortly afterward was prescribed two additional medications, an antidepressant and a mood stabilizer, in addition to his others.

CASES OF INTEREST

Three-year-old Poisoned by Antipsychotic

In Spring 2004, a three-year-old foster child living in a foster home was taken to an emergency room for treatment of psychotropic poisoning. The child had been receiving Risperdal, an atypical antipsychotic medication, which is not FDA-approved for use in children.

Six-year-old Poisoned by Psychotropics

One foster child living in a foster home in a small Texas town received 60 prescriptions in the course of a single year, most of them for psychotropics, including Concerta, Risperdal, Mirtazapine, Seroquel, Adderall, Lithium, Zyprexa and Trileptal, and all of them prescribed by the same physician. The child often received more than one medication from the same class of drugs at the same time, such as multiple mood stabilizers and antipsychotics. In late Summer 2004, the child was taken to a hospital emergency room for treatment of psychotropic poisoning.

Teenager with Three Medicinal Poisonings

An eighteen-year-old female foster child residing in an urban residential treatment center received treatment for medicinal poisoning three times in 2004—once in March for antidepressant poisoning, once in June for unspecified medicinal poisoning and again in July for unspecified medicinal poisoning.

Poisoning From an Unprescribed Medication

A 15-year-old female foster child resided in five placements in fiscal 2004. In April 2004, she was taken to a hospital and diagnosed with psychostimulant poisoning, although the child had not been prescribed any psychostimulants.

treatment centers. The data showed a variety of allegations, including:

- inappropriate use of medications (such as foster parents administering “double doses” of medication to put children to sleep);
- neglectful supervision (resulting in children receiving too much medication or the wrong medications);
- failure to fill or administer medications; and
- allowing foster children to self-administer their own medications (often resulting in “double dosing”).

The review also found several allegations of children being *overprescribed* medications;

foster children were observed being unable to lift their heads or focus their eyes, perhaps as a result of taking too many different medications (including a nine-year-old child who was allegedly falling asleep in school and received two medications to sleep and two to wake up).

Recommendation

DFPS should clearly state to all physicians, hospitals and emergency clinics that any foster child treated for poisoning or toxic effects *must* be reported to the DFPS hotline. (This is already required by law, but needs to be reinforced to all medical providers.) DFPS should then thoroughly investigate all of the reports.

CHAPTER 2: Medicinal Poisonings of Foster Children

CHAPTER 3

The Medications

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Texas foster children received a variety of psychotropic medications through the Medicaid program in fiscal 2004. While psychotropic medications accounted for 60 percent of all prescriptions (260,784 of 436,480), they accounted for 76.5 percent of the cost of all medications in fiscal 2004. Psychotropic medications are very expensive with the average cost of each prescription totaling \$114.69, while the average cost for all other drugs was \$52.17 per prescription.

More than 12,200 children—or 37.4 percent of all children in foster care received at least one psychotropic medication during fiscal 2004. This number includes 686 children age four and younger. The majority of these powerful medications are not FDA-approved for use by children, in fact many manufacturers of these drugs have warned against their use in children because in many cases long-term studies are nonexistent for this population. Also, many of these powerful medications have dangerous side effects.

Of all psychotropic medications, Texas foster children were most likely to receive an antidepressant, with 23.5 percent of all foster children getting a medication from that category. Foster children were also highly likely to receive antipsychotics and stimulants—with 21.1 percent and 20.0 percent of the population receiving these medications.

More than 9,600 Texas foster children received more than 53,000 prescriptions for controlled substances in fiscal 2004. The U.S. Drug Enforcement Administration places medications on the controlled substances list based on their potential for abuse.

Additionally, 572 Texas foster children received compound drugs in fiscal 2004. Compound drugs lack FDA oversight and sometimes can be too potent, ineffective or contaminated. There is also the potential for fraud and abuse, since pharmacies can bring in higher profits by dispensing compound drugs.

Psychotropic Drugs Prescribed to Texas Foster Children

Key Findings:

- *In fiscal 2004, while psychotropic medications accounted for 60 percent of all prescriptions, they accounted for 76.5 percent of the cost of all medications.*
- *The average cost per prescription for psychotropic drugs was \$114.69*
- *Almost 700 foster children age four and younger were on an average of nearly seven psychotropic drug prescriptions in fiscal 2004.*
- *Males were more likely to receive psychotropic medications than females.*

Psychotropic drugs are medications capable of affecting the mind, emotions and behavior. Texas foster children received a variety of psychotropic drugs through the Medicaid

program in fiscal 2004. Of the 436,480 prescriptions Texas foster children received in fiscal 2004, 60 percent, or 260,784, were for psychotropic drugs. Most of these medications are not approved for use by children (**Exhibit 1**).

The Comptroller's review team categorized all the drugs based on the categories published by the U.S. Pharmacopoeia and the American Hospital Association Formulary Service and other sources.¹ The categories and some of the types of drugs in them are listed in the Appendix "Medication Categories."

Of the 260,784 psychotropic prescriptions, 25.4 percent were antidepressants, 25.1 percent were antipsychotics, 17.4 percent were



Of the 436,480 prescriptions Texas foster children received in fiscal 2004, 60 percent, or 260,784, were for psychotropic drugs.

EXHIBIT 1

Texas Foster Care Psychotropic Prescriptions by Drug Category Fiscal 2004

Psychotropic Drug Category	Number of Children	Number of Prescriptions	Amount Paid	Average Paid Per Prescription
Antipsychotics	6,913	65,469	\$14,975,359	\$228.74
Anticonvulsants (Mood Stabilizers)	4,515	42,826	\$4,750,680	\$110.93
Stimulants	6,551	45,318	\$4,455,503	\$98.32
Antidepressants	7,699	66,366	\$3,842,585	\$57.90
Other ADHD Drugs	4,342	32,844	\$1,685,162	\$51.31
Anxiolytics (Antianxiety)	688	3,113	\$104,976	\$33.72
Hypnotics/Sedatives	1,002	2,498	\$72,487	\$29.02
Antidyskinetics (Controls Side Effects)	430	2,350	\$22,832	\$9.72
Total	12,244*	260,784	\$29,909,584	\$114.69

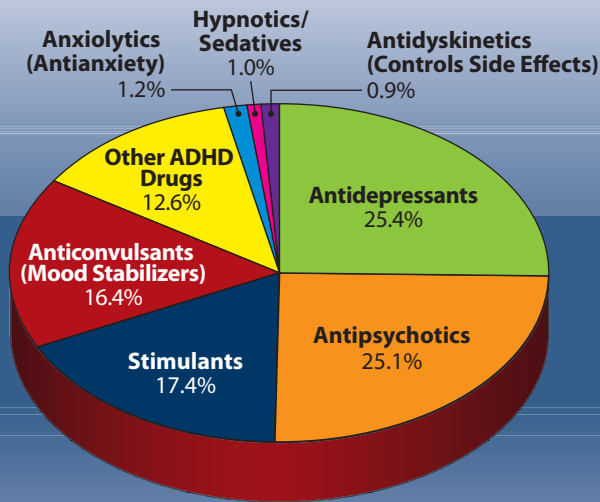
*Note: This is the total number of unduplicated children that received psychotropic medications; it is lower than the total of all children receiving medications from each category because a child may have received medications from two or more categories.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 2

Texas Foster Care Psychotropic Medication Prescriptions by Drug Category Fiscal 2004

Total Number of Psychotropic Prescriptions
260,784



Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

While psychotropic medications accounted for 60 percent of all prescriptions, they accounted for 76.5 percent of the cost of all medications in fiscal 2004.

stimulants, 16.4 percent were anticonvulsants (mood stabilizers) and 12.6 percent were other attention deficit and hyperactivity disorder (ADHD) drugs. Another 1.2 percent were anxiolytics, 1.0 percent were hypnotics/sedatives and 0.9 percent were antidyskinetics, which are used to control the side effects of antipsychotic drugs. (Exhibits 2 and 3).

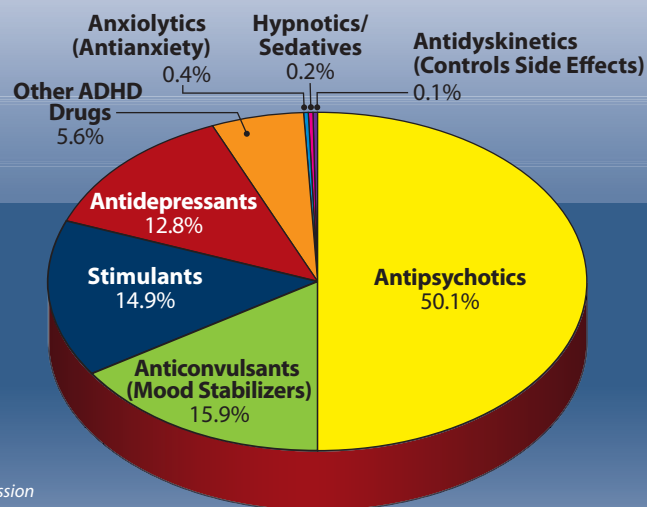
Other studies of medications given to Medicaid or foster care children have tended to

single out commonly prescribed psychotropic drugs and only report on them. The Comptroller's review team took a more comprehensive approach for several reasons. First, the study aimed to ensure that all psychotropic drugs given to foster care children were identified. The study also aimed to determine how the psychotropic drugs compared to other drugs and pursued additional study on some non-psychotropic drugs, like narcotics and HIV drugs. Appen-

EXHIBIT 3

Foster Care Psychotropic Medication Costs by Drug Category Fiscal 2004

Total Amount Paid for Psychotropic Drugs
\$29,909,584



Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 4

**Texas Foster Care Psychotropic Prescriptions by Race
Fiscal 2004**

Race	Psychotropic Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Psychotropic Medications
White	4,524	99,997	22.1	\$11,680,618	11,448	39.5%
Black	3,476	76,348	22.0	\$ 9,094,097	9,291	37.4%
Hispanic	4,038	80,265	19.9	\$ 8,648,450	11,423	35.3%
Other & Unknown	206	4,174	20.3	\$ 486,419	611	33.7%
Total	12,244	260,784	21.3	\$29,909,584	32,773	37.4%

Note: The total number of children receiving psychotropic medications, the total number of prescriptions, and the total dollar amount do not match in Exhibits 4, 5 and 6 because of a DFPS data error in the client files.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

dix “Comparison of Psychotropic Drugs Included in the Comptroller Study and Other Studies,” shows the list of psychotropic drugs included in this study versus those identified in other studies.

Cost of Psychotropic Medications

While psychotropic medications accounted for 60 percent of all prescriptions, they accounted for 76.5 percent of the cost of all

medications in fiscal 2004. The average cost per prescription for psychotropic drugs was \$114.69. The average for all other drugs was \$52.17 per prescription.

Demographics of Psychotropic Medications

Over one-third of white, black and Hispanic foster children received psychotropic drugs. In fact, a slightly higher percentage of white children used psychotropic drugs (39.5%),



Almost 700 children age four and younger were on an average of nearly seven psychotropic drug prescriptions in fiscal 2004.

EXHIBIT 5

**Texas Foster Care Psychotropic Prescriptions by Age
Fiscal 2004**

Age	Psychotropic Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Psychotropic Medications
0 – 4	686	4,583	6.7	\$357,634	10,362	6.6%
5 – 9	2,864	49,553	17.3	\$5,097,311	7,213	39.7%
10 – 14	4,218	107,161	25.4	\$12,537,144	6,921	60.9%
15 – 19	4,399	98,541	22.4	\$11,807,217	7,639	57.6%
20+	78	941	12.1	\$ 110,204	638	12.2%
Total	12,245	260,779	21.3	\$29,909,510	32,773	37.4%

Note: The total number of children receiving psychotropic medications, the total number of prescriptions and the total dollar amount do not match in Exhibits 4, 5 and 6 because of a DFPS data error in the client files.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 6

**Texas Foster Care Psychotropic Prescriptions by Sex
Fiscal 2004**

Sex	Psychotropic Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Psychotropic Medications
Male	6,831	150,536	22.0	\$18,013,833	16,729	40.8%
Female	5,412	110,243	20.4	\$11,895,677	16,035	33.8%
Unknown	1	5	5.0	\$74	9	11.1%
Total	12,244	260,784	21.3	\$29,909,584	32,773	37.4%

Note: The total number of children receiving psychotropic medications, the total number of prescriptions, and the total dollar amount do not match in Exhibits 4, 5 and 6 because of a DFPS data error in the client files.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.



Almost 2,900 children from age 5 to 9 were on an average of 17 psychotropic drug prescriptions in fiscal 2004 or almost 40 percent of all foster care children in that age group.

than black children (37.4 percent) and Hispanic children (35.3 percent) (**Exhibit 4**).

Almost 700 children age four and younger were on an average of nearly seven psychotropic drug prescriptions in fiscal 2004. They accounted for almost seven percent of all foster care children in that age group.

Almost 2,900 children from age 5 to 9 were on an average of 17 psychotropic drug prescriptions in fiscal 2004 or almost 40 percent of all foster care children in that age group. More than 4,200 children from age 10 to 14 received an average of more than 25 psychotropic prescriptions each in fiscal 2004 or 61 percent of all foster care children in that age group, making this age group the most likely to receive psychotropic drugs. Almost 4,400 children from age 15 to 19 received an average of more than 22 psychotropic prescriptions each in fiscal 2004 or 58 percent of all foster care children in that age group (**Exhibit 5**).

Males were more likely than females to receive psychotropic drugs. Forty-one percent of male foster children and 34 percent of female foster children received these powerful medications in fiscal 2004 (**Exhibit 6**).

Endnote

¹ Several sources of information were used in the classification, including The United States Pharmacopoeia (USP). USP is the official public standards-setting authority for all prescription and over-the-counter medicines, dietary supplements and other healthcare products manufactured and sold in the United States. Medline reports these categories. Medline is a service of the U.S. National Library of Medicine and National Institutes of Health. U.S. Pharmacopoeia, *USP Dictionary of USAN and International Drug Names* (Bethesda, Md., 2003); American Hospital Formulary Service, *AHFS Drug Information, 2004*. American Society of Health-System Pharmacists, (Rockville, Md., 2004); Medline, <http://www.medlineplus.com/>; United States Pharmacopoeia, <http://www.usp.org/>

Antipsychotics and Antidyskinetics

Key Findings:

- *In fiscal 2004, more than 65,000 prescriptions for antipsychotics were written for foster children at a cost of nearly \$15 million – with an average cost of \$228.74 per prescription.*
- *The majority of prescriptions were for newer atypical antipsychotics, which cost roughly up to 10 times as much as the older conventional antipsychotics.*
- *Overall, 21 percent of children in foster care were prescribed an antipsychotic medication in fiscal 2004.*
- *Thousands of foster children are prescribed atypical antipsychotic medications despite the lack of studies that demonstrate safety and efficacy in children and approval by the U.S. Food and Drug Administration.*
- *The side effects of atypical antipsychotics can be troubling, which range from Tardive Dyskinesia to diabetes.*

Antipsychotics

Antipsychotics are a specific class of medications used to treat psychiatric disorders that are characterized by disorderly thoughts and behaviors. Schizophrenia is the most common condition that falls into this category. Schizophrenia symptoms do not usually appear in children younger than age 13, according to the National Mental Health Association.

The first “conventional” antipsychotic was developed in the 1950s. In the late 1990s and 2000s new “atypical,” or second-generation, antipsychotics were introduced. Compared with typical antipsychotic agents, atypical antipsychotics are thought to be less likely to cause side effects, and their use expanded rapidly.

In fiscal 2004, more than 65,000 prescriptions for antipsychotics were written for foster children. Only 1.6 percent of these were for conventional antipsychotics; the majority was for atypical antipsychotics. Atypical antipsychotics are very expensive and cost roughly up to 10 times as much as the older conventional medications, according to the U.S. Department of Health and Human Services’ National Institutes of Health.

Cost

In fiscal 2004, antipsychotic drugs accounted for 50 percent of the total paid for all psychotropic drugs and 38 percent of the total paid for all prescriptions to children in foster care. The average paid per antipsychotic prescription was \$229, compared with the next most expensive, mood stabilizer medications, which averaged \$111 per prescription (**Exhibit 7**). The antipsychotic drug class ranked second in the number of prescriptions written in the psychotropic category, with 65,469 prescriptions, just behind antidepressants with 66,366 prescriptions. More than 6,900 children were prescribed antipsychotic medications. The 6,900 children account for about 29 percent of all children in foster care that received any medications.

Demographics for Antipsychotic Medications

Overall, 21 percent of children in foster care, or 6,913 children were prescribed an antipsychotic medication in fiscal 2004. Almost 23 percent of white and black children in foster care were prescribed antipsychotic medications in fiscal 2004 (**Exhibit 8**). A smaller percentage—18 percent—of



In fiscal 2004, antipsychotic drugs accounted for 50 percent of the total paid for all psychotropic drugs and 38 percent of the total paid for all prescriptions to children in foster care.

EXHIBIT 7

**Texas Foster Care Antipsychotic Prescriptions by Medication
Fiscal 2004**

Brand Name	Chemical Name	Medication sub-class	Number of Prescriptions	Amount Paid	Average Paid Per Prescription
Risperdal	risperidone	Atypical Antipsychotic	23,812	\$4,488,710	\$188.51
Seroquel	quetiapine	Atypical Antipsychotic	18,589	\$3,808,171	\$204.86
Abilify	aripiprazole	Atypical Antipsychotic	9,471	\$2,986,468	\$315.33
Zyprexa	olanzapine	Atypical Antipsychotic	8,906	\$2,889,696	\$324.47
Geodon	ziprasidone	Atypical Antipsychotic	3,330	\$740,394	\$222.34
Symbyax	fluoxetine and olanzapine	Atypical Antipsychotic	99	\$24,322	\$245.68
Clozaril	clozapine	Atypical Antipsychotic	192	\$9,364	\$48.77
Atypical Antipsychotic Subtotal			64,399	\$14,947,127	\$232.10
Thorazine	chlorpromazine	Conventional Antipsychotic	454	\$14,490	\$31.92
Haldol	haloperidol	Conventional Antipsychotic	348	\$5,944	\$17.08
Navane	thiothixene	Conventional Antipsychotic	92	\$1,106	\$12.02
Mellaril	thioridazine	Conventional Antipsychotic	89	\$3,006	\$33.77
Loxitane	loxapine	Conventional Antipsychotic	23	\$1,852	\$80.52
Orap	pimozide	Conventional Antipsychotic	27	\$1,190	\$44.08
Prolixin	fluphenazine	Conventional Antipsychotic	18	\$308	\$17.10
Stelazine	trifluoperazine	Conventional Antipsychotic	10	\$220	\$22.00
Trilafon	perphenazine	Conventional Antipsychotic	9	\$117	\$12.99
Conventional Antipsychotic Subtotal			1,070	\$28,232	\$26.39
Total			65,469	\$14,975,359	\$228.74

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 8

**Texas Foster Care Antipsychotic Prescriptions by Race
Fiscal 2004**

Race	Antipsychotic Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antipsychotic Medications
White	2,612	24,954	9.6	\$5,842,475	11,448	22.8%
Black	2,117	20,718	9.8	\$ 4,842,770	9,291	22.8%
Hispanic	2,068	18,785	9.1	\$ 4,040,476	11,423	18.1%
Other & Unknown	116	1,012	8.7	\$ 249,637	611	19.0%
Total	6,913	65,469	9.5	\$14,975,359	32,773	21.1%

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 9

**Texas Foster Care Antipsychotic Prescriptions by Age
Fiscal 2004**

Antipsychotic Prescriptions					All Foster Children	
Age	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antipsychotic Medications
0 - 4	179	904	5.1	\$ 151,899	10,362	1.7%
5 - 9	1,536	12,179	7.9	\$2,588,886	7,213	21.3%
10 - 14	2,657	27,465	10.3	\$6,421,081	6,921	38.4%
15 - 19	2,509	24,734	9.9	\$5,767,824	7,639	32.8%
20+	32	187	5.8	\$ 45,669	638	5.0%
Total	6,913	65,469	9.5	\$14,975,359	32,773	21.1%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Hispanic children in foster care were prescribed antipsychotic medications.

Children in foster care between the ages of 10 and 14 were the most likely to be prescribed an antipsychotic medication. Thirty-eight percent or 2,657 children in this age group were prescribed antipsychotic medications (**Exhibit 9**). The next age group most likely to be prescribed antipsychotic medications was the 15 and 19 year age group, in which 33 percent or 2,509 children received these medications. A large percentage of even younger children between the ages of 5 and 9 were also prescribed antipsychotic medi-

cations—21 percent or 1,536 children. While only about 1.7 percent, or 179 children between the ages of 0 and 4, were prescribed antipsychotic medications.

More males than females in foster care were prescribed antipsychotic medications in fiscal 2004. About 24 percent of the males were prescribed antipsychotic medications compared with 18 percent of females (**Exhibit 10**).

Cause for Concern

Physicians are prescribing antipsychotic medications to increasing numbers of children in the Medicaid program, of which


 *Physicians are prescribing antipsychotic medications to increasing numbers of children in the Medicaid program, of which children in foster care are a subset.*

EXHIBIT 10

**Texas Foster Care Antipsychotic Prescriptions by Sex
Fiscal 2004**

Antipsychotic Prescriptions					All Foster Children	
Sex	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antipsychotic Medications
Male	4,086	38,740	9.5	\$ 9,290,795	16,729	24.4%
Female	2,827	26,729	9.5	\$ 5,684,564	16,035	17.6%
Unknown	0	0	0	\$0	9	0.0%
Total	6,913	65,469	9.5	\$14,975,359	32,773	21.1%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

children in foster care are a subset. Antipsychotic medications are used to treat children with Tourette's Syndrome, autistic disorders, schizophrenia, conduct disorder and aggressive behavior.¹ This is done despite the lack of studies that demonstrate safety and efficacy in children and approval for use by the U.S. Food and Drug Administration (FDA) of atypical antipsychotics.² There are few long-term studies; therefore, the effects on learning, cognition, growth and development have not been determined.³ An article by Dr. Floyd R. Sallee that appeared in the U.S. FDA consumer magazine published in January 2003 expressed similar concerns and called for a study of these drugs in children to ensure their safety.

John March, the Chief of Child and Adolescent Psychiatry at Duke University School of Medicine, prescribes antipsychotic medications only in cases of serious illness, but said prescribing them for behavior problems alone may be a mistake because there is no evidence concerning the safety of these agents or their effectiveness in controlling aggression.⁴

Dr. William Cooper, a pediatrician at Vanderbilt Children's Hospital, has issued a study in which he states, "it looks like these medications are being used for large numbers of children in a setting where we don't know if they work."⁵ Also, the most probable reason for the large increase shown in this study is increased use for ADHD or conduct disorders and affective disorders.

A study by several doctors of pharmacy concluded that the increased use of antipsychotics may reflect psychiatric conditions requiring these medications or it may indicate potentially inappropriate use.⁶ In fiscal 2004, approximately 1,700 Texas foster children below the age of 10 received antipsychotic medications. This raises concerns because the medications are used primarily to treat schizophrenia, which is not typically diagnosed until the teenage years or older. These powerful medications are often prescribed for "off-label" use.

Side Effects, Drug Interactions and Dosage

The side effects of antipsychotic medications can also be troubling. Tardive Dyskinesia, which is characterized by involuntary movements, poses a long-term side effect for users of conventional antipsychotics. The term "tardive" refers to a movement disorder that develops six months or longer after exposure to the offending medication.⁷


A common side effect of the newer atypical antipsychotics is weight gain, which can lead to diabetes. Researchers at Johns Hopkins Children's Center have found that atypical antipsychotics may trigger insulin resistance, which increases the risk of developing Type 2 diabetes and heart disease in later life.⁸ A Texas study of olanzapine (Zyprexa) revealed that weight gain is significantly greater in males. The study concludes that clinicians should routinely monitor weight in children taking atypical antipsychotics, and further studies are necessary to determine the risk and magnitude of antipsychotic-induced weight gain.⁹


The FDA has issued a warning for olanzapine (Zyprexa) users because of adverse side effects—diabetes and increases in blood cholesterol/triglycerides. Another common side effect is problems with menstrual periods and skin rashes.

According to the National Institute of Mental Health, antipsychotic medications taken with other medications, like anticonvulsants (mood stabilizers), can produce unwanted side effects.

Antidyskinetics: Drugs to Control Side Effects of Antipsychotics

Physicians prescribe antidyskinetic medications to children in foster care to control drug-induced movement disorders caused by taking powerful antipsychotic drugs. Involuntary movements such as tremors, tics, dystonia and dyskinesias may be symptoms of primary neurological diseases, such as


A study by several doctors of pharmacy concluded that the increased use of antipsychotics may reflect psychiatric conditions requiring these medications or it may indicate potentially inappropriate use.


The side effects of antipsychotic medications can also be troubling.

Parkinson's disease, or occur secondary to pharmacotherapy. Drug-induced movement disorders, which are referred to as extrapyramidal side effects, can develop immediately or after prolonged exposure to treatment with an offending medication.

Extrapyramidal side effects occur in children on certain antipsychotic drugs, particularly haloperidol and other first-generation antipsychotics. Risperidal is also known to have extrapyramidal side effects on children, although to a lesser extent. Tardive Dyskinesia, a neurological disorder that is a side effect of taking antipsychotic drugs, is uncommon in children. Tardive Dyskinesia symptoms can include uncontrollable movement of different body parts.¹⁰

Cost

In fiscal 2004, more than 400 children were prescribed antidyskinetic medications at an average price per prescription of \$9.72 (**Exhibit 11**). Texas spent about \$23,000 on 2,350 antidyskinetic prescriptions for children in foster care.

Demographics for Antidyskinetic Medications

Slightly more than 1 percent of children in foster care, 430 children, were prescribed antidyskinetic medications in fiscal 2004 (**Exhibit 12**). Black and white children were prescribed about the same number of antidyskinetic medications, 865 and 863 respectively. Hispanic children were prescribed 561 antidyskinetic medications (**Exhibit 12**).

EXHIBIT 11

Texas Foster Care Antidyskinetic Prescriptions by Medication Fiscal 2004

Brand Name	Chemical Name	Medication sub-class	Number of Prescriptions	Amount Paid	Average Paid per Prescription
Cogentin	benzotropine	Antidyskinetics	2,295	\$21,991	\$9.58
Trihexane	trihexyphenidyl	Antidyskinetics	55	\$841	\$15.29
Total			2,350	\$22,832	\$9.72

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 12

Texas Foster Care Antidyskinetic Prescriptions by Race Fiscal 2004

Race	Antidyskinetic Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antidyskinetics
White	169	863	5.1	\$8,494	11,448	1.5%
Black	143	865	6.0	\$8,290	9,291	1.5%
Hispanic	109	561	5.1	\$5,521	11,423	1.0%
Other & Unknown	9	61	6.8	\$527	611	1.5%
Total	430	2,350	5.5	\$22,832	32,773	1.3%


Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 13

**Texas Foster Care Antidyskinetic Prescriptions by Age
Fiscal 2004**

Antidyskinetic Prescriptions					All Foster Children	
Age	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antidyskinetics
0 - 4	4	11	2.8	\$223	10,362	<.1%
5 - 9	39	185	4.7	\$1,788	7,213	.5%
10 - 14	180	963	5.4	\$9,182	6,921	2.6%
15 - 19	204	1,170	5.7	\$11,423	7,639	2.7%
20+	3	21	7.0	\$217	638	.5%
Total	430	2,350	5.5	\$22,832	32,773	1.3%

Note: Numbers may not add due to rounding.
Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.


Children between the ages of 15 to 19 and 10 to 14 were prescribed more antidyskinetic drugs than other age groups.

Children between the ages of 10 and 19 were prescribed more antidyskinetic drugs than other age groups. For example, about 2.7 percent or 204 children in the 15 to 19 age group were prescribed medications in this class and 2.6 percent or 180 children in the 10 to 14 age group (Exhibit 13). Approximately half a percent or 39 children in the 5 to 9 age group, and almost zero percent or four children in the 0 to 4 age group were given antidyskinetic medications.

Males were more likely than females to be prescribed antidyskinetic drugs, with 1.6

percent of the male and 1.0 percent of the female foster children receiving these medications (Exhibit 14).

Side Effects and Drug Interactions

According to the 2006 *Physician's Desk Reference* (PDR), antidyskinetic medications have not been approved for use in children under the age of three. In older children antidyskinetic drugs, which include benzotropine (Cogentin) and trihexyphenidyl (Trihexane), should be used carefully and under close physician supervision. The Mayo Clinic notes on its Web site, "Children may

EXHIBIT 14

**Texas Foster Care Antidyskinetic Prescriptions by Sex
Fiscal 2004**

Antidyskinetic Prescriptions					All Foster Children	
Sex	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antidyskinetics
Male	270	1,483	5.5	\$14,434	16,729	1.6%
Female	160	867	5.4	\$8,398	16,035	1.0%
Unknown	0	0	0	\$0	9	0.0%
Total	430	2,350	5.5	\$22,832	32,773	1.3%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

be especially sensitive to the effects of antidyskinetics. This may increase the chance of side effects during treatment.”¹¹ Possible side effects include: blurred vision, dry mouth, nausea or vomiting, constipation, drowsiness, disorientation, increased heart rate, irritability and urine retention.

Antidyskinetic drugs decrease the body's ability to sweat and cool itself, resulting in overheating and the danger of heat stroke. In addition, these drugs slow the digestive process and may enhance the absorption of other drugs. Furthermore, the effects of antidyskinetic drugs are usually intensified when taken with antidepressants such as amitriptyline, imipramine, trimipramine, desipramine, nortriptyline, protriptyline, amoxapine, doxepine and with certain antihistamines.

When taken simultaneously with an antipsychotic medication (Thorazine, Stelazine, Haldol and others) or a tricyclic antidepressant medication (Elavil, Norpramin, Tofranil and others), Cogentin has occasionally caused bowel blockage or heat stroke that proved dangerous or even fatal.

Endnotes

- ¹ Nick C. Patel, et al “Trends in Antipsychotic Use in Texas Medicaid Population of Children and Adolescents: 1996 to 2000,” *Journal of Child and Adolescent Psychopharmacology*, Volume 12, Number 3 (2002), p. 221.
- ² Lesley H. Curtis, et al “Prevalence of Atypical Antipsychotic Drug Use Among Commercially Insured Youths in the United States,” *American Medical Association* (April 2005), p. 362.
- ³ Nick C. Patel, et al “Trends in Antipsychotic Use in Texas Medicaid Population of Children and Adolescents: 1996 to 2000,” *Journal of Child and Adolescent Psychopharmacology*, Volume 12, Number 3 (2002), p. 226.
- ⁴ Marilyn Elias, “New antipsychotics drugs carry risks for children,” *USA Today* (May 2, 2006), Health and Behavior Section.
- ⁵ Lindsay Tanner, “Antipsychotics for kids up fivefold, study says,” *Fort Worth Star Telegram* (March 17, 2006), p. A-8.
- ⁶ Nick C. Patel, et al “Trends in Antipsychotic Use in Texas Medicaid Population of Children and Adolescents: 1996 to 2000,” *Journal of Child and Adolescent Psychopharmacology*, Volume 12, Number 3 (2002), p. 227.
- ⁷ Gwen M. Vernon, The Graduate Hospital Parkinson's Disease and Movement Disorder Center, “Drug-Induced & Tardive Movement Disorders,” <http://www.parkinsons-information-exchange-network-online.com/archive/093.html>. (Last visited August 3, 2006).
- ⁸ Johns Hopkins Medicine, “Antipsychotic drugs linked to insulin resistance in children,” http://www.hopkinsmedicine.org/Press_releases/2004/10_20_04.html (Last visited April 13, 2006.)
- ⁹ Nick C. Patel, et al, “A Retrospective analysis of the Short-Term Effects of Olanzapine and Quetiapine on Weight and Body Mass Index in Children and Adolescents,” *Pharmacotherapy Publications*, (July 9, 2004), p. 7.
- ¹⁰ Psyweb Mental Health Site, <http://psyweb.com/Glossary/tardived.jsp>. (Last visited August 3, 2006).
- ¹¹ MayoClinic, “Tools for Healthier Lives: Drugs & Supplements Antidyskinetics (Systemic),” <http://www.mayoclinic.com/health/drug-information/DR202057>. (Last visited May 22, 2006).

CHAPTER 3: Antipsychotics and Antidyskinetics

Stimulants and Other ADHD Medications

Key Findings:

- *In fiscal 2004, more than 45,000 prescriptions for stimulants were written for foster children at a cost of \$4.5 million – with an average cost of \$98.32 per prescription.*
- *A total of 20 percent of all children in foster care received a stimulant.*
- *Stimulants are classified as Schedule II controlled substances because they have a high potential for abuse, which can lead to psychological or physical dependence.*
- *Manufacturers of stimulant medications warn that they may cause growth suppression and seizures.*

Stimulants

Stimulants can be broken into several major categories, including several amphetamines and methylphenidates. Amphetamines and methylphenidates are used to treat attention-deficit hyperactivity disorder (ADHD). Amphetamines and methylphenidates increase attention and decrease restlessness in patients who are overactive, unable to concentrate for very long or are easily distracted.

These medicines are typically used as part of a total treatment program that also includes social, educational and psychological treatment. Amphetamines and methylphenidates are also used to treat narcolepsy.¹ Other stimulant medications used to treat ADHD include: Focalin, Provigil and Pemoline.



In fiscal 2004, there were more than 45,000 prescriptions written for stimulant medications for foster children.

EXHIBIT 15

Texas Foster Care Stimulant Prescriptions by Medication Fiscal 2004

Brand Name	Chemical Name	Medication Sub-class	Number of Prescriptions	Amount Paid	Average Paid per Prescription
Concerta, Metadate, Methylin, Ritalin	methylphenidate	Methylphenidates	22,517	\$2,255,989	\$100.19
Adderall	amphetamine and dextroamphetamine	Amphetamines	17,921	\$1,919,772	\$107.12
N/A	amphetamine	Amphetamines	3,173	\$152,867	\$48.18
Focalin	dexmethylphenidate	Other Stimulants	1,155	\$78,566	\$68.02
Provigil	modafinil	Other Stimulants	187	\$31,714	\$169.59
Dexedrine, DextroStat	dextroamphetamine	Amphetamines	363	\$16,446	\$45.31
Cylert	pemoline	Other Stimulants	2	\$148	\$74.19
Total			45,318	\$4,455,503	\$98.32

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 16

**Texas Foster Care Stimulant Prescriptions by Race
Fiscal 2004**

Race	Stimulant Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Stimulants
White	2,428	16,802	6.9	\$1,657,430	11,448	21.2%
Black	1,976	13,876	7.0	\$1,357,173	9,291	21.3%
Hispanic	2,037	13,868	6.8	\$1,367,008	11,423	17.8%
Other & Unknown	110	772	7.0	\$73,892	611	18.0%
Total	6,551	45,318	6.9	\$4,455,503	32,773	20.0%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.



More males than females in foster care were prescribed stimulant medications in fiscal 2004.

In fiscal 2004, there were more than 45,000 prescriptions written for stimulant medications for foster children. This represents 10.4 percent of all prescriptions written to foster children. There are 6,551 children taking stimulant medications. This represents 27.3 percent of all children in foster care receiving any medications. Stimulant medications account for \$4,455,503 (**Exhibit 15**).

Demographics of Stimulant Medications

Twenty percent of children in foster care, or 6,551 children, were prescribed stimulant medications in fiscal 2004. White and black children were just as likely to be prescribed stimulant medications—21 percent each. A slightly smaller percent—18 percent—of Hispanic children in foster care were prescribed stimulants (**Exhibit 16**).

EXHIBIT 17

**Texas Foster Care Stimulant Prescriptions by Age
Fiscal 2004**

Age	Stimulant Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Stimulants
0 - 4	186	732	3.9	\$50,322	10,362	1.8%
5 - 9	1,990	13,162	6.6	\$1,158,071	7,213	27.6%
10 - 14	2,643	19,469	7.4	\$1,982,728	6,921	38.2%
15 - 19	1,713	11,862	6.9	\$1,254,966	7,639	22.4%
20+	19	93	4.9	\$9,415	638	3.0%
Total	6,551	45,318	6.9	\$4,455,503	32,773	20.0%

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 18

**Texas Foster Care Stimulant Prescriptions by Sex
Fiscal 2004**

Sex	Stimulant Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Stimulants
Male	4,204	29,422	7.0	\$2,933,441	16,729	25.1%
Female	2,347	15,896	6.8	\$1,522,062	16,035	14.6%
Unknown	0	0	0.0	\$0	9	0.0%
Total	6,551	45,318	6.9	\$4,455,503	32,773	20.0%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

In fiscal 2004, 97 percent of the children in foster care who received stimulants were between the ages of 5 and 19.

Children between the ages of 10 and 14 were the most likely—38 percent or 2,643 children—to be prescribed a stimulant. The next age group most likely to be prescribed stimulants were young children aged 5 to 9; 28 percent or 1,990 children in this age group received stimulants. A smaller percentage of children between the ages of 15 and 19 were prescribed stimulants—22 percent or 1,713 children. About two percent or 186 children between the ages of 0 and 4 were also prescribed stimulants (Exhibit 17).

More males than females in foster care were prescribed stimulant medications in fiscal 2004. About 25 percent of the males were prescribed stimulants compared to 15 percent of females (Exhibit 18).

Cost

Stimulants are expensive medications. In fiscal 2004, the stimulant drug class ranked third in the number of prescriptions filled with 45,318 prescriptions. Stimulants ranked third in the total cost of prescriptions with a total amount paid of \$4,455,503. Adderall is the fourth most frequently prescribed medication, with 17,921 prescriptions filled at a cost of \$1,919,772. Concerta, the fifth most frequently prescribed medication is not far be-

hind with 17,566 prescriptions filled at a cost of \$1,894,178.

Thousands of Prescriptions Despite Legislative Controls²

Stimulants are classified as Schedule II controlled substances, meaning there are guidelines put in place by federal and state law restricting how the prescriptions can be written for these medications. These laws have been enacted in an attempt to monitor the number of prescriptions written and filled for these medications. Stimulants are classified as Schedule II because they have currently accepted medical uses in the United States. They have a high potential for abuse which can lead to severe psychological or physical dependence.³

Some of the controls put in place include the following: prescriptions for Schedule II substances may not be refilled, prescriptions for Schedule II substances must show the exact quantity of the substance prescribed, the date of issue, the name and address of the patient, the name and strength of the substance prescribed, the directions for use, the intended use and the Federal Drug Enforcement Administration (DEA) registration number. Prescriptions for Schedule II substances may not be called into a pharmacy except in an emergency situation. In this case, a written prescription must be delivered to the pharmacist.

Stimulants are classified as Schedule II controlled substances, meaning there are guidelines put in place by federal and state law restricting how the prescriptions can be written for these medications.

Although the Texas Legislature and the DEA have put controls in place, a large number of prescriptions were written for these substances in fiscal 2004. Texas does not have laws limiting the allowable quantity of Schedule II substances distributed in each prescription.

Although prescriptions for Schedule II substances cannot be refilled, Texas prescribers are not restricted in the number of pills they can prescribe, or the number of separate prescriptions that can be written at one time. In contrast, several states have laws limiting Schedule II prescriptions. For example, Utah restricts each prescription to a one-month supply; although prescribers are permitted to issue up to three prescriptions for one Schedule II controlled substance.⁴ Rhode Island has an even stricter law regarding Schedule II controlled substances. All Schedule II controlled substances, with the exception of amphetamines and methylphenidates, may not exceed a 30-day supply or 250 dosage units. Amphetamines and methylphenidate prescriptions may not exceed a 60-day supply or 250 dosage units.⁵

A Cause for Concern

Potential for Abuse

According to the DEA, amphetamines and methylphenidates are dangerous and have a high potential for abuse because they can be addictive. Chronic abuse of amphetamines produces psychosis that resembles schizophrenia and is characterized by paranoia, hallucinations and violent and erratic behavior.

Methylphenidate abuse is characterized by psychotic episodes, cardiac complications and severe psychological addiction. The DEA believes that the increased use of methylphenidates for treating ADHD has paralleled an increase in abuse among adolescents. Abusers can get their high from crushing stimulant pills and snorting them. The DEA has also stated that children seldom have trouble obtaining these pills from classmates or friends that have prescriptions.⁶

Side Effects

Side effects from dextroamphetamine and amphetamines may include: nervousness, mood swings, dizziness, upset stomach, weight loss and constipation. Methylphenidate side effects may include: fast heart-beat, increased blood pressure, chest pain, delusions and changes in mood.

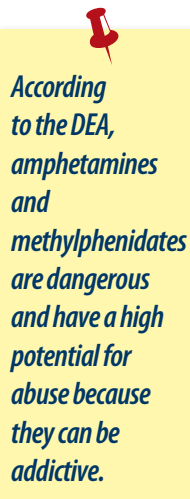
Stimulant medications currently carry warnings for risk of abuse, growth suppression and seizures. Labels also warn against use by children with psychotic disorders. Stimulants are also not recommended for patients with a history of agitation or motor tics, as these medications may aggravate these conditions.⁷

Amphetamines carry a boxed warning of abuse potential that cautions against prescribing amphetamines for prolonged periods of time. This warning also cautions doctors to prescribe amphetamines sparingly. Methylphenidates carry a boxed warning stating that chronic abusive use can lead to tolerance and psychological dependence. The boxed warning also states that withdrawal from therapeutic use of methylphenidates may unmask symptoms of an underlying disorder that may require follow-up.⁸ This last warning is particularly disturbing since the review team found many cases of children abruptly stopping the use of methylphenidates.

In an interview with a pharmacy, it was learned that often when children are transferred from one facility to another, their medications are simply thrown away. This leaves the child without any medications until a new doctor is found to treat them at their new home.⁹

Amphetamines carry warnings regarding growth suppression similar to the following:

Data are inadequate to determine whether chronic use of stimulants in children, including amphetamine, may be causally associated with suppression of growth. There-



According to the DEA, amphetamines and methylphenidates are dangerous and have a high potential for abuse because they can be addictive.

fore, growth should be monitored during treatment, and patients who are not growing or gaining weight as expected should have their treatment interrupted.¹⁰

Methylphenidates carry warnings regarding growth suppression similar to the following:

Sufficient data on the safety of long-term use of methylphenidate in children are not yet available. Although a causal relationship has not been established, suppression of growth (i.e., weight gain, and/or height) has been reported with the long-term use of stimulants in children. Therefore, patients requiring long-term therapy should be carefully monitored.¹¹

Methylphenidates carry warnings stating that there is some clinical evidence that methylphenidates may lower the convulsive threshold in patients with or without a prior history of seizures. The latter case is rare. In the presence of seizures, the drug should be discontinued.¹²

Amphetamines and methylphenidates carry warnings regarding use in psychotic children. Clinical experience suggests that use of stimulants may exacerbate symptoms of behavior disturbance and thought disorder.¹³ Some medications, including Concerta, Fo-

calin, Ritalin, Adderall XR and Metadate carry a warning stating that stimulants are not intended for use in the child who exhibits symptoms secondary to environmental factors or other psychiatric disorders, including psychosis.¹⁴

In the summer of 2006 the FDA stated that Dexedrine, a drug used to treat ADHD, must include new warnings regarding the risk of heart problems, sudden death, aggression and psychotic behavior.¹⁵

Young Foster Children Receiving Stimulants

The use of methylphenidates by children under the age of six is neither FDA approved, nor encouraged by methylphenidate manufactures. Specifically, the *Physician's Desk Reference* states "Concerta should not be used in children under six years, since safety and efficacy in this age group have not been established."¹⁶ Similar warnings have been issued by the manufactures of Ritalin, Methylin and Metadate.

The review team found that 213 Texas foster children under the age of six were prescribed methylphenidates in fiscal 2004. These children received 773 methylphenidate prescriptions at a total cost of \$47,963 (**Exhibit 19**).



In the summer of 2006 the FDA stated that Dexedrine, a drug used to treat ADHD, must include new warnings regarding the risk of heart problems, sudden death, aggression and psychotic behavior.

EXHIBIT 19

Methylphenidates Prescribed to Texas Foster Children Under the Age of Six Fiscal 2004

Drug Name	Number of Prescriptions	Amount Paid	Average Paid per Prescription
Concerta	361	\$33,065	\$91.59
Methylphenidate	236	\$5,833	\$24.72
Methylin	65	\$1,591	\$24.48
Ritalin LA	52	\$3,582	\$68.88
Metadate CD	36	\$3,064	\$85.11
Ritalin	23	\$828	\$36.00
Total	773	\$47,963	\$62.05

Source: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Foster Children Receiving Stimulants for Extended Periods of Time

Most major manufacturers of stimulants, including the makers of Adderall, Adderall XR, Dexedrine, Dextrostat, Concerta, Metadate, Ritalin and Focalin, have put warnings on their product labels warning of the long-term efficacy of these medications. In the case of these medications, “long-term use” has been defined as approximately three to six weeks. The warning label on Adderall XR states:

The effectiveness of Adderall XR for long-term use, i.e., for more than 3 weeks in children and 4 weeks in adults, has not been systematically evaluated in controlled trials. Therefore, the physician who elects to use Adderall XR for extended periods should periodically re-evaluate the long-term usefulness of the drug for the individual patient.¹⁷

The label of Adderall XR also states:

Where possible, drug administration should be interrupted occasionally to determine if there is a recurrence

of behavioral symptoms sufficient to require continued therapy.¹⁸


Similar warnings appear on the product inserts of all of the previously mentioned medications. The manufacturers of Adderall, Dexedrine, DextroStat and Methylin state that the long-term effects of amphetamines in pediatric patients have not been well established. The manufacturers of Concerta, Metadate, Ritalin and Focalin state that the effectiveness of these medications over the long-term have either not been studied or that the data are not available.

Despite warnings by the manufacturers foster children have continued to be prescribed stimulants for extended periods of time. In fact, 990 foster children were given 12 or more amphetamine prescriptions during fiscal 2004. Similarly, 746 foster children were given 12 or more methylphenidate prescriptions during fiscal 2004.

Other ADHD Medications

There are other medications that are used to treat ADHD that were given to foster children in fiscal 2004. These medications were used “off-label” for this purpose. Off-label use means that the medication is being used to treat a condition it is not FDA-approved to treat.

There are two drugs prescribed off-label to treat ADHD; guanfacine and clonidine, which are also prescribed under the brand name Catapres. These two drugs are FDA-approved to treat hypertension. Although the FDA has not approved these drugs to treat ADHD, there have been several studies conducted that indicate their efficacy. An analysis of previous studies on the efficacy of clonidine in treating ADHD was conducted in 1999. This analysis concluded that clonidine may be an effective second-tier treatment for symptoms of ADHD, but that the effects are less than those of stimulants.¹⁹ A study conducted in 1995 indicated that guanfacine is a beneficial and useful treatment of ADHD.²⁰


The manufacturers of Adderall, Dexedrine, DextroStat and Methylin state that the long-term effects of amphetamines in pediatric patients have not been well established.

CASE OF INTEREST

High Dose-High Cost Case

Although Adderall is a controlled substance, there is no limit on the number of pills that can be prescribed in each prescription in Texas. In fact, Marc, a 16-year-old male foster child living in a residential treatment center, was prescribed 360 pills of Adderall XR 30mg. These pills were prescribed as a 30-day supply. This prescription cost \$1,002 to fill.

This is highly unusual since Adderall XR is an extended release medication and is meant to be taken once daily, not 12 times daily as prescribed. Additionally, Adderall XR 30mg is the highest dosage manufactured. The recommended therapeutic dosage is 20mg/day taken once. If this medication were taken by this child as prescribed, this would most likely be a harmful --- if not lethal dose.

In addition, Marc has also been diagnosed with alcohol dependence. Since Adderall XR has a very high potential for abuse, the manufacturer has stated that this medication is not indicated for use by patients with a history of drug abuse. The same prescriber that wrote Marc’s prescription was the prescriber for 83 percent of the Adderall prescriptions that cost more than \$500 per prescription. The average cost for a prescription of Adderall is \$107.

EXHIBIT 20

**Texas Foster Care Other ADHD Prescriptions by Medication
Fiscal 2004**

Brand Name	Chemical Name	Total Number of Prescriptions	Total Amount Paid	Average Paid per Prescription
Strattera	atomoxetine	12,448	\$1,402,593	\$112.68
Catapres	clonidine	15,658	\$152,626	\$9.75
Tenex*	guanfacine	4,738	\$129,943	\$27.43
Total	-	32,844	\$1,685,162	\$51.31

*Tenex was not prescribed to foster children in fiscal 2004, all prescriptions shown were written for the generic form called guanfacine
Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Strattera is also included in the “Other ADHD Medications” category. Strattera is a non-stimulant medication that increases attention and decreases restlessness in patients who are overactive, unable to concentrate for very long, are easily distracted and are emotionally unstable. This medicine should be used as part of a total treatment program that includes social, educational and psychological treatment.²¹

In fiscal 2004, there were 32,844 prescriptions written for Other ADHD Medications for foster children. This represents 7.5 percent of all prescriptions written for foster children. There were a total of 4,342 children taking Other ADHD Medications. This represents 18.1 percent of all children in foster care re-

ceiving any medications. Other ADHD Medications account for \$1,685,162 (**Exhibit 20**).

Demographics of Other ADHD Medications

More than 13 percent of children in foster care—4,342—were prescribed Other ADHD Medications in fiscal 2004. White children were slightly more likely to be prescribed Other ADHD Medications than black and Hispanic children. Nearly 15 percent of white children received Other ADHD Medications, while 13.3 percent of black and 11.9 percent of Hispanic foster children received these medications (**Exhibit 21**).

In fiscal 2004, 96 percent of children in foster care that received Other ADHD Medications



In fiscal 2004, there were 32,844 prescriptions written for Other ADHD Medications for foster children.

EXHIBIT 21

**Texas Foster Care Other ADHD Prescriptions by Race
Fiscal 2004**

Race	Other ADHD Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Other ADHD Medications
White	1,681	12,907	7.7	\$727,858	11,448	14.7%
Black	1,238	10,084	8.1	\$461,287	9,291	13.3%
Hispanic	1,361	9,356	6.9	\$476,147	11,423	11.9%
Other & Unknown	62	497	8.0	\$19,870	611	10.1%
Total	4,342	32,844	7.6	\$1,685,162	32,773	13.2%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 22

**Texas Foster Care Other ADHD Prescriptions by Age
Fiscal 2004**

Age	Other ADHD Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Other ADHD Medications
0 - 4	182	816	4.5	\$26,387	10,362	1.8%
5 - 9	1,389	9,912	7.1	\$447,689	7,213	19.3%
10 - 14	1,734	14,692	8.5	\$724,566	6,921	25.1%
15 - 19	1,029	7,376	7.2	\$484,858	7,639	13.5%
20+	8	48	6.0	\$1,663	638	1.3%
Total	4,342	32,844	7.6	\$1,685,162	32,773	13.2%

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.



More males than females in foster care were prescribed Other ADHD Medications in fiscal 2004.

were between the ages of 5 and 19. Children between the ages of 10 and 14 were the most likely—25.1 percent or 1,734 children—to be prescribed an Other ADHD Medication. The next age group most likely to be prescribed Other ADHD Medications were young children aged 5 to 9. More than 19 percent or 1,389 children in this age group received Other ADHD Medications. A smaller percentage of children between the ages of 15 and 19 were prescribed Other ADHD Medications—13.5 percent or 1,029 children. About 2 percent or 182 children between the ages of 0 to 4 were also prescribed Other ADHD Medications (**Exhibit 22**).

More males than females in foster care were prescribed Other ADHD Medications in fiscal 2004. Nearly 17 percent of the males were prescribed these medications compared to 9.5 percent of females (**Exhibit 23**).

Side Effects of Other ADHD Medications

According to the manufacturer of the non-stimulant medication Strattera, patients' growth should be monitored. Patients who are not growing satisfactorily should interrupt their treatment. Additionally, the efficacy of this medication in pediatric patients has not been proven beyond nine weeks,

EXHIBIT 23

**Foster Care Other ADHD Prescriptions by Sex
Fiscal 2004**

Sex	Other ADHD Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Other ADHD Medications
Male	2,820	22,107	7.8	\$1,138,011	16,729	16.9%
Female	1,522	10,737	7.1	\$547,151	16,035	9.5%
Unknown	0	0	0	\$0	9	0.0%
Total	4,342	32,844	7.6	\$1,685,162	32,773	13.2%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

CASE OF INTEREST



Mass Poisoning of Young Foster Children

Alfie was five years old on April 16, 2004 when he was taken to a hospital in a major urban area to spend four days in psychiatric intensive care. Alfie's major diagnosis was psychostimulant poisoning. He also was diagnosed with alteration of consciousness, characterized by drowsiness, unconsciousness and stupor; drug-induced hallucinations; and depressive disorder.

Oddly, Alfie has never been prescribed a stimulant medication such as amphetamines. Alfie's foster mother, however, was caring for six other foster children at the time. One of these children, another five-year-old, had been receiving amphetamines as well as Adderall for ADHD.

Sadly, five of the seven children living in Alfie's home sought medical treatment for stimulant poisoning that day, with Alfie's case being the most serious. Among these children, ranging in age from eight months to five years, only one child was receiving prescriptions for stimulants; two received no medications at all.

All of the children later were removed from the foster home. The foster mother ran foster homes in three different locations during a 12-month period, and was running two homes at the same time until February 2004.

while the safety of this medication has not been proven past one year of treatment.²²

Endnotes

- ¹ U.S. National Library of Medicine and the National Institutes of Health, "Medline Plus," <http://www.nlm.nih.gov/medlineplus/druginformation.html>. (Last visited May 9, 2006.)
- ² Tex. Health and Safety Code §481.074 and §481.075
- ³ 21 USC Sec. 812 01/22/02.
- ⁴ Utah Code Section 58-37-6.
- ⁵ Rhode Island Uniform Controlled Substances Act 21-28-3.18.
- ⁶ United States Drug Enforcement Administration and United States Department of Justice, *Drugs of Abuse* (2005), <http://www.usdoj.gov/dea/pubs/abuse/doa-p.pdf>. (Last visited June 1, 2006).

- ⁷ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p.1387, 1830, 2215, 2254, 3177, 3317.
- ⁸ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 1386, 1830.
- ⁹ Interview with The Pharmacy #2, San Marcos, Texas, April 20, 2006.
- ¹⁰ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 3170.
- ¹¹ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 3317.
- ¹² Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 1830, 2215, 2254, 3317.
- ¹³ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 1387, 1830, 2215, 3168, 3170, 3177, 3317.
- ¹⁴ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p.1830, 2215, 2254, 3170, 3317.
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- ¹⁶ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 1830, 2215, 2254, 3317.
- ¹⁷ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 3170.
- ¹⁸ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 3172.
- ¹⁹ Daniel F. Conner et al., "A Meta-Analysis of Clonidine for Symptoms of Attention-Deficit Hyperactivity Disorder," *J. Am. Acad. Child Adolesc. Psychiatry*, 38(12): 1551-1559 (1999)
- ²⁰ Robert D. Hunt et al., "An Open Trial of Guanfacine in the Treatment of Attention-Deficit Hyperactivity Disorder," *J. Am. Acad. Child Adolesc. Psychiatry*, 34(1): 50-54 (1995)
- ²¹ U.S. National Library of Medicine and the National Institutes of Health, "Medline Plus," <http://www.nlm.nih.gov/medlineplus/druginformation.html>. (Last visited July 21, 2006.)
- ²² Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 1785-1786.

CHAPTER 3: Stimulants and Other ADHD Medications

Anticonvulsants (Mood Stabilizers)

Key Findings:

- *In fiscal 2004, almost 43,000 prescriptions for anticonvulsants were written for foster children at a cost of \$4.75 million – with an average cost of \$110.93 per prescription.*
- *According to the Zito / Safer External Review, anticonvulsant drug use for mood stabilization is a poorly evidenced area of psychopharmacology for children and adolescents.*
- *All anticonvulsant medications have the potential to cause abnormalities of blood counts and liver functions.*
- *Depakote, the most prescribed anticonvulsant is not appropriate for women of childbearing age, since it increases the risk of fetal anomalies.*

Anticonvulsants (mood stabilizers) are drugs used to control seizures in the treat-

ment of epilepsy. These medications are also used to treat mood disorders. By manipulating chemicals in the brain, these medications can control the rapid mood swings associated with Bipolar Disorder, “which includes both the “highs” characteristic of mania and the “lows” of depression.”¹ These medications are also used to treat excessive impulsiveness, anger, anxiety, depression or attempts at self injury associated with borderline personality disorder.

In fiscal 2004, almost 43,000 prescriptions were written for anticonvulsant medications for Texas children in foster care. Prescriptions for four drugs: valproic acid, oxcarbazepine, lithium carbonate and topiramate comprised 90 percent of all anticonvulsants prescribed to children in foster care. More than \$4.7 million was spent on anticonvulsants and the same four drugs comprised nearly 90 percent


 *Anticonvulsant drug use for mood stabilization is a poorly evidenced area of psychopharmacology for children and adolescents.*

EXHIBIT 24

Texas Foster Care Anticonvulsant Prescriptions by Medication Fiscal 2004

Brand Name	Chemical Name	Medication Sub-Class	Number of Prescriptions	Amount Paid	Average Paid per Prescription
Trileptal	oxcarbazepine	Anticonvulsant	12,892	\$1,980,075	\$153.59
Depakote, Depakene	valproic acid	Anticonvulsant	18,705	\$1,652,776	\$88.36
Topamax	topiramate	Anticonvulsant	3,317	\$543,212	\$163.77
Lamictal	lamotrigine	Anticonvulsant	831	\$191,910	\$230.94
Neurontin	gabapentin	Anticonvulsant	1,461	\$187,545	\$128.37
Eskalith, Lithobid	lithium carbonate	Anticonvulsant	3,571	\$98,950	\$27.71
Carbatrol, Eptol, Tegretol	carbamazepine	Anticonvulsant	2,049	\$96,213	\$46.96
Total			42,826	\$4,750,680	\$110.93

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 25

**Texas Foster Care Anticonvulsant Prescriptions by Race
Fiscal 2004**

Race	Anticonvulsant Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Anticonvulsants
White	1,791	17,178	9.6	\$1,919,656	11,448	15.6%
Black	1,258	12,046	9.6	\$1,363,296	9,291	13.5%
Hispanic	1,386	12,869	9.3	\$1,381,951	11,423	12.1%
Other & Unknown	80	733	9.2	\$85,776	611	13.1%
Total	4,515	42,826	9.5	\$4,750,680	32,773	13.8%

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

About 14 percent of children in foster care—4,515—were prescribed anticonvulsant medications in fiscal 2004.

of all the money spent on this category of psychotropic drugs (**Exhibit 24**).

According to the Zito/Safer External Review, anticonvulsant drug use for mood stabilization is a poorly evidenced area of psychopharmacology for children and adolescents. For more information see the Zito/Safer External Review.

Demographics of Anticonvulsant Medications

In fiscal 2004, the nearly 43,000 anticonvulsant prescriptions written for children in

Texas ranked fourth behind antidepressants, antipsychotics and stimulants. About 14 percent of children in foster care—4,515—were prescribed anticonvulsant medications in fiscal 2004. White children were prescribed more of these medications than black and Hispanic children. For example, 15.6 percent of all white children, 1,791 children, received anticonvulsants compared to 13.5 percent of black children and 12.1 percent of Hispanic children (**Exhibit 25**).

In fiscal 2004, 82 percent of the children in foster care who received anticonvulsants

EXHIBIT 26

**Texas Foster Care Anticonvulsant Prescriptions by Age
Fiscal 2004**

Age	Anticonvulsant Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Anticonvulsants
0 - 4	133	795	6.0	\$73,632	10,362	1.3%
5 - 9	682	5,080	7.4	\$461,486	7,213	9.5%
10 - 14	1,719	17,383	10.1	\$1,893,120	6,921	24.8%
15 - 19	1,951	19,371	9.9	\$2,298,356	7,639	25.5%
20+	30	197	6.6	\$24,086	638	4.7%
Total	4,515	42,826	9.5	\$4,750,680	32,773	13.8%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 27

Texas Foster Care Anticonvulsant Prescriptions by Sex Fiscal 2004

Sex	Anticonvulsant Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Anticonvulsants
Male	2,532	24,179	9.5	\$ 2,707,029	16,729	15.1%
Female	1,983	18,647	9.4	\$ 2,043,651	16,035	12.4%
Unknown	0	0	0	\$0	9	0.0%
Total	4,515	42,826	9.5	\$ 4,750,680	32,773	13.8%

Source: Health and Human Services Commission and Texas Comptroller of Public Accounts.

were over the age of 10. Children between the ages of 15 and 19—25.5 percent or 1,951 children—were the most likely to be prescribed an anticonvulsant. Children aged 10 to 14 were not far behind; 24.8 percent, or 1,719, of the children who received anticonvulsants were in this age group (**Exhibit 26**).

More males than females were prescribed anticonvulsant medications. About 15 percent of male foster children were prescribed these medications compared to 12 percent of female foster children (**Exhibit 27**).

Cost

In fiscal 2004, more than \$4.75 million was spent on anticonvulsants. This psychotropic category ranked second in the total amount spent on Texas foster children for psychotropic medications. Trileptal, Depakote and Topamax ranked in the top 15 medications for amount paid (Trileptal #5, Depakote #8 and Topamax #14).

Cause for Concern

According to the 2006 *Physician's Desk Reference* (PDR), Depakote, Trileptal and Topamax should be used with extreme caution in children 2 years old and younger. Anticonvulsant medications are processed through the liver, and the liver in children 2 years old and younger is significantly less mature and able to process these drugs. For similar reasons, lithium is not recommended for use in


children 12 years old and younger. Lithium is a much older drug than the others and does not break down as easily in the system; therefore, the drug is recommended for use in older children, over 12 years of age.²

Side Effects, Drug Interactions and Dosage

All anticonvulsant medications have the potential to cause abnormalities of blood or platelet counts and abnormalities of liver function. Patients who are taking these drugs should have blood tests done regularly to monitor their liver functions and blood counts.

The most common side effects associated with any anticonvulsant medication include dizziness, drowsiness, nausea, vomiting and skin rashes. The very serious, but rarer side effects of liver damage, coma, pancreatitis and Stevens-Johnson Syndrome (a potentially life-threatening skin rash) are possible as side effects of anticonvulsants including Lamictal, Tegretol and Trileptal.³

The most common side effects that can occur in people taking lithium are hand tremors, dry mouth, altered taste perception, weight gain, increased thirst, increased frequency of urination, mild nausea or vomiting, impotence, decreased libido, diarrhea and kidney abnormalities.


All anticonvulsant medications have the potential to cause abnormalities of blood or platelet counts and abnormalities of liver function.

In addition, the following side effects suggest that lithium blood levels may be too high and that the dose of lithium may need to be reduced: loss of appetite, visual impairment, tiredness, muscle weakness, muscle twitches, tremor, unsteady gait, confusion, seizure, arrhythmias, slurred speech and coma. About 1 in every 25 persons who receives lithium develops goiter (an enlarged thyroid gland). Hypothyroidism (low thyroid hormone levels) is also a side effect of lithium. Signs of hypothyroidism may include dry rough skin, hair loss, hoarseness, mania, mental depression, increased sensitivity to cold and swelling of the feet, lower legs and neck.⁴

Depakote

Background

Depakote is an anticonvulsant medication that is used to treat seizures from epilepsy. It is “also used to treat the manic phase of bipolar disorder (manic-depressive illness), and to help prevent migraine headaches.”⁵ Depakote comes in a tablet form as well as a syrup liquid for those who cannot swallow pills. As a delayed-release capsule, Depakote is called Divalproex. As a capsule, it is called valproic acid, and as an injection, Depakote is called valproate sodium.

Side Effects

The side effects for Depakote vary between age groups. Children and the elderly are at the highest risk of experiencing the worst side effects. “Children up to two years of age, those taking more than one medicine for seizure control, and children with certain other medical problems may be more likely to develop serious side effects.”⁶


The most common side effects while taking Depakote are “body aches or pain, congestion, cough, dryness or soreness of the throat, fever, hoarseness, runny nose, tender, swollen glands in the neck, trouble in swallowing, and voice changes.”⁷ In rare cases, Depakote has caused “life-threatening liver failure, especially in children younger

than two years old.” In other rare cases, it has been known to cause life-threatening pancreatitis. “Pancreatitis can come on suddenly and symptoms may start even after you have been taking Depakote for several years.”⁸ According to the Zito/Safer External Review – Depakote is not appropriate for women of childbearing age, since it prominently increases the risk of fetal anomalies.

Depakote is one of the most prescribed psychotropic drugs and is the most prescribed anticonvulsant drug. In fiscal 2004, there were 18,705 prescriptions of Depakote and its generic equivalent prescribed, totaling \$1,652,776, making Depakote the third most prescribed psychotropic drug.

Endnotes

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- ⁷ U.S. National Library of Medicine and the National Institutes of Health, “Valproic Acid,” <http://www.nlm.nih.gov/medlineplus/druginfo/uspdi/202588.html>. (Last visited July 6, 2006.)
- ⁸ Drugs.com: Drug Information Online, “Prescription Drug Information for Consumers and Professionals- Depakote,” <http://www.drugs.com/depakote.html>. (Last visited July 6, 2006.)

 According to the Zito/Safer External Review – Depakote is not appropriate for women of childbearing age, since it prominently increases the risk of fetal anomalies.

Antidepressants

Key Findings:

- *In fiscal 2004, more than 66,000 prescriptions for antidepressants were written for foster children at a cost of \$3.8 million – with an average cost of \$57.90 per prescription.*
- *In October 2004, the U.S. Food and Drug Administration ordered drug manufacturers to place a “black box” warning on all classes of antidepressants – because of the increased risk of suicidal behavior in children and adolescents.*

Antidepressants are drugs prescribed to treat the symptoms of depression: anxiety, sleep problems, constant negative thoughts and problems with concentration. Since they were developed in the 1950s, these drugs have been used to treat many disorders, including obsessive-compulsive disorder, chronic pain, eating disorders, post-traumatic stress disorder, panic attacks and severe anxiety.

Antidepressants affect mood by increasing the activity of certain chemicals in the brain. Researchers believe the chemicals most involved in depression are the neurotransmitters serotonin and norepinephrine, although it is unclear exactly how the medicines influence nerve cells.¹

Almost 30 different kinds of antidepressants are available, and most can be classified into four types: Tricyclics, Selective Serotonin Reuptake Inhibitors (SSRIs), Monoamine Oxidase Inhibitors (MAOIs), and Serotonin and Norepinephrine Reuptake Inhibitors (SNRIs). Tricyclic antidepressants slow the absorption of serotonin, dopamine and norepinephrine in the brain. SSRIs increase

serotonin levels in the brain. MAOIs block the action of monoamine oxidase in the nervous system. SNRIs increase serotonin and norepinephrine levels in the brain.

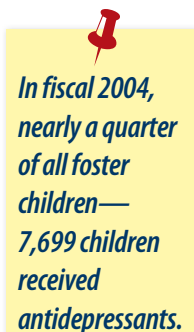
Several other antidepressants like bupropion, trazodone, nefazodone and mirtazapine have different biochemical structure and cannot be classified within the four standard types of antidepressants. They are called atypical antidepressants.

In fiscal 2004, 66,366 prescriptions for antidepressant medications were written for foster children, making the antidepressant drug class first in the number of prescriptions filled for foster children. This represented about 25 percent of all psychotropic prescriptions and 15 percent of all prescriptions written for foster children. Antidepressant medications ranked fourth in the total cost of prescriptions and represented 9.8 percent of the total cost of medication for foster children with a total amount paid of \$3,842,585 (**Exhibit 28**).

Demographics of Antidepressant Medications

In fiscal 2004, nearly a quarter of all foster children—7,699 children—received antidepressants. White children were slightly more likely to be prescribed antidepressants—25 percent or 2,835 children—than either black or Hispanic children. About 24 percent of Hispanic children in foster care and 22 percent of black children were prescribed antidepressants (**Exhibit 29**).

More than 80 percent, or 6,237, of the children in foster care who were prescribed an



In fiscal 2004, nearly a quarter of all foster children—7,699 children received antidepressants.

EXHIBIT 28

**Texas Foster Care Antidepressant Prescriptions by Medication
Fiscal 2004**

Brand Name	Chemical Name	Medication sub-class	Number of Prescriptions	Amount Paid	Average Paid per Prescription
Tofranil	imipramine	Tricyclic	2,412	\$49,533	\$20.54
Anafranil*	clomipramine	Tricyclic	117	\$3,370	\$28.80
Elavil*	amitriptyline	Tricyclic	258	\$1,704	\$6.60
Pamelor	nortriptyline	Tricyclic	83	\$1,420	\$17.11
Sinequan, Zonalon	doxepin	Tricyclic	131	\$1,193	\$9.10
Surmontil	trimipramine	Tricyclic	17	\$858	\$50.49
Norpramin*	despiramine	Tricyclic	20	\$437	\$21.87
Asendin*	amoxapine	Tricyclic	7	\$150	\$21.46
N/A	amitriptyline chlordiazepoxide (CDP)	Tricyclic	1	\$11	\$11.49
TRICYCLIC SUBTOTAL			3,046	\$58,678	\$19.26
Zoloft	sertaline	SSRI	12,648	\$1,008,068	\$79.70
Lexapro	escitalopram	SSRI	11,941	\$763,406	\$63.93
Celexa	citalopram	SSRI	2,214	\$174,864	\$76.98
Prozac, Sarafem	fluoxetine	SSRI	4,829	\$134,448	\$27.84
Paxil	paroxetine	SSRI	566	\$49,970	\$88.29
Luvox	fluvoxamine	SSRI	407	\$39,821	\$97.84
SSRI SUBTOTAL			32,605	\$2,170,577	\$66.57
Effexor	venlafaxine	SNRI	3,001	\$309,120	\$103.01
SNRI SUBTOTAL			3,001	\$309,120	\$103.01
Budeprion, Wellbutrin, Zyban	bupropion	Other	7,167	\$650,677	\$90.79
Remeron	mirtazapine	Other	8,426	\$547,324	\$64.96
Desyrel	trazodone	Other	11,939	\$96,917	\$8.12
Serzone	nefazodone	Other	182	\$9,292	\$51.05
ATYPICAL ANTIDEPRESSANT SUBTOTAL			27,714	\$1,304,210	\$47.06
Total			66,366	\$3,842,585	\$57.90

Note: Numbers may not add due to rounding.

*These brand name medications were not prescribed in fiscal 2004. All prescriptions shown were written and filled for their generic counterparts.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 29

**Texas Foster Care Antidepressant Prescriptions by Race
Fiscal 2004**

Antidepressant Prescriptions					All Foster Children	
Race	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antidepressants
White	2,835	25,148	8.9	\$1,462,025	11,448	24.8%
Black	2,066	17,214	8.3	\$1,009,275	9,291	22.2%
Hispanic	2,687	23,043	8.6	\$1,317,821	11,423	23.5%
Other & Unknown	111	961	8.7	\$53,464	611	18.2%
Total	7,699	66,366	8.6	\$3,842,585	32,773	23.5%

Note: The total number of foster children receiving antidepressant medications, the total number of prescriptions, and the total dollar amount do not match in Exhibits 29, 30 and 31 because of a DFPS data error in the client files.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

antidepressant in fiscal 2004 were between the ages of 10 and 19. Forty-four percent of children aged 15 to 19 were prescribed antidepressants, while 41 percent of children aged 10 to 14 age group received these medications. Children between the ages of 5 and 9 were the next most likely to be prescribed antidepressants—18 percent or 1,275 children in this age group received these medications. A total of 1.2 percent,

or 127, of very young children between the ages of 0 and 4 were prescribed antidepressants (**Exhibit 30**).

The percentage of male and female children prescribed antidepressants was almost identical. About 23 percent of male foster children received antidepressants compared to 24 percent of females (**Exhibit 31**).



The percentage of male and female children prescribed antidepressants was almost identical.

EXHIBIT 30

**Texas Foster Care Antidepressant Prescriptions by Age
Fiscal 2004**

Antidepressant Prescriptions					All Foster Children	
Age	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antidepressants
0 - 4	127	476	3.7	\$22,157	10,362	1.2%
5 - 9	1,275	8,024	6.3	\$407,871	7,213	17.7%
10 - 14	2,857	25,618	9.0	\$1,461,346	6,921	41.3%
15 - 19	3,380	31,882	9.4	\$1,922,625	7,639	44.2%
20+	59	361	6.1	\$28,513	638	9.2%
Total	7,698	66,361	8.6	\$3,842,512	32,773	23.5%

Note: The total number of foster children receiving antidepressant medications, the total number of prescriptions, and the total dollar amount do not match in Exhibits 29, 30 and 31 because of a DFPS data error in the client files.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 31

**Texas Foster Care Antidepressant Prescriptions by Sex
Fiscal 2004**

Sex	Antidepressant Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Antidepressants
Male	3,841	31,773	8.3	\$ 1,843,366	16,729	23.0%
Female	3,857	34,588	9.0	\$ 1,999,146	16,035	24.1%
Unknown	1	5	5.0	\$ 74	9	11.1%
Total	7,699	66,366	8.6	\$ 3,842,585	32,773	23.5%

Note: Numbers may not add due to rounding and the total number of foster children receiving antidepressant medications, the total number of prescriptions, and the total dollar amount do not match in Exhibits 29, 30 and 31 because of a DFPS data error in the client files.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Antidepressants and Adolescents

Depression is a medical disorder with a biological and chemical basis, that can be triggered by a stressful life event.²

Several studies have shown that most young people recover from their depression within one or two years, some without any medical treatment.³ However, for the remaining children suffering from severe depression, drug therapy may be an effective treatment.

Before 1997, no published reports on antidepressants stated that drug therapy was better than placebos for treating childhood depression. At that time, only 250 children and adolescents with depression had been included in the antidepressant drug trials accepted by the FDA. The FDA Modernization Act of 1997 provided an incentive to researchers to provide data on the effectiveness of antidepressants on adolescents and children. This caused an increase in data and reports on antidepressants and incited controversy about how effective these drugs are on adolescents.


Of all of the antidepressants, SSRIs have proven to be the most effective for treating childhood depression. Both the FDA and the United Kingdom Medicines and Healthcare

Products Regulatory Agency (MHRA) have noted that trials on the use of fluoxetine produced positive results.⁴ However, some researchers question the interpretation of the data produced in the antidepressants drug trials.⁵ As of May 2006, fluoxetine is the only antidepressant approved by the FDA for the treatment of childhood depression.⁶

Causes for Concern

In June 2003, the FDA began to thoroughly investigate the use of antidepressants to treat children and adolescents.⁷ This investigation was triggered by the release of a study that showed an increase in suicidal tendencies in children being treated with antidepressants, particularly paroxetine (Paxil).

In October 2004, the FDA ordered drug manufacturers to place a “black box” warning on all classes of antidepressants. The FDA put this warning into effect following an analysis of trials of antidepressant drugs in children and adolescents that included 4,400 patients. The analysis showed these patients had twice the risk of committing suicide while on antidepressants (no suicides occurred in these trials). The warning specifically states antidepressants increase the risk of suicidal behavior in children and adolescents. It also states physicians should balance the risk with the need for these


In October 2004, the FDA ordered drug manufacturers to place a “black box” warning on all classes of antidepressants.

medications by children and adolescents. If the practitioner chooses to proceed with treatment, patients should be closely observed for clinical worsening, agitation, irritability, suicidal behavior and other unusual changes in behavior. The FDA also warned physicians to write prescriptions for antidepressants in the smallest quantities possible to reduce the risk of overdose.⁸

For example, in Texas more than 400 prescriptions were filled for Zoloft 100 mg, the strongest dose available, where each child was to receive two pills a day, for a total of 200 mg daily, with up to five refills on each prescription. The recommended starting dosage for children aged 6-12 and adolescents aged 13-17 is 25 mg once daily and 50 mg once daily, respectively. The manufacturer states some patients may see benefits at doses up to 200 mg/daily but warns that the lower body weight of children should be considered before increasing the dosage.⁹

In July 2005, the FDA issued a warning about the antidepressant venlafaxine (Effexor) stating that although the drug is prescribed for children, the FDA does not approve of its use.¹⁰ In fiscal 2004 more than 3,000 Effexor prescriptions were written for foster children. As noted in the Zito / Safer External Review, FDA findings from clinical trials have shown that venlafaxine (Effexor) lacks efficacy or had minimal efficacy; the same is true for the antidepressants—escitalopram (Lexapro) and paroxetine (Paxil).

Side Effects, Drug Interactions and Dosage

Tricyclics: Usual side effects include dry mouth, tremors, fast heartbeat, constipation, sleepiness and weight gain. Tricyclics can be lethal in overdose.¹¹

SSRI: At first, many people feel sick and anxious when taking SSRIs. They can cause indigestion and confusion. The list of side effects is very long, and doctors should keep a close watch on their patients.

SNRI: The side effects are very similar to the SSRIs, and some SNRIs are not recommended for people who have heart problems or high blood pressure.

Atypical antidepressants: Bupropion, mirtazapine and trazodone have side effects very similar to the SSRIs. Trazodone may be used with other SSRIs to treat sleep disturbances.

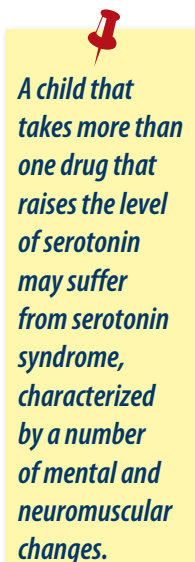
The practice of prescribing multiple drugs to treat a mental disorder is known as polypharmacy. Physicians use polypharmacy to treat a single disorder or several disorders at a time. Although this is widely practiced on adult patients, pediatric patients have different and sometimes dangerous reactions when taking more than one psychotropic medication.¹²

The SSRI and tricyclic antidepressants all raise the levels of serotonin in the brain. A child that takes more than one drug that raises the level of serotonin may suffer from serotonin syndrome, characterized by a number of mental and neuromuscular changes. This reaction may be lethal to a child.

Unfortunately, because researchers have conducted so few studies, there is limited data on drug-to-drug interactions in children that have been prescribed several medications. In July 2006, the FDA released a public health advisory warning that serotonin syndrome may be caused when triptans (medications used to treat migraine headaches) are taken with a SSRI or SNRI. Because this combination of medications has proved dangerous, the FDA has asked manufacturers of triptans, SSRIs, and SNRIs to warn patients about the possibility of serotonin syndrome.¹³

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A child that takes more than one drug that raises the level of serotonin may suffer from serotonin syndrome, characterized by a number of mental and neuromuscular changes.

CHAPTER 3: Antidepressants

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Anxiolytics (Antianxiety Medications)

Key Findings:

- *In fiscal 2004, about 3,100 prescriptions for anxiolytics were written for foster children at a cost of \$104,976 – with an average cost of \$33.72 per prescription.*
- *Many of these medications should not be taken for extended periods of time because they are habit forming.*

An anxiolytic is any drug used in the treatment of anxiety disorders.¹ They may also be used as a muscle relaxant and have been used in the treatment of epilepsy. These drugs have been utilized with success to treat anxiety disorders, but their use is limited because they have sedating side effects and may be habit-forming when taken for a long time or in high doses.²

The largest sub-class of anxiolytics and most widely prescribed anxiolytic is the benzodiaz-

epines. Examples of benzodiazepines include lorazepam (Ativan), clonazepam (Klonopin), chlordiazepoxide (Librium), diazepam (Diastat) and alprazolam (Xanax). All of these medications are Schedule IV controlled substances. Buspirone (Buspar) is an atypical anti-anxiety medication that is less sedating than the benzodiazepines and does not produce significant functional impairment.³

Anxiety is a very common disorder that affects many people. One in every eight Americans ages 18 to 54, or more than 19 million nationwide, suffers from an anxiety disorder.⁴ Anxiety disorders also are among the most common mental, emotional and behavioral problems that occur in children and adolescents. Nearly 13 out of every 100 children and adolescents ages 9 to 17 have an anxiety disorder.⁵ More girls than boys have an anxiety disorder, and about half of

EXHIBIT 32

Texas Foster Care Anxiolytic Prescriptions by Medication Fiscal 2004

Brand Name	Chemical Name	Number of Prescriptions	Amount Paid	Average Cost Per Prescription
Diastat, Valium*	diazepam	742	\$60,492	\$81.53
Klonopin	clonazepam	1,085	\$15,655	\$14.43
Buspar*	buspirone	495	\$12,800	\$25.86
Ativan	lorazepam	426	\$10,505	\$24.66
Tranxene*	clorazepate	83	\$2,877	\$34.66
Xanax	alprazolam	279	\$2,617	\$9.38
Librium*	chlordiazepoxide	3	\$30	\$9.91
Total		3,113	\$104,976	\$33.72

*Valium, Buspar, Tranxene and Librium were not prescribed in their brand name forms. The prescriptions shown were written for their generic counterparts.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 33

**Texas Foster Care Anxiolytic Prescriptions by Race
Fiscal 2004**

Anxiolytic Prescriptions					All Foster Children	
Race	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Anxiolytics
White	259	1,157	4.5	\$32,912	11,448	2.3%
Black	172	830	4.8	\$29,965	9,291	1.9%
Hispanic	242	1,034	4.3	\$39,897	11,423	2.1%
Other and Unknown	15	92	6.1	\$2,202	611	2.5%
Total	688	3,113	4.5	\$104,976	32,773	2.1%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.



In fiscal year 2004, 688 foster children were prescribed anxiolytics at a cost of \$104,976 for 3,113 prescriptions.

children with an anxiety disorder also have a second anxiety disorder or some other mental, emotional or behavioral problems.⁶ Children are treated for several different anxiety disorders, including generalized and separation anxiety disorder, phobias, panic disorders, obsessive-compulsive disorder and post-traumatic stress disorder.

In fiscal year 2004, 688 foster children were prescribed anxiolytics at a cost of \$104,976 for 3,113 prescriptions (Exhibit 32). The

average number of anxiolytic prescriptions per foster child was 4.5.

Demographics of Anxiolytics

White children were prescribed anxiolytics more frequently than Hispanic and black children (Exhibit 33). About 2.3 percent of white foster children, or 259 children, were prescribed anxiolytics; 1.9 percent of black, or 172 children received them, compared to 2.1 percent, or 242 of Hispanic children.

EXHIBIT 34

**Foster Care Anxiolytic Prescriptions by Age
Fiscal 2004**

Anxiolytic Prescriptions					All Foster Children	
Age	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Anxiolytics
0 - 4	80	482	6.0	\$29,560	10,362	0.8%
5 - 9	107	508	4.7	\$22,446	7,213	1.5%
10 - 14	179	864	4.8	\$22,056	6,921	2.6%
15 - 19	312	1,233	4.0	\$30,676	7,639	4.1%
20+	10	26	2.6	\$238	638	1.6%
Total	688	3,113	4.5	\$104,976	32,773	2.1%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 35

**Foster Care Anxiolytic Prescriptions by Sex
Fiscal 2004**

Sex	Anxiolytic Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Anxiolytics
Male	318	1,599	5.0	\$55,032	16,729	1.9%
Female	370	1,514	4.1	\$49,945	16,035	2.3%
Unknown	0	0	0.0	\$0	9	0.0%
Total	688	3,113	4.5	\$104,976	32,773	2.1%

Note: Numbers may not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Children between the ages of 15 and 19 were prescribed anxiolytics more frequently than any other age group (**Exhibit 34**). About 4 percent, or 312 children, ages 15 to 19 were prescribed medications, compared to 2.6 percent, or 179, in the 10 to 14 age group, 1.5 percent, or 107, in the 5 to 9 age group and less than one percent, or 80, in the 0 to 4 age group.

Females were slightly more likely than males to be prescribed anxiolytics (**Exhibit 35**). About 2.3 percent of the female foster children received anxiolytics compared to 1.9 percent of the male population.

Cost

Among psychotropic medications, anxiolytics ranked sixth both in the number of prescriptions and the amount paid. The average cost per prescription for anxiolytic medications was \$33.72. Diazepam is the most expensive anxiolytic. This medication averaged \$81.53 per prescription.

Clonazepam and Diazepam


In fiscal 2004, clonazepam and diazepam were the two most frequently prescribed anxiolytic medications for children in foster care. There were 1,085 prescriptions of clonazepam and 742 prescriptions of diazepam prescribed in fiscal 2004 (**Exhibit 32**). Clonazepam, also prescribed under

the brand Klonopin, is prescribed to relieve anxiety, control seizures, treat symptoms of Parkinson’s disease, twitching, schizophrenia and for pain management.⁷ There is a risk of adverse effects on childhood physical or mental development with the long-term use of clonazepam.⁸

Diazepam, also prescribed under the brand Diastat—which is the chemical equivalent of Valium, is the second most frequently prescribed benzodiazepine for children in foster care, and the most expensive. In fiscal 2004, the state spent an average of \$82 per diazepam prescription (**Exhibit 32**). Diazepam is prescribed to relieve anxiety, muscle spasms, seizures and to control agitation caused by alcohol withdrawal.⁹ This drug may be prescribed to children, but only in the lowest possible dose, and it should not be given to children under six months.¹⁰

Causes for Concern

Benzodiazepines were introduced in the late 1950s and have become the most widely prescribed anxiolytic and hypnotic.¹¹ Benzodiazepines are medications that should not be taken for extended periods of time because they are habit forming. When taken for long periods of time, benzodiazepines become ineffective and can result in drug dependence.


Benzodiazepines are medications that should not be taken for extended periods of time because they are habit forming.

Benzodiazepines can produce several side effects, including drowsiness, dizziness, lightheadedness, clumsiness and a loss of alertness. Children tend to be more sensitive than adults to the effects of benzodiazepines, increasing the likelihood that they would experience one or more side effects.¹²

Doctors strongly advise pregnant women to use benzodiazepines sparingly. Mothers that take moderate to large amounts of benzodiazepines during pregnancy often have babies with symptoms of withdrawal following birth. Babies that are experiencing withdrawal show signs of respiratory distress, disturbed sleep patterns, sweating, fever and feeding difficulties.¹³

Drug Abuse and Withdrawal

Benzodiazepine abuse is common because the drug is habit forming and is widely available.¹⁴ Some signs of drug abuse in children include deterioration of school performance and abrupt changes in mood. Abuse of benzodiazepines may be detected if the patient is drowsy, confused, dizzy, has blurred vision, is weak, slurs their speech, has a lack of coordination, has a difficulty breathing or is in a coma. Patients with chronic drug abuse may experience serious side effects experience, such as anorexia, insomnia, anxiety, headaches and weakness.¹⁵ (See section on Controlled Substances.)

Benzodiazepines can lead to physical and psychological dependence that can result in withdrawal symptoms when the drug use is abruptly reduced or discontinued. While dependence withdrawal rarely occurs in those taking normal doses for short periods of time, it can occur for those taking it for weeks or months. Withdrawal symptoms are estimated to occur in between 50 percent and 80 percent of people who have taken benzodiazepines continually for six months or longer.¹⁶ A gradual reduction in the dose of the benzodiazepines minimizes the severity of withdrawal symptoms.

Benzodiazepines can lead to physical and psychological dependence that can result in withdrawal symptoms when the drug use is abruptly reduced or discontinued.

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CHAPTER 3: Anxiolytics (Antianxiety Medications)

Hypnotics/Sedatives

Key Findings:

- *In fiscal 2004, about 2,500 prescriptions for hypnotics/sedatives were written for foster children at a cost of \$72,487 – with an average cost of \$29.02 per prescription.*
- *Anyone taking hypnotics/sedatives can become dependent on them in just a few days.*

Hypnotic/sedatives are drugs that slow down the central nervous system causing relaxation, sleepiness and a decrease in anxiety. Hypnotic/sedatives may also be classified as tranquilizers, depressants, anxiolytics, soporifics, sleeping pills or “downers.”

One sub-class of hypnotic/sedatives is benzodiazepines. In 1957 the first benzodiazepine was developed to treat anxiety and sleep disorders. Before this, doctors commonly used barbiturates to treat these conditions. Benzodiazepines and barbiturates have similar pharmacological make-ups, but benzodiazepines have fewer side effects. Both classes of drugs are highly addictive.¹

The hypnotic/sedative prescribed most often – 1,636 prescriptions were for Vistaril (hydroxyzine), which is used to relieve itching from allergies and to control nausea and vomiting. This was followed by 739 prescriptions for other sedatives, the most common of which was Ambien. The safety


 *In fiscal 2004 there were almost 2,500 prescriptions written for hypnotic/sedative medications for foster children.*

EXHIBIT 36

Texas Foster Care Hypnotic/Sedative Prescriptions by Medication Fiscal 2004

Brand Name	Chemical Name	Medication Sub-Class	Number of Prescriptions	Amount Paid	Average Paid per Prescription
Vistaril	hydroxyzine	Hydroxyzine	1,636	\$25,375	\$15.51
Hydroxyzine Subtotal			1,636	\$25,375	\$15.51
Ambien	zolpidem	Other Sedative	513	\$37,322	\$72.75
Somnote	chloral hydrate	Other Sedative	162	\$1,418	\$8.75
Sonata	zaleplon	Other Sedative	64	\$6,820	\$106.56
Other Sedative Subtotal			739	\$45,560	\$61.65
Restoril	temazepam	Benzodiazepines	109	\$1,444	\$13.25
Dalmane*	flurazepam	Benzodiazepines	8	\$58	\$7.27
Halcion*	triazolam	Benzodiazepines	4	\$28	\$7.04
Prosom*	estazolam	Benzodiazepines	2	\$22	\$10.90
Benzodiazepines Subtotal			123	\$1,552	\$12.62
Total			2,498	\$72,487	\$29.02

*Dalmane, Halcion and Prosom were not prescribed in their brand name versions. The prescriptions shown were written for their generic counterparts.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

EXHIBIT 37

**Texas Foster Care Hypnotic/Sedative Prescriptions by Race
Fiscal 2004**

Hypnotic/Sedative Prescriptions					All Foster Children	
Race	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Hypnotic/Sedatives
White	387	988	2.6	\$ 29,767	11,448	3.4%
Black	283	715	2.5	\$ 22,041	9,291	3.0%
Hispanic	315	749	2.4	\$19,629	11,423	2.8%
Other & Unknown	17	46	2.7	\$1,050	611	2.8%
Total	1,002	2,498	2.5	\$72,487	32,773	3.1%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.



Notably, 2.2 percent of foster children between the ages of 0 and 4 received hypnotics.

and effectiveness of Ambien has not been established in children below the age of 18.

In fiscal 2004 there were almost 2,500 prescriptions written for hypnotic/sedative medications for foster children. This represented about 0.6 percent of all prescriptions written for foster children. A total of 1,002 children, or three percent of all foster children, received hypnotic/sedative medications. The hypnotic/sedative drug class ranked seventh in the total cost of prescrip-

tions with a total amount paid of \$72,487 (Exhibit 36), less than 0.2 percent of the total cost of medication for foster children.

Demographics of Hypnotics/Sedatives

Three percent of children in foster care—1,002 children—were prescribed hypnotic/sedative medications in fiscal 2004. A slightly larger percentage of white children were prescribed medications in this class of drugs than either black or Hispanic children, but

EXHIBIT 38

**Texas Foster Care Hypnotic/Sedative Prescriptions by Age
Fiscal 2004**

Hypnotic/Sedative Prescriptions					All Foster Children	
Age	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Hypnotic/Sedatives
0 - 4	232	367	1.6	\$3,455	10,362	2.2%
5 - 9	204	503	2.5	\$9,074	7,213	2.8%
10 - 14	224	707	3.2	\$23,065	6,921	3.2%
15 - 19	335	913	2.7	\$36,490	7,639	4.4%
20+	7	8	1.1	\$403	638	1.1%
Total	1,002	2,498	2.5	\$72,487	32,773	3.1%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

the difference was less than one percentage point. About 3.4 percent, or 387 white children were prescribed hypnotic/sedatives; 3 percent of black children received them; and 2.8 percent of Hispanic children received hypnotic/sedatives. (Exhibit 37).

Notably, 2.2 percent of foster children between the ages of 0 and 4 received hypnotics (Exhibit 38).

The percentages of male and female children prescribed hypnotics/sedatives was almost identical. Exactly 3.0 percent of male foster children received hypnotic/sedatives, compared to 3.1 percent of females (Exhibit 39).

Cost

In fiscal 2004, the hypnotic/sedative drug class ranked seventh in the number of prescriptions filled with 2,498 prescriptions.

The average cost of most hypnotic/sedatives is inexpensive, at \$29.02 per prescription. However, newer drugs, such as Ambien and Sonata are expensive. Ambien was the second most prescribed hypnotic/sedative medication and cost about \$73 per prescription. Sonata, which cost more than \$106 per prescription, was prescribed only 64 times.

Hypnotic/Sedatives and Children or Adolescents

Hypnotic/sedatives are prescribed for a variety of reasons. These medications may be given to children who are anxious about a minor medical treatment or to treat anxiety disorders or sleep disorders. The number of children aged 10 to 19 using sleeping medications rose by 85 percent from 2000 to 2004.²

Unlike other prescription drug classes, there is a diverse and well-documented body of research on hypnotic/sedative drug use in children and adolescents. Studies show that these drugs must be dispensed according to the proper procedures to ensure that they do not cause permanent danger to the pediatric patient.

In another study, doctors found that some pediatric patients died of drug overdoses when taking hypnotic/sedatives. These overdoses were caused by several factors including errors in dosage, incorrect patient histories and improper administration of the drugs at home.

Causes for Concern

Drug combinations and interactions were the most common causes of hypnotic/sedative related deaths or “negative outcomes”

EXHIBIT 39

Texas Foster Care Hypnotic/Sedative Prescriptions by Sex Fiscal 2004

Sex	Hypnotic/Sedative Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Hypnotic/Sedatives
Male	497	1,233	2.5	\$31,725	16,729	3.0%
Female	505	1,265	2.5	\$40,762	16,035	3.1%
Unknown	0	0	0	\$0	9	0.0%
Total	1,002	2,498	2.5	\$72,487	32,773	3.1%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

CASE OF INTEREST


A Nine-Year-Old Girl Received 10 Prescriptions For Sleeping Pills

A nine-year-old girl who's service level had been changed from "moderate" to "specialized" to "basic" throughout fiscal 2004 had 10 prescriptions filled for Ambien. These sleeping pills cost more than \$700. Nine of these prescriptions were for Ambien 10 mg, the strongest dose available. All 10 of the prescriptions were for 31 pills each. This means this child had a sleeping pill for every day of the 10 months that she had prescriptions filled in fiscal 2004. As stated earlier, according to the manufacturer, patients build a tolerance for these pills after two weeks.

After taking the medications for any period of time, it is dangerous to abruptly stop taking the drugs since withdrawal reactions are severe and can be life threatening.³ Close monitoring of the use of these medications, especially in children, is necessary because of these factors.

reported to the FDA in 2002. A study by Coté et. al. in 2000 found that "The use of 3 or more sedating medications compared with 1 or 2 medications was strongly associated with adverse outcomes [death or coma]." These incidents occurred most often in nonhospital-based locations, like a dentist's office. About 80 percent of instances began as breathing problems.⁴

Anyone taking hypnotic/sedatives can become dependent on them in just a few days. In fact, the manufacturers of Ambien and many other sleep aids have warned that these medications can become addictive, especially when used for longer than a few weeks and at high doses.

 Anyone taking hypnotic/sedatives can become dependent on them in just a few days.

The maker of Ambien has also warned that patients gain tolerance for sleep medications. After taking Ambien every night for a few weeks, the medication often becomes less effective to aid sleep. The manufacturer warns that patients should use sleep medicines only for short periods of time, such as one or two days and no longer than one or two weeks.⁵ However, the prescribing patterns of Ambien for Texas foster children show a different story. In fiscal 2004, there were 513 Ambien prescriptions filled for foster children. These prescriptions were written for 172 foster children, meaning the average child received about three prescriptions of Ambien in fiscal year 2004. Of the 513 prescriptions filled, 419, or about 82 percent, were for 30 or more pills.

Endnotes

- ¹ United States Pharmacopoeia, *Drug Information for the Health Care Professional*, 16th ed. (Taunton, Massachusetts: Rand McNally, 1996).
- ² Medco Health Solutions, "Sleep Deprivation Driving Drug Use and Cost: New Research Finds Increased Use of Prescription Sleeping Aids," Franklin Lakes, New Jersey, October 17, 2005. (News Release.)
- ³ The Merck Manuals Online Medical Library Home Edition, "Antianxiety Drugs and Sedatives: Drug Use and Abuse," <http://www.merck.com/mmhe/sec07/ch108/ch108d.html>. (Last visited September 4, 2006.)
- ⁴ Charles J. Coté, Helen W. Karl, Daniel A. Notterman, Joseph A. Weinberg, and Carolyn McCloskey, "Adverse Sedation Events in Pediatrics: Analysis of Medications Used for Sedation" *Pediatrics*, 106(4): 633-644 (2000).
- ⁵ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), p. 2870.

Psychotropic Medications and Young Children

Key Findings

- *In fiscal 2004, 686 foster children age zero to four received nearly 4,600 prescriptions for psychotropic medications, the majority of which were not approved by the U.S. Food and Drug Administration (FDA) for use in children.*
- *Some of these children had no mental health diagnosis that would merit such medications.*

Background

A review of fiscal 2004 Medicaid claims for foster children made it clear that hundreds of very young children were receiving powerful, mind-altering psychotropic medications.

In fiscal 2004, 686 foster children between the ages of zero and four received nearly 4,600 prescriptions for psychotropic medications at a cost of more than \$350,000 (**Exhibit 40**). The majority of these medications are not approved for patients less than 18 years of age. In fact, most pharmaceutical manufacturers warn *against* the use of these powerful drugs by children, since they have not been studied in such a young population.

In the absence of such studies, no one can know what the long-term consequences for young children will be.

Yet at present, the Texas Department of State Health Services' guidelines in its *Psy-*

EXHIBIT 40

Foster Children Age Zero to Four Receiving Psychotropic Medications by Amount Paid Fiscal 2004

Drug Category	Number of Children	Number of Prescriptions	Number of Prescriptions per Child	Amount Paid
Antipsychotics	179	904	5.1	\$151,899
Anticonvulsants (Mood Stabilizers)	133	795	6.0	\$73,632
Stimulants	186	732	3.9	\$50,322
Anxiolytics (Antianxiety)	80	482	6.0	\$29,560
Other ADHD	182	816	4.5	\$26,387
Antidepressants	127	476	3.7	\$22,157
Hypnotics/Sedatives	232	367	1.6	\$3,455
Antidyskinetics (Controls Side Effects)	4	11	2.8	\$223
Total	686*	4,583	6.7	\$357,634

*Notes: The total number of unduplicated children receiving psychotropic drugs is lower than the total of all children receiving drugs from each category because a child may have received drugs from two or more categories. Also, the total amount paid does not add due to rounding.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts

Psychotropic Medication Utilization Parameters for Foster Children are not as specific as they could be regarding dosage and review of psychotropic medication prescribed to young children.

The document states criteria indicating a need for further review of very young children less than four years old for the drug categories: antidepressants and antipsychotics. It lists the need for further review for children less than three years old for psychostimulants.

The document also lists a maximum dose per day for specific antidepressants, anxiolytics and antipsychotics for children and adolescents, but many of these medications are not approved by the FDA for use by children and not all drug categories are included. These guidelines and parameters were meant to be a resource for prescribing providers, but it is not mandatory that physicians follow them.¹

Antipsychotics

In fiscal 2004, 179 Texas foster children under the age of five received 904 prescriptions for antipsychotic medications, at a cost of \$151,899—an average of about five antipsychotic prescriptions per child for the year.

CASE OF INTEREST

 **Toddler Receives Powerful Antipsychotics**

A two year-old “basic” female foster child living in a foster home received seven prescriptions for Risperdal, a powerful antipsychotic, totaling more than \$700. This medication is FDA-approved only for adults aged 18 and over. Risperdal is used to treat symptoms of psychotic disorders such as schizophrenia and bipolar disorder. This child had no claims or diagnoses indicating psychosis. The only diagnoses for this child in fiscal 2004 were developmental delays, fevers, pharyngitis, bronchitis, the flu, acute reactions to stress and cough.²

CASE OF INTEREST

 **Four-Year-Old Receives Seven Prescriptions For a Mood Stabilizer**

Depakote is often given to patients for treatment of seizures; it is sometimes prescribed off-label to treat the manic phase of bipolar disorder and migraine as well.³

One four-year-old male foster child living in a foster home received seven prescriptions for Depakote. He was diagnosed with adjustment reaction with anxiety and depression, manic-depression, attention deficit hyperactivity disorder, and long-term use of high-risk medications in particular Depakote. In fiscal 2004, he received seven prescriptions for Depakote, eight prescriptions for antipsychotics and five different prescriptions to treat ADHD.

Anticonvulsants (Mood Stabilizers)

In fiscal 2004, 133 Texas foster children under the age of five received 795 prescriptions for mood stabilizers, at a cost of \$73,632—an average of about six mood stabilizer prescriptions per child for the year.

Stimulants


In fiscal 2004, 186 foster children under the age of five received 732 prescriptions for stimulants at a cost of \$50,322, for an average of about 3.9 stimulant prescriptions per child for the year.

Antidepressants

In fiscal 2004, 127 foster children under the age of five received 476 prescriptions for antidepressants at a cost of \$22,157, for an average of about 3.7 antidepressant prescriptions per child for the fiscal year.

Hypnotic/Sedatives

In fiscal 2004, 232 foster children under the age of five received 367 prescriptions for hypnotic/sedative medications at a cost of \$3,455, for an average of about 1.6 hypnotic/sedative prescriptions per child for the fiscal year.

 *The Texas Department of State Health Services’ guidelines in its Psychotropic Medication Utilization Parameters for Foster Children are not as specific as they could be regarding dosage and review of psychotropic medication prescribed to young children.*

CASE OF INTEREST

Toddler Receives 17 ADHD Prescriptions

A two-year-old male foster child living in the same foster home for most of the year received an alarming number of stimulant and other ADHD medications in fiscal 2004. This toddler originally was classified a “basic” child, but his status was changed to “moderate” and then “specialized” by the end of the fiscal year. In all, this toddler received 17 prescriptions for medications used to treat ADHD in a single year (Exhibit 41).

The child received two prescriptions for Focalin, a stimulant. The manufacturer warns that, “Focalin should not be used in children under six years, since safety and efficacy in this age group have not been established.”⁴ He also received three prescriptions for methylphenidate, another stimulant not recommended for use in children under the age of six.⁵

The boy also received five prescriptions for Clonidine, another drug sometimes used to treat ADHD, although it is used primarily to treat hypertension. This drug is not FDA-approved for children under the age of 12. The child also received six prescriptions for Guanfacine, another antihypertensive, that was prescribed off-label to this child six times to treat ADHD. The child received one prescription for Adderall.

The toddler received an unusually high number of pills per month for some prescriptions, including an October 2003 prescription for Focalin providing three pills per day and a January 2004 methylphenidate prescription providing four pills per day.

EXHIBIT 41

ADHD Medications Prescribed for the Foster Child Referenced Above Fiscal 2004

Drug Name	Category	Date Prescription Filled	Days Supply	Quantity	Amount Paid
FOCALIN 2.5MG TABLET	Stimulant	10/9/03	30	30	\$18.86
FOCALIN 2.5MG TABLET	Stimulant	10/23/03	30	90	\$45.86
METHYLPHENIDATE 5MG TABLET	Stimulant	11/19/03	30	60	\$20.86
CLONIDINE HCL 0.1MG TABLET	Other ADHD	11/19/03	30	15	\$6.24
CLONIDINE HCL 0.1MG TABLET	Other ADHD	12/16/03	30	15	\$6.24
METHYLPHENIDATE 5MG TABLET	Stimulant	12/18/03	30	60	\$20.86
CLONIDINE HCL 0.1MG TABLET	Other ADHD	1/8/04	60	30	\$7.25
METHYLPHENIDATE 5MG TABLET	Stimulant	1/15/04	30	120	\$36.49
CLONIDINE HCL 0.1MG TABLET	Other ADHD	2/12/04	30	30	\$7.07
ADDERALL XR 5MG CAPSULE SA	Stimulant	3/11/04	30	30	\$78.32
CLONIDINE HCL 0.1MG TABLET	Other ADHD	3/11/04	30	30	\$7.07
GUANFACINE 1MG TABLET	Other ADHD	3/31/04	15	15	\$10.45
GUANFACINE 1MG TABLET	Other ADHD	4/12/04	30	45	\$20.88
GUANFACINE 1MG TABLET	Other ADHD	5/4/04	30	75	\$31.31
GUANFACINE 1MG TABLET	Other ADHD	5/29/04	30	75	\$31.31
GUANFACINE 1MG TABLET	Other ADHD	7/13/04	25	75	\$32.01
GUANFACINE 1MG TABLET	Other ADHD	8/23/04	25	75	\$32.01

Sources: Texas Health and Human Services Commission and Texas Comptroller of Public Accounts.

CASE OF INTEREST

A “Depressed” Toddler

A two-year-old girl at the “specialized” service level was living in a foster home during fiscal 2004. This child received nearly 40 sessions of psychiatric counseling and therapy at a cost of more than \$2,500 in fiscal 2004.

This toddler was diagnosed with anxiety, depression, oppositional disorder, attention deficit with hyperactivity disorder, and emotional disturbance, among other things. As a result, she received 29 prescriptions for psychotropic medications at a cost of more than \$5,000. These medications included antidepressants, antipsychotics, hypnotic/sedatives, mood stabilizers and stimulants. Most of these medications are not FDA-approved for patients under the age of 18.

CASE OF INTEREST

A Sedated Infant

An eight-month-old baby male foster child living in a foster home received six prescriptions for the hypnotic/sedative chloral hydrate in fiscal 2004. This baby was classified as “basic” during part of the year and then was reclassified as needing “specialized” services. The child suffers from shaken infant syndrome and has a brain injury that he received before entering care.

Recommendation

The Texas Department of State Health Services Psychotropic Medication Utilization Parameters for Foster Children should be more specific regarding prescriptions for young children aged 0 to 4.

Endnotes

- ¹ Texas Department of State Health Services, *Psychotropic Medication Utilization Parameters for Foster Children* (Austin, Texas, February 15, 2005).
- ² Thomson Healthcare Inc., *Physicians’ Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), pp. 1658-1664.
- ³ Thomson Healthcare Inc., *Physicians’ Desk Reference*, pp.422-427.
- ⁴ Thomson Healthcare Inc., *Physicians’ Desk Reference*, p. 2,215.
- ⁵ Thomson Healthcare Inc., *Physicians’ Desk Reference*, pp.1,830 and 2,255.

Foster Children and Controlled Substances

Key Findings

- *More than 9,600 Texas foster children received more than 53,000 prescriptions for controlled substances in fiscal 2004, costing the state more than \$4.6 million.*
- *Nearly 2,400 Texas foster children, including 871 children under the age of five, received more than 3,200 prescriptions for narcotic syrups.*
- *Texas currently has no law specifically limiting the number of prescriptions or the number of pills that can be distributed in one month for controlled substances. Some states have laws which limit the number of prescriptions.*

Background

Medications and other substances are categorized as controlled substances based on the federal Controlled Substances Act (CSA). Medications or substances are placed on the controlled substances list based on their medical use, their potential for abuse, dependence liability and their safety. The U.S. Drug Enforcement Administration (DEA) is in charge of maintaining the controlled substances list.

Drugs placed on the controlled substances list must have some potential for abuse. There are several indicators that such potential exists, including:

- evidence that the drug is being taken in amounts sufficient to be hazardous to the health and safety of an individual or community;
- significant diversion of the drug through illegal drug channels is taking place; and

- individual usage not advised by a practitioner is occurring.

The DEA places drugs on the controlled substances list based on five schedules that provide an assessment of how prone to abuse each drug is (**Exhibit 42**).

The CSA was created to restrict how drugs are bought and sold in the U.S., and how prescriptions can be written and filled for these medications.

All persons who come in contact with medications on the controlled substances list must be registered with the DEA, including importers, exporters, manufacturers, distributors, hospitals, pharmacies, practitioners and researchers.


Controlled substances must be inventoried and tracked as they are manufactured, purchased and sold. This strict tracking is intended to deter fraudulent diversions of these powerful substances. To keep tighter controls on the most dangerous drugs, inventories for Schedule I and Schedule II substances must be kept separately.

Prescribing Controlled Substances

The Food and Drug Administration has placed certain restrictions on how prescriptions for controlled substances are to be written.

Schedule I controlled substances have no accepted medical use in the U.S. and therefore no prescriptions are written for these drugs.

Prescriptions for Schedule II substances may not be refilled and may not be called into a pharmacy except in an emergency



Medications or substances are placed on the controlled substances list based on their medical use, their potential for abuse, dependence liability and their safety.

EXHIBIT 42

Federal Controlled Substance Schedules

Schedule I	Schedule II	Schedule III	Schedule IV	Schedule V
<ul style="list-style-type: none"> High potential for abuse 	<ul style="list-style-type: none"> High potential for abuse 	<ul style="list-style-type: none"> Less potential for abuse than Schedules I and II 	<ul style="list-style-type: none"> Low potential for abuse compared to Schedule III 	<ul style="list-style-type: none"> Low potential for abuse compared to Schedule IV
<ul style="list-style-type: none"> No currently accepted medical use in the U.S. 	<ul style="list-style-type: none"> Currently accepted for medical use, often with severe restrictions 	<ul style="list-style-type: none"> Currently accepted for medical use in the U.S. 	<ul style="list-style-type: none"> Currently accepted for medical use in the U.S. 	<ul style="list-style-type: none"> Currently accepted for medical use in the U.S.
<ul style="list-style-type: none"> Lack of accepted safety for use under medical supervision 	<ul style="list-style-type: none"> Abuse may lead to severe psychological or physical dependence 	<ul style="list-style-type: none"> Abuse may lead to moderate or low physical dependence or high psychological dependence 	<ul style="list-style-type: none"> Abuse may lead to limited physical or psychological dependence compared to Schedule III 	<ul style="list-style-type: none"> Abuse may lead to limited physical or psychological dependence compared to Schedule IV
<ul style="list-style-type: none"> Examples: heroin, LSD, marijuana 	<ul style="list-style-type: none"> Examples: morphine, hydrocodone, amphetamine (Adderall), methylphenidate (Concerta) 	<ul style="list-style-type: none"> Examples: steroids, codeine and hydrocodone with aspirin or acetaminophen 	<ul style="list-style-type: none"> Examples: Ambien, phenobarbital, chloral hydrate 	<ul style="list-style-type: none"> Examples: certain cough syrups containing small amounts of codeine or hydrocodone

Sources: U.S. Drug Enforcement Administration and Texas Comptroller of Public Accounts.

situation. In such cases, a written prescription still must be delivered to the pharmacist. Prescriptions for Schedule II substances must show the exact quantity of the substance prescribed, the date of issue, the name and address of the patient, the name and strength of the substance prescribed, directions for use, the intended use and a DEA registration number.

Restrictions on Schedule III and IV substances are more lax. Prescriptions for these substances may be phoned into the pharmacy, and may be refilled up to five times.

Schedule V substances are not necessarily prescription-only; some of these medications are available over the counter. Even Schedule V substances, however, may be purchased only by persons over the age of 18 with a valid ID.

Texas Law

Texas does not have laws limiting the allowable quantity of Schedule II substances distributed in each prescription. Although prescriptions for Schedule II substances cannot be refilled, prescribers are not restricted in the number of pills they can distribute or the number of separate prescriptions they can write at one time.

By contrast, several states have laws further limiting Schedule II prescriptions. For example, Utah restricts each prescription to a one-month supply, although prescribers are permitted to issue up to three prescriptions for one schedule II substance.¹

Rhode Island has an even stricter law. Prescriptions for all Schedule II controlled substances except for amphetamines and methylphenidates may not exceed a 30-day supply or 250 dosage units. Amphetamines and methylphenidate prescriptions may not exceed a 60-day supply or 250 dosage units.²

Texas Registration

The Texas Department of Public Safety is responsible for operating the state's Controlled Substances Registration Program, which was put in place following the creation of the CSA in 1973. This program is responsible for the registration and renewal of all individuals in Texas who intend to come in contact with a controlled substance.

The Texas registration program also attempts to control the diversion of controlled substances into illegal trafficking. This registration is separate from and in addition to the one required by the DEA.³

Controlled Substances and Foster Children

In fiscal 2004, more than 53,000 prescriptions for controlled substances were written for Texas foster children. This represented 12.2 percent of all prescriptions written for these children. In that year, a total of 9,663 foster children were prescribed controlled substances. This represented 40.3 percent of all children in foster care receiving any medications. These controlled substances cost the state \$4,639,388, an amount representing 11.9 percent of the total cost of medication for foster children (**Exhibit 43**).

The majority of the controlled substances prescribed to foster children in 2004 were stimulants, including amphetamines and methylphenidates. More information on stimulants can be found earlier in Chapter 3.

Unusually High Dosing and High Cost Cases: Adderall XR

Adderall XR is a stimulant medication used to treat attention deficit and hyperactivity disorder (ADHD) in youths and adults. This medication is meant to be taken once daily, as it is an extended-release version of the original Adderall. A single dose of Adderall XR 20mg has a release pattern similar to that produced by taking two tablets of 10mg Adderall four hours apart.

The manufacturer indicates that Adderall XR should be taken once daily, preferably in the morning. Taking this medication in the afternoon should be avoided because it can cause insomnia.⁴

Despite these instructions, the prescribing patterns of many physicians serving foster children in fiscal 2004 were not in keeping with the manufacturer's instructions. Nearly a quarter of all Adderall XR prescriptions written for foster children were for more than one pill per day. More than 450 of these prescriptions were filled for *three or more*


 More than 450 of these prescriptions were filled for three or more pills of Adderall XR per day; in one case, a prescription was written and filled for 360 pills of Adderall XR 30mg (the highest dose available) for a 30-day period.

EXHIBIT 43

Controlled Substance Prescriptions for Foster Children by Schedule Fiscal 2004

Schedule	Unique Number of Children	Number of Prescriptions	Amount Paid
Schedule II	6,558	45,181	\$4,423,974
Schedule III	2,894	3,816	\$43,033
Schedule IV	959	3,455	\$161,360
Schedule V	702	878	\$11,022
Total	9,663*	53,330	\$4,639,389

*Note: This is the number of unduplicated children receiving controlled substances; it is lower than the total of all children receiving drugs from each schedule because a child may have received drugs from two or more schedules.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

pills of Adderall XR per day; in one case, a prescription was written and filled for 360 pills of Adderall XR 30mg (the highest dose available) for a 30-day period.

Narcotic Syrups

Texas foster children received more than 3,200 prescriptions for narcotic syrups in fiscal 2004. These syrups are prescribed for a variety of conditions including pain relief and coughing.⁶

Given the inadvisability of such high doses, one must question whether this prescribing tactic is simply a way to avoid the requirements of the CSA. According to the CSA, Adderall XR is a Schedule II controlled substance, meaning that no refills are permitted.⁵ Many doctors prescribing this and other Schedule II medications to foster children may simply be prescribing a high number of pills per month to get around this law.

These syrups have a variety of drugs as their active ingredient. Some of the most common narcotics used in making them are codeine and hydrocodone, powerful pain relievers that can be physically addictive with prolonged use. Syrups that contain codeine and hydrocodone have been placed in Schedules III, IV, and V based on the concentration of pain reliever in the syrup.

Adderall XR is an expensive medication, with an average cost to the state of about \$107 per prescription. Some cases associated with this medication involved *extremely* high costs.

More than seven percent or 2,388 children in foster care were prescribed narcotic syrups in fiscal 2004. Hispanic and white children were more likely to receive narcotic syrups than black children. About eight percent of all Hispanic and white children received a narcotic syrup, while fewer than six percent of black children received this drug.

For example, among the more than 17,000 prescriptions filled for Adderall XR were nearly 90 prescriptions that cost more than \$400 each. Interestingly, one prescriber wrote more than 63 percent of the Adderall XR prescriptions that cost more than \$400. This prescriber also wrote the single most expensive Adderall XR prescription, which cost \$1,002.53 for one month.

Younger children were more likely to receive narcotic syrups than their older counterparts. Foster children under the age of ten were about 60 percent more likely to be

Interestingly, one prescriber wrote more than 63 percent of the Adderall XR prescriptions that cost more than \$400. This person also wrote the single most expensive Adderall XR prescription, which cost \$1,002.53 for one month.

EXHIBIT 44

Narcotic Syrup Prescriptions for Foster Children by Age Fiscal 2004

Age	Narcotic Syrup Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Average Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Children on Medications
0 - 4	871	1,278	1.5	\$14,503	10,362	8.4%
5 - 9	680	897	1.3	\$10,618	7,213	9.4%
10 - 14	420	518	1.2	\$7,220	6,921	6.1%
15 - 19	396	491	1.2	\$7,757	7,639	5.2%
20+	21	25	1.2	\$416	638	3.3%
Total	2,388	3,209	1.3	\$40,515	32,773	7.3%

Note: Numbers may not add due to rounding.

Source: Health and Human Services Commission and Texas Comptroller of Public Accounts.

prescribed a narcotic syrup than foster children aged 10 and up (**Exhibit 44**).

Male and female foster children were equally likely to be prescribed narcotic syrups. About 7.4 percent of the male foster children received narcotic syrups compared to 7.2 percent of the female population.

In December 1999, the Texas Commission on Alcohol and Drug Abuse (now part of the Texas Department of State Health Services) issued a report *Leaning on Syrup* - showing the magnitude of the problem of narcotic syrup abuse. The report focused on the abuse of syrups containing codeine and hydrocodone in the Houston area, and was based on in-depth interviews with 25 adults who had used codeine syrups in the 30 days before their interviews. Abusers stated that they took narcotic syrups for several reasons: abuse of syrups carries fewer legal consequences than other drugs; syrups are free or inexpensive thanks to Medicaid and private health insurance; and syrups are perceived as “safer” than other drugs.

Narcotic syrups are abused several different ways. Some users simply drink the syrup without diluting it, while others dilute it with juices or sodas. Some users even use syrups with other drugs. One example of this would be coating a marijuana “joint” in a narcotic syrup.

When abused, these syrups are highly addictive. Abuse of narcotic syrups gives its users a drowsy and relaxed feeling that can be accompanied by a lack of coordination. The abusers interviewed for the report stated that it was easy to convince physicians to give them prescriptions for narcotic syrups and that they would either take the medication themselves or sell it to another user. The participants reported that prices for eight ounces of codeine syrup ranged from \$20 to \$700.

Narcotic syrups are dangerous and addictive medications that provide potential abusers

CASE OF INTEREST



37 Narcotic Syrup Prescriptions in One Foster Home

Nadia was a 16 year-old minority foster child living in a small south Texas home with four other foster children and her foster parents. After a high-risk pregnancy, Nadia gave birth to a baby boy in early fiscal 2004.

Nadia was dealing with the stress of caring for a newborn baby as well as several mental and physical problems. During the year, Nadia was diagnosed with generalized anxiety disorder, severe depressive psychosis and prolonged post-traumatic stress.

In addition to her emotional problems, Nadia was taken to the emergency room for chest pain and received medical treatment for a leg injury and a backache. Nadia was found to be pregnant again, only five months after her last delivery. Nadia's second pregnancy ended prematurely, although the records do not say how, because she began receiving contraceptives three months after she was found to be pregnant.

Nadia also received a parasiticide for a scabies infestation. Scabies are small mites that burrow into the skin, causing severe itching.⁷ Nadia was even diagnosed as a drug abuser. In addition, she also had medical claims from eight different visits to the doctor for respiratory problems including pharyngitis, upper respiratory infections and asthma.

For these reasons, Nadia received five different prescriptions for a Schedule III narcotic syrup and two prescriptions for narcotic pain relief pills in fiscal 2004. One of these syrup prescriptions was prescribed even after she was diagnosed with a drug abuse problem.

Nadia's newborn son, who was living in the same foster home as she was in fiscal 2004, had many respiratory problems as well. He received 13 different diagnoses of respiratory illness, and was diagnosed with respiratory distress syndrome at birth. During the year, Nadia's son received seven prescriptions for a Schedule III narcotic syrup.

Interestingly, the four other foster children living in this home also had many claims for respiratory illness. One of them, a two year old, while living in the house for five months in fiscal 2004 had two respiratory illness claims and one prescription for a narcotic syrup. The other three foster children living in the home, twin one-year-old boys and a two-year-old girl, had an average of 12 respiratory illness claims each and an average of eight prescriptions for narcotic syrups.

Another interesting fact about the children living in this home is that four of them were diagnosed with “toxic effect of lead and its compounds” at the end of fiscal 2004, which may indicate unhealthy living conditions.

with easy access to a “fix.” Many children within the foster care population are receiving large amounts of these medications.

Phenobarbital

Phenobarbital is a barbiturate typically used to control seizures. It also can be used as a sleep aid on a short-term basis and as a sedative to relieve anxiety.

Phenobarbital typically comes in the form of a pill or a syrup and is taken one to three times daily. The drug is known to be addictive and a tolerance to it can develop if it is taken for extended periods of time. Stopping the use of this medication abruptly can cause symptoms of withdrawal. Side effects common with this medication can include depression, dizziness, drowsiness and headaches.⁸

Phenobarbital is a Schedule IV controlled substance and is a depressant. It is classi-

fied as a controlled substance because of its potential for abuse. Abuse of phenobarbital may lead to limited physical or psychological dependence.⁹

In fiscal 2004, 177 foster children received nearly 1,200 prescriptions for phenobarbital. This represented more than half a percent of all children in foster care. Phenobarbital expenditures totaled \$9,500.

More than 68 percent of the foster children who received phenobarbital (121 out of 177) were under the age of four (**Exhibit 45**).

While there are many Texas foster children who are taking phenobarbital for their seizures or epileptic symptoms, there are also many children that may be receiving this medication for sedative or anti-anxiety purposes.



More than 68 percent of the foster children who received phenobarbital (121 out of 177) were under the age of four.

CASES OF INTEREST

Infants with Phenobarbital Prescriptions

Ollie was a four-month-old boy living in a foster home near the Texas coast, and categorized as requiring “moderate” services. During fiscal 2004, Ollie was diagnosed with drug withdrawal syndrome, had a routine child health exam and was also diagnosed with pharyngitis. He received prescriptions for a narcotic pain reliever, a cough and cold medication, an antibiotic, and four prescriptions for phenobarbital. Since Ollie did not have any diagnoses indicating epilepsy or seizures, it is likely he received this medication so that he could be sedated.

Lucy was an infant living in a foster home and requiring “basic” services. Lucy was placed into the foster care system only four days after her birth. During fiscal 2004, Lucy was diagnosed with ear infections, upper respiratory illnesses, poor vision, developmental delays, lack of normal physiological development and pink eye. Lucy received many medications to treat infections, cough and cold medications, and two prescriptions for phenobarbital. She received her first prescription for phenobarbital when she was less than two months old. Since Lucy did not have any diagnoses indicating epilepsy or seizures, it is likely the medication was used to sedate her.

Toddler Receives 14 Prescriptions For Phenobarbital

Cherry was a one-year-old girl living in a foster home in a major metropolitan area. Cherry is a baby that requires “moderate” services. During fiscal 2004, Cherry did not have any outpatient claims, meaning that the state was not billed for any doctor visits for her.

Despite this, Cherry received 21 different prescriptions, including 14 prescriptions for phenobarbital. From the Medicaid data received, it is impossible to tell whether Cherry was taken to see a doctor at all during the year. This is disturbing, considering that patients taking phenobarbital typically must be seen regularly to test for their response to this drug.¹⁰

EXHIBIT 45

Phenobarbital Prescriptions for Foster Children by Age Fiscal 2004

Age	Phenobarbital Prescriptions				All Foster Children	
	Number of Children	Number of Prescriptions	Number of Prescriptions per Child	Amount Paid	Total Number of Children in Foster Care	Percentage of Foster Children on Phenobarbital
0 - 4	121	686	5.7	\$5,363	10,362	1.2%
5 - 9	20	160	8.0	\$1,336	7,213	.3%
10 - 14	22	197	9.0	\$1,676	6,921	.3%
15 - 19	14	135	9.6	\$1,125	7,639	.2%
20+	0	0	0.0	\$0	638	0.0%
Total	177	1,178	6.7	\$9,500	32,773	.5%

Source: Health and Human Services Commission and Texas Comptroller of Public Accounts.

Recommendation

The Department of Family and Protective Services, in coordination with the Health and Human Services Commission's Office of the Inspector General, the Texas Department of Public Safety and the federal Drug Enforcement Administration, should examine prescriptions of controlled substances written for Texas foster children, to prevent the abuse of these substances.

Endnotes

¹ Utah Code Section 58-37-6.

² Rhode Island Uniform Controlled Substances Act 21-28-3.18

³ Texas Department of Public Safety, "Controlled Substances Registration Program," http://www.txdps.state.tx.us/criminal_law_enforcement/narcotics/pages/Controlled.htm. (Last visited September 1, 2006.)

⁴ Thomson Healthcare Inc., *Physicians' Desk Reference*, 60th ed. (Montvale, New Jersey: Thomson PDR, 2006), pp. 3,169-3,172.

⁵ U.S. Drug Enforcement Administration and U.S. Department of Justice, *Drugs of Abuse* (Washington, D.C., 2005), p. 7, available in pdf format at <http://www.usdoj.gov/dea/pubs/abuse/doa-p.pdf>. (Last visited August 2, 2006.)

⁶ U.S. National Library of Medicine and the National Institutes of Health, "Narcotic Analgesics For Pain Relief," <http://www.nlm.nih.gov/medlineplus/druginfo/uspdi/202390.html>. (Last visited August 8, 2006.)

⁷ WebMD, "Scabies," http://www.webmd.com/hw/skin_and_beauty/hw171813.asp. (Last visited August 24, 2006.)

⁸ U.S. National Library of Medicine and the National Institutes of Health, "Phenobarbital," <http://www.nlm.nih.gov/medlineplus/druginfo/medmaster/a682007.html>. (Last visited August 28, 2006.)

⁹ U.S. Drug Enforcement Administration and U.S. Department of Justice, *Drugs of Abuse*, p. 4.

¹⁰ U.S. National Library of Medicine and the National Institutes of Health, "Phenobarbital."

Compound Drugs Prescribed to Foster Children

Key Findings

- *In fiscal 2004, 572 foster children received about 1,300 prescriptions for compound drugs.*
- *Compounded medications carry a risk of contamination.*

Background

Pharmacists “compound” drugs when they:

[P]repare a specialized drug product to fill an individual patient’s prescription when an approved drug can’t fill the bill. Compounding sometimes involves nothing more than crushing a pill into a powder with a mortar and pestle and mixing it into a liquid.... On the other hand, some types of compounding involve sophisticated scientific operations. Preparing sterile drug products, for example, can require complex steps to ensure a germ-free work environment.¹

Compounded drugs can be an acceptable alternative when no single, equally effective drug is commercially available. However, it is better to use commercially prepared drugs because of the extensive quality controls involved.

Doctors choose to prescribe compounded drugs despite their inherent risks for several reasons: drugs for certain conditions are not made by manufacturers; a patient has an allergy to one of a drug’s inactive ingredients (such as a dye for coloring or lactose filler) that can be substituted; a drug may not come in the right dosage or the right

form (such as a liquid versus a pill); or a patient may not like the taste of the drug.²


Children often receive compound drugs; some sources estimate that up to 40 percent of all pediatric prescriptions are compounded. Since children can tolerate smaller dosages than adults, some drugs may have to be compounded in smaller dosages to be safely used. Similarly, many smaller children cannot swallow pills or tablets, making it necessary to create a liquid form of the drug from a dissolvable base, or a rectal suppository, to deliver drugs to their sys-

THE GROWING CONCERN ABOUT COMPOUND DRUGS

An article published in USA Today in March 22, 2005, has summed-up the controversy over the use of compound drugs.

The U.S. Food and Drug Administration (FDA) are very concerned about the use of compound drugs. State-regulated pharmacies are not held to the same safety and quality rules as FDA regulated drug companies. Most states do not check the final drugs for sterility or potency. Critics of compound drugs believe that some pharmacies are skirting federal law by producing drugs without FDA oversight and sometimes the drugs can be too potent, ineffective or contaminated.

There is also the potential for fraud and abuse in regards to compound drugs. Some pharmacies have been criticized because they can reap bigger profits from pharmacy-made drugs than from drugs from manufacturers, because the payments to pharmacies are much larger than the costs to pharmacies to purchase the ingredients needed to make the compound drugs.



Compounded drugs can be an acceptable alternative when no single, equally effective drug is commercially available. However, it is better to use commercially prepared drugs because of the extensive quality controls involved.

EXHIBIT 46

**Texas Foster Children
Compound Drug Ingredients
Fiscal 2004**

Psychotropics	Ingredients	Percent of Total
Other ADHD	258	9.7%
Anxiolytics (Anti-anxiety)	155	5.9%
Stimulants	49	1.9%
Antidepressants	17	0.6%
Hypnotics/Sedatives	10	0.4%
Anticonvulsants (Mood Stabilizers)	6	0.2%
Antipsychotics	3	0.1%
Subtotal	498	18.8%
Other Drugs		
Gastrointestinal	557	21.0%
Cardiovascular	456	17.2%
Allergy, Cough, Cold	203	7.7%
Musculoskeletal	178	6.7%
Infections	176	6.6%
Urological	122	4.6%
Anti-inflammatory (Steroid)	100	3.8%
Sterile Water	81	3.1%
Pain Relief (Non-narcotic)	80	3.0%
Pain Relief (Narcotic)	43	1.6%
Respiratory	37	1.4%
Immunosuppressant	32	1.2%
Other Central Nervous System	23	0.9%
Supplements	23	0.9%
Other Ear, Eye, Nose and Throat	15	0.6%
Skin Conditions	14	0.5%
Parasiticide	7	0.3%
Cancer	2	0.1%
Anti-inflammatory (Nonsteroid)	1	<0.1%
Subtotal	2,150	81.2%
Total	2,648	100.0%

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

tems.³ Children also may refuse to swallow a medicine if it tastes bad and compounders can customize a drug with a better flavor.

Dangers of Compound Drugs

Some patients, though have been hurt and even killed by improperly prepared compound drugs. There are instances such as three infants who died after receiving an incorrectly prepared intravenous solution, and a patient who became blind in one eye from compound eye drops that were not sterile.⁴

One U.S. Food and Drug Administration study reported that pharmaceutical manufacturers maintain more sterile environments than local pharmacists.⁵ The study sampled the sterility and concentration of 100 samples of eye drops containing 1 percent pilocarpine hydrochloride solution. Of the 100 samples, local pharmacies prepared 66 of the samples and pharmaceutical manufacturers prepared 34 that were dispensed by local pharmacies. Of the 66 solutions the local pharmacies prepared, 53 were contaminated with bacteria or fungi, while one of the 34 samples prepared by pharmaceutical manufacturers was contaminated.⁶

In other words, *79 percent* of the drugs compounded by local pharmacists were contaminated, versus just 3 percent of the drugs compounded by pharmaceutical manufacturers.

Sterility seems to be the largest problem with compound drugs. Studies conducted at the University of Pennsylvania Hospital found contamination rates of between 4 and 10 percent in parenteral (injectable) solutions prepared by the hospital's pharmacy.⁷

In addition to being sterile, however, injectable pharmaceuticals also must be free of pyrogens, or high molecular-weight compounds. Pyrogens are the byproducts of microorganisms and cause reactions such as fever when introduced into humans.⁸

Texas Foster Childrens' Use of Compound Drugs

In fiscal 2004, 572 Texas foster children received 1,302 prescriptions for compound drugs costing a total of \$77,078. The prescriptions contained 2,648 identified active ingredients. Almost 19 percent were psychotropic drugs, primarily ADHD and anti-anxiety drugs. Of all compound drugs, 21 percent were for gastrointestinal disorders; 17 percent were cardiovascular treatments; 8 percent were for allergies, cough or colds; 7 percent were for musculoskeletal problems; and 7 percent were for infections (**Exhibit 46**).

Because compound drugs are reported in a different way than other drugs, these compound drugs are not included in the tables in the rest of this report unless otherwise specified.

Recommendation

The Texas Department of State Health Services in coordination with the HHSC, Office of Inspector General should review compound drug prescriptions of foster children to determine if these prescriptions are safe and cost effective. The agencies should also determine if this practice is lending itself to fraud and abuse.

Endnotes

- ¹ U.S. Food and Drug Administration, "Pharmacy Compounding: Customizing Prescription Drugs," by Tamar Nordenberg, *FDA Consumer* (July-August 2000) http://www.fda.gov/fdac/features/2000/400_compound.html (Last visited August 24, 2006.)
- ² U.S. Food and Drug Administration, "Pharmacy Compounding: Customizing Prescription Drugs."
- ³ Rebecca J. Riley, "The Regulation of Pharmaceutical Compounding and the Determination of Need: Balancing Access and Autonomy with Patient Safety," Course requirement paper, Harvard Law School, 2004, <http://leda.law.harvard.edu/leda/data/646/Riley.html>. (Last visited June 13, 2006.)
- ⁴ U.S. Food and Drug Administration, "Pharmacy Compounding: Customizing Prescription Drugs."
- ⁵ U.S. Food and Drug Administration, "FDA Concept Paper: Drug Products That Present Demonstrable Difficulties for Compounding Because of Reasons of Safety of Effectiveness," <http://www.fda.gov/cder/fdama/difconc.htm>. (Last visited June 6, 2006.)
- ⁶ U.S. Food and Drug Administration, "FDA Concept Paper: Drug Products That Present Demonstrable Difficulties for Compounding Because of Reasons of Safety of Effectiveness," p. 7.
- ⁷ U.S. Food and Drug Administration, "FDA Concept Paper: Drug Products That Present Demonstrable Difficulties for Compounding Because of Reasons of Safety of Effectiveness," p. 9.
- ⁸ U.S. Food and Drug Administration, "FDA Concept Paper: Drug Products That Present Demonstrable Difficulties for Compounding Because of Reasons of Safety of Effectiveness," p. 8.

CHAPTER 3: Compound Drugs Prescribed to Foster Children

CHAPTER 4

In Her Own Words *The Story of a Texas Foster Child*



This story of a child's experience in the Texas foster care system illustrates that much of the anxiety and depression that foster children suffer may have as much or more to do with the child's placement / living situation than with past abuse or neglect.

Before prescribing powerful psychotropic medications to address these issues, physicians and psychiatrists should consider the impact of a child's placement / living situation.

Working with a therapist or counselor and the child's caseworker to explore and address fears, anxiety and depression associated with foster care itself may have more therapeutic value and less risk than medicating the child to make them more submissive to a mentally unhealthy environment.

Finding a compatible foster care placement as an alternative to medication would also be far less costly to the state and would be more likely to result in successful outcomes for the child and a healthier transition to adult independence.

In Her Own Words

The Story of a Texas Foster Child

Note: This account of what it is like for a child in the Texas foster care system shows the struggles and challenges which are faced on a daily basis – from dealing with being placed miles away from your hometown to being pressured to take medications to being subjected to abusive foster parents and other foster children.

I came into the Texas Child Protective Services (CPS) system at the age of twelve after I revealed the abuse and neglect at home to my middle school counselor. With the utmost fear, trepidation and confusion, I was abruptly removed from my home when I returned home that specific day. I was merely told to pack up my belongings and that I was going to be taken to a shelter while CPS investigates my case. The CPS investigator hardly addressed my abundant concerns and questions as she drove me to an emergency shelter. At the time, I was terribly frightened and I did not know what was in store for me. I felt like my world was turned upside down.

After a long, awkward ride with a complete stranger, I was dropped off at an emergency shelter about 30 miles away from the city I lived in. Up until this point, I had never been to this small town and everything was uncomfortably unfamiliar. I was admitted into the emergency shelter after a long session of paperwork and briefings, among various other admittance procedures. Then, the workers at the shelter gave me a brisk tour of the facility. My living space was a hard twin bed in a room with two bunk beds. There was a glass window on the room door in which I tried to cover with a folder my first night at the shelter as I was chang-

ing clothes in preparation for bed. I kept the folder in place to have a sense of comfort, security and privacy in a completely foreign and institutional space. Meanwhile, a shelter worker without any explanation almost immediately removed the folder from the window. I had to ask the worker why he took the folder off the window, and he merely responded that it was just shelter procedures so that shelter workers can monitor the occupants at all times. Furthermore, there was no lock on the door, which made me extremely worried, as there were both male and female workers at the shelter.

When I first moved in the shelter, I was the only occupant in my particular room. Within the first week, another occupant moved in. During my three months and more stay at the shelter, so many occupants came and left. My time at the shelter was constantly unstable and I was always on-guard. I also soon discovered that the majority of the occupants at the shelter were on really high doses of psychotropic medication. I often overheard conversations concerning the efficacy of particular medications. It appeared to me that the occupants were often highly medicated and that their medications changed regularly. I was even approached with apparently a clinical examination/evaluation by a psychiatrist right off the bat to see if I can be prescribed psychotropic medication.

Furthermore, my overall perception of my living situation was well molded as I tried to get to know most of the occupants, especially the females, as much as I could during the duration of their stay. I can recount numerous personal encounters and stories that several of the shelter occupants shared



After a long, awkward ride with a complete stranger, I was dropped off at an emergency shelter about 30 miles away from the city I lived in.

with me. Two sisters arrived with their younger brother. The siblings have been struggling to stay together as they have been separated in the past, in which each member was placed in different foster homes. Each sister shared components of her experience with me. At the time, they have been in the system for a little over five years and have been placed in over five placements including group homes and individual foster homes. They recounted one foster home in which the foster parents prohibited them from using the bathroom at night. Therefore, the sisters had to accumulate jars in order to urinate in during the night. In the same foster home, the foster dad routinely raped the two sisters at night.

At another placement, in a rural and isolated small town, the siblings were not allowed to stay inside the house during the summertime when school was not in session. The three children just sat on a picnic table under a tree all day while the foster parents were away, with no water or food and minimal shade. This situation persisted during the entire stay at this particular placement. At the shelter, several of the occupants were so unstable that I could barely communicate with them or that I felt unsafe doing so. In addition, only a few occupants opened up to me, understandably. From learning about all these experiences from others in foster care, I am greatly moved by their story, adaptability and incredible resilience.

Several unusual events occurred during my stay at the shelter. I recall having received some books that had been donated to the shelter, and one of the books I took interest in was about ancient Egyptian carvings. The book also contained a porous rock-like structure in which I could carve upon learning carving techniques derived from the book. The only other required material I needed to complete the carving was a plastic knife. So I explained my project to one the shelter employee and asked for a plastic knife. He gave me a strange look but gave me a plastic knife anyway. I then used the knife for my carving

and then I stored all the materials along with the book away. I never thought much about this activity or event, however, years later I discovered through one of my several caseworkers that in my case report, there was a mention of me having a tendency to stash knives! I was shocked, “where did that come from” I wondered. The accusation truly confuses me to this day.

Overall, my stay at the emergency shelter presented immense challenges for me as an individual and at the time, as an emerging adolescent. At the same time, I am extremely grateful and I feel so fortunate to have learned so much about other foster youths’ experiences and journeys through the Texas foster care system. I braced myself for the worst as my future and life in foster care remained a mystery to me. Throughout my foster care experience, my caseworkers were never able to provide me any relief from my anxiety and worries about the future. I have felt so unstable, not in control, and at times disrespected.

There is no doubt that I have always been the odd one in the foster care system. I never fit in and I always felt flawed. So, I obviously did not fit in with mainstream society of supposedly unbroken homes and ideal families, but I also never felt like other foster children either. Throughout my foster care experience, I struggled for social acceptance. From a young age, I have always been academically minded and I am often interested in subjects that are complex and not mainstream. Because of this I usually felt self-conscious and isolated from others. Hardly anyone in the system addressed this and aided me in exploring my interests further. I was neglected by the foster care system of the state of Texas.

Even my attempt at attending the magnet program in my original city was discouraged and even looked down upon, mostly viewed as demanding and an utter inconvenience for whichever foster family that was going to take me in. The system constantly makes



Throughout my foster care experience, my caseworkers were never able to provide me any relief from my anxiety and worries about the future.

me feel like a charity case and that is not a pleasant feeling. Think about what that feeling does to one's self-worth and self-perception. Though, how is that really surprising? The way the foster care system has been set-up in Texas makes it inevitable for foster children to feel negatively about themselves, their situation and their entire life in general. From my experience in the system, I derive that there has always been events in which I felt I was withheld from participating or attempting to assimilate into the rest of the world (the non-foster care system world).

While I was living in the emergency shelter, I was waiting for the agency to investigate my case and make a final decision in regards to where to place me. I was told that I was going to spend a certain weekend in a foster home as somewhat of a trial run. I thought the home was okay though I could not have made a highly informed decision as I only stayed in their home for barely two days. Well, this situation never worked out anyway because when the foster parents asked me about my schooling, I mentioned that I wanted to continue to be in the Magnet program as a good education meant much to me. For this reason, they decided to not take me into their home. Me being enrolled in the magnet program was apparently an issue in more than one placement. Throughout my foster care experience, I have been rejected by many potential homes for this very reason. I even became fearful that my caseworkers would not support me, and that they would just dump me in the middle of nowhere and outside of my hometown, where I would not know anyone. I was so afraid that I was not going to remain in my hometown as I grew up there and the little external support system I had was there. I do not feel the agency was sympathetic to this fact.

Finally, my caseworker at the time found a home that might take me. Similarly, this placement was hesitant about me attending the magnet program, as it may be inconvenient for them in terms of transportation. I had to assure them that I would find a way to

resolve this by researching alternate transportation across town to continue my studies in the magnet program. Only then did the foster mom accept me into her home.

This was my first official foster home placement. I lived with a single foster mom, with a house filled with girls that came and left. Girls would move in and no one would know how long they would last in the home. When I moved in, I stayed with only one other girl. She at the time barely turned 9 years old, and she was on at least 3 psychotropic medications that changed often. None of the medications seemed to work harmoniously or even properly. With every new medication she took, new problems would emerge. Whether it was behavioral or physical, she suffered numerous side effects, which I believe is correlated with her being over-medicated. Until this day, I do not understand how my former foster mom did not object to such a little girl being on so many psychotropic medications. On top of her extremely young age, she had medical problems and was consistently underweight.

To be honest, it was unnerving whenever she would switch medications because I never knew what to expect. Also, I lived in such close quarters and therefore I did not feel very safe being around someone so unstable and unpredictable. No matter what or how many drugs were given to her, nothing seemed to work and I had to accompany my foster mom to a residential treatment center more than twice because she had such negative reactions. When I first [met] her when I moved in, she was much more vibrant and energetic than she was before she left the home. In the time that I lived with her, it was evident to me that she was fading away. She eventually ventured into a drugged state and became increasingly uncooperative. She worsened to the point that my foster mom no longer wanted to deal with her, thus she had to leave.

The next batch were twins [sic]. They were much older than I was and were a bit pushy



The way the foster care system has been set-up in Texas makes it inevitable for foster children to feel negatively about themselves, their situation and their entire life in general.



She eventually ventured into a drugged state and became increasingly uncooperative. She worsened to the point that my foster mom no longer wanted to deal with her, thus she had to leave.

and dominant in the beginning. I have acquired many social skills and essential life skills in general from dealing with so many different and difficult personalities during my time in foster care. While I managed to resolve numerous conflicts and misunderstandings that arose with them, they did not set the best example for me even though they were much older. They were quite extreme in my opinion, irresponsible in various aspects [and] promiscuous, among other matters. They also made me feel small in a sense; they behaved somewhat sisterly towards me but at the same time it was difficult for me to regard them as my role models. A part of me wanted to not have anything to do with them. To me, I did not want to really associate with them or other foster children because the ones I encountered were not the best influences in my opinion. Do not get me wrong, I do not think I am perfect or superior by any means but at the same time I want and desperately need positive experiences and influences in my life [sic]. Recently, I discovered that one twin has been working as a stripper with lots of tattoos and is pregnant. The other twin had been attending college, but she had dropped out to take care of her sister.

The last occupant at the foster home while I lived there was my former roommate. In my entire foster care experience, she was the only fellow foster child that I really developed a bond with. When she first moved in, we had so many roommate related discrepancies. I really did not like or get along with her in the beginning. It took a long time for things to cool down between us, but when it did our friendship blossomed. We were able to retreat from the chaos and frustrations at the placement as we confided in each other. She really made my placement there bearable.

My former foster mom was never really nurturing. I felt like I was just using the place for shelter and that I would communicate with her my needs as if our relationship was purely business oriented and professional. At first I was quite naïve and I thought that she

had pure intentions [in] taking me into her home. However, during my long stay with her, several times she advocated to the foster care agency she was with to try to increase my level of care. I sensed that something was strange about this so I did some research and investigation. Then, I began noticing details and small actions from her that reinforced my suspicion of her potential motives. For example, I always saw her with new bags of clothing from department stores. She seemed to purchase new clothes and shoes on a weekly basis, and she also constantly had “real” gold jewelry on layaway. I put the pieces together and I increasingly felt uncomfortable about her and living there.

While in this placement, I made the decision to transition to a vegetarian and then vegan diet. Beforehand, I discussed my decision with her and I explained to her potential modifications in food selection, grocery shopping details, and such. She emphasized that she was not going to buy me anything “special” because she did not want any preferential treatment in the home. However, she ended up not buying me any food at all since she never made any changes in food selection when she shopped.

I brought up the issue to staff member at the child placement agency and I spoke about the issue intimately with my therapist at the time. No one adequately addressed the core issue though. My therapist however did attempt to help by offering to take me shopping once a month, in which I used my saved up chore money for food for the entire month. Every month, I only had \$20 to spend on food so I cooked and ate meagerly. Friends pitched in to help and strangers provided some assistance. I felt like a charity case. I am not sure how I survived for that long.

Even though I brought up the issue with my caseworker at the time, all my caseworker could do in her power is to talk with my foster mom. I remember feeling nervous, completely anxious and fearful that my foster mom would hold a grudge against me be-



My former foster mom was never really nurturing. I felt like I was just using the place for shelter and that I would communicate with her my needs as if our relationship was purely business oriented and professional.

cause I told on her to my caseworker. Even though my caseworker explained to her that as a foster parent that is paid by the state of Texas she is expected to provide adequate food for me, she resisted. She even tried to argue that she should not have to go out of her way to support my personal beliefs and decisions. She eventually agreed to minimally provide the basics weekly, which after lots of prodding included a package of tofu, vegetables, and a carton of soymilk. Even though she hesitantly agreed to this, she never even fully went through with her words. For the remainder of my stay, I struggled to have adequate food.

On top of this, my foster mother always employed preferential treatment based on age order, hierarchal order based on how long one has been there and if she likes them, and even ethnicity. I often felt alienated in the home because I was of a different race and could not participate in more cultural-specific activities such as hairdressing and the like. In summary, I am from an entirely differently culture, with different experiences and worldviews in which not many people I encountered in the system took into regard.

I left the placement after my roommate departed. I later discovered that my foster mother actually requested that she leave her home because she had disclosed to one of the agency's staff that my foster mother was dating a married man (which she was) and that she even brought him home. This was true, she dated several men during my stay with her and each relationship was fairly brief. My roommate was concerned that our foster mother's behaviors and decisions were not the best influence on others in the home, which I agree. Anyhow, I ultimately left because I no longer wanted to put up with her treatment. For years, I thought that matters would improve and that we would be able to work through issues and conflicts but my foster mother proved me wrong.

I left her home without looking back and in the process of waiting for another eligible

home to become available; I had to remain in her home even though it was extremely uncomfortable and awkward. My caseworker took me to visit a new foster home. I really did not feel comfortable there when I visited so declined to moving there. I asked my caseworker if I could just wait until a placement becomes open that I felt better about, and luckily she agreed.

On the next visit, I really liked the home and the foster parents. It was perfect also because their oldest daughter is vegan as I am so I knew from the beginning that food situation was not going to be much of an issue and that was really comforting to me. It was a major change for me because there were four other non-foster children in the home and there were two parents. I expected a total double standard and I was correct. I always felt I was obligating my foster parents and I unnaturally felt meek in their home. I did not feel comfortable to be fully myself. They always questioned me and gave me very little space and privacy. It felt very invasive and tense living there. My foster parents were wary of almost everything I did. They were overprotective and paranoid; they even were critical of and discouraged me from being involved in school-related extracurricular activities because they felt it was a potential extra liability for them.

At one point and out-of-the-blue, my foster parents scheduled an appointment for me to be examined by a psychiatrist contracted through the agency. Now, keep in mind that my foster dad is the executive director of the agency I was placed in and that my foster mom was an employee at the agency as well. So, I had a brief meeting with the agency psychiatrist and he almost instantly diagnosed me with two mild mental disorders, generalized anxiety and mild depression in which he prescribed me Paxil. Furthermore, he was very intimidating from his speech to his mannerisms. It felt as if he was talking down to me and/or he was trying to convince me during the entire session that there was something inherently wrong with me.




Even though my caseworker explained to her that as a foster parent that is paid by the state of Texas she is expected to provide adequate food for me, she resisted.




At one point and out-of-the-blue, my foster parents scheduled an appointment for me to be examined by a psychiatrist contracted through the agency.

I strongly voiced my opposition in taking the medication. I felt that the medication was forced upon me with no substantial reason. I am a fantastic student, highly involved in the community, volunteered regularly, worked, and was overall active and absolutely fine. Ultimately I gave in because the pressure for me to take the medication was overbearing and it reached a point where my foster parents were so insistent that I feared me not taking the medication would potentially jeopardize my placement. I was tired of moving and of not being comfortable in my own skin and my living space, though I wanted to stay put and make it work. After taking the medication for many months and not experiencing any positive effects, I notified my foster parents and my psychiatrist that I no longer wanted to take it. My foster parents and my psychiatrist both strongly objected and insisted that I took it for a longer time. This time though I stood my ground and asserted that I will no longer take the medication no matter what.



I strongly voiced my opposition in taking the medication. I felt that the medication was forced upon me with no substantial reason.

A few weeks later, one day when I returned home from school expecting a regular mandatory therapy session, my therapist and foster parents notified me that I could no longer live there. They provided me with little sufficient reason other than that it was largely a politically charged reason and that CPS perceived that there was a “conflict-of-interest” in that both my foster parents were closely involved with the internal functions and organization of the agency I was with. The reason did not suffice from my perspective. I believe that the reason was never substantial enough to remove any child from a safe, fairly comfortable and stable environment against their will. I was bitter, and again my fears arose of being in a worse living situation. I thought, “well this is certainly not the best living situation but at this point I do not want to even risk potentially being in a worse placement.” Because I was forced to move so quickly, I did not even have time to be too conflicted. I had to get up and leave right away. I barely had a week’s notice and I had no choice in



I detested my living condition so much that I avoided being at the house as much as possible.

where I was going to live next. On top of everything, this occurred within the first few weeks of school and then my world was completely turned upside down...again.

This is where my next foster parent comes into play. I was placed against my choice in her home. I was extremely unhappy the entire time I was there. The house was dark, dirty and cramped. She was not really personable and I really disliked the fact that she had the house closed off in which she had her own personal area that I have never even seen. I feel that the separation she created was strangely unnatural and it made me feel even more uncomfortable there. While at this placement, I shared the tiny house with three other girls (two to each room). Two of the girls were of Texas Youth Criminal (TYC) status and had been institutionalized multiple times for violent behavior. Until this day, I am not sure what they were thinking when they placed me in this foster home. I suppose it was a last resort. In addition, I was the only person of a different race and not surprisingly, I was discriminated against and ganged up on by the three other girls. They disliked me, and they felt tremendous jealousy and hatred towards me because they somehow felt I received better treatment from the foster mother. Well, the truth of the matter is probably because I treated my foster mother well, with respect and courtesy, she reciprocated. Meanwhile, the other girls yelled, cursed at the foster mother, threw items at her, destroyed her belongings and even hit her, yet they wonder why they faced discipline and certain consequences such as being “grounded.” At one point, I asked my foster mother for a table or desk so I can try to study at home. When she finally found a desk for me the other girls envied me and questioned why I received a desk and not them. Well, I was the only one in the house that really needed a desk because I was the only one that did any schoolwork.

I detested my living condition so much that I avoided being at the house as much as possible. During the time I lived with this

foster mother, I would stay after school until the “late” (after school) bus came in the evening to take students staying late for extracurricular activities home. I, on the other hand stayed to complete my homework for the next day or to get ahead and complete homework for the following week. The main reason for this is because I could not possibly complete my schoolwork at home because it was always so disruptive. During the winter months, I had to wake up at 5 AM to catch the city bus to go to school (as I attended the magnet program which is across town), therefore I would leave for school when it was nighttime and I returned home from school in the dark. During this time, I did not see daylight at all during the weekdays and for extended periods of time.

One day when I returned home from school, I found that all of the items I had on my small desk had been shoved off. My plants had been pushed over and my desk was covered with rocks, dirt, water, and various types of debris. The other girls had wrecked havoc upon my small personal space. Even after this, the girls did not stop. They proceeded to break the hanging pictures, the frames, sculptures, essentially everything and anything they could get their hands on. One of the girls, at 9 years old, took milk and other food products from the refrigerator and poured gallons of milk down the glass door and smeared various food products everywhere in the vicinity. It got so out of hand that the foster mother had to call the police. The police arrived quite late and the girls were merely scolded. They remained in the house even though they threatened me, and after all the destruction they caused. I always had to be cautious, even when I slept. It was not pleasant to be constantly on guard in your home to say the least.

Of what I thought was a ray of light, an opportunity arose that could possibly improve my living situation. Life in this foster home was so dire that I could not imagine remaining there until the day I age out of care. It was simply awful. A close friend of mine,

which I have known since the seventh grade managed to convince her mother, to take me into their home. So for almost half of a year, she underwent training through a child placement agency to become a certified foster parent. I waited with utter anticipation during the training process and admittance procedures. I wanted to move out of my current foster home as soon as I possibly could.

Living with my friend, her mother – my new foster mother, and her brother, turned out to not be a piece of cake. I felt that I had to settle for the placement though because after all it was certainly a better and more comfortable environment for me, the best possible situation at the time and the last resort I felt. It was very early in my stay that I felt I did not truly know what I was getting myself into.

My new foster mother’s domineering and aggressive nature became evident. On one occasion, she yelled at me and slapped me so hard that my cheek stung. It has always been so ironic to me that she became certified to be a foster parent just so I can come to live with her, but yet, she beats her own two children. She goes into these rage tantrums where she is absolutely uncontrollable. She turns into a madwoman once in a while. Often this is associated with the fact that she never addresses potential problems with me in a polite and civil manner from the beginning, and then she waits until she blows up. She is a ticking time bomb waiting to go off. This was the nature of living while I was living in her home.

She is also very stubborn; she tries to make me feel that my thoughts, views and emotions do not matter. In addition, she is stingy with me about money even though she is paid by the state of Texas to provide basic needs. On the other hand, she frivolously spends money on her two birth children. The double standard in the home was intensely strong. My new foster mother did not support me in my educational endeavors and many successes, though she would always



The other girls had wrecked havoc upon my small personal space. Even after this, the girls did not stop.



Life in this foster home was so dire that I could not imagine remaining there until the day I age out of care. It was simply awful.

take credit whenever something good occurred. Living there was like a madhouse; someone in the home always seemed to act out in unruly manners.

The children were forced to do chores. I personally do not mind doing chores because I feel it is normal and should be expected in any household, though it should not be unreasonably demanded. I have always been very active and busy with school and social activism, though I feel that I do more than my fair share of chores [sic]. I have always been helpful and cooperative. My foster mother on the other hand, tried to exploit and took advantage of my willingness to help with chores and my ability to do chores well and fast. At the same time, it was really absurd that she ordered me around and hardly took into regard of what I was working on or do-

ing at the time. Just whenever she wanted me to do something for her, she demanded and expected for me to drop everything, with total disregard of what I was doing or if that I was already busy. It was also a common occurrence for her to give me chore assignments when I barely got through the front door upon arriving home from a long day. At the same time, she has a difficult time getting her children to follow her orders. Though I always tried to comply in order to avoid conflict as much as possible. All in all, she was highly inconsiderate of her children and me on many levels. Living in her home at the time was the best situation considering my limited living options.

This ex-foster child is now in her second year of college and is living in another state.

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The History of Examining Psychotropic Medications Prescribed to Texas Foster Children

Comptroller of Public Accounts Reviews

In October 2003, the Comptroller's office began an extensive review of the Texas foster care system. Its initial results were published in *Forgotten Children: A Special Report on the Texas Foster Care System*, released in April 2004. *Forgotten Children* presented recommendations involving all aspects of the foster care system. The report heightened concerns about the state's care of foster children, including the medical care and medications they receive.

Since the report's publication, the Health and Human Services Commission (HHSC), the Department of Family and Protective Services (DFPS) and the Department of State Health Services (DSHS) have begun implementing new policies and guidelines designed to address some of these concerns. Much, however, remains to be done.

In November 2004, based on the findings in the first report, as well as new concerns, the Comptroller requested extensive annual data regarding Medicaid claims and DFPS details for Texas foster children for fiscal 2004. The fiscal 2004 data was not provided until June 2005, because of delays and concerns about what was revealed in the 2004 data. In March 2006, the Comptroller requested the same data for fiscal year 2005, but the request was denied by HHSC in June 2006.

Psychotropic Medication and Children

The number of American children receiving psychotropic medications has increased rapidly since the late 1980s. Psychotropic drugs

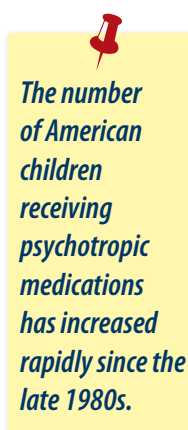
are those intended to alter perception, emotion or behavior. They include stimulants, antidepressants, anxiolytics used to treat anxiety, hypnotics, anticonvulsants, lithium and antipsychotics.

A comprehensive study published in the *Archives of Pediatrics and Adolescent Medicine* found a threefold increase in total psychotropic medication usage among children and adolescents from 1987 to 1996. The study evaluated the records of 900,000 children enrolled in two state Medicaid programs and in a private health maintenance organization (HMO).

One of the main engines behind this growth has been the rising popularity of stimulants designed to treat attention deficit/hyperactive disorder (ADHD), the most common psychiatric disorder in children. By 1996, antidepressants were the second-most common psychotropic prescribed for children.

The study also revealed that physicians were prescribing more psychotropic drugs to treat psychiatric problems including anxiety, conduct disorder and psychotic disorders. The study concluded that the use of psychotropic drugs by youths almost reached adult rates during the 1990s.¹ As one researcher has noted, "The 1990s may become known as the decade of psychotropic medication use in children."²

The number of drugs available to treat ADHD and depression also rose rapidly during the 1980s and 1990s. The introduction in the late 1980s of a class of antidepressants called selective serotonin reuptake inhibitors (SSRIs), which have fewer adverse ef-



The number of American children receiving psychotropic medications has increased rapidly since the late 1980s.

fects than older drugs, and the introduction in the 1990s of new antipsychotics (including clozapine, risperidone and olanzapine), which also carry fewer risks of complications, created the perception that these drugs were safe and led to broader application and more use.³

One study has noted that physicians may be prescribing more psychotropic drugs because the newer ones do not require intense monitoring. For example, lithium, an older drug, requires periodic blood-serum level monitoring, and older antidepressants often required electrocardiographic monitoring.⁴ This may help to explain why this study found that children and adolescents are receiving psychotropics more often and for longer periods; most of the drugs are prescribed by pediatricians and family practitioners.

The *Pediatrics and Adolescent Medicine* study cited above also found that the use of psychotropic drugs was almost always significantly higher in children covered by Medicaid than those enrolled in HMOs, particularly in the case of drugs used to treat the more serious disorders. Medicaid serves populations including disabled children and foster children, many with serious physical and psychological problems. According to numerous studies, about 80 percent of foster children have developmental or mental health problems.⁵

A study of youths diagnosed with psychiatric problems and aggressive behavior in therapeutic foster care and group homes in North Carolina found high rates of use of psychotropic medication and “polypharmacy,” the prescription of two or more psychotropics for one child.⁶ Another study reviewed the pharmacy claims of 200,000 Medicaid children in Connecticut and found that a significant number were receiving two or more different psychotropic drugs at once.⁷ The most common combination of drugs in the Connecticut Medicaid population included antidepressants and antipsychotics (21.9 percent), stimulants and anti-

depressants (15.1 percent) and stimulants and alpha agonists (13.5 percent).⁸


One recently published study conducted a review of published scientific research on the prescribing of multiple psychotropic medications in the pediatric population, identifying several key studies confirming an increase in this practice. This study concluded that the most frequent form of polypharmacy is the prescription of a stimulant and another psychotropic medication. In addition, children are being prescribed more atypical antipsychotics (a second generation of antipsychotics with fewer adverse side effects) probably due to the increased availability of these medications.⁹

Researchers reviewing data from a national survey of doctors’ office visits discovered that the use of antipsychotic medications to treat children and adolescents had risen fivefold from 1993 to 2002.¹⁰ This study found that a third of the children were prescribed antipsychotic drugs to treat behavior disorders, a third to treat psychotic symptoms or developmental disorders and another third to treat mood disorders. It also revealed that more than 40 percent of the children in the study were taking more than one psychiatric medication at a time.

Dr. Julie Magno Zito stated, “If you’re going to put children on three or four different drugs, now you’ve got a potpourri of target symptoms and side effects. How do you even know who the kid is anymore?”¹¹

These findings underline the importance of further research to determine the safety and efficacy of pediatric psychotropic drugs and polypharmacy in particular. Additional research also is needed to examine polypharmacy in other settings, including inpatient facilities, residential and juvenile justice settings.

Further study could help determine if certain populations such as preschoolers, children in Medicaid or foster care and those of



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lower socioeconomic status are at a greater risk of receiving polypharmacy without adequate assessments and follow-up than children covered by private health insurance. Little is known about the long-term effects of early and prolonged exposure to psychotropic medications on the development of children's brains.¹²

Off-Label Prescribing

Physicians may prescribe drugs for a condition even though the U.S. Food and Drug Administration (FDA) has not specifically approved the drug for that use. This practice, called "off-label prescribing," includes prescribing drugs for uses that are not included in the FDA-approved labeling; changing the recommended dose; combining it with other treatments; or using it on populations, such as children, for whom it has not been approved.

Most drugs submitted for FDA approval are studied only in adults and not in children, even though children can react very differently to the same drugs. According to Dr. Mark Riddle of Johns Hopkins University, ethical and methodological obstacles have hindered drug research in children.¹³ Children thus are likely to be treated "off-label" because about 80 percent of psychotropic drugs are not approved for use in children or adolescents.¹⁴

The FDA has rigorous requirements for new medications and medical devices. Prescription drugs go through extensive testing that includes the "gold standard," the double-blind placebo controlled study, before they are approved for sale to the public. FDA experts in various disciplines including toxicology and pharmacology review the test results and also weigh the drug's benefits against the risks of serious side effects. The drug manufacturer must prove to the FDA that a medication is both safe and effective in treating at least one disease. Most FDA medications are approved for use in adults and for a single specific use.

In 1982, however, the FDA changed its regulations to allow physicians to prescribe medications for uses other than those included in the approved labeling, thus facilitating the expansion of off-label medication practices. One pharmacist has noted that:

...while the labeled uses were approved by panels of experts, who carefully reviewed detailed studies, the unlabeled uses were based on pretty much anything that appeared in the medical literature—even on anecdotal reports that turned up in the Letters to the Editor section of throwaway journals.¹⁵

Some off-label treatments are based on rigorous studies, but all too often "some experts say doctors are influenced by poorly designed studies, drug firm handouts, or a company sales rep buying them a fancy lunch."¹⁶ Even though the FDA prohibits drug manufacturers from endorsing off-label uses, the practice is widespread at some companies.

Off-label use is often defended as "innovative medicine" and has led to advances when it is backed by high-quality research, as with the use of beta-blocker drugs to treat high blood pressure.¹⁷ Long-term hormone replacement, on the other hand, is an example of a common off-label usage that later was proved dangerous by large-scale clinical trials of the type FDA requires. More pharmacologists and physicians are calling for "evidence-based medicine," the integration of the best clinical research with clinical expertise.

In recent years, the FDA has taken several steps to address growing concerns about the "off-label" use of drugs in children. The agency recognizes that drug safety for children cannot be adequately assessed from adult studies, since a child's growth and development can affect how medications are metabolized.

Dr. Dianne Murphy, director of the FDA pediatric drug development office, has said that:



In recent years, the FDA has taken several steps to address growing concerns about the "off-label" use of drugs in children.

...awareness began growing in the 1960s that the results of adult studies do not necessarily predict how the developing bodies of children would react to drugs...I think it's really wrong to say you have the same level of knowledge for a product being used off-label than ones that have been approved.¹⁸

In 1998, the FDA adopted the “pediatric rule,” which authorizes the agency to require manufacturers to assess the safety and effectiveness of certain drugs and biological products in pediatric patients. In 2001, the FDA issued a rule to provide additional safeguards for children enrolled in clinical investigations of FDA-regulated products.¹⁹

In 2004, the FDA directed drug manufacturers of all antidepressant medications to add a “black box” warning of the increased risk of suicide in children and adolescents taking antidepressant medications and to emphasize the need for close monitoring of patients.²⁰ A “black box” warning is the most serious warning the FDA can add to the labeling of a prescription medication. More recently, the FDA has issued Web site alerts to physicians and patients about drug safety concerns, including risks of off-label drug uses. The new site, Drug Watch, lists safety alerts by drug and can be accessed at <<http://www.fda.gov/cder/drug/drugSafety/DrugIndex.htm>>.

Despite such concerns, physicians are writing a large number of “off-label” prescriptions for children with psychiatric disorders.²¹ Given the lack of detailed studies on children's reactions to psychotropics, physicians treating children with psychiatric disorders often face a difficult choice: they must prescribe off-label or simply withhold treatment.²²

Yet psychotropic drugs approved for adult use can have adverse effects on children. For example, the FDA has asked manufacturers to include a warning for desipramine, an antidepressant, because it has been associated with sudden death in children. Even

Prozac, which is FDA-approved for children, is the primary suspect in the deaths of 26 children between 1997 and 2001.²³


Depakote, FDA-approved for bipolar disorder in adults, has a “black box” warning because the drug can cause fetal abnormalities during pregnancy. Zyprexa, an antipsychotic used to treat schizophrenia, can cause weight gain that leads to diabetes.²⁴ Wellbutrin, an antidepressant, can cause seizures in children. The FDA admits that the number of adverse drug reactions reported to them is probably low because the reporting system is voluntary.²⁵

Treating children with more than one psychotropic drug at a time increases the risk of adverse events. For example, research has found evidence that serotonin syndrome, a potentially fatal illness, can result when children take two or more medications with serotonergic properties (drugs that raise serotonin levels).²⁶ The tricyclic antidepressants, lithium and the more commonly prescribed SSRIs (such as Zoloft, Prozac and Paxil) all enhance serotonin neurotransmission and can contribute to this syndrome. Clonidine, often used in combination with Ritalin to treat ADHD, has been associated with sudden death in children.

Experts agree that more systematic research is needed.²⁷ In their external review of the medication prescribed to Texas foster children, Zito and Safer note that, “in the pediatric population, most medications lack information on efficacy and safety and their use is described as off-label.” They go on to say that “observational studies in community-treated populations, e.g., the Texas Medicaid population, can produce evidence of safety if an investment in the methods for such work would be undertaken. In summary, both clinical efficacy and safety should be considered in formulary restrictions.”

Texas Studies and Efforts

In October 2003, the Texas Department of Protective & Regulatory Services (PRS),



In 2004, the FDA directed drug manufacturers of all antidepressant medications to add a “black box” warning of the increased risk of suicide in children and adolescents taking antidepressant medications and to emphasize the need for close monitoring of patients.

now known as the Department of Family and Protective Services, identified what it considered to be meaningful and measurable outcomes for contracted foster care providers. Among the outcome measures identified was “the child maintains behavior without use of psychotropic drugs.”²⁸

When the Comptroller’s office began its review of the foster care system in October 2003, no formal investigation of psychotropic medications prescribed to Texas foster children had ever been conducted. In its review of Texas foster care, the Comptroller’s office found evidence of inadequate oversight of the medications prescribed to children.

The Comptroller review team analyzed Medicaid data for drugs prescribed to foster children in November 2003. The data revealed that many foster children were receiving psychotropic drugs including stimulants, antidepressants and antipsychotic drugs. A professor of Pediatrics at the University of Texas Medical Branch in Galveston who reviewed the medication data also noted that many of the children were receiving two or more psychotropic medications simultaneously.²⁹ There is growing concern and debate about the risks of using psychiatric medication and polypharmacy in children when little is known about the long term effects of early and prolonged exposure to psychotropic medications on child development.

The Comptroller’s *Forgotten Children* report made several recommendations relating to the use of medications in foster children, including the creation of a Medical Review Team to review their medications and treatments; a requirement that foster parents or caseworkers sign an authorization before children could receive psychotropic medications; and the development of “medical passports” to improve continuity of care. Children in foster care often change placements and their medical records are not transferred


to their new doctors, leaving the new physician with scanty medical histories.

Following the release of the Comptroller’s *Forgotten Children* report, in September 2004, DFPS published a report entitled *Use of Psychotropic Medications for Children and Youth in the Texas Foster Care System*. The final report was the work of the DFPS Advisory Committee on Psychotropic Medications, which included board-certified child psychiatrists, pharmacist, the judiciary, DFPS representatives, quality specialist, clinical psychologist, former foster children and foster parents. The committee defined psychotropic medications and recommended additional studies in this area.³⁰

In February 2005, the Texas Department of State Health Services (DSHS), with review and input from various medical associations, published *Psychotropic Medication Utilization Parameters for Foster Children*. These best-practice guidelines were based on medical literature and developed by a panel of child and adolescent psychiatrists, psychologists and other mental health experts. The panel’s guidelines were specifically developed for use in the treatment of children and adolescents in foster care. Physicians are not required to adhere to these guidelines, however.

Several members of the panel had also been involved in the development of the Texas Medication Algorithm Project (TMAP), which provided guidelines for the treatment of major adult psychiatric disorders in the Texas public mental health sector only, and the development of the Children’s Medication Algorithm Project (CMAP), which was intended to provide similar guidance for children. TMAP was implemented in 1999, but CMAP has not been implemented. **Exhibit 1** provides a timeline of the introduction of psychotropic medications and related Texas government developments in this area.

In March 2005, DFPS began sending psychotropic medication guidelines to physicians,



When the Comptroller’s office began its review of the foster care system in October 2003, no formal investigation of psychotropic medications prescribed to Texas foster children had ever been conducted.

APPENDIX I: History of Examining Psychotropic Medications Prescribed to Texas Foster Children

caseworkers and child care providers. DFPS assigned a nurse to track caseworker and child care provider concerns about physician prescribing patterns as they related to the new medication guidelines, until a psychiatrist could be hired to follow up.

According to this nurse, the most common concerns expressed by caseworkers, Youth for Tomorrow personnel, attorneys and advocates for foster children involve very young children taking psychotropic drugs and children who are prescribed multiple psychotropic drugs.³¹ DFPS is sending letters to alert physicians when they do not adhere to the panel’s psychotropic medication guidelines, but again, adherence to the guidelines is voluntary.³²

In June 2006, the Texas Health and Human Services Commission (HHSC), the Department of State Health Services (DSHS) and the Department of Family and Protective Services (DFPS) released a report entitled *Use of Psychoactive Medication in Texas Foster Children State Fiscal Year 2005* that contains additional analysis on the prescribing of psychotropic medications to foster children. This analysis was conducted because, even after the introduction of the new treatment guidelines and parameters, foster children were still being prescribed more psychotropic drugs on average than other Medicaid children.³³

EXHIBIT 1

Timeline of Events

Texas Efforts Concerning Psychotropic Medications and Foster Children

Date	Event	Notes
1950-1980	Drug companies introduce the first medications for mental illnesses in the early 1950s. The first antipsychotic medications were introduced in the 1950s.	From the 1960s through the 1980s, tricyclic antidepressants (named for their chemical structure) constituted the first line of treatment for major depression.
1990	Drug companies introduce the first atypical antipsychotic, clozapine, in the United States.	The 1990s saw the development of several new drugs for schizophrenia, called “atypical” antipsychotics. Because these drugs have fewer side effects than the older drugs, they have become a first-line treatment.
1996	Texas Department of Mental Health and Mental Retardation (MHMR) developed the Texas Medication Algorithm Project (TMAP).	TMAP provides guidelines for drug use in the treatment of three major adult psychiatric disorders—schizophrenia, major depressive disorder and bipolar disorder.
1997	The Texas Legislature directs MHMR to spend \$5 million more on new-generation anti-psychotic medications in the 1998-99 biennium than in 1996-97.	
1998-99	MHMR develops and tests medication algorithms for the treatment of attention deficit disorder and major depressive disorder in children and adolescents.	
1999	Legislature requires MHMR to follow TMAP guidelines or an MHMR-approved variation or substitute when purchasing new-generation medications.	

EXHIBIT 1 (cont.)

Timeline of Events

Texas Efforts Concerning Psychotropic Medications and Foster Children

Date	Event	Notes
April 2002	President George W. Bush establishes the President's New Freedom Commission on Mental Health.	Commission was charged with identifying policies that could be implemented by federal, state and local governments to maximize existing resources, improve coordination of treatments and services and promote successful community integration for adults with serious mental illness and children with serious emotional disturbance.
May 2003	Texas Legislature directs HHSC to implement a Preferred Drug List (PDL) for the Medicaid program by March 1, 2004.	The Medicaid PDL is a listing of prescription drugs selected based on efficacy, safety and cost.
October 2003	Texas MHMR holds a conference to develop recommendations and plans for implementing the goals outlined in the President's New Freedom Commission on Mental Health report.	President Bush's New Freedom Commission on Mental Health publishes report in July 2003.
February 2004	HHSC implements the first phase of the Medicaid PDL.	HHSC requires physicians to obtain prior authorization from Texas Medicaid's Vendor Drug Program before a pharmacy can dispense a drug not on the PDL.
February 2004	The federal Office of the Inspector General (OIG) publishes <i>Children's Use of Health Care Services While in Foster Care: Texas</i> .	Report states that 25 percent of the children sampled in the report did not receive an initial medical examination within the first 30 days of entering state custody.
April 2004	Comptroller publishes <i>Forgotten Children</i> report describing a widespread crisis in the state's foster care system.	Part of the report was devoted to the health and safety of foster children, including the use of medications.
September 2004	Texas Legislature reorganizes of state mental health, health and substance abuse agencies into the new Texas Department of State Health Services.	
September 2004	Texas Health and Human Services Commission and DFPS form the DFPS Advisory Committee on Psychotropic Medications.	Committee report is called <i>Use of Psychotropic Medications for Children and Youth in the Texas Foster Care System</i> .
September 2004	HHSC asks ACS-Heritage to conduct an in-depth analysis of psychotropic drug use among Medicaid patients under the age of 18.	Prescriptions reviewed were paid through Medicaid and included children on Medicaid, as well as foster children.
November 2004	Comptroller launches investigation into possible Medicaid prescription drug fraud and abuse in the state's foster care system.	
February 2005	DSHS publishes best-practice guidelines, <i>Psychotropic Medication Utilization Parameters for Foster Children</i> .	Guidelines were developed by a panel of child and adolescent psychiatrists, psychologists, guideline development specialists and other mental health experts.
June 2006	HHSC, DSHS and DFPS publish report examining effectiveness of DSHS guidelines issued in February 2005, <i>Use of Psychoactive Medication in Texas Foster Children, State Fiscal Year 2005</i> .	Report reviewed the use of psychotropic medication by foster children a few months before and after Medicaid providers received copies of guidelines.

Sources: Texas Comptroller of Public Accounts, Health and Human Services Commission, Department of State Health Services and Department of Family and Protective Services.

Endnotes

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- ¹⁵ Samuel D Uretsky, "Refusing to be Labeled: Drugs with the Most Off-Label Uses," *MedHunters* (September 4, 2004), <http://www.medhunters.com/articles/refusingToBeLabeled.html>. (Last visited October 31, 2006.)
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Statistical Comparison of the ACS-Heritage Study and Comptroller Study

Key Findings

- *Children in foster care represented a little more than 1 percent of the children in the Medicaid program, but 12 percent of Medicaid children who used at least one psychotropic drug.*
- *Children in foster care had a much higher rate of psychotropic drug use than all Medicaid children. For every 1,000 children in the Medicaid program, just 35 had at least one psychotropic drug prescription; for foster children, the prevalence rate was 324 out of 1,000.*
- *Medicaid children were most likely to be prescribed stimulants, drugs often used for attention deficit disorder, and least likely to be prescribed antipsychotics. The opposite was true for children in foster care, who received more antipsychotics used to treat conduct and psychotic disorders.*

In 2004, the Health and Human Services Commission (HHSC) asked Affiliated Computer Services (ACS)-Heritage, a large government pharmacy benefits administrator, to conduct a study of psychotropic drug use among Medicaid patients under the age of 18.

The Medicaid program provides health care and health-related services to eligible low-income individuals including children in foster care. ACS examined the use of stimulants, antidepressants and antipsychotics among Medicaid patients under the age of 18 for both July and August 2004. The Comptroller study examined Medicaid data only for the state's foster children.

In general, the ACS study examined fewer psychotropic drugs than the Comptroller study. Both the ACS study and this study include the same list of stimulants, antidepressants and antipsychotics. But, the ACS study omitted some ADHD drugs (such as Strattera), some anticonvulsants commonly used as mood stabilizers (such as Depakote), hypnotics and sedatives (such as Ambien) and anti-anxiety drugs (such as Ativan).

Appendix VI lists the psychotropic drugs included in each study. Where the term “psychotropic drugs” is used with respect to the ACS study, it refers to the shorter list of drugs included in that report.

The Comptroller's office replicated the ACS analysis of data for all Medicaid children, using foster children records involving the same time period, age groups and psychotropic drugs, to make useful comparisons between the pool of all Medicaid children versus foster children.

Prevalence of Psychotropic Drugs

“Prevalence” is defined as the number of children and adolescents with at least one Medicaid prescription per 1,000 enrollees. Children in foster care had a much higher rate of psychotropic drug use than all Medicaid children. **Exhibit 2** shows children with at least one prescription for a psychotropic drug in July and August 2004. For every 1,000 children in the Medicaid program, just 35 had at least one psychotropic drug prescription; for foster children, the prevalence rate was 324 out of 1,000.



The Comptroller's office replicated the ACS analysis of data for all Medicaid children, using foster children records involving the same time period, age groups and psychotropic drugs, to make useful comparisons between the pool of all Medicaid children versus foster children.

EXHIBIT 2

Children with at Least One Psychotropic Prescription July and August 2004

	All Medicaid Children*	Per 1,000 Children	Foster Children**	Per 1,000 Children
Stimulants	43,523	24	4,101	175
Antidepressants	23,187	13	4,401	188
Antipsychotics	19,404	11	4,595	196
Any of above drugs	63,118	35	7,584	324

*Data from the ACS-Heritage study of Texas Medicaid.

**Data from Comptroller medication study of foster care children.

Sources: Texas Comptroller of Public Accounts and ACS-Heritage.

Medicaid children were most likely to be prescribed stimulants (drugs often used for ADHD) and least likely to be prescribed antipsychotics. The opposite was true for children in foster care, who received more antipsychotics used to treat conduct and psychotic disorders.

Medicaid children were most likely to be prescribed stimulants, drugs often used for ADHD, and least likely to be prescribed antipsychotics. The opposite was true for children in foster care, who received more antipsychotics used to treat conduct and psychotic disorders. Of every 1,000 children in the Medicaid program, 24 were prescribed stimulants, 13 were prescribed antidepressants and 11 were prescribed antipsychotics. By contrast, out of every 1,000 foster children, 175 were prescribed stimulants, 188 received antidepressants and 196 were prescribed antipsychotics.

Children in foster care represented a little more than 1 percent of the children in the Medicaid program, but 12 percent of Medicaid children who used at least one psychotropic drug. Moreover, foster children accounted for 24 percent of Medicaid chil-

dren prescribed antipsychotics, 19 percent of Medicaid children prescribed antidepressants, and nine percent of Medicaid children prescribed stimulants (**Exhibit 3**).

Demographics

According to the ACS report, stimulants should not be used in patients under the age of three.¹ Yet the report found that 149 Medicaid children under the age of three had received stimulants during July and August 2004, among them one foster child. Stimulants were the most frequently prescribed category of drug for children from three to five, with 3,277 Medicaid children and 279 foster children receiving them.

Stimulants also were the drug most often prescribed to all Medicaid children up to the age of 14. Beginning at age 15, the most

EXHIBIT 3

Percent of Children Who Had at Least One Prescription for a Psychotropic Drug in July and August 2004

	All Medicaid Children*	Foster Children**	Percent of Medicaid Children Who Are Foster Children
Stimulants	43,523	4,101	9.4%
Antidepressants	23,187	4,401	19.0%
Antipsychotics	19,404	4,595	23.7%
Any of above drugs	63,118	7,584	12.0%

*Data from the ACS-Heritage study of Texas Medicaid.

**Data from Comptroller medication study of foster care children.

Sources: Texas Comptroller of Public Accounts and ACS-Heritage.

common type of drug was antidepressants. For foster children, stimulants were the most prescribed drug by a narrower margin until the age of 12, when antipsychotics took the lead (Exhibits 4 and 5). Between the ages of 15 and 17, antidepressants were again the most frequently prescribed psychotropic drug both for all Medicaid children and foster children.

Thousands of children eight and under received antipsychotics—5,092 Medicaid children and 913 foster children.

Two-thirds of the Medicaid children who received at least one psychotropic drug were male and only one-third were female. Among foster children, a higher share of males (56.6 percent) received psychotropics. This could reflect the higher use of stimulants among Medicaid recipients to treat ADHD, a condition more common among males (Exhibit 6).

Drug Costs

In July and August 2004, psychotropic drugs for all Medicaid children cost more than \$17 million; foster children accounted for \$3.9 million or almost a fourth of the total. Almost half of the funding for all Medicaid

EXHIBIT 4

All Medicaid Children with at Least One Prescription for a Psychotropic Drug by Age July and August 2004*

	Stimulants	Antidepressants	Antipsychotics
0 to 2	149	44	60
3 to 5	3,277	808	1,394
6 to 8	11,879	2,972	3,638
9 to 11	13,734	5,104	4,618
12 to 14	10,059	6,901	5,375
15 to 17	4,417	7,418	4,312
Total	43,521	23,183	19,403

*Note: ACS-Heritage detailed breakdown of age groups differ slightly from the final summary totals in the ACS report.

Sources: Texas Comptroller of Public Accounts and ACS-Heritage.

children was spent on antipsychotics. For foster children, the share was even higher, at 65 percent. The average cost per prescription or claim for an antipsychotic was about \$226 for all Medicaid children and \$228 for foster children (Exhibit 7).

Endnote

- Health and Human Services Commission, *Texas Pediatric/Adolescents Drug Review*, by ACS-Heritage (Austin, Texas, September 23, 2004), p. 7. (Consultant's report.)



 In July and August 2004, psychotropic drugs for all Medicaid children cost more than \$17 million; foster children accounted for \$3.9 million or almost a fourth of the total.

EXHIBIT 5

Foster Children with at Least One Prescription for a Psychotropic Drug by Age July and August 2004

	Stimulants	Antidepressants	Antipsychotics	Total Children Receiving Any Psychotropic Drug*
0 to 2	1	8	4	12
3 to 5	279	124	233	448
6 to 8	867	458	676	1,177
9 to 11	1,006	790	922	1,508
12 to 14	1,115	1,347	1,391	2,130
15 to 17	833	1,674	1,367	2,309
Total	4,101	4,401	4,593	7,584

*Totals are not added by age groups because children may receive drugs in several psychotropic drug categories.

Sources: Texas Comptroller of Public Accounts and ACS-Heritage.

EXHIBIT 6

All Medicaid and Foster Children with at Least One Prescription for a Psychotropic Drug by Sex July and August 2004

	Medicaid*		Foster Care**	
	Children	Percentage	Children	Percentage
Female	20,898	33.1%	3,479	43.4%
Male	42,220	66.9%	4,534	56.6%
Total	63,118	100.0%	8,013	100.0%

*Data from the ACS-Heritage study of Texas Medicaid.

**Data from this Comptroller study of foster children.

Sources: Texas Comptroller of Public Accounts and ACS-Heritage.

EXHIBIT 7

Psychotropic Drug Costs for All Medicaid and Foster Care Children with at Least One Prescription for a Psychotropic Drug July and August 2004

Drug Type	Medicaid*		Foster Care**	
	Cost	Percentage	Number	Percentage
Stimulants	\$6,551,603	37.9%	\$786,945	19.9%
Antidepressants	\$2,461,835	14.2%	\$592,997	15.0%
Antipsychotics	\$8,272,432	47.9%	\$2,580,607	65.2%
Total	\$17,285,870	100.0%	\$3,960,549	100.0%

*Data from the ACS-Heritage study of Texas Medicaid.

**Data from this Comptroller study of foster children.

Sources: Texas Comptroller of Public Accounts and ACS-Heritage.

Foster Care Medication Data Comparison – Fiscal 2004 and Fiscal 2005


EXHIBIT 8

HHSC Summary of Foster Care Psychotropic Medication Data Fiscal 2004 to Fiscal 2005

	Fiscal 2004	Fiscal 2005	Percentage Difference
Number of Psychotropic Drug Prescriptions	262,591	257,660	-1.9%
Total Amount Paid	\$30,137,347	\$31,316,048	3.9%

Note: As explained below, HHSC did a separate analysis of foster care psychotropic medications. Due to slight differences in the criteria for selecting drugs, the fiscal 2004 totals in this table vary from those used in the rest of this report.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

 The total number of psychotropic prescriptions declined slightly between fiscal 2004 and fiscal 2005 (-1.9 percent), but the total amount paid for these drugs increased slightly (3.9 percent).

The Comptroller’s study was based on detailed fiscal 2004 Medicaid data for Texas foster children. There were difficulties in obtaining this data from HHSC in a timely fashion; consequently, the Comptroller then requested the same fiscal 2005 data for foster children. HHSC would not provide the same detailed data, but did provide some summary information by drug label for both fiscal 2004 and fiscal 2005.

declined slightly between fiscal 2004 and fiscal 2005 (-1.9 percent), but the total amount paid for these drugs increased slightly (3.9 percent).

Despite the slight decrease in the total number of psychotropic medications prescribed, the Comptroller review team found that the

The fiscal 2005 data, however, did not provide information on individual foster children and their prescriptions, so the detailed analyses of the fiscal 2004 data presented in this report could not be made. Nonetheless, the review team was able to make a basic, summary comparison between the two years (**Exhibit 8**).

The total number of psychotropic prescriptions

EXHIBIT 9

Number of Atypical Antipsychotics Prescribed to Texas Foster Children Fiscal 2004 to Fiscal 2005

Drug Brand Name	Fiscal 2004	Fiscal 2005	Percent Change
Risperdal	23,894	24,256	1.5%
Seroquel	18,670	21,172	13.4%
Abilify	9,675	11,450	18.3%
Zyprexa	8,947	4,543	-49.2%
Geodon	3,341	4,053	21.3%
Clozaril (includes clozapine)	192	127	-33.9%
Symbyax	99	120	21.2%
TOTAL	64,818	65,721	1.4%

Note: As explained below, HHSC did a separate analysis of foster care psychotropic medications. Due to slight differences in the criteria for selecting drugs, the fiscal 2004 totals in this table vary from those used in the rest of this report.

Sources: Health and Human Services Commission and Texas Comptroller of Public Accounts.

number of *atypical* antipsychotic prescriptions actually increased by slightly more than one percent (**Exhibit 9**). The use of atypical antipsychotics is of particular concern since the long-term safety of these medications for children has not been established.

Foster Children and Psychotropic Medications in Other States

California

In 1998, California formed a task force to examine the issue of excessive psychotropic drug usage among the foster care population, but the project accomplished little in the way of correcting the problem. In early 2006, a Blue Ribbon Commission on Foster Care created by the governor took up the issue once more.

The commission found that state regulations provided a financial incentive for group-home caregivers to administer psychotropic drugs, and that California Department of Social Services (DSS) officials did not track the use and appropriateness of such drugs.¹ A 2004 bill would have required DSS to study the situation, but failed to pass due in large part to opposition from the California Psychiatric Association.²

According to an article posted on SFGate.com, “The California Rules of Court include regulations on psychotropic medications but leave dangerous loopholes that allow group homes to act as mental health experts.” Rule 1432.5 states:

Once a child is declared a dependent child of the court and is removed from the custody of the parents or guardian, only a juvenile court judicial officer is authorized to make orders regarding the administration of psychotropic medication to the child.

According to the article, judges rely mostly on reports by social workers and caregivers, although a physician’s recommendation must be included. Foster children seldom

appear in court or meet with their attorneys to advocate for themselves.

Another section of the rules reads:

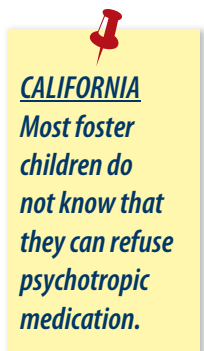
In emergency situations, psychotropic medications may be administered to a dependent with or without court authorization or court delegation of authority to a parent.

This means that the group homes define the emergency—and have a financial incentive to administer the medications.

“A group home can get anywhere between \$2,000 to \$6,000-plus per foster youth, depending on how many medications they are on,” according to commission member Jennifer Rodriguez, who is the legislative policy coordinator for the California Youth Connection. “That’s why they’re more willing to label these youth as “troubled.” In addition, most foster children do not know that they can refuse psychotropic drugs.

When they have tried to do so, some California foster children say that they get punished, such as losing their allowances or privileges, or being threatened with removal from the home. Many foster children and their care providers do not know that such actions are illegal.

According to Rodriguez, the California Youth Connection has repeatedly raised the issue after anecdotal evidence from foster youth from different counties clearly indicates a widespread problem. “We were told by legislators and the Department of Social Services that we couldn’t legislate it be-



CALIFORNIA
Most foster children do not know that they can refuse psychotropic medication.

cause there's nobody collecting this information, and there's no way to find out how many youth are being put on meds," she said. "Basically, they have no one looking out for them on this issue."³

Connecticut

A 2004 statute required the Connecticut Department of Children and Families (DCF) to establish guidelines for the use and management of psychotropic drugs administered to children in its care, and to establish a database to track such uses, with the help of the University of Connecticut Health Center.⁴

Connecticut DCF must authorize all uses of psychotropic drugs before they can be administered to a child in its care, even in "emergency" situations. A DCF Psychotropic Medication Advisory committee has developed guidelines for monitoring, but at this writing the database has not yet been established, and final policies on psychotropic drug use are pending.⁵

A May 2001 report on the use of psychotropic drugs by children enrolled in Connecticut's Medicaid managed care program found that 4.8 percent of them were prescribed at least one psychotropic drug during the year under study. These children included 396 aged two to four.

Expenditures for psychotropic drugs accounted for 48 percent (\$5.8 million) of all money spent by children's Medicaid managed care for behavioral health outpatient and community-based services and pharmaceuticals. About 42 percent of children given psychotropic medications received two or more different drugs within three consecutive months.⁶

Florida

A consultant hired by the Florida Department of Children and Families (DCF) in February 2001 studied residential treatment centers and reported that psychotropic drugs were widely used throughout the system. The consultant's study recommended medi-

cal consultation and guidelines for the use of psychotropic drugs in residential settings.

In response, in May 2001 DCF forbade child welfare workers from approving psychotropic drugs for foster children without the consent of parents or a judge. A 2001 internal investigation by the agency, however, held that the use of psychotropic drugs by foster children was not a problem, concluding that fewer than 10 percent of the state's foster children were receiving psychotropic medications.⁷

In 2002 and 2003, however, the Florida Statewide Advocacy Council (SAC), a consumer protection council, issued an "Orange Item Report" and a "Red Item Report" to the governor and Legislature on psychotropic drug usage in foster care.

The 2003 SAC Red Item Report concluded that psychotropic drug usage in foster care was extremely high throughout the state. In a sample of 1,180 cases, 652 children or *55 percent* were on one or more psychotropic drugs. Among these children, 44 percent had not received a medical evaluation before being given the drugs; 47 percent had been authorized to receive the medication through a signed DCF consent form. The report recommended the development of a quality assurance program for the use of psychotropic drugs in foster children; proper written consent; medical exams; and information sharing among different doctors treating the same child.⁸

The report also noted that doctors continued to prescribe medications for foster children with poor documentation and little or no state oversight.⁹ In response, DCF agreed to create a database to track the prescriptions given to all foster children.

In November 2003, DCF reported to a state senate health and human services committee that 28 percent of the state's foster children aged 13 and younger were being given psychotropic drugs, including 550 children



CONNECTICUT

A May 2001 report on the use of psychotropic drugs by children enrolled in Connecticut's Medicaid managed care program found that 4.8 percent of them were prescribed at least one psychotropic drug during the year under study.



FLORIDA

The July 2003 SAC Red Item Report concluded that doctors continued to prescribe medications for foster children with poor documentation and little or no state oversight.

under the age of six. In June 2004, DCF reported that 41,993 children aged 12 and under receiving Medicaid coverage (a group including foster children as well as others) received 190,210 prescriptions for psychotropic drugs between September 2002 and September 2003. Among those prescribing these drugs were allergists, dermatologists, ophthalmologists, plastic surgeons and radiologists.¹⁰

In January 2005, a private consultant's survey of DCF found that one out of four foster children were receiving psychotropic drugs, and that one in ten were taking at least three of these drugs.¹¹ In May 2005, Senate Bill 1090 tightened the rules regarding the use of psychotropic drugs in foster care, requiring DCF to obtain the consent of parents or a judge before giving a foster child psychotropic drugs.

S.B. 1090 also requires doctors to provide detailed medical information to the judge in foster care cases, and requires caseworkers to provide information to psychiatrists; it also requires hearings to order and monitor the use of psychotropic drugs.¹² According to Florida Children First, an advocacy agency, S.B. 1090 has spurred some improvements, but the state still does not have a tracking system to determine what and how many drugs foster children are receiving.

DCF has published a medication guide for foster families and medication parameters for prescribing physicians and has established a toll-free consultation line, but the state can offer no punishment or negative actions for providers who do not follow the guidelines. In effect, providers are expected to regulate themselves.¹³

Illinois

In 1995, following several reports of unchecked and unmonitored psychotropic drug usage in the foster care population, Illinois adopted rules outlining standards and procedures for such uses. The Illinois Department of Children and Family Services (DCFS) created a Pharmacological Review

Committee to develop a *Pharmacy and Therapeutic Manual* listing all psychotropic drugs approved for foster children. Illinois DCFS is required to provide the committee with statistical data on the administration of psychotropic drugs.

Under Illinois rules, DCFS staff may approve the use of any psychotropic drug listed in the manual; if a drug is not listed, a foster care provider must consult with a DCFS psychiatrist. If the foster child objects to taking a drug, the provider must consult with both the physician recommending the drug and the provider psychiatric consultant before deciding whether to approve or deny the medication.

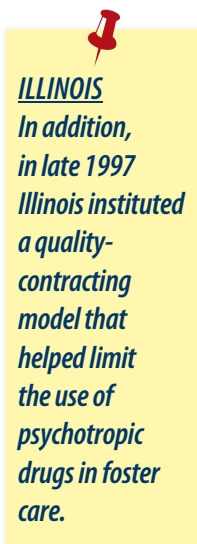
Authorizations for psychotropic drugs are limited to 180 days, and may be reauthorized using this same process. Residential facilities have a form for consent. Prior consent is not required in the case of an emergency (a threat of imminent, serious harm to one's self or others), but DCFS must be notified within one week. A residential treatment facility medical directors or nurses must monitor the use of these medications on a monthly basis, and DCFS must conduct on-site, unannounced visits to ensure compliance.¹⁴

In addition, in late 1997 Illinois instituted a quality-contracting model that helped limit the use of psychotropic drugs in foster care.

Oregon

In 1997, the Oregon legislature established rules for caregivers and Department of Human Services (DHS) staff to follow in administering psychotropic medications to foster children. These rules include maintaining a record of the child's medical and medication history that is collected on a health information form and kept in the agency's automated information system.

Under these rules, emergency orders are not allowed for psychotropic medications. Children who are 14 or older and mentally competent can refuse to take psychotro-



ILLINOIS
In addition, in late 1997 Illinois instituted a quality-contracting model that helped limit the use of psychotropic drugs in foster care.

pic drugs and can obtain, without parental knowledge or consent, their medical records and outpatient diagnoses. Foster homes and foster parents must notify DHS by phone within one working day of administering any new prescription or medication to a foster child.¹⁵

After a child's death from an overdose of prescription antipsychotic drugs, the Washington Department of Social and Health Services (DSHS) formed county-level, 11-member review teams to ensure that children on antipsychotic drugs are being cared for properly.

In 2003, the legislature revised the statute dealing with psychotropic drug usage procedures for foster children. This was prompted by the death of a seven-year-old from an overdose of prescription antidepressants. DHS was required to develop rules for parental or guardian notification of the use of psychotropic medications in foster children, and to provide "timely" notice to the child's parent or guardian, their legal representative and the child's legal representative or court-appointed special advocate.

In late 1997, the state adopted rules requiring that a foster child cannot be given prescription stimulants, sedatives or anti-depressants without the permission of a biological parent or a judge. In addition, children age 13 years and older that are mentally competent must consent to the administration of their own medication.

This notice must include the name of the medication, the amount prescribed, the recommended dosage, the reason for the use of the drug, the efficacy of the medication and its side effects. The child's parent or guardian or their legal representative can file a petition with the juvenile court requesting a hearing to ascertain the appropriateness of the prescription as well as the amount of the drug being prescribed. In addition, the court can order an independent evaluation of the medication and its appropriateness for that child.¹⁶


In 2000, with the passage of the Substitute to House Bill (SHB) 2912, Washington State DSHS instituted a "child health passport" program for foster children. The health passport lists all pertinent medical information regarding the child, and travels with him or her to each placement and each new medical provider. The passport is intended to ensure that physicians serving foster children are informed about each child's previous medical and medication history.

Washington


A March 1997 *Seattle Post-Intelligencer* investigation found that nearly one out of every five foster children (19 percent) in Washington state received mood-altering medications. The investigation found that the children were not being thoroughly assessed before medication and that key medical information about the children often was lost as they were shuttled from home to home and among various caseworkers. The investigation also concluded that doctors were diagnosing and medicating children without sufficient information on their condition or medical history.¹⁷

SHB 2912 required DSHS to provide the legislature with information on the number of foster children who have used or are using psychotropic drugs.¹⁸ This information prompted the 2005 legislature to approve SHB 2985, which created a medical team within DSHS specifically for foster children. The medical team within DSHS helps develop medical policies for foster children, and they help advise the state's Medicaid department on the special needs of foster children.¹⁹

According to Washington State DSHS staff, the Medicaid formulary for all children covered by Medicaid, including foster children will be changed. The formulary change, effective September 1, 2006, lists approved psychotropic drugs and includes dosage guidelines for any medication given to a child that is not on the formulary list or not given



OREGON
Foster homes and foster parents must notify DHS by phone within one working day of administering any new prescription or medication to a foster child.



WASHINGTON
In 2000, with the passage of the Substitute to House Bill (SHB) 2912, Washington State DSHS instituted a "child health passport" program for foster children.

within the formulary requirements; such usages trigger prior authorization procedures requiring the prescribing physician to justify the use of the medication.²⁰

Endnotes

- ¹ Blue Ribbon Commission on Foster Care, Judicial Council of California – Administrative Office of the Courts, California Supreme Court Justice Carlos Moreno presiding. (Sacramento, California, March 23, 2006).
- ² Assemblyman Dennis L. Mountjoy, Assembly District 59, State of California, “Mountjoy Praises Committee for Approving Probe of The Psychotropic Drugging of Children,” Sacramento, California, March 20, 2004 (press release), <http://republican.assembly.ca.gov/members/index.asp?Dist=59&Lang=1&Body=PressReleases&RefID=2004>. (Last visited September 6, 2006.)
- ³ “The Drugging of Foster Youth,” *San Francisco Chronicle* (June 11, 2006), <http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2006/06/11/EDGS0INK2R1.DTL&type=printable>. (Last visited August 28, 2006.)
- ⁴ Connecticut Public Act 04-238 (2004).
- ⁵ Interview with Aurele Kamm, Bureau of Behavioral Health, Medicine and Education, Connecticut Department of Children and Families, February 9, 2006.
- ⁶ Child Health and Development Institute of Connecticut, Inc., *Psychotropic Medication Use Among Children in Connecticut* (Farmington, Connecticut, May 2001), pp.1-7.
- ⁷ “Foster Workers Can’t OK Kids’ Pills: Only Parent, Judge Can Approve Use, Agency Decides,” *Miami Herald* (May 1, 2001), p. 1A.
- ⁸ Florida Statewide Advocacy Council, *Red Item Report: Psychotropic Drug Use in Foster Care* (Tallahassee, Florida, July 2003).
- ⁹ Florida Statewide Advocacy Council, *Red Item Report: Psychotropic Drug Use in Foster Care* (Tallahassee, Florida, July 2003).
- ¹⁰ “Analysis Raises Questions about Drugs; Doctors with Many Specialties are Prescribing,” *the Sun Sentinel* (June 20, 2004), p. 4B.
- ¹¹ “Mental Health Drugs For Kids Alarm Officials,” *the Palm Beach Post* (February 25, 2005), p. 1A.
- ¹² Florida Senate Bill 1090, 2005 Florida Legislature, http://www.flsenate.gov/session/index.cfm?BI_Mode=ViewBillInfo&Mode=Bills&SubMenu=1&Year=2005&billnum=1090., (Last visited September 5, 2006).
- ¹³ Interview with Andrea Moore, executive director, Florida Children First, August 23, 2006.
- ¹⁴ Illinois Administrative Code, Part 325.10- 70.
- ¹⁵ Oregon Revised Statute, Title 34; § 418.517
- ¹⁶ Interview with Catherine Stelzer, foster care coordinator, Oregon Department of Human Services, August 24, 2006.
- ¹⁷ “What States Allow,” *Seattle Post-Intelligencer* (April 3, 1997), p. A9.
- ¹⁸ “Bill to Study Drugs, DSHS Children Advances,” *Seattle Post-Intelligencer* (March 2, 2000), p. B1.
- ¹⁹ Washington S.H.B. 2985, 59th Legislature, Regular Session (2006).
- ²⁰ Interviews with Michelle Bogart, program specialist with the Washington Department of Social and Health Services, and Dr. Jeff Thompson, chief medical officer for the Washington State Medicaid Department, August 23, 2006.

APPENDIX IV: Foster Children and Psychotropic Medications in Other States

Foster Care Medical Managed Care Organization

On July 20, 2006, HHSC issued a request for proposals (RFP) “to contract with a single Managed Care Organization (MCO) to develop a statewide Comprehensive Health Care Model for Foster Care...”¹ HHSC solicited four types of vendors—health maintenance organizations, exclusive provider plans, approved nonprofit health corporations and prepaid inpatient health plans—to bid on the contract.

Whoever is chosen will establish a network of providers. The contractor will be expected to deliver integrated physical and behavioral health services, centralize service coordination and effectively manage health care data and information. The goal is to provide each foster child with a single medical professional who will coordinate their health care, offer an enhanced quality of services and develop a medical “passport” documenting each child’s medical care and medication history.²


The RFP instructs the MCO to address a number of issues identified in the Comptroller’s original *Forgotten Children* report, such as medically fragile children and the need for a medical passport. Some instructions are relatively specific, some are vague and still others provide multiple options for implementation. For example, the bidder can decide whether to provide pharmacy-dispensed drugs as a covered service; whether to use prior authorization; and whether to use a pharmacy benefits manager to process prescriptions.³

The information in this Comptroller’s study should help HHSC in revising and improving the resulting contract. For example, an

RFP section on medically fragile children states that the MCO must reach out to children identified by DFPS and medical professionals as having special medical needs. Unfortunately, this approach still relies on the existing service level system, which classifies children largely by behavior rather than medical condition. This report recommends that foster children be classified and caregivers reimbursed according to a tiered approach, similar to ones used in other states, which gives greater weight to children’s medical conditions.

The RFP is silent on some issues identified as a result of research in this report, such as the need for the effective management of psychiatric hospitalizations and for alternative placements. The RFP merely states that, as is allowed in the current Medicaid fee-for-service system, “the MCO must cover up to three five-day extensions in a Psychiatric Hospital after treatment is completed if DFPS Staff is in the process of finalizing the Member’s (foster child’s) placement.”⁴ It does, however, require the MCO to ensure that all foster children receiving inpatient psychiatric services are scheduled for outpatient follow-up or continuing treatment prior to discharge, a need thoroughly documented in the course of the review team’s research.⁵

The proposed date of implementation is September 2007, raising the question of what happens until then. For example, the RFP contains detailed provisions about an automated, Web-based medical passport program, including data items to be included.⁶ Until this system is in place, however, foster children will still be moving through the system without vital medical informa-



*The RFP instructs the MCO to address a number of issues identified in the Comptroller’s original *Forgotten Children* report, such as medically fragile children and the need for a medical passport.*

tion accompanying them. Any delay in implementing such a system would only extend this problem. An intervening paper-based system would help improve the quality of medical care until a more complete automated system is developed.

In conclusion, it should be noted that the recommendations of this report are made in the context of existing operations, since it is impossible to know which of the many options outlined in the RFP may be pursued by HHSC and its contractor.

Endnotes

- ¹ Health and Human Services Commission, "Request for Proposals for Comprehensive Health Care for Children in Foster Care," RFP No. 529-06-0293, July 20, 2006, p. 3. http://www.hhsc.state.tx.us/Contract/529060293/new/rfp_docs.html (Last visited October 31, 2006.)
- ² Health and Human Services Commission, "Request for Proposals for Comprehensive Health Care for Children in Foster Care."
- ³ Health and Human Services Commission, "Request for Proposals for Comprehensive Health Care for Children in Foster Care."
- ⁴ Health and Human Services Commission, "Request for Proposals for Comprehensive Health Care for Children in Foster Care."
- ⁵ Health and Human Services Commission, "Request for Proposals for Comprehensive Health Care for Children in Foster Care."
- ⁶ Health and Human Services Commission, "Request for Proposals for Comprehensive Health Care for Children in Foster Care."

Comparison of Psychotropic Drugs Included in the Comptroller Study and Other Studies

Brand Names	Chemical Name	Ad Hoc Working Group (1)	ACS Study (2)	AACAP (3)	Medicaid PDL Psychotropics (4)	Trends in Psychotropic Medications (5)	DSHS, HHSC & DFPS Study(6)	Comptroller (7)
<i>Blue text means the medication was not paid for by Medicaid for foster children in fiscal 2004. "X" means the medication was included in the study.</i>								
Antidepressants								
ANAFRANIL	Clomipramine		X	X	X	X	X	X
ASENDIN	Amoxapine		X				X	X
PAMELOR	Nortriptyline	X	X	X	X	X	X	X
CELEXA	Citalopram	X	X	X	X	X	X	X
DESYREL	Trazodone		X	X	X		X	X
EFFEXOR	Venlafaxine	X	X	X	X	X	X	X
ELAVIL	Amitriptyline		X	X	X		X	X
LEXAPRO	Escitalopram	X	X	X	X		X	X
LIMBITROL	Amitriptyline Chlordiazepoxide (CDP)		X				X	X
LUVOX	Fluvoxamine	X	X	X	X	X	X	X
NORPRAMIN	Desipramine		X				X	X
PAXIL	Paroxetine	X	X	X	X	X	X	X
PROZAC, SARAFEM PULVULES	Fluoxetine	X	X	X	X	X	X	X
REMERON	Mirtazapine		X	X	X	X	X	X
SERZONE	Nefazodone		X	X	X			X
SINEQUAN, ZONALON	Doxepin		X				X	X
SURMONTIL	Trimipramine		X				X	X
TOFRANIL	Imipramine	X	X	X		X	X	X
BUDEPRION, WELLBUTRIN, ZYBAN	Bupropion	X	X	X	X	X	X	X
ZOLOFT	Sertraline	X	X	X	X	X	X	X
Antipsychotics								
ABILIFY	Aripiprazole	X	X		X		X	X
CLOZARIL	Clozapine	X	X	X	X	X	X	X
COMPAZINE	Prochlorperazine		X				X	
GEODON	Ziprasidone	X	X		X		X	X
HALDOL	Haloperidol	X	X	X	X	X	X	X
LOXITANE	Loxapine		X				X	X
MELLARIL	Thioridazine		X	X	X	X	X	X

APPENDIX VI: Comparison of Psychotropic Drugs

Brand Names	Chemical Name	Ad Hoc Working Group (1)	ACS Study (2)	AACAP (3)	Medicaid PDL Psychotropics (4)	Trends in Psychotropic Medications (5)	DSHS, HHSC & DFPS Study(6)	Comptroller (7)
<i>Blue text means the medication was not paid for by Medicaid for foster children in fiscal 2004. "X" means the medication was included in the study.</i>								
NAVANE	Thiothixene		X	X	X		X	X
ORAP	Pimozide		X			X		X
PROLIXIN	Fluphenazine		X	X	X		X	X
RISPERDAL	Risperidone	X	X		X	X	X	X
SEROQUEL	Quetiapine fumarate	X	X		X	X	X	X
STELAZINE	Trifluoperazine		X	X	X		X	X
SYMBYAX (ZYPREXA & PROZAC)	Fluoxetine & Olanzapine		X				X	X
THORAZINE	Chlorpromazine		X	X	X		X	X
TRILAFON	Perphenazine		X				X	X
ZYPREXA	Olanzapine	X	X		X	X	X	X
Controls side effects								
COGENTIN	Benzotropine							X
TRIHEXANE	Trihexyphenidyl							X
Stimulants								
ADDERALL, AMPHETAMINE SALTS, D-AMPHETAMINE	Dextroamphetamine and amphetamine	X	X	X	X	X	X	X
CONCERTA, METADATE, RITALIN, METHYLIN	Methylphenidate	X	X	X	X	X	X	X
CYLERT	Pemoline		X				X	X
DEXPAK, DEXEDRINE, DEXTROSTAT	Dextroamphetamine		X	X	X	X	X	X
FOCALIN	Dexmethylphenidate		X				X	X
PROVIGIL	Modafanil	check	X					X
Other ADHD Drugs								
CATAPRES	Clonidine	X			X	X	X	X
STRATTERA	Atomoxetine	X		X	X		X	X
TENEX	Guanfacine	X			X	X	X	X
Mood Stabilizers (Some Anticonvulsants and Lithium)								
CARBATROL, EPITOL, TEGRETOL	Carbamazepine	X		X	X	X	X	X
DEPAKOTE, DEPAKENE	Valproic Acid/ Divalproex sodium	X		X	X	X	X	X
ESKALITH, LITHOBID	Lithium carbonate	X		X	X	X	X	X
LAMICTAL	Lamotrigine	X		X	X	X	X	X
NEURONTIN	Gabapentin			X	X	X	X	X
TOPAMAX	Topiramate			X	X	X	X	X
TRILEPTAL	Oxcarbazepine			X	X		X	X
Hypnotics/Sedatives								
AMBIEN	Zolpidem			X	X		X	X
DALMANE	Flurazepam							X

APPENDIX VI: Comparison of Psychotropic Drugs

Brand Names	Chemical Name	Ad Hoc Working Group (1)	ACS Study (2)	AACAP (3)	Medicaid PDL Psychotropics (4)	Trends in Psychotropic Medications (5)	DSHS, HHSC & DFPS Study(6)	Comptroller (7)
<i>Blue text means the medication was not paid for by Medicaid for foster children in fiscal 2004. "X" means the medication was included in the study.</i>								
HALCION	Triazolam						X	X
PROSOM	Estazolam							X
RESTORIL	Temazepam						X	X
SOMNOTE	Chloral Hydrate						X	X
SONATA	Zaleplon				X		X	X
VISTARIL	Hydroxyzine	X					X	X
Antianxiety								
ATIVAN	Lorazepam			X		X	X	X
BUSPAR	Bupirone			X		X	X	X
KLONOPIN	Clonazepam					X	X	X
LIBRIUM	Chlordiazepoxide						X	X
TRANXENE	Clorazepate						X	X
VALIUM, DIASTAT	Diazepam			X			X	X
XANAX	Alprazolam			X			X	X

- (1) Ad Hoc Working Group refers to Texas Department of State Health Services, "Psychotropic Medication Utilization Parameters for Foster Children," February 2005 (with review and input provided by the Federation of Texas Psychiatry, Texas Pediatric Society, Texas Academy of Family Physicians, Texas Osteopathic Medical Association, and Texas Medical Association). This is a set of guidelines issued by the Department on February 15, 2005.
- (2) ACS Study refers to ACS-Heritage, "Texas Pediatric /Adolescents Drug Review," 9/23/04. ACS-Heritage is the contractor who administers the claims processing of the Texas Medicaid program. This is a utilization study of psychotropic drug use among Medicaid patients under age 18 who received certain stimulants, antidepressants and antipsychotics.
- (3) AACAP refers to the American Academy of Child & Adolescent Psychiatry "Psychiatric Medication for Children and Adolescents Part II: Types of Medications, (no. 29). Updated July 2004.
- (4) Medicaid PDL Psychotropic refers to the drugs identified as psychotropic in the Medicaid formulary.
- (5) Andres Martin, MD, MPH; Douglas Leslie, PhD, "Trends in Psychotropic Medication Costs for Children and Adolescents, 1997-2000," Arch Pediatric Adolescent Med/Vol. 157, Oct. 2003.
- (6) DSHS, HHSC & DFPS Study refers to "Use of Psychoactive Medication in Texas Foster Children State Fiscal Year 2005," (Austin, Texas, June 2006).
- (7) Drugs used in this study and the equivalent for Texas of those in Julie Magno Zito, Daniel J. Safer, et.al, "Psychotropic Practice Patterns for Youth: A 10-Year Perspective," Arch Pediatric Adolescent Med/Vol 137, Jan 2003, www.archpediatrics.com.
- Note: This list only includes psychotropic drugs that were prescribed to Texas foster children in FY 2004. For example, the monamine oxidase inhibitors (MAOI's) antidepressants, NARDIL, (Phenelzine) and PARNATE (Tranylcypromine) were included in the AACAP list, but were not prescribed to Texas foster children and are not included in this list.
- Antihistamines like BENADRYL (Diphenhydramine) are not included because it is difficult to tell the purpose for which these drugs are being used. They may be treating allergies.

APPENDIX VI: Comparison of Psychotropic Drugs

Psychotropic Drugs Included in the Comptroller Study

Brand Names	Chemical Name
<i>Blue text means the medication was not paid for by Medicaid for foster children in fiscal 2004.</i>	
Antidepressant Drugs	
ANAFRANIL	Clomipramine
ASENDIN	Amoxapine
BUDEPRION, WELLBUTRIN, ZYBAN	Bupropion
CELEXA	Citalopram
DESYREL	Trazodone
EFFEXOR, EFFEXOR XR	Venlafaxine
ELAVIL	Amitriptyline
LEXAPRO	Escitalopram
LIMBITROL	Amitriptyline Chlordiazepoxide (CDP)
LUVOX	Fluvoxamine
NORPRAMIN	Desipramine
PAMELOR	Nortriptyline
PAXIL	Paroxetine
PROZAC, SARAFEM	Fluoxetine
REMERON	Mirtazapine
SINEQUAN, ZONALON	Doxepin
SURMONTIL	Trimipramine
SERZONE	Nefazodone
TOFRANIL	Imipramine
ZOLOFT	Sertraline
Antipsychotic Drugs	
ABILIFY	Aripiprazole
CLOZARIL	Clozapine
GEODON	Ziprasidone
HALDOL	Haloperidol
LOXITANE	Loxapine
MELLARIL	Thioridazine
NAVANE	Thiothixene
ORAP	Pimozide

APPENDIX VII: Psychotropic Drugs

Brand Names	Chemical Name
<i>Blue text means the medication was not paid for by Medicaid for foster children in fiscal 2004.</i>	
PROLIXIN	Fluphenazine
RISPERDAL	Risperidone
SEROQUEL	Quetiapine
STELAZINE	Trifluoperazine
SYMBYAX (ZYPREXA & PROZAC)	Fluoxetine & Olanzapine
THORAZINE	Chlorpromazine
TRILAFON	Perphenazine
ZYPREXA	Olanzapine
Controls side effects of Antipsychotic Drugs	
COGENTIN	Benzotropine
TRIHEXANE	Trihexyphenidyl
Stimulants	
ADDERALL, AMPHETAMINE SALTS, D-AMPHETAMINE	Dextroamphetamine and amphetamine
CONCERTA, METADATE, RITALIN, METHYLIN	Methylphenidate
CYLERT	Pemoline
DEXEDRINE, DEXTROSTAT	Dextroamphetamine
FOCALIN	Dexmethylphenidate
PROVIGIL	Modafinil
Other ADHD Drugs	
CATAPRES	Clonidine
STRATTERA	Atomoxetine
TENEX	Guanfacine
Mood Stabilizers (Some Anticonvulsants and Lithium)	
CARBATROL, EPITOL, TEGRETOL	Carbamazepine
ESKALITH, LITHOBID	Lithium carbonate
DEPAKOTE, DEPAKENE	Valproic Acid/ Divalproex sodium
LAMICTAL	Lamotrigine
NEURONTIN	Gabapentin
TOPAMAX	Topiramate
TRILEPTAL	Oxcarbazepine
Hypnotics/Sedatives	
AMBIEN	Zolpidem
DALMANE	Flurazepam
HALCION	Triazolam
PROSOM	Estazolam
RESTORIL	Temazepam
SOMNOTE	Chloral Hydrate

Brand Names	Chemical Name
<i>Blue text means the medication was not paid for by Medicaid for foster children in fiscal 2004.</i>	
SONATA	Zaleplon
VISTARIL	Hydroxyzine
Antianxiety Drugs	
ATIVAN	Lorazepam
BUSPAR	Buspirone
KLONOPIN	Clonazepam
LIBRIUM	Chlordiazepoxide
TRANXENE	Clorazepate
VALIUM, DIASTAT	Diazepam
XANAX	Alprazolam

Note: This list does not include psychotropic drugs that were not prescribed to Texas foster children in fiscal 2004. Antihistamines like BENADRYL (Diphenhydramine) are not included because it is difficult to tell the purpose for which these types drugs are being used.

APPENDIX VII: Psychiatric Drugs



PRESS RELEASE

For Immediate Release

The Children's Shelter

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BBBS

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413-7421 (cell)

The Children's Shelter And Big Brothers Big Sisters Announce New Collaboration To Serve Abused And Neglected Children

(SAN ANTONIO)- On Thursday, Sept. 14, Big Brothers Big Sisters of South Texas (BBBS) and The Children's Shelter (TCS) announced that they are partnering together to serve some of the city's most at-risk youth; abused and neglected children. Through this partnership, mentors from Big Brothers Big Sisters will be paired with a child in residence at the KCI Servant's Heart Residential Treatment Center with the goal of following the child through the foster care system to provide a stable, consistent and positive adult role model for the child during their time in the state's child welfare system. Recent studies on young adults emancipating from the foster care system indicate that one important factor leading to success in young adulthood is the presence of at least one consistent, positive adult throughout the life of a child in foster care. This partnership will provide the children with this much needed support.

"We are very excited to work with Big Brothers Big Sisters and have a mentoring program available to these children," said Scott Ackerson, Vice President of Residential Services at The Children's Shelter. "This new program will provide the child with an established mentor throughout their time in foster care, and will also allow our us to track the progress of the child throughout his or her childhood. It's a perfect marriage of our two programs."

The Children's Shelter opened the KCI Servant's Heart Residential Treatment Center in February 2006 to provide care for children 5-12 years old who have suffered abuse, neglect or abandonment and, as a result, have emotional dilemmas that make it difficult for them to heal and thrive in a family-based setting. The 36-bed home for children enables healing through individualized attention and therapeutic programming. There are currently 20 children residing at the Center. Of those, 5 are now enrolled to be matched with a Big Brother or Big Sister.

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“Our agency is thrilled that we can finally serve this new population,” said Denise Barkhurst, executive vice president at Big Brothers Big Sisters of South Texas. “Since this is a transitional facility, it is imperative to get these children matched to a Big Brother or Big Sisters as soon as possible. With KCI and the community’s help, we hope to match these children as soon as possible.”

In order to help as a volunteer source, KCI has stepped in as the first business to embrace the partnership and will allow BBBS to host recruitment presentations at its three locations.

Volunteers matched in this program will be matched with a child in the site-based program while the child resides at the Center. In this program, they will visit the child once a week to engage in recreational activities at the facility. When the child is adopted, placed in foster care or re-unified with a parent or guardian, the “match” will then transition to the community-based program where the volunteer can pick up the child from the home to participate in activities in the community such as eating out, attend special events or going to the park.

Founded in 1904, Big Brothers Big Sisters (BBBS) is the oldest, largest and most effective youth mentoring organization in the United States. Locally, BBBS of South Texas has served the Bexar County area since 1978, and has expanded to serve Comal, Guadalupe, Kerr, Nueces and Webb counties. The mission of BBBS of South Texas is to help children reach their potential through professionally supported, one-to-one relationships. For more information or to volunteer, visit www.bigmentor.org or call (210) 225-6322.

The Children’s Shelter mission is “...strengthening our community by providing safety, well-being and lasting families for children.” Its services have expanded from emergency shelter care to a continuum of care of emergency shelters, foster care, adoption, residential treatment care, child abuse prevention and teen pregnancy programs, and Girls Incorporated curriculum. For more information, visit www.childrensshelter.org.

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Psychiatric Inpatient Claims for Texas Foster Children Fiscal 2004

ICD-9-CM Diagnosis Code*	Diagnosis Description	Number of Hospital Inpatient Psychiatric Claims	Number of Unduplicated Foster Care Children**	Total Amount Paid
29680	MANIC-DEPRESSIVE NOS	360	262	\$1,945,031
29690	AFFECTIVE PSYCHOSIS NOS	324	241	\$1,872,874
29670	BIPOLAR AFFECTIVE NOS	257	183	\$1,544,406
29664	BIPOL MIXED-SEV W PSYCH	172	141	\$863,028
29620	DEPRESS PSYCHOSIS-UNSPEC	160	130	\$862,161
29633	RECUR DEPR PSYCH-SEVERE	143	123	\$813,585
31100	DEPRESSIVE DISORDER NEC	134	110	\$737,468
29890	PSYCHOSIS NOS	124	87	\$681,540
29660	BIPOL AFF, MIXED-UNSPEC	101	84	\$467,919
31401	ATTN DEFICIT W HYPERACT	100	81	\$569,660
29624	DEPR PSYCHOS-SEV W PSYCH	95	83	\$539,085
31381	OPPOSITIONAL DISORDER	84	67	\$347,533
29663	BIPOL AFF, MIXED-SEVERE	83	75	\$432,659
29623	DEPRESS PSYCHOSIS-SEVERE	81	70	\$439,633
30981	PROLONG POSTTRAUM STRESS	77	64	\$377,367
29570	SCHIZOAFFECTIVE-UNSPEC	75	53	\$415,030
29630	RECURR DEPR PSYCHOS-UNSP	73	64	\$405,790
29634	REC DEPR PSYCH-PSYCHOTIC	70	51	\$393,951
29689	MANIC-DEPRESSIVE NEC	56	51	\$277,568
29650	BIPOLAR AFF, DEPR-UNSPEC	55	41	\$294,448
29654	BIPOL DEPR-SEV W PSYCH	42	32	\$261,128
31234	INTERMITT EXPLOSIVE DIS	40	29	\$197,458
29644	BIPOL MANIC-SEV W PSYCH	38	27	\$237,203
29640	BIPOL AFF, MANIC-UNSPEC	25	22	\$142,984
29653	BIPOL AFF, DEPR-SEVERE	19	15	\$112,570
31282	CNDCT DSRDR ADLSCNT ONST	18	4	\$126,170
31290	CONDUCT DISTURBANCE NOS	15	13	\$71,121
29643	BIPOL AFF, MANIC-SEVERE	13	13	\$69,764
31289	OTHER CONDUCT DISORDER	11	10	\$59,223
30940	ADJ REACT-EMOTION/CONDUCT	11	11	\$53,669
29590	SCHIZOPHRENIA NOS-UNSPEC	10	9	\$59,173

APPENDIX IX: Psychiatric Inpatient Admissions for Texas Foster Children

ICD-9-CM Diagnosis Code*	Diagnosis Description	Number of Hospital Inpatient Psychiatric Claims	Number of Unduplicated Foster Care Children**	Total Amount Paid
29980	CHILD PSYCHOS NEC-ACTIVE	9	6	\$44,376
30040	NEUROTIC DEPRESSION	9	8	\$38,972
31230	IMPULSE CONTROL DIS NOS	8	6	\$40,829
29632	RECURR DEPR PSYCHOS-MOD	6	6	\$25,921
31389	EMOTIONAL DIS CHILD NEC	5	2	\$28,566
29661	BIPOLAR AFF, MIXED-MILD	5	3	\$43,436
30900	BRIEF DEPRESSIVE REACT	4	4	\$40,253
31400	ATTN DEFIC NONHYPERACT	4	2	\$30,003
31281	CNDCT DSRDR CHLDHD ONST	3	1	\$11,123
30000	ANXIETY STATE NOS	3	3	\$13,600
31239	IMPULSE CONTROL DIS NEC	3	3	\$13,561
30710	ANOREXIA NERVOSA	2	2	\$27,850
29604	MANIC DIS-SEVERE W PSYCH	2	2	\$16,088
29641	BIPOLAR AFF, MANIC-MILD	2	1	\$18,236
30830	ACUTE STRESS REACT NEC	2	2	\$14,216
29540	AC SCHIZOPHRENIA-UNSPEC	2	2	\$10,689
29534	PARAN SCHIZO-CHR/EXACERB	2	2	\$7,527
29574	SCHIZOAFFECT-CHR/EXACER	2	2	\$8,802
31200	UNSOCIAL AGGRESS-UNSPEC	2	2	\$9,703
29410	DEMENTIA W/O BEHAV DIST	2	2	\$5,265
30011	CONVERSION DISORDER	2	2	\$6,422
30090	NEUROTIC DISORDER NOS	2	2	\$3,806
29532	PARANOID SCHIZO-CHRONIC	1	1	\$3,156
29595	SCHIZOPHRENIA NOS-REMIS	1	1	\$7,508
30001	PANIC DISORDER	1	1	\$7,508
29622	DEPRESSIVE PSYCHOSIS-MOD	1	1	\$7,816
29383	ORGANIC AFFECTIVE SYND	1	1	\$3,245
29530	PARANOID SCHIZO-UNSPEC	1	1	\$5,558
30490	DRUG DEPEND NOS-UNSPEC	1	1	\$5,363
29665	BIPOL AFF, MIX-PART REM	1	1	\$5,305
29592	SCHIZOPHRENIA NOS-CHR	1	1	\$2,085
29642	BIPOLAR AFFEC, MANIC-MOD	1	1	\$3,159
30019	FACTITIOUS ILL NEC/NOS	1	1	\$3,388
30928	ADJ REACT-MIXED EMOTION	1	1	\$2,907
Total		2,959	**	\$16,187,441

* ICD-9-CM is the official system of assigning codes to diagnoses and procedures associated with hospital utilization in the U.S.

** Number of unduplicated foster children cannot be totaled because some children may have been hospitalized more than one time with a different diagnosis.

Sources: Health and Human Services Commission, Texas Comptroller of Public Accounts and National Center for Health Statistics.

Top 50 Most Expensive Inpatient Diagnosis Claims for Texas Foster Children, by Total Amount Paid Fiscal 2004

ICD-9-CM Diagnosis Code*	Diagnosis Description	Psychiatric Diagnosis (yes or no)	Number of Hospital Inpatient Psychiatric Claims	Number of Unduplicated Foster Care Children**	Total Amount Paid
29680	MANIC-DEPRESSIVE NOS	yes	360	262	\$1,945,031
29690	AFFECTIVE PSYCHOSIS NOS	yes	324	241	\$1,872,874
29670	BIPOLAR AFFECTIVE NOS	yes	257	183	\$1,544,406
V3000	SINGLE LB IN-HOSP W/O CS	no	158	158	\$1,179,980
29664	BIPOL MIXED-SEV W PSYCH	yes	172	141	\$863,028
29620	DEPRESS PSYCHOSIS-UNSPEC	yes	160	130	\$862,161
29633	RECUR DEPR PSYCH-SEVERE	yes	143	123	\$813,585
31100	DEPRESSIVE DISORDER NEC	yes	134	110	\$737,468
29890	PSYCHOSIS NOS	yes	124	87	\$681,540
V3001	SINGLE LB IN-HOSP W CS	no	75	74	\$577,686
31401	ATTN DEFICIT W HYPERACT	yes	100	81	\$569,660
29624	DEPR PSYCHOS-SEV W PSYCH	yes	95	83	\$539,085
50700	FOOD/VOMIT PNEUMONITIS	no	14	14	\$511,612
29660	BIPOL AFF, MIXED-UNSPEC	yes	101	84	\$467,919
29623	DEPRESS PSYCHOSIS-SEVERE	yes	81	70	\$439,633
29663	BIPOL AFF, MIXED-SEVERE	yes	83	75	\$432,659
29570	SCHIZOAFFECTIVE-UNSPEC	yes	75	53	\$415,030
29630	RECURR DEPR PSYCHOS-UNSP	yes	73	64	\$405,790
29634	REC DEPR PSYCH-PSYCHOTIC	yes	70	51	\$393,951
30981	PROLONG POSTTRAUM STRESS	yes	77	64	\$377,367
59900	URIN TRACT INFECTION NOS	no	21	17	\$374,967
31381	OPPOSITIONAL DISORDER	yes	84	67	\$347,533
29650	BIPOLAR AFF, DEPR-UNSPEC	yes	55	41	\$294,448
48600	PNEUMONIA, ORGANISM NOS	no	55	47	\$291,074
29689	MANIC-DEPRESSIVE NEC	yes	56	51	\$277,568
53081	ESOPHAGEAL REFLUX	no	27	25	\$267,304
29654	BIPOL DEPR-SEV W PSYCH	yes	42	32	\$261,128

APPENDIX X: Top 50 Inpatient Diagnosis Claims for Texas Foster Children

ICD-9-CM Diagnosis Code*	Diagnosis Description	Psychiatric Diagnosis (yes or no)	Number of Hospital Inpatient Psychiatric Claims	Number of Unduplicated Foster Care Children**	Total Amount Paid
29644	BIPOL MANIC-SEV W PSYCH	yes	38	27	\$237,203
78039	CONVULSIONS NEC	no	37	31	\$217,239
46611	ACU BRONCHOLITIS D/T RSV	no	53	49	\$210,501
49392	ASTHMA W ACUTE EXACERBTN	no	48	47	\$199,568
31234	INTERMITT EXPLOSIVE DIS	yes	40	29	\$197,458
V301	SINGL LIVEBRN-BEFORE ADM	no	23	22	\$171,365
29640	BIPOL AFF, MANIC-UNSPEC	yes	25	22	\$142,984
49391	ASTHMA W STATUS ASTHMAT	no	23	23	\$113,601
29653	BIPOL AFF, DEPR-SEVERE	yes	19	15	\$112,570
31490	HYPERKINETIC SYND NOS	no	22	21	\$107,522
46619	ACU BRNCHLTS D/T OTH ORG	no	30	28	\$93,099
31290	CONDUCT DISTURBANCE NOS	yes	15	13	\$71,121
29643	BIPOL AFF, MANIC-SEVERE	yes	13	13	\$69,764
68260	CELLULITIS OF LEG	no	24	21	\$59,940
27650	HYPOVOLEMIA	no	26	26	\$55,787
30940	ADJ REACT-EMOTION/CONDUCT	yes	11	11	\$53,669
54090	ACUTE APPENDICITIS NOS	no	14	13	\$50,576
48500	BRONCHOPNEUMONIA ORG NOS	no	13	12	\$33,588
07999	VIRAL INFECTION NOS	no	12	12	\$32,970
65971	ABN FTL HRT RATE/RHY-DEL	no	12	12	\$24,599
65000	NORMAL DELIVERY	no	13	13	\$24,137
66401	DEL W 1 DEG LACERAT-DEL	no	13	13	\$22,859
66411	DEL W 2 DEG LACERAT-DEL	no	12	12	\$22,363
Total Top 50 Inpatient Diagnosis			3,552	**	\$20,068,970
Remainder of Inpatient Diagnosis			1,245	**	\$12,462,854
Grand Total			4,797	**	\$32,531,824

* ICD-9-CM is the official system of assigning codes to diagnoses and procedures associated with hospital utilization in the U.S.

** Number of unduplicated foster children cannot be totaled because some children may have been hospitalized more than one time with a different diagnosis.

Sources: Health and Human Services Commission, Texas Comptroller of Public Accounts and National Center for Health Statistics.

DFPS Service Levels and Daily Reimbursement Rates for Foster Care

(Source: DFPS Web site)

Description of the Basic Service Level

The Basic Service Level consists of a supportive setting, preferably in a family, that is designed to maintain or improve the child's functioning, including:

1. routine guidance and supervision to ensure the child's safety and sense of security;
2. affection, reassurance and involvement in activities appropriate to the child's age and development to promote the child's well-being;
3. contact, in a manner that is deemed in the best interest of the child, with family members and other persons significant to the child to maintain a sense of identity and culture; and
4. access to therapeutic, habilitative and medical intervention and guidance from professionals or paraprofessionals, on an as-needed basis, to help the child maintain functioning appropriate to the child's age and development.

Characteristics of a child who needs Basic Services

A child needing basic services is capable of responding to limit-setting or other interventions.

The children needing basic services may include:

1. a child whose characteristics include one or more of the following:
 - transient difficulties and occasional misbehavior;
 - acting out in response to stress, but episodes of acting out are brief; and

- behavior that is minimally disturbing to others, but the behavior is considered typical for the child's age and can be corrected.
2. a child with developmental delays or mental retardation whose characteristics include minor to moderate difficulties with conceptual, social and practical adaptive skills.

Description of the Moderate Service Level

1. The Moderate Service Level consists of a structured supportive setting, preferably in a family, in which most activities are designed to improve the child's functioning, including:

- more than routine guidance and supervision to ensure the child's safety and sense of security;
- affection, reassurance and involvement in structured activities appropriate to the child's age and development to promote the child's well-being;
- contact, in a manner that is deemed in the best interest of the child, with family members and other persons significant to the child to maintain a sense of identity and culture; and
- access to therapeutic, habilitative and medical intervention and guidance from professionals or paraprofessionals to help the child attain or maintain functioning appropriate to the child's age and development.

2. a child with primary medical or habilitative needs may require intermittent in-

interventions from a skilled caregiver who has demonstrated competence.

Characteristics of a child who needs Moderate Services

A child needing moderate services has problems in one or more areas of functioning. The children needing moderate services may include:

1. a child whose characteristics include one or more of the following:
 - frequent non-violent, anti-social acts;
 - occasional physical aggression;
 - minor self-injurious actions; and
 - difficulties that present a moderate risk of harm to self or others.
2. a child who abuses alcohol, drugs or other conscious-altering substances whose characteristics include one or more of the following:
 - substance abuse to the extent or frequency that the child is at-risk of substantial problems; and
 - a historical diagnosis of substance abuse or dependency with a need for regular community support through groups or similar interventions.
3. a child with developmental delays or mental retardation whose characteristics include:
 - moderate to substantial difficulties with conceptual, social and practical adaptive skills to include daily living and self-care; and
 - moderate impairment in communication, cognition or expressions of affect.
4. a child with primary medical or habilitative needs, whose characteristics include one or more of the following:
 - occasional exacerbations or intermittent interventions in relation to the diagnosed medical condition;
 - limited daily living and self-care skills;
 - ambulatory with assistance; and
 - daily access to on-call, skilled caregivers with demonstrated competence.

Description of the Specialized Service Level

1. The Specialized Service Level consists of a treatment setting, preferably in a family, in which caregivers have specialized training to provide therapeutic, habilitative and medical support and interventions including:
 - 24-hour supervision to ensure the child's safety and sense of security, which includes close monitoring and increased limit setting;
 - affection, reassurance and involvement in therapeutic activities appropriate to the child's age and development to promote the child's well-being;
 - contact, in a manner that is deemed in the best interest of the child, with family members and other persons significant to the child to maintain a sense of identity and culture; and
 - therapeutic, habilitative and medical intervention and guidance that is regularly scheduled and professionally designed and supervised to help the child attain functioning appropriate to the child's age and development.
2. a child with primary medical or habilitative needs may require regular interventions from a caregiver who has demonstrated competence.

Characteristics of a child who needs Specialized Services

A child needing specialized services has severe problems in one or more areas of functioning. The children needing specialized services may include:

1. a child whose characteristics include one or more of the following:
 - unpredictable non-violent, anti-social acts;
 - frequent or unpredictable physical aggression;
 - being markedly withdrawn and isolated;

- major self-injurious actions to include recent suicide attempts; and
 - difficulties that present a significant risk of harm to self or others.
2. a child who abuses alcohol, drugs or other conscious-altering substances whose characteristics include one or more of the following:
 - severe impairment because of the substance abuse; and
 - a primary diagnosis of substance abuse or dependency.
 3. a child with developmental delays or mental retardation whose characteristics include one or more of the following:
 - severely impaired conceptual, social and practical adaptive skills to include daily living and self-care;
 - severe impairment in communication, cognition or expressions of affect;
 - lack of motivation or the inability to complete self-care activities or participate in social activities;
 - inability to respond appropriately to an emergency; and
 - multiple physical disabilities including sensory impairments.
 4. a child with primary medical or habilitative needs whose characteristics include one or more of the following:
 - regular or frequent exacerbations or interventions in relation to the diagnosed medical condition;
 - severely limited daily living and self-care skills;
 - non-ambulatory or confined to a bed; and
 - constant access to on-site, medically skilled caregivers with demonstrated competencies in the interventions needed by children in their care.
- vironments as necessary to protect the child. The caregivers have specialized training to provide intense therapeutic and habilitative supports and interventions with limited outside access, including:
- 24-hour supervision to ensure the child's safety and sense of security, which includes frequent one-to-one monitoring with the ability to provide immediate on-site response.
 - affection, reassurance and involvement in therapeutic activities appropriate to the child's age and development to promote the child's well-being;
 - contact, in a manner that is deemed in the best interest of the child, with family members and other persons significant to the child, to maintain a sense of identity and culture;
 - therapeutic, habilitative and medical intervention and guidance that is frequently scheduled and professionally designed and supervised to help the child attain functioning more appropriate to the child's age and development; and
 - consistent and frequent attention, direction and assistance to help the child attain stabilization and connect appropriately with the child's environment.
2. In addition, a child with developmental delays or mental retardation needs professionally directed, designed and monitored interventions to enhance mobility, communication, sensory, motor and cognitive development, and self-help skills.
 - a child with primary medical or habilitative needs requires frequent and consistent interventions. The child may be dependent on people or technology for accommodation and require interventions designed, monitored or approved by an appropriately constituted interdisciplinary team.

Description of the Intense Service Level

1. The Intense Service Level consists of a high degree of structure, preferably in a family, to limit the child's access to en-

Characteristics of a child who needs Intense Services

A child needing intense services has severe problems in one or more areas of functioning that present an imminent and critical danger of harm to self or others. The children needing intense services may include:

1. a child whose characteristics include one or more of the following:
 - extreme physical aggression that causes harm;
 - recurring major self-injurious actions to include serious suicide attempts;
 - other difficulties that present a critical risk of harm to self or others; and
 - severely impaired reality testing, communication skills, cognitive skills affect or personal hygiene.
2. a child who abuses alcohol, drugs or other conscious-altering substances whose characteristics include a primary diagnosis of substance dependency in addition to being extremely aggressive or self-destructive to the point of causing harm.
3. a child with developmental delays or mental retardation whose characteristics include one or more of the following:
 - impairments so severe in conceptual, social and practical adaptive skills that the child's ability to actively participate in the program is limited and requires constant one-to-one supervision for the safety of self or others; and
 - a consistent inability to cooperate in self-care while requiring constant one-to-one supervision for the safety of self or others.

4. a child with primary medical or habilitative needs that present an imminent and critical medical risk whose characteristics include one or more of the following:
 - frequent acute exacerbations and chronic, intensive interventions in relation to the diagnosed medical condition;
 - inability to perform daily living or self-care skills; and
 - 24-hour on-site, medical supervision to sustain life support.

EXHIBIT 10

Foster Care Daily Reimbursement Rates For Fiscal 2004

Rate Structure	FY 2004
Basic Foster Family	\$20.00
Basic Child Placing Agency	\$36.00
Basic Residential Treatment Center	\$36.00
Moderate Foster Family	\$35.00
Moderate CPA	\$65.50
Moderate RTC	\$80.00
Specialized Foster Family	\$45.00
Specialized CPA	\$87.25
Specialized RTC	\$115.00
Intense RTC	\$202.00
Six Plus/Exceptional Care	\$277.00
Emergency Shelter*	\$94.00

Sources: DFPS website: http://www.dfps.state.tx.us/Child_Protection/Foster_Care/Care_Levels.asp and Texas Comptroller of Public Accounts – Forgotten Children Report.

Drug Classes Used in the “External Review” Study and in this Study of Foster Care Medicaid Drug Database – Fiscal 2004

Class	Sub-class	Brand Names	Chemical Names	Comptroller Summary Labels
Medicaid was not billed for the medications in blue for Texas foster children in fiscal 2004.				
Alpha Agonists		CATAPRES	Clonidine	Other ADHD Drugs
		TENEX	Guanfacine	Other ADHD Drugs
Anticonvulsants	Mood Stabilizers	CARBATROL, EPITOL, TEGRETOL	Carbamazepine	Mood Stabilizers
		DEPAKOTE, DEPAKENE	Valproic Acid/ Divalproex sodium	Mood Stabilizers
		LAMICTAL	Lamotrigine	Mood Stabilizers
		NEURONTIN	Gabapentin	Mood Stabilizers
		TOPAMAX	Topiramate	Mood Stabilizers
		TRILEPTAL	Oxcarbazepine	Mood Stabilizers
Antidepressants	Tricyclic (TCA)	ANAFRANIL	Clomipramine	Antidepressants
		ASENDIN	Amoxapine	Antidepressants
		PAMELOR	Nortriptyline	Antidepressants
		ELAVIL	Amitriptyline	Antidepressants
		LIMBITROL	Amitriptyline Chlordiazepoxide (CDP)	Antidepressants
		NORPRAMIN	Desipramine	Antidepressants
		SINEQUAN, ZONALON	Doxepin	Antidepressants
		SURMONTIL	Trimipramine	Antidepressants
		TOFRANIL	Imipramine	Antidepressants
	Selective Serotonin Uptake Inhibitors (SSRI)	CELEXA	Citalopram	Antidepressants
		EFFEXOR	Venlafaxine	Antidepressants
		LEXAPRO	Escitalopram	Antidepressants
		LUVOX	Fluvoxamine	Antidepressants
		PAXIL	Paroxetine	Antidepressants
		PROZAC, SARAFEM PULVULES	Fluoxetine	Antidepressants
		ZOLOFT	Sertraline	Antidepressants
	Other Antidepressants	DESYREL	Trazodone	Antidepressants
		REMERON	Mirtazapine	Antidepressants
		SERZONE	Nefazodone	Antidepressants
BUDEPRION, WELLBUTRIN, ZYBAN		Bupropion	Antidepressants	

APPENDIX XII: Drug Classes

Class	Sub-class	Brand Names	Chemical Names	Comptroller Summary Labels
Medicaid was not billed for the medications in blue for Texas foster children in fiscal 2004.				
Anxiolytics	Benzodiazepines	ATIVAN	Lorazepam	Antianxiety
		KLONOPIN	Clonazepam	Antianxiety
		LIBRIUM	Chlordiazepoxide	Antianxiety
		TRANXENE	Clorazepate	Antianxiety
		VALIUM, DIASTAT	Diazepam	Antianxiety
		XANAX	Alprazolam	Antianxiety
	Other Antianxiety	BUSPAR	Buspirone	Antianxiety
Hydroxyzine		VISTARIL	Hydroxyzine	Hypnotics/Sedatives
Hypnotics	Benzodiazepines	DALMANE	Flurazepam	Hypnotics/Sedatives
		HALCION	Triazolam	Hypnotics/Sedatives
		PROSOM	Estazolam	Hypnotics/Sedatives
		RESTORIL	Temazepam	Hypnotics/Sedatives
	Other Sedative-Hypnotics	AMBIEN	Zolpidem	Hypnotics/Sedatives
		SOMNOTE	Chloral Hydrate	Hypnotics/Sedatives
		SONATA	Zaleplon	Hypnotics/Sedatives
Lithium		ESKALITH, LITHOBID	Lithium carbonate	Mood Stabilizers
Antipsychotics	Conventional (First Generation)	HALDOL	Haloperidol	Antipsychotics
		LOXITANE	Loxapine	Antipsychotics
		MELLARIL	Thioridazine	Antipsychotics
		NAVANE	Thiothixene	Antipsychotics
		ORAP	Pimozide	Antipsychotics
		PROLIXIN	Fluphenazine	Antipsychotics
		STELAZINE	Trifluoperazine	Antipsychotics
		TRILAFON	Perphenazine	Antipsychotics
		THORAZINE	Chlorpromazine	Antipsychotics
	Atypical (Second Generation)	ABILIFY	Aripiprazole	Antipsychotics
		CLOZARIL	Clozapine	Antipsychotics
		GEODON	Ziprasidone	Antipsychotics
		RISPERDAL	Risperidone	Antipsychotics
		SEROQUEL	Quetiapine	Antipsychotics
		SYMBYAX (ZYPREXA & PROZAC)	Fluoxetine and Olanzapine	Antipsychotics
ZYPREXA	Olanzapine	Antipsychotics		

Class	Sub-class	Brand Names	Chemical Names	Comptroller Summary Labels
Medicaid was not billed for the medications in blue for Texas foster children in fiscal 2004.				
Stimulants	Amphetamine	ADDERALL, AMPHETAMINE SALTS, D-AMPHETAMINE	Dextroamphetamine and amphetamine	Stimulants
		DEXPAK, DEXEDRINE, DEXTROSTAT	Dextroamphetamine	Stimulants
	Methylphenidate	CONCERTA, METADATE, RITALIN, METHYLIN	Methylphenidate	Stimulants
	Other	CYLERT	Pemoline	Stimulants
		STRATTERA	Atomoxetine	Other ADHD Drugs**
		FOCALIN	Dexmethylphenidate	Stimulants
		PROVIGIL	Modafinil	Stimulants
Antidyskinetics*		COGENTIN	Benztrapine	Controls side effects
		TRIHEXANE	Trihexyphenidyl	Controls side effects

*Antiparkinsonian drugs used to control side effects

**STRATTERA is a drug for Attention Deficity Hyperactivity Disorder and not a stimulant

Notes:

1. PROCHLORPERAZINE (Compazine) has been listed as “Other Central Nervous System” even though it is listed as an antipsychotic by USP, an examination of its use on foster children revealed that it was used for children as a pre-operative medication for tooth extractions or to treat nausea and not as an antipsychotic.
2. Those anticonvulsants not commonly used as Mood Stabilizers are listed under “Other Central Nervous System.” These include DILANTIN, PHENYTEX (Phenytoin), Acetazolamide, FELBATOL, GABITRIL, KEPPRA, Primidone, Phenobarbital, ZARONTIN (Ethosuximide), ZONEGRAN.
3. Some other drugs were also classified as “Other Central Nervous System.” These include, for example, ARICEPT (generally used to treat Alzheimer’s), AXERT (used to treat migraines), Bromocriptine (used to treat menstrual problems and Parkinson’s among other things), EXELON (used to treat dementia), IMITREX (used to treat migraines), MAXALT (used to treat migraines), REVIA (Naltraxon - used to treat opioid addiction), and ZOMIG (used to treat migraines).

APPENDIX XII: Drug Classes

Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
01000	PRIMARY TUBERCULOUS COMPLEX, UNSPECIFIED
01002	PRIMARY TUBERCULOUS COMPLEX, BACTERIOLOGICAL EXAM UNKNOWN
01006	PRIMARY TUBERCULOUS COMPLEX, CONFIRMED BY OTHER TEST
01091	PRIMARY TUBERCULOUS, NOS, NO EXAM
01300	TUBERCULOUS MENINGITIS
01590	TUBERCULOSIS OF BONE AND JOINTS
01630	TUBERCULOSIS OF OTHER URINARY ORGANS
01700	TUBERCULOSIS OF SKIN AND SUBCUTANEOUS TISSUE
01701	TUBERCULOSIS OF SKIN AND SUBCUTANEOUS TISSUE, NO BACTERIOLOGICAL EXAM
01706	TUBERCULOSIS OF SKIN AND SUBCUTANEOUS TISSUE, CONFIRMED BY OTHER TEST
01790	TUBERCULOSIS OF OTHER SPECIFIED ORGANS
14010	MALIGNANT NEOPLASM, LOWER VERMILION
14520	MALIGNANT NEOPLASM, HARD PALATE
15000	MALIGNANT NEOPLASM, OF ESOPHAGUS
15310	MALIGNANT NEOPLASM, TRANSVERSE COLON
15500	MALIGNANT NEOPLASM, LIVER, PRIMARY
15800	MALIGNANT NEOPLASM, RETROPERITONEUM
17040	MALIGNANT NEOPLASM, LONG BONES ARM
17060	MALIGNANT NEOPLASM, PELVIC GIRDLE
17070	MALIGNANT NEOPLASM, LONG BONES LEG
17090	MALIGNANT NEOPLASM, BONE NOS
17120	MALIGNANT NEOPLASM, SOFT TISSUE ARM
17130	MALIGNANT NEOPLASM, SOFT TISSUE LEG
17150	MALIGNANT NEOPLASM, SOFT TISSUE, ABDOMEN
17190	MALIGNANT NEOPLASM, SOFT TISSUE NOS
17300	MALIGNANT NEOPLASM, SKIN LIP
17390	MALIGNANT NEOPLASM, SKIN NOS
18300	MALIGNANT NEOPLASM, OVARY
18410	MALIGNANT NEOPLASM, LABIA MAJORA
18900	MALIGNANT NEOPLASM, KIDNEY
19000	MALIGNANT NEOPLASM, EYEBALL
19010	MALIGNANT NEOPLASM, ORBIT

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
19050	MALIGNANT NEOPLASM, RETINA
19100	MALIGNANT NEOPLASM, CEREBRUM
19120	MALIGNANT NEOPLASM, TEMPORAL LOBE
19160	MALIGNANT NEOPLASM, CEREBELLUM NOS
19180	MALIGNANT NEOPLASM, BRAIN NEC
19190	MALIGNANT NEOPLASM, BRAIN NOS
19200	MALIGNANT NEOPLASM, CRANIAL NERVES
19700	SECONDARY MALIGNAN NEOPLASM ,LUNG
19889	SECONDARY MALIGNANT NEOPLASM NEC
20010	LYMPHOSARCOMA
20151	HODGKIN'S NODULE SCLEROSIS, HEAD
20158	HODGKIN'S NODULE SCLEROSIS MULTIPLE
20190	HODGKIN'S DISEASE UNSPECIFIED
20191	HODGKIN'S DISEASE, HEAD
20192	HODGKIN'S DISEASE, THORAX
20200	OTHER MALIGNANT NEOPLASMS OF LYMPHOID & HISTIOCYTIC TISSUE
20210	MYCOSIS FUNGOIDES
20280	OTHER LYMPHOMAS
20400	ACUTE LYMPHOID LEUKEMIA WITHOUT REMISSION
20401	ACUTE LYMPHOID LEUKEMIA WITH REMISSION
20491	UNSPECIFIED LYMPHOID LEUKEMIA WITH REMISSION
20500	ACUTE MYELOID LEUKEMIA WITHOUT REMISSION
20501	ACUTE MYELOID LEUKEMIA WITH REMISSION
20600	ACUTE MONOCYTIC LEUKEMIA WITHOUT REMISSION
20630	MONOCYTIC LEUKEMIA
20700	ACUTE ERYTHREMIA & ERYTHROLEUKEMIA WITHOUT REMISSION
20800	ACUTE LEUKEMIA UNSPECIFIED CELL TYPE WITHOUT REMISSION
20880	ACUTE LEUKEMIA UNSPECIFIED CELL TYPE WITH REMISSION
20890	LEUKEMIA NOS WITHOUT REMISSION
20891	LEUKEMIA NOS WITH REMISSION
23310	CA NCER IN SITU CERVIX UTERI
23500	NEOPLASM OF UNCERTAIN BEHAVIOR SALIVARY
23510	NEOPLASM OF UNCERTAIN BEHAVIOR ORAL/PHAR
23530	NEOPLASM OF UNCERTAIN BEHAVIOR LIVER
23550	NEOPLASM OF UNCERTAIN BEHAVIOR GI NEC
23620	NEOPLASM OF UNCERTAIN BEHAVIOR OVARY
23630	NEOPLASM OF UNCERTAIN BEHAVIOR FEMALE NEC
23710	NEOPLASM OF UNCERTAIN BEHAVIOR PINEAL
23730	NEOPLASM OF UNCERTAIN BEHAVIOR PARAGANG
23750	NEOPLASM OF UNCERTAIN BEHAVIOR BRAIN/SPINAL

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
23770	NEUROFIBROMATOSIS NOS
23771	NEUROFIBROMATOSIS TYPE I
23800	NEOPLASM OF UNCERTAIN BEHAVIOR BONE
23810	NEOPLASM OF UNCERTAIN BEHAVIOR SOFT TISSU
23820	NEOPLASM OF UNCERTAIN BEHAVIOR SKIN
23870	LYMPHOPROLIFERAT DIS NOS
23880	NEOPLASM OF UNCERTAIN BEHAVIOR
23900	DIGESTIVE NEOPLASM NOS
23910	RESPIRATORY NEOPLASM NOS
23920	BONE/SKIN NEOPLASM NOS
23950	OTHER GU NEOPLASM NOS
23960	BRAIN NEOPLASM NOS
23970	ENDOCRINE/NERV NEOPLASM NOS
23980	NEOPLASM NOS, SITE NEC
27700	CYSTIC FIBROS WITHOUT ILEUS
27701	CYSTIC FIBROSIS WITH ILEUS
27702	CYSTIC FIBROSIS WITH PULMONARY EXACERBATION
27703	CYSTIC FIBROSIS WITH GASTROINTESTINAL MANIFESTATIONS
27709	CYSTIC FIBROSIS WITH OTHER MANIFESTATIONS
28959	SPLEEN DISEASE NEC
28960	FAMILIAL POLYCYTHEMIA
28980	BLOOD DISEASES NEC
28981	PRIMARY HYPERCOAGULABLE STATE
32400	INTRACRANIAL ABSCESS
33000	LEUKODYSTROPHY
33030	CEREBRAL DEGENERATION OF CHILDHOOD IN OTHER DISEASES (HUNTER'S DISEASE)
33080	CEREBRAL DEGENERATION IN CHILDHOOD NEC
33090	CEREBRAL DEGENERATION IN CHILDHOOD NOS
33130	COMMUNICATIVE HYDROCEPHALUS
33140	OBSTRUCTIV E HYDROCEPHALUS
33170	CEREBRAL DEGENERATION IN OTH DISEASES
33181	REYE'S SYNDROME
33189	CEREBRAL DEGENERATION NEC
33190	CEREBRAL DEGENERATION NOS
33320	MYOCLONUS
33340	HUNTINGTON'S CHOREA
33350	OTHER CHOREAS
33360	IDIOPATHIC TORSION DYSTONIA
33370	SYMPTOMTOMATIC TORSION DYSTONIA
33410	HEREDITARY SPASTIC PARAPLEGIA

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
33420	PRIMARY CEREBELLAR DEGENERATION
33430	CEREBELLAR ATAXIA NEC
33480	SPINOCEREBELLAR DISEASES NEC
33520	AMYOTROPHIC SCLEROSIS
33521	PROGRESSIVE MUSCULAR ATROPHY
33523	PSEUDOBULBAR PALSY
33529	MOTOR NEURON DISEASE NEC
33600	SYRINGOMYELIA
33680	MYELOPATHY NEC
33690	SPINAL CORD DISEASE NOS
33720	REFLEX SYMPATHETIC DYSTROPHY
33790	AUTONOMIC NERVOUS SYSTEM DISEASE NEC
34000	MULTIPLE SCLEROSIS
34180	CENTRAL NERVOUS SYSTEM DEMYELINATION NEC
34190	CENTRAL NERVOUS SYSTEM DEMYELINATION NOS
34200	FLACCID HEMIPLEGIA , UNSPECIFIED SIDE
34201	FLACCID HEMIPLEGIA , DOMINANT SIDE
34210	SPASTIC HEMIPLEGIA, UNSPECIFIED SIDE
34211	SPASTIC HEMIPLEGIA, DOMINANT SIDE
34212	SPASTIC HEMIPLEGIA, NONDOMINANT SIDE
34290	HEMIPLEGIA , UNSPECIFIED SIDE
34291	HEMIPLEGIA , DOMINANT SIDE
34300	CONGENITAL DIPLEGIA
34310	CONGENITAL HEMIPLEGIA
34320	CONGENITAL QUADRIPLEGIA
34330	CONGENITAL MONOPLÉGIA
34380	CEREBRAL PALSY NEC
34390	CEREBRAL PALSY NOS
34400	QUADRIPLEGIA, UNSPECIFIED
34401	QUADRIPLEGIA, C1-C4, COMPLETE
34404	QUADRIPLEGIA, C5-C7, INCOMPLETE
34409	OTHER QUADRIPLEGIA
34410	PARAPLEGIA NOS
34489	OTHER SPECIFIED PARALYTIC SYNDROME
34490	PARALYSIS NOS
34560	INFANTILE SPASM WITHOUT INTRACTIBLE EPILEPSY
34561	INFANTILE SPASM WITH INTRACTIBLE EPILEPSY
34800	CEREBRAL CYSTS
34810	ANOXIC BRAIN DAMAGE
34820	BENIGN INTRACRANIAL HYPERTENSION

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
34830	ENCEPHALOPATHY NOS
34839	OTHER ENCEPHALOPATHY
34840	COMPRESSION OF BRAIN
34850	CEREBRAL EDEMA
34880	BRAIN CONDITIONS NEC
34890	BRAIN CONDITION NOS
34982	TOXIC ENCEPHALOPATHY
34989	OTHER SPECIFIED DISORDERS OF NERVOUS SYSTEM
34990	UNSPECIFIED DISORDERS OF NERVOUS SYSTEM
35610	PERONEAL MUSCLE ATROPHY
35620	HEREDITARY SENSORY NEUROPATHY
35690	IDIOPATHIC PERIPHERAL NEUROPATHY NOS
35700	ACUTE INFECTIOUS POLYNEURITIS (GUILLAIN-BARRE)
35730	NEUROPATHY IN MALIGNANT DISEASE
35760	NEUROPATHY DUE TO DRUGS
35781	CHRONIC INFLAMMATORY DEMYELINATING POLYNEURITIS
35790	INFLAMMATORY & TOXIC NEUROPATHY NOS
35820	TOXIC MYONEURAL DISORDER
35880	MYONEURAL DISORDERS NEC
35900	CONGENITAL HEREDITARY MUSCULAR DYSTROPHY
35910	HEREDITARY PROGRESSIVE MUSCULAR DYSTROPHY
35920	MYOTONIC DISORDERS
35989	MYELOPATHY
35990	MYOPATHY NOS
39290	RHEUMATIC CHOREA NOS
39400	MITRAL STENOSIS
39410	RHEUMATIC MITRAL INSUFFICIENCY
39420	MITRAL STENOSIS WITH INSUFFICIENCY
39490	MITRAL VALVE DISEASES NEC/NOS
39510	RHEUMATIC AORTIC INSUFFICIENCY
39630	MITRAL & AORTIC VALVE INSUFFICIENCY
39700	TRICUSPID VALVE DISEASE
39890	RHEUMATIC HEART DISEASE NOS
40100	MALIGNANT HYPERTENSION
40391	UNSPECIFIED HYPERTENSION WITH RENAL FAILURE
40400	MALIGNANT HYPERTENSIVE HEART & RENAL
40591	UNSPECIFIED RENOVASCULAR HYPERTENSION
40599	UNSPECIFIED SECONDARY HYPERTENSION NEC
41189	ACUTE ISCHEMIC HEART DISEASE NEC
41310	PRINZMETAL ANGINA

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
41390	ANGINA PECTORIS NEC/NOS
41400	CORONARY ATHEROSCLEROSIS
41490	CHRONIC ISCHEMIC HEART DISEASE NOS
41600	PRIMARY PULMONARY HYPERTENSION
41680	CHRONIC PULMONARY HEART DISEASE NEC
41690	CHRONIC PULMONARY HEART DISEASE NOS
41710	PULMONARY ARTERY ANEURYSM
41780	PULMONARY CIRCULATING DISEASE NEC
41790	PULMONARY CIRCULATING DISEASE NOS
42000	ACUTE PERICARDITIS IN OTHER DISEASES
42090	ACUTE PERICARDITIS NOS
42100	ACUTE/SUBACUTE BACTERIAL ENDOCARDITIS
42200	ACUTE MYOCARDITIS IN OTHER DISEASE
42390	PERICARDIAL DISEASE NOS
42400	MITRAL VALVE DISORDER
42410	AORTIC VALVE DISORDER
42420	NONRHEUMATIC TRICUSPIS VALVE DISEASE
42430	PULMONARY VALVE DISORDER
42490	ENDOCARDITIS NOS
42491	ENDOCARDITIS IN OTH DISEASES
42500	ENDOMYOCARDIAL FIBROSIS
42510	HYPERTROPIC OBSTRUCTIVE CARDIOMYOPATHY
42530	ENDOCARDIAL FIBROELASTOSIS
42540	PRIMARY CARDIOMYOPATHY NEC
42570	METABOLIC CARDIOMYOPATHY
42580	CARDIOMYOPATHY IN OTHER DISEASE
42590	SECONDARY CARDIOMYOPATHY NOS
42600	ATRIOVENTRICULAR BLOCK, COMPLETE
42640	RIGHT BUNDLE BRANCH BLOCK
42700	PAROX ATRIAL TACHYCARDIA
42710	PAROXYSMAL VENTRICULAR TACHYCARDIA
42611	ATRIOVENTRICULAR BLOCK, FIRST DEGREE
42613	ATRIOVENTRICULAR BLOCK, SECOND DEGREE NEC
42720	PAROXYSMAL TACHYCARDIA NOS
42731	ATRIAL FIBRILLATION
42732	ATRIAL FLUTTER
42741	VENTRICULAR FIBRILLATION
42750	CARDIAC ARREST
42760	PREMATURE BEATS NOS
42761	ATRIAL PREMATURE BEATS

Appendix XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
42769	PREMATURE BEATS NEC
42781	SINOATRIAL NODE DYSFUNCT
42789	CARDIAC DYSRHYTHMIAS NEC
42790	CARDIAC DYSRHYTHMIA NOS
42800	CONGESTIVE HEART FAILURE
42843	COMBINED SYSTOLIC & DIASTOLIC HEART FAILURE
42890	HEART FAILURE NOS
42920	ARTERIOSCLEROTIC CARDIOVASCULAR DISEASE
42930	CARDIOMEGALY
42940	HEART DISEASE POSTCARDIAC SURGERY
42989	ILL-DEFINED HRT DIS NEC
42990	HEART DISEASE NOS
43000	SUBARACHNOID HEMORRHAGE
43100	INTRACEREBRAL HEMORRHAGE
43200	INTRACRANIAL HEMORRHAGE
43200	NONTRAUMATIC EXTRADURAL HEMORRHAGE
43210	SUBDURAL HEMORRHAGE
43290	INTRACRANIAL HEMORRHAGE NOS
43310	OCL CRTD ART WO INFRCT
43401	CRBL THRMBS W INFRCT
43490	CRBL ART OC NOS WO INFRCT
43491	CRBL ART OCL NOS W INFRCT
43590	TRANSIENT CEREBRAL ISCHEMIA NOS
43600	CEREBRAL VASCULAR ACCIDENT (STROKE)
43700	CEREBRAL ATHEROSCLEROSIS
43710	ACUTE CEREBROVASCULAR INSUFFICIENCY NOS
43720	HYPERTENSION ENCEPHALOPATHY
43790	CEREBROVASCULAR DISEASE NOS
43800	LATE EFFECT CEREBROVASCULAR DISEASE, COGNITIVE DEFICITS
43810	LATE EFFECT, SPEECH & LANGUAGE DEFICITS NOS
43812	LATE EFFECT CEREBRAL VASCULAR DISEASE, DYSPHSIA
43889	LATE EFFECT CEREBRAL VASCULAR DISEASE NEC
44000	AORTIC ATHEROSCLEROSIS
44190	AORTIC ANEURYSM NOS
44290	ANEURYSM NOS
44300	RAYNAUD'S SYNDROME
44422	LOWER EXTREMITY EMBOLISM
44489	ARTERIAL EMBOLISM NEC
44610	ACUTE FEBRILE MUCOCUTANEOUS LYMPH NODE SYNDROME
44660	THROMBOTIC MICROANGIOPATHY

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
44700	ACUTE ARTERIOVENTRICULAR FISTULA
44710	STRICTURE OF ARTERY
44760	ARTERITIS NOS
44790	ARTERIAL DISEASE NOS
44800	HEREDITARY HEMORRHAGIC TELANGIECTASIA
45200	PORTAL VEIN THROMBOSIS
45300	BUDD-CHIARI SYNDROME (HEPATIC VEIN THROMBOSIS)
45380	VENOUS THROMBOSIS NEC
45390	VENOUS THROMBOSIS NOS
51900	TRACHEOSTOMY COMPLICATIONS
51901	TRACHEOSTOMY INFECTION
51902	TRACHEOSTOMY - MECH COMP
51909	TRACHEOSTOMY COMP NEC
51910	OTHER DISEASE OF TRACHEA & BRONCHUS DIS NEC
51920	MEDIASTINITIS
51940	DISORDERS OF DIAPHRAGM
53640	GASTROSTOMY COMPLICATION NOS
53641	GASTROSTOMY INFECTION
53642	GASTROSTOMY COMPLICATION, MECHANICAL
53649	GASTROSTOMY COMPLICATION NEC
56960	COLOSTOMY & ENTEROSTOMY COMPLICATION NOS
56962	COLOSTY/ENTER COMP-MECH
57000	ACUTE NECROSIS OF LIVER
57980	INTESTINAL MALABSORPTION NEC
57990	INTESTINAL MALABSORPTION NOS
58000	ACUTE PROLIFERATIVE NEPHRITIS
58381	NEPHRITIS NOS IN OTHER DISEASES
58480	ACUTE RENAL FAILURE NEC
58490	ACUTE RENAL FAILURE NOS
58600	RENAL FAILURE NOS
58700	RENAL SCLEROSIS NOS
58880	IMPAIRED RENAL FUNCTION NEC
58890	IMPAIRED RENAL FUNCTION NOS
74000	ANENCEPHALUS
74010	CRANIORACHISCHISIS
74100	SPINA BIFIDA WITH HYDROCEPHALUS NOS
74101	SPINA BIFIDA WITH HYDROCEPHALUS, CERVICAL REGION
74102	SPINA BIFIDA WITH HYDROCEPHALUS, DORSAL REGION
74103	SPINA BIFIDA WITH HYDROCEPHALUS, LUMBAR REGION
74190	SPINA BIFIDA

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
74191	SPINA BIFIDA, CERVICAL REGION
74192	SPINA BIFIDA, DORSAL REGION
74193	SPINA BIFIDA, LUMBAR REGION
74200	ENCEPHALOCELE
74210	MICROCEPHALUS
74220	REDUCTION DEFORMITIES OF BRAIN
74230	CONGENITAL HYDROCEPHALUS
74240	BRAIN ANOMALY NEC
74259	SPINAL CORD ANOMALY NEC
74280	NERVOUS SYSTEM ANOMALIES NEC
74290	NERVOUS SYSTEM ANOMALIES NOS
74500	COMMON TRUNCUS (HEART SEPTAL DEFECT)
74510	COMPLETE TRANSPOSITION OF GREAT VESSELS
74511	DOUBLE OUTLET RIGHT VENTRICULAR
74512	CORRECTED TRANSPOSITION OF GREAT VESSELS
74520	TETRALOGY OF FALLOT
74530	COMMON VENTRICLE
74540	VENTRICULAR SEPTAL DEFECT
74550	SECUNDUM ATRIAL SEPTAL DEFECT
74560	ENDOCARDIAL CUSHION DEFECTS NOS
74561	OSTIUM PRIMUM DEFECT
74569	OTHER ENDOCARDIAL CUSHION DEFECTS NEC
74580	OTHER DEFECT OF SEPTAL CLOSURE NEC
74590	UNSPECIFIED DEFECT OF SEPTAL CLOSURE NOS
74600	PULMONARY VALVE ANOMALY NOS
74601	CONGENITAL PULMONARY VALVE ATRESIA
74602	CONGENITAL PULMONARY VALVE STENOSIS
74609	PULMONARY VALVE ANOMALY NEC
74610	CONGENITAL TRICUSPID ATRESIA OR STENOSIS
74620	EBSTEIN'S ANOMALY
74630	CONGENITAL AORTIC VALVE STENOSIS
74640	CONGENITAL AORTIC VALVE INSUFFICIENCY
74650	CONGENITAL MITRAL STENOSIS
74660	CONGENITAL MITRAL INSUFFICIENCY
74670	HYPOPLASIA LEFT HEART SYNDROME
74681	CONGENITAL SUBAORTIC STENOSIS
74684	OBSTRUCTIVE HEART ANOMALY NEC
74686	CONGENITAL HEART BLOCK
74687	MALPOSITION OF HEART
74689	CONGENITAL HEART ANOMALY NEC

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
74690	CONGENITAL HEART ANOMALY NOS
74700	PATENT DUCTUS ARTERIOSUS
74710	COARCTATION OF AORTA
74720	CONGENITAL ANOMALY OF AORTA NOS
74721	ANOMALIES OF AORTIC ARCH
74722	AORTIC ATRESIA & STENOSIS
74729	CONGENITAL ANOMALY OF AORTA NEC
74730	PULMONARY ARTERY ANOMALY
74740	GREAT VEIN ANOMALY NOS
74741	TOTAL ANOMALOUS PULMONARY VENOUS CONNECTION
74742	PARTIAL ANOMALOUS PULMONARY VENOUS CONNECTION
74749	GREAT VEIN ANOMALY NEC
74760	UNSPECIFIED PERIPHERAL VASCULAR ANOMALY
74781	CEREBROVASCULAR ANOMALY
74789	CIRCULATORY ANOMALY NEC
74830	LARYNGOTRACHEAL ANOMALY NEC
74850	AGENESIS OF LUNG (ABSENCE)
74860	LUNG ANOMALY NOS
74880	RESPIRATORY ANOMALY NEC
74890	RESPIRATORY ANOMALY NOS
75800	DOWN'S SYNDROME
75820	EDWARDS' SYNDROME
75830	AUTOSOMAL DELETION SYNDROME (ANTIMONGOLISM)
75970	MULTIPLE CONGENITAL ANOMALIES NEC
75980	OTHER CONGENITAL ANOMALIES
75981	PRADER-WILLI SYNDROME
75982	MARFAN SYNDROME
75983	FRAGILE X SYNDROME
75989	SPECIFIED CONGENITAL ANOMALIES NEC
75990	CONGENITAL ANOMALY NOS
78003	PERSISTENT VEGETATIVE STATE
95200	C1-C4 SPINAL CORD INJURY NOS
95201	C1-C4 SPINAL CORD INJURY WITH COMPLETE LESION OF CORD
95210	T1-T6 SPINAL CORD INJURY NOS
95290	SPINAL CORD INJURY NOS
99680	OTHER COMPLICATION DUE TO ORGAN TRANSPLANT NOS
99681	OTHER COMPLICATION DUE TO KIDNEY TRANSPLANT
99682	OTHER COMPLICATION DUE TO LIVER TRANSPLANT
99683	OTHER COMPLICATION DUE TO HEART TRANSPLANT
V1060	HISTORY OF MALIGNANT NEOPLASM, LEUKEMIA NOS

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

Diagnosis Code	Diagnosis Description
V1061	HISTORY OF MALIGNANT NEOPLASM, LYMPHOID LEUKEMIA
V1085	HISTORY OF MALIGNANT NEOPLASM, BRAIN
V1089	HISTORY OF MALIGNANT NEOPLASM, NEC
V420	ORGAN OR TISSUE REPLACED BY KIDNEY TRANSPLANT
V421	ORGAN OR TISSUE REPLACED BY HEART TRANSPLANT
V426	ORGAN OR TISSUE REPLACED BY LUNG TRANSPLANT
V427	ORGAN OR TISSUE REPLACED BY LIVER TRANSPLANT
V4284	ORGAN OR TISSUE REPLACED BY INTESTINES TRANSPLANT
V440	ARTIFICIAL OPENING STATUS, TRACHEOSTOMY
V441	ARTIFICIAL OPENING STATUS, GASTROSTOMY
V442	ARTIFICIAL OPENING STATUS, ILEOSTOMY
V443	ARTIFICIAL OPENING STATUS, COLOSTOMY
V444	ARTIFICIAL OPENING STATUS, ENTEROSTOMY
V446	ARTIFICIAL OPENING STATUS, URINOSTOMY
V451	OTHER POSTPROCEDURAL STATES, RENAL DIALYSIS STATUS
V452	OTHER POSTPROCEDURAL STATES, VENTRICULAR SHUNT STATUS
V461	DEPENDENCE ON RESPIRATOR
V550	ATTENTION TO TRACHEOSTOMY
V551	ATTENTION TO GASTROSTOMY
V552	ATTENTION TO ILEOSTOMY
V553	ATTENTION TO COLOSTOMY
V554	ATTENTION TO ENTEROSTOMY NEC
V560	ENCOUNTER FOR RENAL DIALYSIS & CATHETER CARE

APPENDIX XIII: Selected Diagnosis Codes for Medically Fragile Texas Foster Children

MEDICAL FOSTER PARENT PROGRAM TIER REQUIREMENTS

The Medical Foster Parent Program has been in existence since 1976. It is recognized throughout the state and nationally for the quality of care provided to medically fragile children and for the expertise of the providers. As part of the continuing effort to improve the program, a 4-tier approach has been developed that recognizes the increasing skill level of foster parents as they receive training and experience in dealing with more complex medical issues. This document is an effort to clarify the tiers, the kind of child appropriate for placement at each tier, and the process for moving to other tiers. It is expected that all Medical Foster Parents will complete a minimum of 30 hours of medically relevant training each year. In addition, Medical Foster Parents on each tier are expected to meet the requirements of that tier on a yearly basis.

Exceptions to these requirements may be granted upon request, review and recommendation by the Medical Certifier, as well as approval by the Branch Manager.

TIER 1

Applicant must:

- *Attend and participate in a minimum of 6 monthly medical trainings in a year.
- *Be an active participant in one or more monthly support groups.
- *Complete the 10 hour curriculum on parenting the medically fragile infant prior to accepting medically fragile infants into the home.
- *Take the initiative to maintain ongoing contact and work closely with an assigned mentor.
- *Have a current Infant and Child CPR certification.
- *Have reference from foster home certifier.

Type of Infants

Babies that can be placed with Tier 1 homes are babies with stable to moderate problems who are not requiring emergent intervention. An example includes Failure to Thrive as a result of abuse, neglect, or Esophageal Reflux. Drug exposed infants placed in these homes should have no additional medical problems, to the best of our knowledge, and should be at least 34 weeks gestational age.

1. Failure to Thrive Infants

- *Non-organic (environmental/maternal neglect and/or abuse)
- *Organic (underlying moderate, non-life-threatening medical/genetic problems)
- *Combination (largest group - organic problem leads to eventual neglect/abuse)
 - Examples: reflux; repeated ear infections; allergies; skin rashes; first time superficial trauma (excluding head trauma)
- *Not hospitalized for severe dehydration
- *Not below the 3rd percentile (on growth chart)
- *No head trauma

2. Drug Exposed and Alcohol-affected (FAS) Infants

- *Moderate withdrawal symptoms
- *Appropriate growth for gestational age (AGA)
- *No evidence of infection
- *No intra-cranial hemorrhage (bleeding in brain)
- *No documented apnea spells during hospitalization
- *No naso-gastric feeding tubes (gavage feeding from tube in nose)
- *Taking oral feedings in amounts necessary for adequate growth

3. Premature Infant (infant born before 37 weeks gestation)

- *At least 34 weeks gestational age (time from conception to birth)
- *No documented apnea episodes during hospitalization
- *No evidence of other medical or gastric problems that could complicate infant's care
- *Takes oral feeding in adequate amount for appropriate growth (2-3 oz. every 2-3 hrs)
- *No naso-gastric tube

Necessary Skills

Knowledge of:

1. Normal infant growth and development
 2. Specific feeding techniques
 3. Withdrawal symptoms (neurological symptoms caused by the effects of drugs/alcohol)
 4. Abnormal posturing and maladaptive behaviors found in:
 - *Drug and alcohol exposed infant
 - *Failure to thrive infant
 - *Premature/overhospitalized infant
 5. Sensory stimulation concepts
- *Ability to implement those concepts into the daily care and handling of each infant
6. Community evaluation and therapy programs
 - *Ability to follow through with specific therapy on 24 hr. care basis

7. Transitional Care Plan (for every infant leaving MFP home)

*All medical information

*Daily care schedule, including routine; feeding; sleep ritual; sensory stimulation; health & hygiene; safety precautions

*Copies to SCF worker, birth/foster/adoptive parent, involved community health nurse (CHN)

8. It is also expected that you will be an active participant in caseplans, which can include working with the biological parents, assisting in transitioning the child, participating in medical appointments and decisions, and advocating for the child.

**All of the above information is contained in the Basics of Care classes and the M.F.P. handbook.

TIER 2

Applicant must:

*Have completed requirements of Tier 1

*Have one year experience as a Tier 1 home

*Make application with the Medical Certifier and the Mentor Program Coordinator for Tier 2 status. In addition, submit 3 references by a caseworker who has worked with the family, a certifier, or a Health Care Provider/Personal Care Nurse who has worked with the family in the home.

*Have a minimum of 30 hours of medical training from SCF, FPA, Community College, RN or LPN program, and community based hospital continuing education seminars. The training must be documented by certification and will not include reading, television or video programs, and doctor or therapy appointments. Monthly attendance at the Medical Foster Parent Training will count toward the 30 hours.

Types of Infants

Infants placed in Tier 2 homes require higher level provider skills and experience than the minimally involved child, but not the high level, medical interventions required of children entering Tier 3 homes.

1. Failure to Thrive Infants (any of the following)
 - *Severe delays in growth and development
 - *Posturing and maladaptive behaviors
 - *Dehydration
 - *Documented feeding problems
 - *More than one hospitalization
 - *Old and new bruises/trauma (excluding head trauma)
2. Drug exposed and Alcohol Syndrome Infants (FAS)
 - *Facial characteristics of FAS (small head, low nasal bridge, flat filtrum - no cupid's bow to mouth
 - *Moderate feeding and digestive problems - arching and extending behaviors; poor suck and coordination of suck/swallow; persistent diarrhea, emesis, intolerance of formula; poor nutrition and growth.
 - *No naso-gastric (NG) tubes
 - *S.G.A. (Small for Gestational Age) - low birthweight (may also include reduction of length and head circumference)
3. Premature Infant (infant born before 37 weeks)
 - *At least 30 weeks gestational age
 - *Monitor or resolved apnea (passes sleep study)
 - *Genetic/medical problems - not acute or life-threatening
 - *No evidence of intra-cranial hemorrhage
 - *Able to take oral feedings

Necessary Skills

Knowledge of:

- *All skills mentioned for Tier1
- *Education through SCF approved training (30 hrs)
- *Practical experience gained through the Mentor Program
- *Experience in caring for Tier 1 infants in the home on a 24-hr. basis
- *Information provided through hospitals, seminars, community colleges, support groups

Tier 3

Applicant must:

- *Have completed requirements for Tiers 1 and 2.

*Have a minimum of three years experience in providing care to increasingly medically involved infants.

*Have medical training that is relevant to neonatal and pediatric care of high level, medically fragile infants. At this level, training must include clinical and/or practical (hands-on) training.

*Make application with the Medical Certifier and the Mentor Program Coordinator for Tier 3 status. One Tier 3 foster parent will be included in the decision. The submission of 3 references, as listed in the Tier 2 requirements, is again necessary.

Tier 3 foster parents have expertise in providing exceptional care, including but not limited to, knowledge of the following:

- *Tube dependency
- *Severe medical complications of the heart, lung, kidney, and liver in newborns.
 - *Intracranial hemorrhage.
 - *Severe apnea and bradycardia, documented in hospital .
 - *Severe gastrointestinal problems.
 - *Septicemia.
 - *Gestational age of less than 30 weeks.
 - *Head trauma, including care of shunts.
- *Ability to recognize seizure behavior and provide medications appropriately
- **Tier 3 foster parents must be able to demonstrate and practice the skills listed above.**

Type of Infants

Infants' problems include:

- *Gestational age less than 32 weeks
- *Severe medical complications in newborn, i.e.: heart, lung, kidney, liver.
- *Tube dependent.
- *Intra-cranial hemorrhage (abuse, prematurity, drugs).
- *Care of shunts (hydrocephalus), tracheostomy (breathing), gastrostomy and nasogastric (feeding).
 - *Documented, unresolved severe apnea and bradycardia.
 - *Septicemia (systemic infection - blood and tissue).
- *Severe, unresolved gastrointestinal problems (intolerance emesis, diarrhea, bleeding, malabsorbtion).
 - *Seizure activity.
 - *Need for prescription medication and treatment.

*Terminal illness.

*Infectious diseases such as TORCH viruses (any virus which crosses the placenta in utero), hepatitis, HIV-positive

*Metabolic disorders such as PKU, MSUD, diabetes.

Necessary Skills

1. Have completed all the requirements listed for Tiers 1 and 2.
2. Have minimum of 3 years experience in providing care to medically involved infants.
3. Have medical training relevant to neonatal and pediatric care of high risk infants.
4. Have knowledge and the expertise necessary to provide exceptional care for critical infants.

TIER 4

Applicant must:

*Currently be licensed as an R.N.

*Have completed all requirements for Tiers 1, 2, and 3.

*Have pediatric experience and training that is relevant to the highest level of neonatal and pediatric care for medically fragile infants and children.

*Make application with the Medical Certifier and the Mentor Program Coordinator for Tier 4 status. One Tier 4 foster parent will be included in the decision. The submission of 3 references, as listed in the Tier 3 requirements, is again necessary.

Types of Infants

Tier 4 foster parents have expertise in providing exceptional care, including but not limited to, knowledge of the following:

*Administering IM, IV, and ID injections.

*Caring for a Central Line.

*Nursing assessment and judgement prior to performing tasks and caring for medically fragile infants and children.

**Any requirements listed for Tier 3 foster parents are applicable here as well.*

MEDICAL FOSTER PARENT DESIGNATION
CERTIFIER'S ANNUAL CHECKLIST

Foster Parent(s): _____

Date: _____ Certifier: _____

Yes No

- Totally non-smoking household.
- Completed curriculum on fostering medically fragile infant
Date: _____ Updated"Class: date: _____
Other update training (describe): _____
- Maintains contact with experienced Medical Foster Parent
Name: _____ Frequency: _____
- Infant and Child CPR certification. Expiration date: _____
- First Aid certification. Expiration date: _____
- Maintains at least one medically certified at home parent.
- Obtains at least 10 hours of medically related training (not videos or books) in addition to 10 hours other training - total 20 hours.
- Lives in reasonable proximity to emergency services as appropriate to child's specific needs.
- Assures all respite providers for medically at risk children also have CPR.and First Aid training and, if applicable, have nursing delegation for any special tasks of medical care for the child.
- Demonstrates ability to follow through with specific therapy on 24 hour care basis.
- Demonstrates ability to provide appropriate daily/monthly documentations and provides care plans for children leaving home.

- Daily medical log documentation.
- Emergency contact list posted near telephone in home.

MEDICAL FOSTER PARENT QUESTIONNAIRE

Name: _____
Address: _____
County: _____ Phone(s): _____

Currently certified? yes; no. If yes, how long? _____ County: _____
Terms of Certificate: # of children: _____ Ages: _____

Have you ever cared for a medically fragile or drug affected infant? yes; no.
Please describe briefly. Include information about the child's age at placement,
how long the child remained in care, and a short discussion of special care needs:

Do you have:
Infant CPR certification? yes; no. Expiration date? _____
First Aid certificate or equivalent? yes; no. Expiration date? _____

Please list educational or life experiences you feel will help in your ability to care
for a drug effected or medically compromised baby. Use back of sheet if needed.

MEDICAL FOSTER PARENT QUESTIONNAIRE, CONT. PAGE 2.

Listed below are some of the conditions that lead to a child's placement in a medical foster home. Please check those areas in which you have experience or interest.

<u>Condition</u>	<u>Interest/Experience</u>		<u>Condition</u>	<u>Interest/Experience</u>	
drug affected baby	<input type="checkbox"/>	<input type="checkbox"/>	Fetal alcohol	<input type="checkbox"/>	<input type="checkbox"/>
failure to thrive	<input type="checkbox"/>	<input type="checkbox"/>	Cerebral palsy	<input type="checkbox"/>	<input type="checkbox"/>
premature infant	<input type="checkbox"/>	<input type="checkbox"/>	severe abuse	<input type="checkbox"/>	<input type="checkbox"/>
heart/apnea monitor	<input type="checkbox"/>	<input type="checkbox"/>	infectious diseases	<input type="checkbox"/>	<input type="checkbox"/>
acute medical prob's	<input type="checkbox"/>	<input type="checkbox"/>			

Please **circle** any of the following conditions in which you have had experience in providing care:

Sensory stimulation concepts

1. Visual
2. Auditory
3. Touch/massage
4. Vestibular (movement)
5. Gustatory (taste)
6. Environmental enrichment

Gastrointestinal Problems

1. Short gut &/or chronic malabsorption
2. Reflux
3. NG tubes
4. Gastrostomy/ileostomy/colostomy
5. Colitis
6. Bolus and Drip Feeds

Respiratory Problems

1. Collapsed lung
2. Postural Drainage
3. Suction Devices

4. Training in sterile techniques

5. Tracheostomies
6. Ventilator dependency
7. BPD/Respiratory Distress/
cystic fibrosis/asthma
8. Bronchia Dilators
9. Steroid Use
10. Oxygen use

Brain Dysfunction

1. Hydrocephalus
2. Microcephalus
3. Downs Syndrome
4. Shunts
5. Cerebral Palsy
6. Seizures
7. Ventricular bleed
8. Spina bifida

Kidney Dysfunction

1. Dialysis
2. Urinary Catheter care

MEDICAL FOSTER PARENT QUESTIONNAIRE, CONT. PAGE 3

Hearing Impaired

- 1. Hearing aid
- 2. Speech therapy
- 3. Sign language

Visually Impaired

- 1. Vision therapy
- 2. Visual stimulation
- 3. Retinopathy of prematurity-care and treatment

Clinics

- 1. Feeding
- 2. Pulmonary
- 3. Renal
- 4. Neuro-development
- 5. Spinal defects
- 6. Cleft palate
- 7. Cardiac care
- 8. Other - please specify: _____

Experience with:

- 1. Occupational therapy
- 2. Physical therapy
- 3. Speech therapy

We maintain a smoke-free household and no one who lives in our home smokes (inside or outside): yes; no. If someone does smoke, please describe:

Please add any other information you want to include that doesn't fit somewhere else in the questionnaire.

References

Please list three (3) individuals who have knowledge about your ability to care for infants. References should have some experience or knowledge of the needs of medically needy children. Suggestions are: SCF caseworker, physician, public health nurse, day care provider, Early Intervention Worker, personal care nurse, physical therapist, other Medical Foster Parent, etc.

3. Name: _____ Position: _____
Address: _____ Phone: _____

4. Name: _____ Position: _____
Address: _____ Phone: _____

3. Name: _____ Position: _____
Address: _____ Phone: _____

Thank you for your interest in taking care of these special, medically needy children.

Glossary

ADHD

Attention deficit-hyperactivity disorder (ADHD) is a neurobehavioral disorder that affects three to five percent of all American children. It interferes with a person's ability to concentrate on a task and to exercise age-appropriate inhibition (cognitive alone or both cognitive and behavioral). (National Institute of Neurological Disorders and Stroke)

AIDS

Acquired immunodeficiency syndrome (AIDS) is a chronic, life-threatening condition caused by the human immunodeficiency virus (HIV). By damaging or destroying the cells of the immune system, HIV interferes with the body's ability to effectively fight off viruses, bacteria and fungi that cause disease. This makes people more susceptible to certain types of cancers and to opportunistic infections the body would normally resist, such as pneumonia and meningitis. The virus and the infection itself are known as HIV. The term AIDS is used to mean the later stages of an HIV infection. (Mayo Clinic)

APN

The advanced practice nurse (APN) is an umbrella term given to a registered nurse (RN) who has met advanced educational and clinical practice requirements beyond the two to four years of basic nursing education required of all RNs. (American Nurses Association)

Adderall

This combination medication is used as part of a total treatment program to control ADHD. It may help increase the ability to pay attention, stay focused and control behavior problems. (WebMD)

Adolescent

A person who is in the state of adolescence, the period of transition between puberty and adulthood. (Medline Plus)

Alpha-agonist

Drugs developed to treat high blood pressure that is being used in children with ADHD because of their sedating side effects. (Zito)

Amphetamine

Amphetamines belong to the group of medicines called central nervous system (CNS) stimulants. They are used to treat ADHD. Amphetamines increase attention and decrease restlessness in patients who are overactive, unable to concentrate for long or are easily distracted, and who have unstable emotions. These medicines are used as part of a total treatment program that also includes social, educational and psychological treatment. (Medline Plus)

Angina

A specific type of chest discomfort caused by inadequate blood flow through the blood vessels (coronary vessels) of the heart muscle (myocardium). (Medline Plus)

Anticonvulsant Medication

Anticonvulsants work by calming hyperactivity in the brain in various ways. For this reason, some of these drugs are used to treat epilepsy, prevent migraines and treat other brain disorders. They are often prescribed for people who have rapid cycling—four or more episodes of mania and depression in a year. (WebMD)

Antidepressant Medication

Antidepressants are used most often for serious depressions, but they can also be helpful for some milder depressions. Antidepressants are not “uppers” or stimulants, but rather take away or reduce the symptoms of depression and help depressed people feel the way they did before they became depressed. The doctor chooses an antidepressant based on the individual’s symptoms. (National Institute of Mental Health)

Anti-inflammatory

A medication to reduce inflammation (the body’s response to surgery, injury, irritation or infection). (U.S. Food and Drug Administration (FDA))

Antipsychotic Medication

Antipsychotic medications are used as a short-term treatment to control psychotic symptoms, such as hallucinations or delusions. These symptoms may occur during acute mania or severe depression. (WebMD)

Anxiety disorder

Generalized anxiety disorder (GAD) is behavior marked by a pattern of frequent, persistent worry and anxiety over many different activities and events. GAD is a common condition. It is characterized by excessive anxiety and worry that is out of proportion to the impact of the event or circumstance that is the focus of the worry. (Medline Plus)

Anxiolytics

The medications that reduce the symptoms of anxiety. (Anxiety Disorders Association of America)

Autonomic

Autonomic is an adjective meaning acting or occurring involuntarily, to example, autonomic reflexes or relating to the autonomic nervous system. (Medline Plus)

Bipolar

Bipolar disorder is characterized by periods of excitability (mania) alternating with periods of depression. The “mood swings” be-

tween mania and depression can be abrupt. (Medline Plus)

Brand name

The name created by the company making the drug; in general, drugs are referred to by their brand names. (WebMD)

CMAP

The Children’s Medication Algorithm Project (CMAP) involves developing and testing specific medication treatment guidelines, or “algorithms,” for ADHD and major depressive disorder (MDD) in children and adolescents. CMAP is a collaborative venture involving the Texas Department of State Health Services, The University of Texas at Austin College of Pharmacy, The University of Texas Southwestern Medical Center - Dallas, The University of Texas Health Science Center - San Antonio, parent and family representatives, and representatives from various mental health advocacy groups, i.e., NAMI-Texas, Texas Federation of Families for Children’s Mental Health, Texas MH Consumers, and the Mental Health Association in Texas. (Texas Department of State Health Services (DSHS))

Clinical Trial

A clinical trial is a research program conducted with patients to evaluate a new medical treatment, drug or device. The purpose of clinical trials is to find new and improved methods for treating different diseases and special conditions. Clinical trials make it possible to apply the latest scientific and technological advances to patient care. During a clinical trial, doctors use the best available treatment as a standard to evaluate new treatments. The new treatments are considered at least as effective as, or possibly more effective than, the standard. (WebMD)

Clonidine

This medication is used to treat high blood pressure. It works by stimulating certain brain receptors (alpha adrenergic type), which results in the relaxing of blood vessels in other parts of your body, causing them to widen. Lowering high blood pressure helps

prevent strokes, heart attacks and kidney problems. This medication may also be used to ease withdrawal symptoms associated with the long-term use of narcotics, alcohol and nicotine (smoking). In addition, clonidine may be used for migraine headaches, hot flashes associated with menopause, ADHD and other conditions. (WebMD)

Compound drug

Pharmacists “compound” drugs when they prepare a specialized drug product to fill an individual patient’s prescription when an approved drug is not effective. Compounding sometimes involves nothing more than crushing a pill into a powder with a mortar and pestle and mixing it into a liquid. Some types of compounding involve sophisticated scientific operations. Preparing sterile drug products, for example, can require complex steps to ensure a germ-free work environment. (FDA)

Concomitant

Simultaneous use of two or more psychotropic medications. (Zito)

Conduct disorder

A disorder of childhood and adolescence, it involves longstanding behavior problems, such as defiant, impulsive or antisocial behavior; drug use; or criminal activity. (Medline Plus)

Congenital

Existing at or dating from birth. (Merriam-Webster Online)

Contraindicated

A contraindication is a specific situation in which a drug, procedure or surgery should not be used, because it may be harmful to the patient. (Medline Plus)

Controlled substance

The Controlled Substances Act places all substances that were in some manner regulated under existing federal law into one of five schedules. This placement is based upon the substance’s medical use, potential for abuse, and safety or dependence liability. The act also provides a mechanism for

controlling substances or adding them to a schedule; decontrolling them, or removing them from control; and rescheduling or transferring them from one schedule to another. (Drug Enforcement Agency (DEA))

Convulsions

A convulsion occurs when a person’s body shakes rapidly and uncontrollably. During convulsions, the person’s muscles contract and relax repeatedly. The term “convulsion” is often used interchangeably with “seizure,” although there are many types of seizures, some of which have subtle or mild symptoms instead of convulsions. Seizures of all types are caused by disorganized and sudden electrical activity in the brain. (Medline Plus)

DDAVP

The brand name for the drug desmopressin, a chemical similar to a hormone found naturally in the human body. It increases urine concentration and decreases urine production. Desmopressin is used to prevent and control excessive thirst, urination and dehydration caused by injury, surgery and certain medical conditions, allowing users to sleep through the night without awakening to urinate. It is also used to treat specific types of diabetes insipidus and conditions after head injury or pituitary surgery. (Medline Plus)

DEA

The mission of the Drug Enforcement Administration (DEA) is to enforce the controlled substances laws and regulations of the United States and bring to the criminal and civil justice system of the United States, or any other competent jurisdiction, organizations and principal members of organizations involved in the growing, manufacture or distribution of controlled substances appearing in or destined for illicit traffic in the United States; and to recommend and support programs aimed at reducing the availability of illicit controlled substances. (DEA)

DFPS

The 78th Texas Legislature created the Texas Department of Family and Protective

Services (DFPS) in fiscal 2004. Previously called the Texas Department of Protective and Regulatory Services, DFPS is charged with protecting children, adults who are elderly or have disabilities living at home or in state facilities, and with licensing group day-care homes, day-care centers and registered family homes. The agency is also charged with managing community-based programs that prevent delinquency, abuse, neglect and exploitation of Texas children, the elderly and disabled adults. The agency's services are provided through its Adult Protective Services, Child Protective Services, Child Care Licensing and Prevention and Early Intervention divisions. (DFPS)

DSM diagnostic categories

The Diagnostic and Statistical Manual of Mental Disorders (DSM) is the standard classification of mental disorders used by mental health professionals in the United States. It is intended to be applicable in a wide array of contexts and used by clinicians and researchers of many different orientations. (American Psychiatric Association)

DUR

Drug Utilization Review (DUR) promotes the appropriate use of pharmaceuticals in the outpatient Medicaid program through the education of practitioners. (Texas Health and Human Services Commission)

Depakote

This medication is used to treat seizure disorders, certain psychiatric conditions (manic phase of bipolar disorder), and to prevent migraine headaches. It works by restoring the balance of certain natural substances (neurotransmitters) in the brain.

This drug may also be used for other mental disorders (e.g., schizophrenia). (WebMD)

Depression

Depression may be described as feeling unhappy or miserable. Many people feel this way at one time or another for short periods. But true clinical depression is a mood disorder in which feelings of sadness, loss,

anger or frustration interfere with everyday life for an extended time. (Medline Plus)

Diabetes

Diabetes is a life-long disease marked by high levels of sugar in the blood. It can be caused by too little insulin (a hormone produced by the pancreas to regulate blood sugar), resistance to insulin or both. (Medline Plus)

There are three major types of diabetes:

- **Type 1** diabetes is usually diagnosed in childhood. The body makes little or no insulin, and daily injections of insulin are required to sustain life. Without proper daily management, medical emergencies can arise.
- **Type 2** diabetes is far more common than type 1 and makes up 90 percent or more of all cases of diabetes. It usually occurs in adulthood. The pancreas does not make enough insulin to keep blood glucose levels normal, often because the body does not respond well to the insulin. Many people with type 2 diabetes do not know they have it, although it is a serious condition. Type 2 diabetes is becoming more common due to the growing number of older Americans, increasing obesity and failure to exercise.
- **Gestational diabetes** is high blood glucose that develops at any time during pregnancy in a person who does not have diabetes.

Diagnosis

The process of identifying a disease by its signs and symptoms. (St. Jude's Children's Research Hospital)

Divalproex

This medication is used to treat seizure disorders, certain psychiatric conditions (manic phase of bipolar disorder), and to prevent migraine headaches. It works by restoring the balance of certain natural substances (neurotransmitters) in the brain. This drug may also be used for other mental disorders (e.g., schizophrenia). (WebMD)

Double blind

Term used to describe a study in which both the investigator or the participant are unaware of the nature of the treatment the participant is receiving. Double-blind trials are thought to produce objective results, since the expectations of the researcher and the participant about the experimental treatment such as a drug do not affect the outcome. (MedicineNet)

Dystonias

Dystonias are twisting and repetitive movements or abnormal postures caused by sustained muscle contractions. The movements are involuntary and sometimes painful. Dystonias may affect a single muscle, a group of muscles or the entire body. (Medline Plus)

Dysmenoria

Dysmenoria is painful menstrual flow. (John Hopkins Breast Treatment Center)

Effexor

This medication is an antidepressant (serotonin-norepinephrine reuptake inhibitor type) used to treat depression. It restores the balance of neurotransmitters in the brain, improving mood and feelings of well-being. (WebMD)

Efficacy

Refers to the potential maximum therapeutic response that a drug can produce. (Merck Manual of Medical Information)

Endocrinology

The branch of science or medicine that deals with the endocrine glands and hormones; the endocrine system is one of the body's main systems for communicating, controlling and coordinating the body's work. It works with the nervous system, reproductive system, kidneys, gut, liver and fat to help maintain and control:

- body energy levels;
- reproduction;
- growth and development;

- internal balance of body systems, called homeostasis; and
- responses to surroundings, stress, and injury.

The endocrine system accomplishes these tasks via a network of glands and organs that produce, store and secrete certain hormones. (Society for Endocrinology; The Hormone Foundation)

Electrocardiogram

An electrocardiogram (ECG) is a test that records the electrical activity of the heart. An ECG is used to measure the rate and regularity of heartbeats as well as the size and position of the chambers, the presence of any damage to the heart and the effects of drugs or devices used to regulate the heart (such as a pacemaker). (Medline Plus)

Escitalopram

A drug used to treat depression and generalized anxiety disorder (excessive worrying that is difficult to control). Escitalopram is in a class of antidepressants called selective serotonin reuptake inhibitors (SSRIs). (Medline Plus)

FDA

The FDA is responsible for protecting the public health by assuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices the nation's food supply, cosmetics and products that emit radiation. The FDA is also responsible for advancing the public health by helping speed innovations that make medicines and foods more effective, safer and more affordable. It also works to help the public get the accurate, science-based information it needs to use medicines and foods to improve health. (FDA)

Failure to thrive

Failure to thrive is a description applied to children whose current weight or rate of weight gain is significantly below that of other children of similar age and sex. (Medline Plus)

Fetal anomaly

Fetal malformation or abnormal development. (WebMD)

Fluoxetine

This medication is an SSRI. It is a long-acting form of fluoxetine used to treat depression in patients who have been effectively treated and maintained on the daily dose form of this drug. It is not intended for patients recently diagnosed with depression. It works by restoring the balance of neurotransmitters in the brain, thereby improving mood and feelings of well-being. (WebMD)

Formulary

A list of medicines a health plan will cover, often to reduce drug expenditures. (Medline plus)

Foster care

When children have to be placed outside their home, and there is not an appropriate non-custodial parent or relative willing and able to care for them and there are not any close family friends that the court can give temporary legal possession to, the court will ask the Texas Department of Child Protective Services (CPS) to place the child temporarily in a foster care setting. (CPS)

Gabapentin

Gabapentin is used with other medications to help control seizures in adults and children (three years and older). It is also used to relieve nerve pain associated with shingles (herpes zoster) infection in adults. Gabapentin may also be used to treat other nerve pain conditions (e.g., diabetic neuropathy, peripheral neuropathy and trigeminal neuralgia). (WebMD)

Galactorrhea

This symptom involves abnormal discharge from the nipple(s). (Medline Plus)

Gastrointestinal

Gastrointestinal is an adjective describing both the stomach and intestines. (Medline Plus)

Generic

A generic drug is the same as a brand-name drug in dosage, safety, strength, method of application, quality, performance and intended use. (WebMD)

Glucose

A type of sugar; the chief source of energy for living organisms. (St. Jude Children's Research Hospital)

Gynecomastia

The development of prominent breast tissue in the male. (Medline Plus)

HHSC

The Texas Health and Human Services Commission (HHSC) has oversight responsibilities for designated health and human services agencies, and it administers certain health and human services programs including the Texas Medicaid Program, Children's Health Insurance Program (CHIP), and Medicaid waste, fraud and abuse investigations. (HHSC)

HIV

HIV infection is a viral infection caused by the human immunodeficiency virus that gradually destroys the immune system, resulting in infections that are hard for the body to fight. (Medline Plus)

HMO

An organization that delivers and manages health services under a risk-based arrangement. The HMO usually receives a monthly premium or capitation payment for each person enrolled that is based on a projection of what the typical patient will cost. If enrollees cost more, the HMO may suffer losses. If the enrollees cost less, the HMO profits. (HHSC, "Texas Medicaid in Perspective")

Hemophilia

A hereditary bleeding disorder in which it takes a long time for the blood to clot and abnormal bleeding occurs. This disease affects mostly males. (Medline Plus)

Hepatotoxicity

Hepatotoxicity is a state of toxic damage to the liver. (Medline Plus)

Herpes zoster pain

Herpes zoster is an acute, localized infection with varicella-zoster virus, which causes a painful, blistering rash. (Medline Plus)

Home type

Placement labeling system used by DFPS. (DFPS)

Hydroxyzine

Hydroxyzine is used for the short-term treatment of nervousness and tension that may occur with certain mental/mood disorders (e.g., anxiety, dementia). It is also used to treat itching from allergies and other causes (e.g., reactions to certain drugs). It may also be used to help a patient feel calmer before/after surgery, or to help certain narcotic pain relievers (e.g., meperidine) work better. (WebMD)

Hypertension

Hypertension means high blood pressure. (Medline Plus)

Hypnotics

Medications that cause sleep or partial loss of consciousness. (Medline Plus)

Imipramine

This medication is used to treat depression. It is also used with other therapies for the treatment of nighttime bed-wetting (enuresis) in children. Using this medication to treat depression may improve a person's mood, sleep, appetite and energy level and may help restore interest in daily living. Imipramine can help a child control nighttime bed-wetting. Imipramine belongs to a class of medications called tricyclic antidepressants. It works by restoring the balance of neurotransmitters such as norepinephrine in the brain. For bed-wetting, this medication may work by blocking the effect of a certain natural substance (acetylcholine) on the bladder. This drug may also be used to treat anxiety, panic disorders and certain types of ongoing pain. (WebMD)

Immunosuppressant

A type of medication that reduces the activity of the immune system. (WebMD)

Inpatient

A patient whose care requires a hospital stay. (MedicineNet)

LPN & LVN

Licensed practical nurses (LPNs) or licensed vocational nurses (LVNs), care for the sick, injured, convalescent and disabled under the direction of physicians and registered nurses. (U.S. Department of Labor)

Lamotrigine

Lamotrigine is used alone or with other medications to prevent or control seizures (epilepsy) in people age two and older. It may also be used to help prevent the extreme mood swings of bipolar disorder in people age 18 and older. This medication is an anticonvulsant. Lamotrigine is thought to work by restoring the balance of neurotransmitters in the brain. (WebMD)

Licensed Professional Counselor (LPC)

Professional counseling is the application of mental health, psychological or human development principles through cognitive, affective, behavioral or systematic intervention strategies that address wellness, personal growth or career development, as well as pathology. LPCs have at least a master's degree, complete 36 months or 3,000 clock hours of supervised experience and pass a state licensure exam. (Hogg Foundation for Mental Health; American Counseling Association)

Licensed Master of Social Work (LMSW)

Social work is a profession that provides the opportunity for service to individuals, families and communities in a variety of diverse settings. The LMSW performs advanced social work practice and policy-related administration with individuals, families, groups, organizations and communities. An LMSW must obtain 3,000 hours of board-approved,

supervised professional employment experience over a minimum two-year period but within a maximum four-year period or its equivalent if the experience was completed in another state. (DSHS; UT Austin School of Social Work)

Lipid

Lipids, such as cholesterol, triglycerides and fatty acids, are fat and substances similar to fat used as a source of fuel by the body. Lipid levels can be an important measure of health; for example, a person who has high cholesterol has an increased risk of heart disease and stroke. Lipids are found in the bloodstream or stored in tissues. They are an important part of cell structure and other biological functions in the body. (WebMD)

Lithium

This medication is used to treat manic-depressive disorder (bipolar disorder). It works to stabilize mood and reduces extremes in behavior. (WebMD)

MAOI

Monoamine oxidase inhibitors (MAOI) are used to relieve certain types of mental depression. They work by blocking the action of a chemical substance known as monoamine oxidase in the nervous system. Although these medicines are effective for certain patients, they may also cause unwanted reactions if not taken in the right way. It is important to avoid certain foods, beverages and medicines with an MAOI. (Medline Plus)

MHRA

The Medicines and Healthcare Products Regulatory Agency (MHRA) is the government agency in the United Kingdom that ensures medicines and medical devices are safe and effective. (MHRA)

Manic depressive

Manic-depressive disorder (also called bipolar disorder) is an illness that causes extreme mood changes that alternate between manic episodes of abnormally high energy and extreme lows of depression. Bipolar dis-

order may cause behavior so severe that a patient may not be able to function at work, in family or social situations, or in relationships with others. Some people with bipolar disorder become suicidal. (WebMD)

Medicaid

A joint federal-state entitlement program that pays for medical care on behalf of certain groups of low-income persons. The program was enacted in 1965 under Title XIX of the Social Security Act. (HHSC, "Texas Medicaid In Perspective")

Medically fragile

A child with a serious, ongoing illness or chronic condition lasting for 12 or more months. (HHSC)

Mentally retarded

Mental retardation is a condition that is diagnosed before age 18 and includes below-average general intellectual function accompanied by impairment in the ability to acquire the skills necessary for daily living. (Medline Plus)

Methylphenidate

Methylphenidate is used to treat ADHD as part of a total treatment plan including psychological, educational and social measures. This medication is also used to treat patients with narcolepsy, a disorder of sleep regulation. When this medication is used to treat ADHD, patients may find they have increased attention, decreased impulsiveness and decreased hyperactivity. This medication is a mild stimulant that works by affecting the levels of chemicals (neurotransmitters) in the nervous system. This medication should not be used to treat simple fatigue symptoms and may be used for treating depression in certain cases. (WebMD)

Mood Stabilizer Medication

These medications are used to treat bipolar disorder (manic-depressive illness). Because there is limited data on the safety and efficacy of most mood stabilizers in youth, however, treatment of children and adoles-

cents is based mainly on experience with adults. The most typically used mood stabilizers are lithium and valproate (Depakote), which are often effective for controlling mania and preventing recurrences of manic and depressive episodes in adults. (National Institute of Mental Health)

Nocturnal enuresis

Bed-wetting is uncontrollable urination during sleep, a condition also known as nocturnal enuresis. Accidental wetting of clothes or bedding is common in children younger than four and is usually a normal part of developing bladder control. Children learn to control their bladders at different rates but most can do so reliably throughout the night by age 5 or 6. (WebMD)

Nortriptyline

This medication is used to treat mental/mood problems such as depression. It may help improve mood and feelings of well-being, relieve anxiety and tension, help a patient sleep better and increase energy levels. This medication belongs to a class of medications called tricyclic antidepressants. It works by affecting the balance of neurotransmitters in the brain. This medication may also be used to treat other mental/mood problems (e.g., anxiety, bipolar disorder), certain types of pain (e.g., peripheral neuropathy) and neuropathic pain. It may also be used as an aid to quitting smoking. (WebMD)

OCD

Obsessive-compulsive disorder (OCD) is a potentially disabling anxiety disorder. A person who has OCD has intrusive and unwanted thoughts and repeatedly performs tasks to get rid of the thoughts. (WebMD)

Off-label use

The practice, called “off-label prescribing,” includes prescribing drugs for uses that are not included in the FDA-approved labeling; changing the recommended dose; combining it with other treatments; or using it on populations, such as children, for whom it was not approved. (FDA)

Office of Inspector General (OIG)

Created by the 78th Texas Legislature, the Health and Human Services Commission’s Office of Inspector General works to prevent and reduce waste, abuse and fraud within the Texas health and human services system. (HHSC)

Olanzapine

This medication is used to treat certain mental/mood conditions (schizophrenia, bipolar mania). It works by helping restore the balance of neurotransmitters. Some of the benefits of continued use of this medication include decreased nervousness, improved concentration and fewer episodes of hallucinations. This drug has also been used to treat dementia-related behavior problems (e.g., agitation, aggression) when standard treatments (e.g., behavioral therapy, cholinesterase inhibitors) have not been successful. (WebMD)

Outpatient

Outpatient services are medical procedures, surgeries or tests done in a qualified medical center without an overnight stay. (WebMD)

Oxcarbazepine

This medication is used to treat seizure disorders (epilepsy). It may be used with other seizure medications as determined by a doctor. (WebMD)

P&T committee

The Pharmaceutical and Therapeutics Committee (P&T Committee) of physicians and pharmacists, appointed by the governor, makes recommendations to HHSC about which drugs to place on the Medicaid preferred drug list (PDL) based on clinical efficacy, safety, cost effectiveness and other program benefits. (HHSC)

PA

Prior authorization (PA) is required for a prescribing physician or other prescribing practitioner to obtain non-preferred drugs before the drug can be dispensed. Non-

preferred drugs have been reviewed by the P&T Committee but were not selected for placement on the preferred drug list (PDL). (HHSC)

PDL

A tool used by many states to control growing Medicaid drug costs while ensuring program recipients get the medicines they need. The PDL controls spending growth by increasing the use of preferred drugs—prescription drugs selected for the PDL that are considered safe, clinically effective and cost-effective compared to other drugs on the market. Non-preferred drugs, which are reviewed but not on the PDL, require prior authorization. (HHSC)

PDR

Physicians Desk Reference (PDR) is a recognized resource for information on thousands of current FDA-approved drugs. (Lexis-Nexis Source Description)

Panic disorder

A panic disorder is a sudden bout of intense fear or anxiety that causes frightening but not life-threatening symptoms such as a pounding heart, shortness of breath, and the feeling of losing control or dying. Usually from 5 to 20 minutes long, a panic attack may be triggered by stressful circumstances or it may occur unexpectedly. (WebMD)

Pap smear

A Pap smear is a microscopic examination of cells scraped from the cervix. The Pap smear is performed as part of a gynecological exam. (Medline Plus)

Parasiticide

An agent that destroys parasites. (Biology-Online)

Patent protection

In the United States, a company that develops a new drug can be granted a patent for the drug itself, for the way the drug is made, for the way the drug will be used or for the method of delivering and releasing the drug

into the bloodstream. Thus, a company often owns more than one patent for a drug. Patents grant the company exclusive rights to a drug for 20 years. (Merck)

Pediatric

Of or relating to the medical care of children (Dictionary.com)

Pharmacoepidemiology

Pharmacoepidemiology is a science that seeks to quantify adverse drug events and patterns of drug use in a large population. Some pharmacoepidemiologic studies are limited to safety studies, such as the ones done for the Food and Drug Administration (FDA). Non-safety pharmacoepidemiologic studies include those focused on patient characteristics, patterns of drug use, and the natural history of disease. (International Society for Pharmacoepidemiology)

Pharmacokinetic

The activity or fate of drugs in the body over a period of time, including the processes of absorption, distribution, localization of tissues, biotransformation and excretion (Merck)

Phobia

A persistent and irrational fear of a particular type of object, animal, activity or situation. (Medline Plus)

Placebo

A placebo is made to look exactly like a real drug but is made of an inactive substance such as a starch or sugar. Placebos are usually used in research studies. (Merck)

Polycystic ovary syndrome

Polycystic ovary syndrome is characterized by enlarged ovaries with multiple small cysts, an abnormally high number of follicles at various states of maturation and a thick, scarred capsule surrounding each ovary. (Medline Plus)

Polypharmacy

Psychiatric polypharmacy is the practice of prescribing two or more psychotropic

medications concurrently for one or more psychiatric conditions. (Zito)

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) is a type of anxiety disorder that can develop after experiencing a traumatic event, especially if a person's life was in danger. Even if the person was not injured or in danger, he or she can still get PTSD if the patient felt physically threatened or witnessed violence. (WebMD)

Psychiatric hospital

A private or public organization primarily concerned with providing inpatient care to people with mental illness. (Medical College of Georgia)

Psychiatrist

A psychiatrist is a physician whose education includes a medical degree (M.D. or D.O.). Psychiatrists are licensed by states as physicians. Psychiatrists who pass the national examination administered by the American Board of Psychiatry and Neurology become board certified in psychiatry. Psychiatrists provide medical/psychiatric evaluation and treatment for emotional and behavioral problems and psychiatric disorders. As physicians, psychiatrists can prescribe and monitor medications. The child and adolescent psychiatrist is a physician who specializes in the diagnosis and the treatment of disorders of thinking, feeling and/or behavior affecting children, adolescents and their families. A child and adolescent psychiatrist offers families the advantages of a medical education, the medical traditions of professional ethics and medical responsibility for providing comprehensive care. (American Academy of Child & Adolescent Psychiatry)

Psychologist

Some psychologists possess a master's degree (M.S.) in psychology while others have a doctoral degree (Ph.D., Psy.D, or Ed.D) in clinical, educational, counseling, developmental or research psychology. Psychologists can also provide psychological evalua-

tion and treatment for emotional and behavioral problems and disorders. Psychologists can also provide psychological testing and assessments. (American Academy of Child & Adolescent Psychiatry)

Psychopharmacology

The study of the action of drugs on psychological functions and mental states. (Merck)

Psychosis

Psychosis is a loss of contact with reality, typically including delusions (false ideas about what is taking place or whom one is) and hallucinations (seeing or hearing things that aren't there). (Medline Plus)

Psychostimulant

A psychostimulant is a drug to relieve or prevent psychic depression. (Medline Plus)

Psychotropic

Psychotropic drugs are any medication capable of affecting the mind, emotions and behavior. (MedicineNet)

RN

Registered nurses (RNs), regardless of specialty or work setting, perform basic duties that include treating patients, educating patients and the public about various medical conditions, and providing advice and emotional support to patients' family members. RNs record patients' medical histories and symptoms, help perform diagnostic tests and analyze results, operate medical machinery, administer treatment and medications and help with patient follow-up and rehabilitation. (U.S. Department of Labor)

CHIP

The State Children's Health Insurance Program (CHIP) was created to address the growing problem of children without health insurance. CHIP was designed as a Federal/State partnership, similar to Medicaid, with the goal of expanding health insurance to children whose families earn too much money to be eligible for Medicaid, but not enough

money to purchase private insurance. (U.S. Center for Medicare and Medicaid Services)

SNRI

Serotonin/norepinephrine reuptake inhibitor (SNRIs) are a group of antidepressant medications. (National Institutes of Mental Health)

SSRI

Selective Serotonin Reuptake Inhibitors (SSRIs) are a group of antidepressant medications that affect primarily one neurotransmitter serotonin. SSRIs have been found effective in treating depression and anxiety without as many side effects as some older antidepressants. (National Institute of Mental Health)

STD

Sexually transmitted diseases, commonly called STDs, are diseases that are spread by having sex with someone who has an STD. A person can get a sexually transmitted disease from sexual activity that involves the mouth, anus, vagina or penis. (WebMD)

Scabies

Scabies is an itchy skin condition caused by tiny mites that burrow into the outer layers of the skin. The most common form of scabies is called papular scabies. (WebMD)

Schizophrenia

Schizophrenia is a mental disorder. It is difficult for a person with schizophrenia to tell the difference between real and unreal experiences, to think logically, to have normal emotional responses to others and to behave normally in social situations. (WebMD)

Serotonin

A natural substance in the brain that helps maintain mental balance. (National Institute of Mental Health)

Sertraline

Sertraline is used to treat depression, panic attacks, obsessive compulsive disorders, post-traumatic stress disorder, social anxiety

disorder (social phobia) and a severe form of premenstrual syndrome (premenstrual dysphoric disorder). It is known as an SSRI. This medication may improve a person's mood, sleep, appetite and energy level, and it may help restore interest in daily living. It may decrease fear, anxiety, unwanted thoughts and the number of panic attacks. It may also reduce the urge to perform repeated tasks (compulsions such as hand-washing, counting and checking) that interfere with daily living. This medication works by helping restore the balance of neurotransmitters such as serotonin in the brain. (WebMD)

Service level

The DFPS description for care and payment—basic, moderate specialized and intense. (DFPS)

Seizures

A seizure is a sudden change in behavior due to an excessive electrical activity in the brain. There is a wide variety of possible symptoms, depending on what parts of the brain are affected. Many types of seizures cause loss of consciousness with twitching or shaking of the body. Some seizures, however, consist of staring spells that can easily go unnoticed. Occasionally, seizures can cause temporary abnormal sensations or visual disturbances. Seizures can generally be classified as either “simple” (no change in level of consciousness) or “complex” (change in level of consciousness). Seizures may also be classified as generalized (whole body affected) or focal (only one part or side of the body is affected). (Medline Plus)

Stevens Johnson syndrome

A skin disorder resulting from an allergic reaction. Also known as Erythema multiforme, it is a type of hypersensitivity (allergic) reaction that occurs in response to medications, infections or illness. (Medline Plus)

Stimulant (Psychostimulant) Medication

Stimulants are medications that increase heart rates, breathing rates and brain func-

tions. Some stimulants affect only a specific organ, such as the heart, lungs or brain. (Medline Plus)

Suicidality

Suicidal thinking and behavior. (WebMD)

TMAP

The Texas Medication Algorithm Project (TMAP) refers to medication algorithms for use in the treatment of three major adult psychiatric disorders—schizophrenia, major depressive disorder and bipolar disorder—in the Texas public mental health sector. Medication algorithms provide the clinician with a step-by-step process that identifies treatment alternatives. (DSHS)

Tachyarrhythmias

Arrhythmia is a medical term that refers to a heart rate that is outside the normal range (Normal is 60 to 100 beats per minute). An arrhythmia that is too fast is called a tachyarrhythmia. (St. Jude Medical)

Tardive Dyskinesia

Tardive dyskinesia is a neurological syndrome characterized by repetitive, involuntary, purposeless movements. Features of the disorder may include grimacing, tongue protrusion, smacking, puckering and pursing of the lips, rapid eye blinking, quick movements of the arms, legs and body movements of the fingers as though the patient is playing an invisible guitar or piano. It is caused by long-term use of some neuroleptic drugs. (Medline Plus)

Therapist

A person trained in methods of treatment and rehabilitation other than the use of drugs or surgery. (Merriam-Webster Online)

Toxicity

The capacity or property of a substance to cause adverse effects. (National Institute of Health)

Tranquilizers

A drug that calms and relieves anxiety. (MedicineNet)

Tricyclic Antidepressants

Used to relieve mental depression; one form of this medicine (imipramine) is also used to treat enuresis in children. Another form (clomipramine) is used to treat obsessive-compulsive disorders. Tricyclic antidepressants may be used for other conditions as determined by a doctor. (Medline Plus)

Triglycerides

The chemical form in which most fat exists in food as well as in the body. Triglycerides are also present in blood plasma and, in association with cholesterol, form the plasma lipids. (American Heart Association)

Urological

Relating to urology, a surgical specialty which deals with the diseases of the male and female urinary tract and the male reproductive organs. (American Urological Association)

U.S. Pharmacopeia

The United States Pharmacopeia (USP) is the official public standards-setting authority for all prescription and over-the-counter medicines, dietary supplements, and other healthcare products manufactured and sold in the United States. (U.S. Pharmacopeia)

Valproate

This medication is used to treat seizure disorders. It works by restoring the balance of certain natural substances (neurotransmitters) in the brain. This drug may also be used for the prevention of migraine headaches and treatment of certain psychiatric conditions (e.g., manic phase of bipolar disorder, schizophrenia). (WebMD)

Valproic acid

Valproic acid is an anticonvulsant drug used to control certain types of seizures in the treatment of epilepsy. (WebMD)

Vendor Drug Program

The Texas Vendor Drug Program provides statewide access to prescription medications for Medicaid eligible recipients. (HHSC)

Verapamil

Verapamil is used with or without other medications to treat high blood pressure (hypertension), chest pain (angina) and certain types of irregular heartbeat.

Youth for Tomorrow (YFT)

A non-profit firm headquartered in Arlington, Texas that assess children according to service level for the Texas foster care system. (Youth for Tomorrow)

Zoloft

Brand name for Sertraline; used to treat depression, panic attacks, obsessive compulsive disorders, post-traumatic stress disorder, social anxiety disorder (social phobia) and a severe form of premenstrual syndrome (premenstrual dysphoric disorder). This medication may improve mood, sleep, appetite, and energy level and may help restore interest in daily living. It may decrease fear, anxiety, unwanted thoughts and the number of panic attacks. It may also reduce the urge to perform repeated tasks (compulsions such as hand-washing, counting and checking) that interfere with daily living. This medication works by helping to restore the balance of neurotransmitters in the brain. (WebMD)

Zyprexa

This medication is used to treat certain mental/mood conditions (schizophrenia, bipolar mania). It works by helping restore the balance of neurotransmitters. Some of the benefits of continued use of this medication include feeling less nervous, better concentration and reduced episodes of hallucinations. This drug has also been used to treat dementia-related behavior problems (e.g.,

agitation, aggression) when standard treatments (e.g., behavioral therapy, cholinesterase inhibitors) have not been successful. This drug should only be used for the condition for which it was prescribed. (WebMD)

The glossary terms were taken from the following sources:

American Academy of Child & Adolescent Psychiatry, American Counseling Association, American Heart Association, American Nurses Association, American Psychiatric Association, American Urological Association, Anxiety Disorders Association of America, Biology-Online.com, Center for Medicare & Medicaid Services, Dictionary.com, Drug Enforcement Administration, Hogg Foundation for Mental Health, The Hormone Foundation, International Society for Pharmacoepidemiology, Lexis-Nexis, Mayo Clinic, Medical College of Georgia, Medicines and Healthcare Products Regulatory Agency, MedicineNet, Medline Plus, The Merck Manual of Medical Information, MerckSource, Merriam-Webster Online, National Institute of Health, National Institute of Mental Health, National Institute of Neurological Disorders and Stroke, St. Jude Children's Research Hospital, St. Jude Medical, Society for Endocrinology, Texas Department of Family and Protective Services, Texas Department of State Health Services, Texas Health and Human Services Commission, Texas Health and Human Services Office of Inspector General, The University of Texas at Austin School of Social Work, U.S. Department of Labor, U.S. Department of Labor, U.S. Food and Drug Administration, U.S. Pharmacopeia, WebMD, Youth for Tomorrow and Dr. Julie Zito at the University of Maryland.

Foster Care Medications

Data Description

Data Sources

The data analyzed in this study came from a variety of different sources within the Health and Human Services Commission:

1. Prescription Drug Information

The review team received a file from the Medicaid Vendor Drug Program containing all prescriptions filled for Foster Care children between September 2003 and August 2004. HHSC selected claims within the state fiscal year 2004 based on the date the prescription was filled, not the date the pharmacist was paid, nor the date the doctor wrote the prescription. HHSC identified foster care children as those Medicaid clients assigned one of the following program eligibility types:

08 Title IV-E: Child under conservatorship of DFPS and receiving Temporary Assistance for Needy Families (TANF) financial aid. Child receives Medicaid health care coverage.

09 Medical Assistance Only: Child under the conservatorship of DFPS living with a relative other than his parents and is not certified for Title IV-E or state-paid foster care, but still eligible for Medicaid health care coverage.

10 State Paid Foster Care: Child resides in a foster care facility paid by DFPS. Child also receives Medicaid health care coverage.

Program types are defined by DFPS workers and placed on the child's eligibility record residing on HHSC's eligibility file.

2. Inpatient Hospital Information

The review team received a file from the Medicaid program within HHSC containing all inpatient hospital claims for Medicaid clients in one of the three foster care program eligibility types defined above. The file included hospital stays within state fiscal year 2004, as defined by the hospital claim dates between September 2003 and August 2004.

3. Non-Inpatient Hospital Medical Information

The review team received a file from the Medicaid program within HHSC containing medical claims other than hospital, such as physician, licensed professional counselor, dentist, and so forth. The file contained claims for foster care children, as defined by one of the three program eligibility types defined above. The file included claims with dates of service between September 2003 and August 2004.

4. Foster Care Client Information

DFPS provided a file of information for all children that were enrolled in the foster care system between September 2003 and August 2004. DFPS defines children in foster care by different categories than the Medicaid program's eligibility types. DFPS categorizes children in foster care by the following:¹

Children in foster care: All children in DFPS' legal responsibility who are in a placement paid by DFPS or

other public facility. These placements include foster homes, foster group homes, institutions, residential treatment facilities, and juvenile facilities.

Children in substitute care: Children under 18 years of age in DFPS' legal responsibility who are placed outside their own home. This includes foster homes, institutions, foster group homes, residential treatment facilities, hospitals, adoptive homes, juvenile facilities, relative home placements and independent living arrangements. Also included are the youth who age out of DFPS' legal responsibility and continue in foster care placements to complete vocational training by age 19 or to graduate from high school before they turn 20 years old.

Children in the legal responsibility of DFPS: All children for whom the courts have appointed DFPS legal responsibility by temporary or permanent managing conservatorship or other court ordered legal basis. These children may be residing in an out-of-home placement or may have been returned to their own home.

Disparities in the Data

Because DFPS classifies children in foster care differently than HHSC's Medicaid program and Vendor Drug program, there were some discrepancies in the data.

The Medicaid prescription drug, inpatient hospital and non-inpatient hospital files contained records for Medicaid clients assigned foster care eligibility program types (08, 09 and 10) that had no matching foster care client information on the file from DFPS. HHSC staff were unable to explain the discrepancy.

A probable explanation is that some foster children can receive Medicaid even after

“aging out” of foster care placements. State payments for foster care usually end once a foster child has turned 18, but state and federal laws allow them to be eligible for Medicaid benefits under certain circumstance until age 22. Thus, the Medicaid program classifies that child as being in the foster care program, even though the state no longer pays foster parents to care for them. In addition, children who are placed in “kinship care,” or placed in the care of a relative other than a parent, are eligible to receive Medicaid but the state does not pay the relatives to care for these children. Therefore, DFPS would not have any record of foster children placed in kinship care.

The DFPS client information also only indicated the month in which a child was placed with a particular foster care facility. When children change facilities, DFPS reports that the child was in two different homes for that month. There is no information to identify in which home the child resided on which day.

Defining a “Prescription”

The Texas State Board of Pharmacy defines “prescription drugs” as drugs that require a prescription from a physician because they are considered to be potentially harmful if not used under the supervision of a licensed health care practitioner.

HHSC's vendor drug program data tracks medications to foster care children by the prescriptions written by doctors and filled by foster care parents. A physician writes a prescription for medication that includes:

- Date prescription is written
- Drug name
- Dosage: How much to take how often
- Days supply: How many days for which the pharmacist should fill
- Refill information: Whether the prescription can be refilled without a physician's authorization, and how many times the prescription can be refilled

Prescriptions are typically written for a 30-day period of time. If a physician wanted the child to take the prescription for longer, then

the physician would indicate the number of times the prescription could be refilled, which would indicate the number of months for which the prescription may be filled. If the medication is needed or wanted beyond the refill period, the pharmacist must call the physician for approval, or the child must schedule an appointment to see the physician.

Therefore, within the course of a year, a child may have for one medication, for example, twelve prescriptions, or one prescription per month. Conversely, a child may have twelve prescriptions for twelve different medica-

tions for one month or over 12 months. The “prescription filled date” on the vendor drug file would indicate when the child received each medication. Using this date, the review team was able to determine how many different drugs a child received at the same time. It is important to note that the number of prescriptions does not necessarily equal the number of drugs administered.

Endnote

- ¹ Texas Department of Family and Protective Services, 2004 Data Book, page 189.