



# Mental health, resilience and inequalities

Dr Lynne Friedli

# Keywords:

MENTAL HEALTH  
ADAPTATION, PSYCHOLOGICAL  
SOCIOECONOMIC FACTORS  
POVERTY  
HEALTH STATUS

## **Address requests about publications of the WHO Regional Office for Europe to:**

Publications  
WHO Regional Office for Europe  
Scherfigsvej 8  
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (<http://www.euro.who.int/pubrequest>).

## **© World Health Organization 2009**

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters. All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

# Contents

|  |            |
|--|------------|
| <b>Acknowledgements</b>  | <b>II</b>  |
| <b>Summary</b>   | <b>III</b> |
| <b>1. Introduction</b>   | <b>01</b>  |
| <b>2. Aims</b>   | <b>04</b>  |
| <b>3. Policy context: mental health and wellbeing</b>                  | <b>05</b>  |
| <b>4. Social determinants and mental health</b>                        | <b>08</b>  |
| <b>5. Defining mental health</b>                                       | <b>10</b>  |
| <b>6. Domains of influence: the benefits of positive mental health</b> | <b>15</b>  |
| <b>7. Resilience</b>   | <b>22</b>  |
| <b>8. Life course</b>  | <b>32</b>  |
| <b>9. Mental health and inequalities: pathways of influence</b>        | <b>35</b>  |
| <b>10. Conclusions</b>   | <b>38</b>  |
| <b>11. References</b>  | <b>42</b>  |
| <b>12. Appendices</b>  | <b>53</b>  |

# Acknowledgements

This report was written by Dr Lynne Friedli for the WHO Regional Office for Europe. The Office would like to thank members of the Reference Group for their invaluable comments and suggestions and colleagues who made time to attend a peer review seminar on this paper hosted by the Mental Health Foundation. Thanks also to Dr Gyles Glover and to colleagues who attended seminars hosted by the Journal of Public Mental Health in partnership with the Scottish Development Centre for Mental Health, the Glasgow Centre for Population Health and the Scottish Government. These events contributed centrally to the ideas explored in this report. The Scottish Development Centre for Mental Health also kindly provided an opportunity for discussion of emerging findings from the research at their 10th Anniversary Conference, held in Glasgow in October 2007. Final acknowledgement goes to the Mental Health Foundation<sup>1</sup> and to Dr Andrew McCulloch for his ongoing support and commitment to public mental health.

*Matt Muijen, Regional Adviser Noncommunicable Diseases and Environment,  
WHO Regional Office for Europe*

## Supported by:

**National Institute for  
Mental Health in England**

**CHILD  
POVERTY  
ACTION  
GROUP**



### **NIMHE**

The National Institute for Mental Health in England (NIMHE) is the national delivery support agency for mental health policy in England. NIMHE supports the production and dissemination of this report as it presents a powerful and compelling case underlining the need to improve and expand policies and programmes at European, national and local levels that improve the mental health and mental wellbeing of our populations. Without this approach we will not achieve the benefits that good mental health brings to our countries economic, social and cultural life.

### **Child Poverty Action Group**

Child Poverty Action Group (CPAG) is a leading charity campaigning for the abolition of child poverty in the UK and for a better deal for low-income families and children. CPAG supports this report because it demonstrates so clearly the damage that inequality does to mental health. This analysis highlights the 'social recession' of families being left behind and the harm this causes and it clearly demonstrates that tackling child poverty and boosting fairness must be the watch word of societies which seek to promote good mental health.

### **Faculty of Public Health**

The Faculty of Public Health is the standard setting body for specialists in public health in the UK. We support this report because we believe that it says all the right things about empowerment and the promotion of wellbeing. It usefully complements the recent report from the WHO Commission on Social Determinants of Health and helps to fill many of the gaps between mental health and inequalities, including the crucial links between negative health behaviours and poor physical health. We very much welcome its emphasis on promoting wellbeing - the focus on developing resilient individuals, communities and environments being particularly timely during the current global economic crisis.

---

1. <http://www.mentalhealth.org.uk/welcome/>

# Summary

*Although the risks and contradictions of life go on being as socially produced as ever, the duty and necessity of coping with them has been delegated to our individual selves.*

*Zygmunt Bauman 2007a p. 14*

This report explores the wealth of evidence that mental health influences a very wide range of outcomes for individuals and communities. These include healthier lifestyles; better physical health; improved recovery from illness; fewer limitations in daily living; higher educational attainment; greater productivity, employment and earnings; better relationships with adults and with children; more social cohesion and engagement and improved quality of life. These outcomes are not just or necessarily a consequence of the absence of mental illness, but are associated with the presence of positive mental health, sometimes referred to as 'wellbeing'. Improving mental health is a worthwhile goal in itself: most people value a sense of emotional and social wellbeing; in addition, good mental health has many other far reaching benefits.

Mental health is a fundamental element of the resilience, health assets, capabilities and positive adaptation that enable people both to cope with adversity and to reach their full potential and humanity. Mental health is also the key to understanding the impact of inequalities on health and other outcomes. It is abundantly clear that the chronic stress of struggling with material disadvantage is intensified to a very considerable degree by doing so in more unequal societies. An extensive body of research confirms the relationship between inequality and poorer outcomes, a relationship which is evident at every position on the social hierarchy and is not confined to developed nations. The emotional and cognitive effects of high levels of social status differentiation are profound and far reaching: greater inequality heightens status competition and status insecurity across all income groups and among both adults and children. It is the *distribution* of economic and social resources that explains health and other outcomes in the vast majority of studies. The importance of the social and psychological dimensions of material deprivation is gaining greater recognition in the international literature on poverty and informs current efforts to develop indicators that capture the missing dimensions of poverty.

For this reason, levels of mental distress among communities need to be understood less in terms of individual pathology and more as a response to relative deprivation and social injustice, which erode the emotional, spiritual and intellectual resources essential to psychological wellbeing. While psychosocial stress is not the only route through which disadvantage affects outcomes, it does appear to be pivotal. Firstly, psychobiological studies provide growing evidence of how chronic low level stress *'gets under the skin'* through the neuro-endocrine, cardiovascular and immune systems, influencing hormone release e.g. cortisol, cholesterol levels, blood pressure and inflammation e.g. C-reactive proteins. Secondly, both health-damaging behaviours and violence, for example, may be survival strategies in the face of multiple problems, anger and despair related to occupational insecurity, poverty, debt, poor housing, exclusion and other indicators of low status. These problems impact on intimate relationships, the care of children and care of the self. In the United Kingdom, the 20% - 25% of people who are obese or continue to smoke are concentrated among the 26% of the population living in poverty, measured in terms of low income and multiple deprivation of necessities. This is also the population with the highest prevalence of anxiety and depression.

A greater understanding of inequalities is also crucial to recognizing the limits of what promoting positive mental health can achieve. Positive mental health does confer considerable protection and advantage, but it does so predominantly among those with equal levels of resources. In other words, among poor children, those with higher levels of emotional wellbeing have better educational outcomes than their equally poor peers. However, richer children generally do better still, regardless of emotional or cognitive capability. Among well off students, high positive affect is associated with improved employment outcomes, but among poorer students, parental income is a more significant determinant. Emerging evidence suggests that the same pattern may be true for resilient localities: high levels of social capital may help to explain why one poor neighbourhood has lower mortality than other equally deprived areas, but these poorer, resilient communities still tend to have higher mortality than affluent areas.

The significance of mental health and its role in our survival confirms the importance of humans as social beings: levels of social interaction are universal determinants of wellbeing across all cultures. But the unique nature of each person's mental character also reminds us of the power of the individual: *"no one survives without community and no community thrives without the individual"*. Progress in improving public mental health will also mean drawing on lessons from the user/survivor and recovery movements, with their emphasis on empowerment and respect for what each individual needs to hold on to or regain a life that has meaning for them.

This report highlights the importance of policies and programmes to support improved mental health for the whole population. Just as we know that a small reduction in the overall consumption of alcohol among the whole population results in a reduction in alcohol related harm, so a small improvement in population wide levels of wellbeing will reduce the prevalence of mental illness, as well as bringing the benefits associated with positive mental health. Priorities for action include:

- social, cultural and economic conditions that support family and community life
- education that equips children to flourish both economically and emotionally
- employment opportunities and workplace pay and conditions that promote and protect mental health
- partnerships between health and other sectors to address social and economic problems that are a catalyst for psychological distress
- reducing policy and environmental barriers to social contact.

While there is much that can be done to improve mental health, doing so will depend less on specific interventions, valuable as these may be, and more on a policy sea change, in which policy makers across all sectors think in terms of *'mental health impact'*. It is already evident that the relentless pursuit of economic growth is not environmentally sustainable. What is now becoming clear is that current economic and fiscal strategies for growth may also be undermining family and community relationships: **economic growth at the cost of social recession**. This means that at the heart of questions concerning *'mental health impact'* is the need to protect or recreate opportunities for communities to remain or become connected.

Across the 53 Member States of the WHO European Region, tackling inequalities is the major challenge. Understanding the importance of mental health can help us to think more critically about the limits of economic growth and what wealth can achieve and to promote greater awareness of the benefits of reducing inequalities. This is not about utopian visions: the comparison between Sweden and the United Kingdom shows that relatively small differences in levels of inequality can have very significant effects on health. While there is no evidence that people can adapt psychologically to high levels of inequality, there is considerable evidence that opportunities for co-operative social relationships are protective and that this is the case across all social classes. Both high and low income populations benefit in more equal societies.

A focus on social justice may provide an important corrective to what has been seen as a growing over-emphasis on individual pathology. Mental health is produced socially: the presence or absence of mental health is above all a social indicator and therefore requires social, as well as individual solutions. A focus on collective efficacy, as well as personal efficacy is required. A preoccupation with individual symptoms may lead to a 'disembodied psychology' which separates what goes on *inside people's heads* from social structure and context. The key therapeutic intervention then becomes to 'change the way you think' rather than to refer people to sources of help for key catalysts for psychological problems: debt, poor housing, violence, crime. There is a need to think more critically about the relative contribution to mental wellbeing of individual psychological skills and attributes (e.g. autonomy, positive affect and self efficacy) and the circumstances of people's lives: housing, employment, income and status. This also involves recognizing that 'happiness', 'positive thinking' and 'trust' are not always adaptive responses.

How things are done (values and culture) and how things are distributed (economic and fiscal policy) are the key domains that influence and are influenced by how people think, feel and relate. Mental health promotion has made and continues to make a significant contribution to our understanding of the wider determinants of health and the crucial relationship between social *position* and emotion, cognition and social function or relatedness. Evidence to this effect needs to inform current thinking about how individuals (including children) respond to stressors and appropriate promotion, prevention and treatment strategies across the spectrum of mental health problems.

Mental health is fundamental to the future of the countries of Europe. Mental health underpins the social and intellectual skills that will be needed to meet the new challenges of the 21<sup>st</sup> century. It is also becoming increasingly clear, notably in campaigns on the environment and sustainable development, that communities across Europe place a high value on wellbeing. The limitations of consumerism are being more widely reflected upon, especially in relation to children and family life and the basis of civic society. We will have to face up to the fact that individual and collective mental health and wellbeing will depend on reducing the gap between rich and poor. At the same time, reducing inequality is not a sufficient policy response, important as that is. What is also needed is a shift in consciousness and a recognition that mental health is a precious resource to be promoted and protected at all levels of policy and practice.

## 1. Introduction

This report sets out the contribution that mental health and mental illness make to a wide range of health and social outcomes and shows how a greater focus on mental health *as a determinant* can help to explain outcomes, for individuals and for communities, which cannot be wholly accounted for by material and other factors. The limitations of classical risk factors e.g. health behaviour, lifestyle and low income have prompted a growing interest in what protects health in the face of adversity and in the determinants of health, as distinct from the determinants of illness (Harrison et al 2004; Bartley et al forthcoming). This report aims to contribute to that literature by looking at mental health as a fundamental element of resilience, health assets and the capabilities that moderate risk and influence life chances and outcomes for individuals, families and communities.<sup>2</sup>

It is already well established that mental illness, across the spectrum of disorders, is both a direct cause of mortality and morbidity and a significant risk factor for poorer economic, health and social outcomes, although these adverse outcomes vary by type of disorder and socioeconomic status (WHO 2005; 2006).<sup>3</sup> However, it is now becoming clear that the presence or absence of positive mental health or 'wellbeing' *also* influences outcomes across a wide range of domains. These include healthier lifestyles, better physical health, improved recovery, fewer limitations in daily living, higher educational attainment, greater productivity, employment and earnings, better relationships, greater social cohesion and engagement and improved quality of life (WHO 2004b; Barry and Jenkins 2007; Jane-Llopis et al 2004).

The importance of mental health as a determinant raises a number of questions. Firstly, there is a need for a greater understanding of why mental health is so significant: what are the key pathways through which mental health and wellbeing influence so many different dimensions of the lives of individuals and communities and how do these intersect with other determinants? Secondly, what conditions are necessary to create optimum mental health and wellbeing and what policy initiatives and interventions will produce these conditions?

Some of the factors to consider in assessing the significance of mental health relative to other influences are evident in reflecting on a familiar scenario: the long haul flight (Lynch et al 2000). Clearly, there are important differences in the experience of first class and economy travellers. The question is, what influences outcomes for passengers in each class? For those in economy, is it the material fact of less space, poorer food, limited leg room, proximity to others, sleeping upright rather than reclining, limited opportunities for walking around etc. that makes the difference? Or, is it the knowledge that other people are enjoying first class status and perks, while you are not doing so, combined perhaps, with subtle differences in the attitude of the cabin crew in economy class?

To what extent is our experience of material conditions mediated by our emotional and cognitive responses? What is the contribution of the psychobiological pathways through which stressful social conditions are written on the body, becoming evident in cholesterol, cortisol and blood pressure levels? What role do individual genetic and life histories, expectations, aspirations, religious and cultural beliefs play in how we interpret and react to adversity or advantage? What difference does

---

2 Amartya Sen defines capabilities as people's real freedoms to enjoy beings and doings that they value and have reason to value (Sen 1985; see also Zavaleta 2007)

3 Outcomes may vary significantly by country, for example people with schizophrenia may have better outcomes in some developing countries (WHO 2003).



it make if discomfort and difficulties are shared by everyone?<sup>4</sup> These questions lie at the heart of current debates about the social determinants of health, the relative contribution of material, psycho-social and biological factors and the effects of inequalities (Lynch et al 2000; Wilkinson and Pickett 2006; Dahlgren and Whitehead 2006).<sup>5</sup>

A growing body of international data shows strong contextual effects for material factors, for example people at the same level of income will have lower mortality if they are in more, rather than less, equal states (Wilkinson and Pickett 2007a). One explanation for this and for the strong social gradient in health is that *relative deprivation* is a catalyst for a range of negative emotional and cognitive responses to inequity. These are both conscious and unconscious reactions, influencing health through physiological reactions, through the impact of low status on identity and social relationships, as well as through a range of damaging behaviours that are a direct or indirect response to the social injuries associated with inequalities (Wilkinson 2005; Rogers and Pilgrim 2003). In this analysis, mental health is fundamental because levels of inequality have a strong impact on how people feel and how people feel, their emotional wellbeing, is a powerful indicator:

*“How people feel is not an elusive or abstract concept, but a significant public health indicator; as significant as rates of smoking, obesity and physical activity”*

*Department of Health, England 2001*

Although definitions vary, positive mental health is generally seen as including:

- emotion (affect/feeling),
- cognition (perception, thinking, reasoning)
- social functioning (relations with others and society)
- coherence (sense of meaning and purpose in life).

These individual attributes and skills can be measured through a range of wellbeing scales and a growing number of longitudinal studies confirm their power to predict outcomes, for example, longevity, physical health, quality of life, criminality, drug and alcohol use, employment, earnings and pro-social behaviour (e.g. volunteering) (Pressman and Cohen 2005; Lyubomirsky et al 2005; Dolan et al 2006). These findings have inspired considerable optimism about the role of positive psychological attributes in enabling people to flourish, notwithstanding adverse circumstances, and to a renewed interest in cognitive behavioural therapies, with their focus on transforming how a person *thinks about their life* (Diener and Seligman 2002; Seligman 2003; Ryan and Deci 2001; Ryff and Singer 2002).<sup>6</sup>

---

4. Responses to adversity are strongly patterned by culture, with notable differences between individualistic and collectivist traditions (Christopher and Hickinbottom 2008)

5. “Under a psychosocial interpretation, these health inequalities would be reduced by abolishing first class, or perhaps by mass psychotherapy to alter perceptions of relative disadvantage. From the neo-material viewpoint, health inequalities can be reduced by upgrading conditions in economy class.” (Lynch et al 2000)

6. For a series of papers reflecting critically on these issues and the concept of a ‘disembodied psychology’ see Clinical Psychology Forum 162, June 2006

An extensive body of research suggests that psychological assets do confer resilience and protection and do so at both an individual and an ecological level (Bartley 2006; Fagg et al 2006; Sacker and Schoon 2007). The optimism, self esteem, self efficacy and interest in others that contribute to a child's success at school are also characteristics of resilient neighbourhoods and communities, where norms of trust, tolerance, support, participation and reciprocity may provide some protection from the effects of deprivation. At the same time, there are significant and important caveats: emotional and cognitive advantages are generally trumped by material advantage. Such evidence highlights the importance of moving beyond an exclusive focus on individual mental health status, to identify and understand the context for people's emotional and cognitive responses. Surveys of positive affect, self efficacy, subjective wellbeing or life satisfaction also need to provide a context for considering the potential sources of these attributes and feelings. For example, Alkire has argued that the literature on agency has focused too much on 'own' rather than 'other regarding' agency (Alkire 2007). Others have suggested that an undue emphasis on the individual self reflects cultural bias and a limited world view (Christopher and Hickenbottom 2008).

The wide range of benefits associated with mental health demonstrates the relevance of wellbeing to sectors beyond health, notably those concerned with the policy challenges presented by education, social cohesion, demographic change, sustainable economic development and environmental protection across the WHO European Region. It is hoped that this report on understanding mental health as a determinant will provide renewed evidence of the crucial importance of mental health to policy and practice, will strengthen existing efforts to tackle factors already known to be toxic to the mental health of populations and will contribute to wider debate about effective strategies for achieving social justice.

The report is structured as follows:

- Section Two outlines the aims and objectives
- Section Three describes the policy environment for mental health in Europe and the contribution promoting public mental health can make to ongoing policy challenges
- Section Four looks at mental health in relation to current debates about the social determinants of health and the work of the Commission on the Social Determinants of Health
- Section Five provides definitions of key terms and concepts widely used in the literature on mental health and positive mental health
- Section Six summarises the outcomes associated with positive mental health
- Sections Seven, Eight and Nine describe the contribution that mental health makes to outcomes by exploring three different pathways of influence: resilience, the life course and inequalities
- Section Ten concludes the report and makes some recommendations for future action

## 2. Aims

The focus of this work is on exploring the significance of mental health as a determinant, not only of health, but of a wide range of social (and therefore economic) outcomes. The aim of the report is to:

- draw together emerging international research across a number of disciplines
- contribute to greater understanding and debate in relation to mental health as a determinant and mediator of health and other outcomes
- strengthen awareness of the contribution of improving mental health to wider goals and challenges in Europe
- make recommendations for effective action

The scope of the report is consistent with a public mental health<sup>7</sup> or population wide approach to mental health reflected in the WHO *Mental Health Action Plan* and the EC Green Paper *Improving the Mental Health of the Population*.<sup>8</sup> It is also intended to complement the work of the WHO Commission on the Social Determinants of Health, in particular through considering what a greater understanding of mental health impact can contribute to interpreting and addressing widening social divisions across and within European countries and to reducing social inequities in health (CSDH 2007; 2008).

---

7 Public mental health has been defined as 'the art, science and politics of creating a mentally healthy society' and '*a strategic and analytical framework for addressing the wider determinants of mental health, reducing the enduring inequalities in the distribution of mental distress and improving the mental health of the whole population*' (Friedli 2005a p1; 2004 p. 2).

8 Copies of the declaration and action plan can be found on:  
<http://www.euro.who.int/document/mnh/edoc07.pdf> and <http://www.euro.who.int/document/mnh/edoc06.pdf>

### 3. Policy context: mental health and wellbeing

*'It's harder to promote health in sick societies, than to help the sick in healthy ones.'*

*John Pickering 2007 p. 159*

This is a time of significant policy (and practice) development in public mental health across Europe, with the World Health Organization playing an important leadership role in gaining greater recognition of the potential benefits of a population wide approach (WHO 2004a; WHO 2004b). The *WHO Declaration and Action Plan* made a significant contribution to moving the promotion of mental health and the prevention of mental disorders up the agenda in Europe (see Box 1) and strongly influenced the European Commission Green Paper *Improving the Mental Health of the Population* (European Commission 2005). A number of important themes emerge in this literature:

- the social and economic prosperity of Europe will depend on improving mental health and wellbeing
- promoting mental health, i.e. building communities and environments that support mental wellbeing, will deliver improved outcomes for people with mental health problems
- mental health and wellbeing are fundamental to quality of life

#### **Box 1: Mental health promotion in Europe – moving up the agenda**

##### **WHO Mental Health Declaration for Europe**

<http://www.euro.who.int/document/mnh/edoc06.pdf>

*“mental health and mental wellbeing are fundamental to the quality of life and productivity of individuals, families, communities and nations, enabling people to experience life as meaningful and to be creative and active citizens”.*

##### **European Commission Social Agenda 2005-2010**

[http://ec.europa.eu/employment\\_social/social\\_policy\\_agenda/social\\_pol\\_ag\\_en.html](http://ec.europa.eu/employment_social/social_policy_agenda/social_pol_ag_en.html)

*“the mental health of the European population is a resource ... to put Europe back on the path to long-term prosperity”.*

Many countries across the EU are using the European commitment to ‘mental health for all’ to develop or strengthen national policy and action to promote mental wellbeing,<sup>9</sup> a trend reflected in the responses to the EC Green Paper.<sup>10</sup> There is a growing interest in the added value of incorporating the promotion of mental health and wellbeing into general health and mental health policies. For example, mental health was an important feature of Health in All Policies (HiAP), the main health theme of the Finnish European Union Presidency (Stahl et al 2006). See also the example from Lithuania in Box 2.

### Box 2: Positive practice: an example from Lithuania

In Lithuania, a 10 year State Programme on Mental Diseases Prevention was introduced in 1999 with the establishment of a State Mental Health Centre (SMHC). The goals of SMHC are the implementation of mental health policy, the oversight of public health in order to reduce the incidence of mental disorders, to improve public and individual mental health, and to promote healthy lifestyles. Its main activities lie in the coordination of public mental health care and primary mental health care as well as in the monitoring and assessment of the population’s mental health. Various specific programmes such as the National Drug Control and Drug Use Prevention Programme (approved in 1999), the State Alcohol Control Programme (approved in 1999) and the Suicide Prevention Programme for 2003-2005 have been undertaken within this over-arching framework.

The focus on *“mental health activities capable of improving the wellbeing of the whole population”* marks an important shift towards recognizing the benefits of promotion and prevention, in addition to improving the treatment of existing disorders. It is also an acknowledgement that positive mental health and wellbeing can contribute to achieving a wide range of health and social goals of crucial importance to the long term prosperity of Europe. Conversely, both mental disorders (notably those of high prevalence e.g. depression and anxiety) and sub-clinical malaise or dysfunction have a high social and economic cost (McDaid 2007).<sup>11</sup> Although there is still some way to go, the mental health of populations is beginning to be seen as a resource to be promoted and protected and relevant to achieving strategic goals in health, education, regeneration, crime reduction, community cohesion, sustainable development, employment, culture and sport.

9. [http://www.imhpa.net/fileadmin/imhpa/Country\\_stories/FINAL.pdf](http://www.imhpa.net/fileadmin/imhpa/Country_stories/FINAL.pdf)

10. A full list of contributions to the consultation on:

[http://ec.europa.eu/health/ph\\_determinants/life\\_style/mental/green\\_paper/mentalgp\\_contributions\\_en.htm#3](http://ec.europa.eu/health/ph_determinants/life_style/mental/green_paper/mentalgp_contributions_en.htm#3)

11. For pan European data on costs see Mental Health Economics European Network (MHEEN) <http://www.mheen.org>

There is also an increasingly influential debate about the impact of policy on wellbeing, with a range of 'happiness league tables' exploring which countries have the highest levels of wellbeing, including among children (Unicef 2007; Marks and Shah 2004). Above a certain level, economic growth does not produce an increase in wellbeing; on the contrary, there is a concern that economic growth strategies in both mature and emerging European market economies have damaging psycho-social side effects (Pickett et al 2006; Marks et al 2006; Eckersley 2005, 2006).<sup>12</sup> A number of commentators have argued that in the developed world, we have reached the limits of the benefits of affluence, that consumerism promotes individual anxiety and undermines social solidarity and that the goal now should be sustainability and greater equity through social justice (Bauman 2007a; Rutherford 2008).

These developments have contributed to an environment in which mental health and wellbeing can be seen as relevant to wider debates and the research agenda on health, economic growth and social cohesion across Europe. Part of this is undoubtedly prompted by the social and economic costs of mental illness. However, it is also driven by recognition of the complex relationship between individual and collective psychological resources and wider health outcomes. Understanding both the extent of this relationship and its limitations will contribute centrally to crucial decisions about the allocation of resources to improving population mental health in Europe.

---

12. see also:  
[http://www.neweconomics.org/gen/z\\_sys\\_publicationdetail.aspx?pid=193](http://www.neweconomics.org/gen/z_sys_publicationdetail.aspx?pid=193) and [www.foresight.gov.uk](http://www.foresight.gov.uk).  
For a competing view suggesting a positive link between GDP and wellbeing see Stevenson and Wolfers 2007.

## 4. Social determinants and mental health

*'The 'gradient effect' that occurs for almost all outcomes in almost all places speaks to the critical nature of socioeconomic resources.'*

*Irwin et al 2007*

A major revisiting of the literature on inequalities in health has come from the *Commission on the Social Determinants of Health* (CSDH), (established through the World Health Organization), in a series of papers analyzing the dramatic inequalities in health both within and between countries, the social gradient in health, and new evidence on the social causes of health inequities (Solar and Irwin 2005; Whitehead and Dahlgren 2006; Dahlgren and Whitehead 2006).<sup>13</sup> The initiative is intended to provide a fresh impetus for action on equity and social justice, a greater focus on understanding policy barriers and aims to:

- support policy change in countries by promoting models and practices that effectively address the social determinants of health.
- support countries in placing health as a shared goal to which many government departments and sectors of society contribute.
- help build a sustainable global movement for action on health equity and social determinants, linking governments, international organizations, research institutions, civil society and communities.

The CSDH is concerned with the link between health and position in the social hierarchy and the role of stratification. It sees the axes of social stratification as socio/economic, political and cultural and identifies three key domains for action/empowerment:

- material requisites
- psycho-social (control over lives)
- political voice (participation in decision making)

At the heart of the report is the view that achieving a more equitable distribution of power requires collective social action (CSDH 2008).

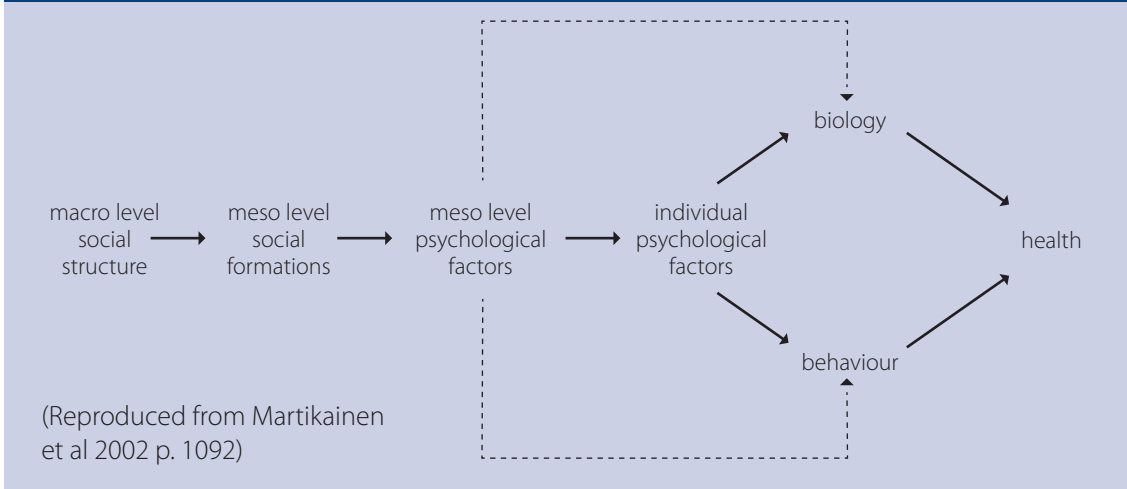
The extensive body of research on social determinants drawn together by CSDH provides an opportunity to look in more detail at what mental health can contribute to understanding how material living standards and social position influence health, as well as to the relationship between psychological resources and the capacity for collective action.

---

13. Recommendations for action are included in the Final Report [http://www.who.int/social\\_determinants/en/](http://www.who.int/social_determinants/en/)

Socio economic position (SEP) refers to the position of individuals in the hierarchy and is inherently unequal, shaping access to resources and every aspect of experience in the home, neighbourhood and workplace (Krieger 2001a; 2001b; Graham 2004; Regidor 2006). Different dimensions of SEP (education, income, occupation, prestige) may influence health through different pathways and so may be more or less relevant to different health outcomes. It is the extent to which SEP involves exposure to psychological (in addition to material) risks and buffers that is of special interest from a mental health perspective. SEP structures individual and collective experiences of dominance, hierarchy, isolation, support and inclusion. Social position also influences constructs like identity and social status, which impact on wellbeing, for example, through the effects of low self esteem, shame, disrespect and 'invidious comparison' (Rogers and Pilgrim 2005; de Botton 2004). Sen has argued that shame and humiliation are key social dimensions of absolute poverty and that the '*ability to go about without shame*' is a basic capability or freedom (Sen, cited in Zavaleta 2007).<sup>14</sup>

**Box 3: A tentative schematic representation of psychosocial pathways**



The use of the term psycho-social is important because it highlights the psychological/emotional/ cognitive impact of social factors, the effects of which need to be distinguished from material factors (Box 3). For example, unemployment that leads to loss of income is not psycho-social, whereas the loss of self esteem that accompanies unemployment is (Martikainen et al 2002). Individual psychological resources, for example, confidence, self efficacy, optimism and connectedness are embedded within social structures: our position in relation to others at work, at home, and in public spaces. Because social position influences emotion, cognition and behaviour, it is an ongoing challenge to separate out contextual effects that may be 'masquerading as individual attributes or the effects of individual characteristics' (Singh-Manoux and Marmot 2005).

These insights need to inform the interpretation of how individuals respond to stressors: what is the meaning of sadness, anger, hopelessness or anxiety in specific situations? In particular, they raise questions about appropriate promotion, prevention and treatment strategies for affective problems and disorders. They are also important in how we define positive mental health and the meaning we give to the absence of positive mental health.

14. <http://www.thecommonwealth.org/news/163125/020507rumeeting.htm>



## 5. Defining mental health

*"You can't choose to forget how to ride a bike"*

*David Smail cited in Priest 2006*

*"Advocates of policy based on subjective/psychological indicators cannot address adequately the problem that people's valuations of their circumstances are crucially conditioned by their frames of reference"*

*Samman 2007 p. 35*

How mental health is defined has a crucial bearing on research attempting to:

- quantify the relationship between mental health and key outcomes e.g. physical health, education
- distinguish between the impact of mental health and of mental illness.

Although there is widespread agreement that mental health is more than the absence of clinically defined mental illness, there is ongoing debate about what constitute the necessary or sufficient elements making up 'positive mental health', 'wellbeing' or 'flourishing'.

*"Concepts of mental health include subjective wellbeing, perceived self-efficacy, autonomy, competence, intergenerational dependence and recognition of the ability to realize one's intellectual and emotional potential. It has also been defined as a state of wellbeing whereby individuals recognize their abilities, are able to cope with the normal stresses of life, work productively and fruitfully, and make a contribution to their communities."*

*WHO 2003 p. 7*

Broadly, the literature distinguishes between two dimensions of 'wellbeing' or 'positive mental health', with the combination of both dimensions sometimes described as 'flourishing': (Keyes 2002)

- **Hedonic:** positive feelings or positive affect (subjective wellbeing, life satisfaction, happiness)
- **Eudemonic:** positive functioning (engagement, fulfilment, sense of meaning, social wellbeing)

*Huppert 2005; Lyubomirsky et al 2005; Carlisle 2006; Samman 2007; Ryan and Deci 2001*

There is now a growing number of scales designed to measure positive mental health, including indicators of resilience, self esteem, self efficacy, optimism, life satisfaction, hopefulness, perceptions and judgments about sense of coherence and meaning in life, and social integration (Mauthner and Platt 1998; Parkinson 2008). The European Social Survey (ESS Wave 3 Questionnaire) includes 'hedonic' measures of wellbeing (feeling and evaluation) as well as 'eudemonic' measures of capabilities and functioning, since these are associated with sustainable rather than transient wellbeing.<sup>15</sup> There are also efforts to address problems of cultural bias and specificity in wellbeing studies, through the development of internationally comparable indicators of psychological and subjective wellbeing (Samman 2007).

Keyes and others have argued that measures of mental illness and measures of (positive) mental health *form two psychometrically distinct, but correlated, continua in populations* (Keyes 2002; 2005; Tudor 1996; Huppert and Whittington 2003). Individuals who fit the criteria for a DSM/ICD mental disorder may have the presence of mental illness plus the absence of mental health, or may have moderate mental health or be flourishing. The absence of mental illness does not necessarily imply the presence of high levels of positive mental health and vice versa: people with mental health problems may also have positive mental health. The potential independence of mental health and mental illness also suggests that some of the determinants of mental wellbeing are not the same as the determinants of mental illness (Huppert 2008).

The distinction between measuring mental illness and measuring mental health is now formally recognised in Scotland, where a fourteen item measure, the Warwick and Edinburgh Mental Wellbeing Scale (WEMWBS) has been validated for use in the United Kingdom and is currently employed in addition to GHQ12 (Parkinson 2006; Tennant et al forthcoming).<sup>16 17</sup> Figure 1 shows the current distribution of mental wellbeing in a recent Scottish survey using WEMWBS (Braunholtz et al 2007; Taulbut and Parkinson forthcoming).

---

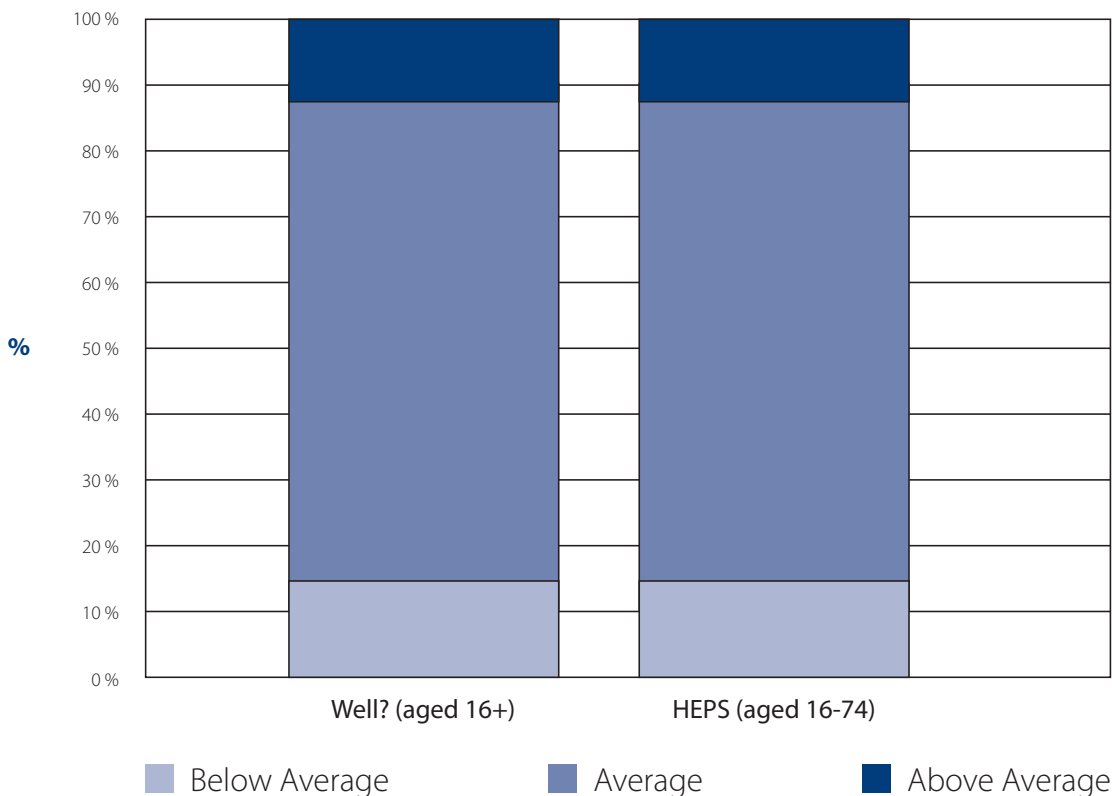
15 [http://www.europeansocialsurvey.org/index.php?option=com\\_content&task=view&id=64&Itemid=99](http://www.europeansocialsurvey.org/index.php?option=com_content&task=view&id=64&Itemid=99)

16 See also Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) [www.wellscotland.info](http://www.wellscotland.info) and <http://www.healthscotland.com/understanding/population/mental-health-indicators.aspx>

17. High GHQ12 scores in general population surveys are taken to indicate possible psychiatric disorder. Details of the fourteen items covered by WEMWBS are listed in Appendix A.

**Fig 1. Distribution of wellbeing in Scotland using WEMWBS**

**Adults with above average, average and below average WEMWBS score: 2006**



**Reproduced from Taulbut and Parkinson forthcoming (based on findings in Brauholtz et al 2007)**

A key question is *whether there are any significant differences in outcomes for people who have good mental health, compared to those with average or poor mental health* (among people who do not have a diagnosable mental disorder). Some evidence shows that compared with those who are flourishing, moderately mentally healthy and languishing adults have significant psycho-social impairment and poorer physical health, lower productivity and more limitations in daily living (Keyes 2005, 2007). Keyes found that cardiovascular disease was lowest in adults who were the most mentally healthy, and higher among adults with major depressive episodes, minor depression and moderate mental health. This is consistent with review level evidence that CHD risk is directly related to the severity of depression: a 1–2-fold increase in CHD for minor depression and 3–5-fold increase for major depression (Bunker et al 2003). In other words, intermediate levels of mental health are different from mental illness as well as from flourishing.

A parallel analysis of adolescents, (using measures of emotional wellbeing, psychological wellbeing and social wellbeing as three distinct but correlated factors), found that prevalence of conduct problems decreased (arrests, truancy, alcohol, tobacco and marijuana use) and measures of psychosocial functioning increased (self determination, closeness to others and school integration) as mental health improved. Children without mental illness were not necessarily mentally healthy and flourishing youth were found to be functioning better than moderately mentally healthy or languishing youth (Keyes 2006). These findings confirm earlier studies suggesting that the key factor is positive emotion, which leads to positive cognitions, positive behaviours and increased cognitive capability, which in turn fuel positive emotions (Fredrickson and Joiner, 2002).

In summary, while the best outcomes are associated with the absence of mental illness, the presence of positive mental health brings additional benefits.

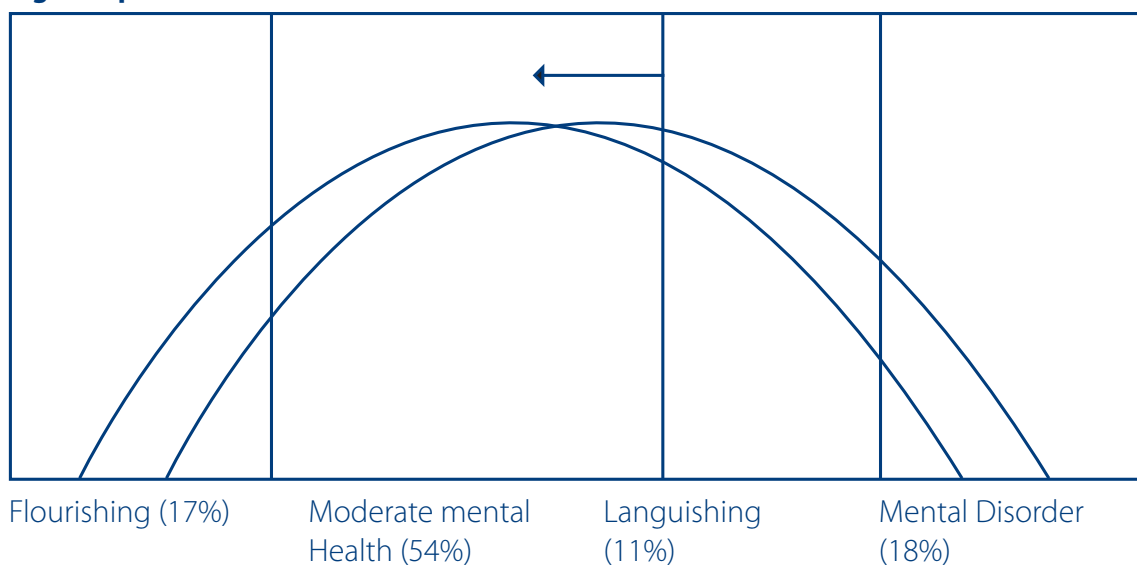
### 5.1 Population approach

The benefits of improving the mental health of the whole population are based on a familiar public health model. Just as we know that a small reduction in the overall consumption of alcohol among the whole population results in a reduction in alcohol related harm, so a small improvement in population wide levels of wellbeing will reduce the prevalence of mental illness, as well as bringing the benefits associated with positive mental health:

- by reducing the mean number of psychological symptoms in the population, many more individuals would cross the threshold to become flourishing;
- a small shift in the mean of symptoms or risk factors would result in a decrease in the number of people in both the languishing and mental illness tail of the distribution (figure 2).

*Huppert 2005; Rose 1992*

**Fig 2. Population distribution of mental health**



**Adapted from Huppert 2005; prevalence figures are from Keyes 2005, based on USA data**

A United Kingdom population study found that the prevalence of mental disorders was directly related to the mean number of symptoms in the sub-population (excluding those with a disorder). In a seven year longitudinal follow up, the change in the mean number of symptoms in subpopulations was highly correlated with the prevalence of disorders (Whittington and Huppert 1996; Anderson et al 1993). This means that population-level interventions to improve overall levels of mental health could have a substantial effect on reducing the prevalence of common mental health problems, *as well as the benefits associated with moving people from 'languishing' to 'flourishing'* (Huppert 2005). In addition, applying the principle of 'herd immunity', the more people in a community (e.g. a school, workplace or neighbourhood) who have high levels of mental health (i.e. who have characteristics of emotional and social competence), the more likely it will be that those with both acute and long term problems can be supported (Stewart-Brown 1998; Blair et al 2003 p. 143).

This focus on the benefits of *positive* mental health has contributed to a growing critique of policies that do not result in greater levels of wellbeing (the happiness debates) and an interest in how a 'wellbeing focus' might influence the future direction of policy on the economy, health, education, employment, culture and sustainable development (Marks et al 2006; Layard 2005; Marks and Shah 2004). Underlying the growing influence of these ideas however, is the view that positive mental health and wellbeing influence outcomes across a wide range of domains: better physical health, improved recovery rates, fewer limitations in daily living, greater productivity, educational attainment, employment and earnings, better quality of life, relationships, and health behaviours.

## 6. Domains of influence: the benefits of positive mental health

Mental illness, across the spectrum of disorders, is widely acknowledged as a significant determinant of health and social outcomes over the life course and there is a substantial literature on poor mental health as both consequence and cause of inequalities and exclusion.<sup>18</sup> Mental health problems have very high rates of prevalence; onset is generally at a much younger age than for other disorders, so they are often of long duration, and they have adverse effects on many areas of people's lives, including educational performance, employment, income, personal relationships and social participation. No other health condition matches mental ill-health in the combined extent of prevalence, persistence and breadth of impact, (SCMH 2003; McDaid 2007; Friedli and Parsonage 2007), although there are significant differences in how these adverse outcomes are interpreted and explained (Rogers and Pilgrim 2005).

Economic analysis based on WHO data on the global burden of disease (see Box 4) suggests that of the *total health burden*, just under half is attributable to premature mortality and just over half to non-fatal outcomes (morbidity and disability). Mental illness, including suicide, accounts for less than 5% of all premature mortality but for over 30% of all morbidity and disability. No other health condition (apart from cardiovascular disease) accounts for more than 10% of the total burden of disease within the population (WHO 2005; 2006).

### Box 4: WHO Global Burden of Disease 2001

*33% of the years lived with disability (YLD) are due to neuropsychiatric disorders, a further 2.1% to intentional injuries. Unipolar depressive disorders alone lead to 12.15% of years lived with disability, and rank as the third leading contributor to the global burden of diseases. Four of the six leading causes of years lived with disability are due to neuropsychiatric disorders (depression, alcohol-use disorders, schizophrenia and bipolar disorder).*

Cited in WHO 2003

People with mental health problems have much higher rates of physical illness, with a range of factors contributing to greater prevalence of, and premature mortality from: coronary heart disease, stroke, diabetes, infections and respiratory disease (Harris and Barraclough 1998; Wulsin et al 1999; Phelan et al 2001; Osborn et al 2007). The extent of the adverse impact of mental illness has contributed centrally to calls for greater investment in prevention, in addition to improved treatment (SEU 2004; WHO 2003).

By contrast, a key rationale for promoting positive mental health is the hypothesis that by increasing mental health, we can modify certain outcomes, even if mental illness remains and/or even if other risk factors remain. The following section provides a broad summary of the evidence that beneficial outcomes are not solely a result of the absence of mental illness, but are due, wholly or in some degree, to aspects of positive mental health – usually positive affect (mood and/or outlook or 'emotional style') and sometimes engagement or social functioning.

<sup>18</sup> It is difficult to distinguish the extent to which certain adverse effects are a result of the illness or are due to the consequences of exclusion and discrimination experienced by people with mental health problems. Several reports suggest that the latter are more significant than the former, notably in relation to income and employment (Social Exclusion Unit 2004) and challenging stigma and discrimination has been a key element of mental health campaigns across Europe (Sartorius and Schulze 2005).

There are a number of methodological limitations, for example differences in how mental health is defined, the fact that findings are based on relatively privileged cohorts e.g. students or white collar workers and the cultural specificity of some studies (many are from North America and have not been validated or replicated elsewhere). At the same time, recent research suggests that there are key characteristics and determinants of mental wellbeing that may be consistent across cultures. Ryan and Deci describe these as 'competence, autonomy and relatedness', while Kenny and Kenny identify status, control and levels of social interaction as universal determinants of subjective happiness (Ryan and Deci 2001; Kenny and Kenny cited in Samman 2007).<sup>19</sup> A further caveat is that many of the associations between positive mental health and positive outcomes are drawn from cross sectional studies, although these findings are beginning to be confirmed in longitudinal and experimental studies (Pressman and Cohen 2005; Lyubomirsky et al 2005; Dolan et al 2006). Overall, the literature provides a sufficiently robust basis for concluding that mental health has a significant influence, even if the precise nature and extent of the relationship is still emerging.

## 6.1 Outcomes associated with positive mental health

### Physical health

#### Mortality

The influence of positive affect on mortality has been widely asserted, with one major study showing an increase in longevity of 7.5 years, (Danner et al 2001; Levy et al 2002), but it is most consistent for older people living in the community. This is not the case for residents of institutions; in these circumstances, low positive affect 'may reflect a fighting spirit in a situation of lost control' and so be more protective (Pressman and Cohen 2005). This is an important finding: happiness may be more adaptive in some circumstances than in others (Lyubomirsky et al 2005).

#### Morbidity

Review level evidence finds almost unanimous support for an association between higher positive affect and health (Pressman and Cohen 2005). Promoting positive mental health benefits physical health by improving:

- Overall health (Benyamini et al 2000)
- Stroke incidence and survival (Ostir et al 2000; 2001)
- Protection from heart disease: absence of positive mental health is a greater risk factor for CVD than smoking (Keyes 2004). Psycho-social factors (notably mood, social support and isolation) are on a par with smoking, high blood pressure and raised cholesterol (Bunker et al 2003; Kubzansky and Kawachi 2000)
- Lowest number of chronic physical diseases by age (Keyes 2007)

---

<sup>19</sup> For a critique of the search for universal psychological characteristics see Christopher and Hickinbottom 2008, who challenge the assumption that "emotional wellbeing is more important or desirable than an accurate perception of reality" p570

Positive affect is particularly associated with improvements in health outcomes subject to motivation or self report bias e.g. pain, limitations in daily living and quality of life. Positive affect may also provide a stress buffering effect that helps people to cope and is associated with lower levels of cortisol and lower blood pressure (biological markers of stress response) at baseline and at three year follow up (Stephens 2005). Leading risk factors are outlined in Box 5.

#### **Box 5: Leading risk factors**

*Among the 10 leading risk factors for the global burden of disease measured in DALYs, as identified in the World Health Report 2002, three were mental/ behavioural (unsafe sex, tobacco use, alcohol use) and three others were significantly affected by mental/ behavioural factors (overweight, blood pressure and cholesterol).*

WHO 2003 p. 9

### **Health behaviour**

Mental health also influences physical health through its influence on health behaviour, which is socially patterned and deeply embedded in people's social, cultural and material circumstances (NICE 2007). The relative contribution of individual characteristics (affect, cognitive and social skills), social context (peers, social networks, relationships) and material factors (income, access to healthy products) is difficult to untangle and interventions to improve health behaviour through improving mental health (in schools for example) often attempt to address all three areas.

Positive mental health is associated with:

- Improved sleep, exercise, diet (Pressman and Cohen 2005; Mental Health Foundation 2006a)

Improving positive mental health reduces:

- Alcohol intake (Graham et al 2005; Petersen et al 1998 ; Mental Health Foundation 2006b)
- Smoking (Graham et al 2005)
- Delinquent activity<sup>20</sup> (Windle 2000)

There is some dispute as to whether alcohol misuse precedes, or is a consequence of, mental health problems such as anxiety and depression (Kessler et al 1996; Merikangas et al 1998; Rehm et al, 2003) and in many cases there is likely to be a dynamic interaction.

The marked relationship between socio-economic factors and health behaviour raises a number of questions about the extent to which psychological factors pattern behaviour. A significant context for understanding the link between mental health and behaviour is the extent to which health-damaging behaviours may be survival strategies in the face of multiple problems, anger and despair related to occupational insecurity, poverty, poor housing, exclusion and other indicators of low

---

20. It is important to note that only a small proportion of those adolescents who manifest high levels of risk-taking behaviour will continue to do so into adulthood. This study attempts to identify aspects of 'temperament' associated with ongoing delinquency



status. These problems impact on intimate relationships, the care of children and on self care (Rogers and Pilgrim 2003). In the United Kingdom, the 20% - 25% of people who are obese or continue to smoke are concentrated among the 26% of the population living in poverty, measured in terms of low income and multiple deprivation of necessities (Gordon et al 2000). This is also the population with the highest prevalence of anxiety and depression (Melzer et al 2004). Capacity, capability and motivation to choose health are strongly influenced by mental health and wellbeing, making these pathways a feature of the growing interest in positive mental health as a route to achieving behavioural change (Stead et al 2007). Mental health may also be a factor in helping to explain the wider international data which shows that socio-economically disadvantaged conditions are not universally correlated to all forms of health-damaging behaviours (CSDH 2007).

## Productivity

Stress, anxiety and depression combined are the single greatest cause of sickness absence in the United Kingdom. However workplace costs are not confined to the consequences of clinically diagnosed mental illness but extend to less than optimum mental health. Loss of productivity associated with poor mental health (over and above losses associated with sickness absence) is estimated at twice the cost of sickness absence. The evidence that is available suggests that 'presenteeism' (functioning at less than optimum capacity while at work) has a significantly larger impact on worker productivity than absenteeism. A recent United Kingdom study estimated costs of £15.1 billion a year in reduced productivity due to 'presenteeism'. Presenteeism accounts for 1.5 times as much working time lost as absenteeism and costs more to employers because it is more common among higher-paid staff (Sainsbury Centre for Mental Health 2007).

Other studies show that improved wellbeing or positive affect reduces sickness absence and increases performance/productivity:

- Job performance/productivity: wellbeing predicts good job performance (Harter et al 2003; Cropanzano and Wright 1999)
- Job performance/productivity/creativity: assessed by supervisors (Wright and Staw 1999; Lyubomirsky et al 2005)
- Reduced absenteeism (Pelled and Xin 1999; Keyes 2005)

Factors that have been seen as indicators of wellbeing in the workplace, for example effort/reward balance, levels of social support or job control, also have an independent influence on health outcomes (Ferrie 2007). Over 25 years, a study of Finnish men showed that those with a greater effort/reward imbalance had twice the risk of coronary heart disease. High job control is also associated with significantly lower risk of heart disease, as well as with markers of stress response e.g. lower levels of cortisol and blood pressure (Steptoe 2005; Steptoe and Wardle 2005). Evidence from Sweden shows how changing employment conditions towards less job security and control are impacting upon people's health and wellbeing in a high income country, influencing rates of cardiovascular disease, alcohol misuse and suicide (CSDH 2007 p22). Box 6 gives an example of positive practice from France.

### Box 6: Positive practice - an example from France

In France, Electricite de France and Gaz de France have implemented the APRAND programme (Action de Prévention des Rechutes des troubles Anxieux et Dépressifs). This programme focuses on action to prevent relapse of depression and anxiety disorders. For early identification of people at risk, individuals on sick leave were asked to meet with company occupational health physicians. Individuals meeting screening criteria were placed on a health promotion programme involving the provision of information on their condition and a recommendation to consult with their general practitioner, occupational physician or psychiatrist. Overall this group had a significantly higher rate of remission and recovery as compared with individuals in a control group.

### Crime

Mental health problems make a substantial contribution to offending behaviour and a very high proportion of people in prison (including those on remand) have one or more mental disorders (Singleton et al 1998), so prevention is likely to result in considerable savings. One major longitudinal study found a clear gradient in crime risk between those with conduct disorder, those with 'some conduct problems' and those with no problems, confirming that small improvements in emotional adjustment in children can have a significant impact on subsequent crime rates (Ferguson et al 2005; see also Keyes 2006; Scott et al 2001).

### Educational outcomes

The Effective Pre-school and Primary Education Project (EPPE) is Europe's largest longitudinal pre-school effectiveness study and provides a unique insight into the factors that influence resilience (defined here as better than expected educational outcomes) in disadvantaged families. This demonstrated the crucial role of cognitive and social/behavioural development on educational attainment. The strongest effect on children's resilience at age 5 and 10 is their level of self-regulation (independence and concentration) at the start of school.<sup>21</sup> The study found that the effects associated with a high quality home learning environment (HLE – providing structure, extensive educational stimulus and activities, a high level of parent/child interaction and the family's sense of efficacy in supporting their children's learning) on children's development were stronger than for other traditional measures of disadvantage such as parental SES, education or income (Sylva et al 2007). [See p. 32 for a further discussion of these issues.] Box 7 gives an example of positive practice from Austria.

21 EPPE found that being female, higher parental education and income, quality of 'home learning environment', quality of pre-school and amount of time in pre-school all are associated with increases in self-regulation, whilst lower birth weight, eligibility for free school meals, developmental and behavioural problems are associated with decreases in self-regulation.

### Box 7: Positive practice - an example from Austria

In Austria, several non-governmental organizations have carried out a parenting skills training programme “Elternbildung” (*Promoting Independence*) with support from the Federal Ministry of Health, Family and Youth and co-funded by the Austrian Health Promotion Foundation. It has been implemented in all nine provinces to promote non-violence and to prevent problems in familial relationships. The programme combines personality development, health promotion, promotion of life skills, and the prevention of addiction and violence in primary schools, i.e. for children between 6-10 years. The programme had been implemented in more than 600 schools by 2006.

### Pro-social behaviour

Many cross sectional studies show a not entirely unexpected correlation between wellbeing, social ties and pro-social behaviour e.g. participation, civic engagement, volunteering (Pressman and Cohen 2005, Diener and Seligman 2002, Lyubomirsky et al 2005). One longitudinal study found that wellbeing (positive affect) predicted participation in volunteering but volunteering also increased positive affect (Thoits and Hewitt 2001).

Social connectedness or emotional attachment, which may overlap with pro-social behaviour, may also be seen as indicators of positive mental health, rather than outcomes and therefore as contributing to the benefits of positive mental health (Dolan et al 2006). For example, measures of social integration are highly correlated with risk of coronary heart disease.

## 6.2 Psycho-biological pathways

Although the association between positive mental health and a given outcome may be robust, identifying mechanisms that explain the relationship is complex and challenging. Potential routes might include:

- health behaviour
- social networks
- stress buffering (psychological resources that influence recovery from stressful events)
- physiological responses

*Pressman and Cohen 2005*

Research in the field of psychobiology looks at how social factors (for example stress at work, marital satisfaction, low status) 'get under the skin' and influence physical health and physical disease outcomes (Step toe 2005). Key areas of inquiry include the relationship between chronic life stress exposure and physiological changes, the impact of 'negative emotions', including depression and the protective influence of social connectedness or social support.

What is emerging is evidence of a systemic physiological response to stress, via neuro-endocrine, cardiovascular and immunological pathways, which can be identified through changes in 'risk markers' for disease e.g. levels of cortisol, cholesterol, C-reactive protein and blood pressure. This can also be seen in the example of 'metabolic syndrome'. This is a combination of risk factors for cardiovascular disease, type two diabetes and liver disease that is linked to blood pressure, weight distribution, lipid levels, cholesterol levels and the way in which glucose is metabolised. Metabolic syndrome is strongly associated with chronic stress (Chandola et al 2006) and is also inversely related to positive social relationship histories (Ryff and Singer 2002).

Such studies demonstrate that psychological responses are an important pathway through which the stress associated with coping with deprivation and disadvantage influences physical health. A key finding is an increasingly sophisticated understanding of the consequences of triggering 'fight/flight' responses too often and for too long: '*the accumulation of small hits*'. Relatively low levels of stress that recur and endure over many years result in persistent low level activation of biological systems. This helps to explain the role of social position and socio-economic inequalities in increased risk for, for example, cardiovascular disease. Both the magnitude and the duration of the response to stress may be important in understanding the social gradient in stress related disease. One major study found a significant socio-economic difference in recovery time, with blood pressure failing to return to normal very much increased in people with a lower socio economic position (Step toe 2005).

The relationship between some of these markers of stress responses and high levels of depression is becoming more established and helps to explain why people who are depressed are at higher risk for coronary heart disease. There is also evidence, however, that these bio markers are influenced by positive affect or mood state: those people who were happy most of the time had substantially lower levels of cortisol (30-40% lower). This was independent of social status and also independent of GHQ scores (as a measure of psychological distress), providing further confirmation of the independence of positive and negative affect (Step toe 2005; Huppert 2008). These results were consistent at three year follow up, which also showed a correlation between happiness and lower blood pressure.

So far, we have described some of the evidence that suggests the protective and beneficial role of positive mental health and looked at some of the pathways through which mental health influences outcomes. The following sections explore the themes of protection, adaption and outcomes in more detail, looking at the contribution of mental health in three key areas: resilience, life-course and inequalities.

## 7. Resilience

*'Curing illness may not necessarily result in health'*

*Pat Barker 2000*

*'Even the most resilient child from a poverty-stricken area, for example, will never do as well in life as a more ordinary child from a wealthy background. To see this has to make us ask, well, what would that resilient child have been able to do, and to contribute to the community and the economy, if he or she had never had to overcome disadvantage?'*

*Mel Bartley 2006 p. 3*

Although material resources, socioeconomic position, health behaviours and genetic inheritance are significant health determinants, known risk factors do not explain all the variation in mortality, morbidity or in other outcomes e.g. education, crime, alcohol and drug misuse. Coronary heart disease is the classic health example: 20% of CHD patients have none of the four main risk factors (smoking, diabetes, high blood pressure, high cholesterol levels) and nearly 50% have only one (Stephens 2005). So known risk factors are only one part of the picture. Conversely, not everyone who is exposed has poor outcomes. In particular, classical epidemiology does not explain the factors and mechanisms that protect some individuals and communities notwithstanding adverse conditions/exposure. For example, the striking variation in rates of nearly all mental health problems both within and between countries raises important questions about what protects some individuals and groups from mental illness and highlights the need for more studies based on population rather than clinical samples (Patel and Goodman 2007).

An emerging literature on salutogenesis,<sup>22</sup> health assets, resilience and capability is centrally concerned with positive adaptation, protective factors and 'assets' that moderate risk factors and therefore reduce the impact of risk on outcomes (Bartley et al forthcoming). A WHO paper exploring the potential of health assets describes them as follows:

- high health assets producing a 'buffer' or 'resilience factor' in disease risk exposure;
- high health assets producing health as a positive entity (quality of life – wellbeing).

*Harrison et al 2004*

---

22. Salutogenesis asks, "What are the causes and distribution of health and wellbeing in this group, community or country population". Epidemiology asks "what are the causes and distribution of disease and early death in this group, community or population". (Harrison et al 2004 p. 9)

Such assets might be social or cultural and contribute to resilience at an individual or community level. They might contribute to outcomes or to resilient practices (e.g. development or sustenance of social networks) as a response to adversity (Bartley et al forthcoming). They might enable individual or collective resistance to factors that undermine health, for example racism or pollution. The literature on health assets, resilience and capability challenges the notion that individuals and communities are 'passive victims' of circumstance and could be seen as restoring agency, while also recognising the power of forces beyond individual control (Popay et al 2007). Recent thinking on agency also recognises the importance of 'other regarding agency' and the fact that part of some people's own freedoms may be enhanced by abilities to act on others' behalf (Alkire 2007 p.17).

In the literature on resilience explored below, the importance of the emotional and social dimensions of the lives and histories of individuals, families, organizations and communities emerges clearly. This suggests that mental health is a core element of health assets and that the skills and attributes associated with positive mental health confer protection. This might operate at the following different levels, (with implications for practice that are explored further in the conclusions and recommendations in Section ten):

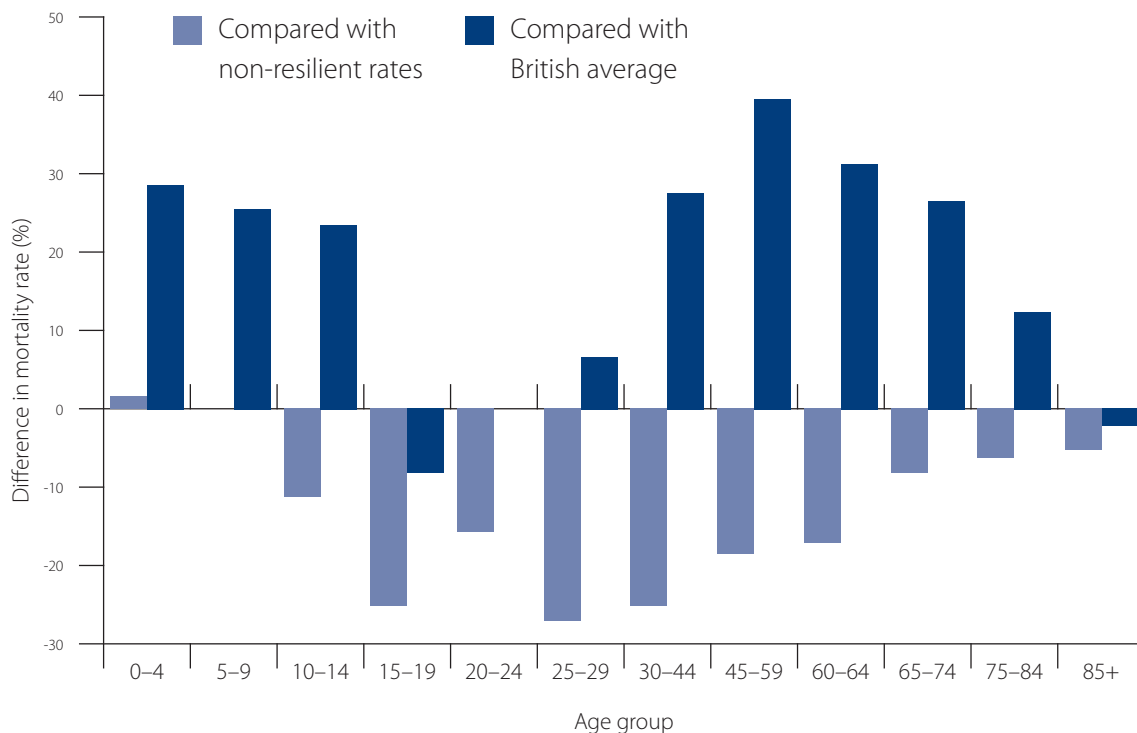
- environmental capital: structural factors and features of the natural and built environment that enhance community capacity for wellbeing;
- social capital: norms, networks and distribution of resources that enhance community trust, cohesion, influence and co operation for mutual benefit;
- emotional and cognitive capital as resources that buffer stress and /or determine outcomes and contribute to individual resilience and capability.

## 7.1 Resilient places

Research on resilient localities attempts to explain why poverty is more damaging to health in some contexts than in others and to identify the conditions that enhance the possibility of adaptation to adversity. Looking at the international data, what seems to distinguish resilient locations i.e. states that perform well in health terms relative to economic resources, (e.g. Kerala, Sri Lanka and Costa Rica), is land reform, female education and public health programmes (CSDH 2007). In Europe, Bartley and colleagues have suggested that diet (the availability of widely affordable fresh fruit and vegetables) and food preparation skills make a significant contribution to the resilience of low income communities in Mediterranean countries (Bartley et al forthcoming).

Within countries, some deprived localities also consistently 'over perform' or appear to be resilient: for example a study of mortality rates in Great Britain, United Kingdom, found significant differences between deprived areas that are resilient and non resilient: for 30-44 year olds this was in the order of 25% (Tunstall et al 2007). However, although the resilient constituencies have low mortality relative to their economic peers, their rates remain high (25%) relative to the British average (Figure 3). The effects of economic disadvantage on health in resilient localities are lessened, but not entirely removed – a characteristic finding from studies on resilience at all levels, as we shall show.

**Fig 3. Comparison between mortality in resilient and non-resilient constituencies, and between resilient constituencies and the British average (1996–2001).**



**Reproduced from Tunstall et al 2007**

The extent of differences in mortality between equally disadvantaged localities makes these important findings. It is not clear what factors weaken the impact of economic adversity in these resilient areas, but they might include selective migration, protective characteristics of the community e.g. collective efficacy or progressive local policies and/or, at a European level, different responses to post industrial decline (Tunstall et al 2007; Mitchell and Backett Milburn 2006; Walsh et al 2008; see also Doran et al 2006). Differential migration by people with multiple vulnerabilities, including mental health problems and/or physical illness, may create a sink effect in some poor areas, further reducing the resilience of communities. Discrimination e.g. the exclusion of people with mental or physical disabilities from employment may be a further important intervening variable.

Insights into this question come from other studies that form part of a major programme of research exploring common factors that make resilience possible and increase human capability (Bartley 2006). This defines 'capability and resilience' as the ability to react and adapt positively when things go wrong and suggests that 'these mostly have to do with the quality of human relationships, and with the quality of public service responses to people with problems' (Bartley 2006; see also Cummins et al 2007).

## 7.2 Resilient communities

A wide range of research demonstrates the health significance of social relationships and both formal and informal social systems as mediators of psychosocial stress resulting, for example, from inequality or economic transition. The relationship is not always clear cut (De Silva et al 2005, 2007). There are different forms of community cohesion with different effects, in low income countries, for example, or for particular groups where strongly bonded communities may exclude minorities.

Nevertheless, communities with high levels of social capital, indicated by norms of trust, reciprocity, and participation, have advantages for the mental health of individuals, and these characteristics have also been seen as indicators of the mental health or wellbeing of a community (Morgan and Swann 2004; Lehtinen et al 2005; McKenzie and Harpham 2006). The mental health of communities can be both a risk factor (e.g. the concept of social recession) and a protective factor (e.g. the application of herd immunity to mental health) (Stewart-Brown 2003). Hopelessness and a difficulty in imagining solutions, which are also risk factors for suicidal behaviour, are influenced by both neighbourhood culture and the physical environment.

For individuals, social participation and social support in particular, are associated with reduced risk of common mental health problems and better self reported health. Social isolation is an important risk factor for both deteriorating mental health and suicide (Pevalin, and Rose 2003; Social Exclusion Unit 2004).

The key question is the extent to which social capital mediates the effects of material deprivation. Many studies have found that social support and social participation do not mediate these effects (Mohan et al 2004; Morgan and Swann 2004). A recent ecological study of 23 high and low income countries found no significant association between trust and adult mortality, life expectancy and infant mortality. Rather the results supported the importance of both absolute and relative income distribution (Lindstrom and Lindstrom 2006).

This does not mean that neighbourhood effects are insignificant: we know that indicators of social fragmentation and conflict in communities, as well as high levels of neighbourhood problems influence outcomes independently of socio-economic status (Agyemang et al 2007; Steptoe and Feldman 2001). Mistrust and powerlessness amplify the effect of neighbourhood disorder, making where you live as important for health and wellbeing as personal circumstances (Krueger et al 2004). Risk of violence is constructed by locality: by economic deprivation and by levels of inequality (as well as by gender and by ethnicity) (Krantz 2002; Krueger et al 2004).<sup>23</sup>

Poor, socially disorganised neighbourhoods have higher rates of violence and strong norms of violence. The social variables which predict suicide, (which is more strongly associated with social fragmentation than with deprivation), also predict violence to others. Socially disorganised areas provide a dangerous mix: large numbers of potential offenders who have few opportunities other than crime, many potential victims, and few social organizations or individuals who are capable of protecting others from violence (Krueger et al 2004). Area level effects may be particularly significant for some causes of mortality: in Scotland, for example, increases in inequalities in mortality are driven by increases in death rates at a young age in areas of high deprivation, for example for liver disease, suicide and assault and mental and behavioural disorders due to drugs (Leyland 2007).



It may be that negative symptoms of low morale and psycho-social vulnerability in communities, including anxiety, paranoia, aggression, hostility, withdrawal and retreat, have a greater power than protective factors, or, as we saw in relation to resilient places, that material resources outweigh other factors.

### 7.3 Resilient individuals

At an individual level, good mental health confers considerable protection. For example, there is a clear gradient in the relationship between emotional adjustment in children and subsequent crime, misuse of drugs and alcohol, smoking and suicide rates. Those children with conduct disorders have worse outcomes than children with some behavioural problems, who do worse than children with normal adjustment levels (Fergusson et al 2005; Friedli and Parsonage 2007).

Cognitive ability and emotional adjustment influence readiness for school or learning and capacity, motivation and rationale for healthy behaviours. There is a strong relationship between the 'home learning environment' and positive cognitive and social skills which continue to influence outcomes throughout primary school (Sylva et al 2007). Low cognitive ability in childhood is also associated with adverse mental health outcomes in mid adulthood: higher childhood cognitive scores were associated with fewer symptoms of anxiety and depression in women (Feinstein and Bynner, 2004). In young adulthood through to later life there is a persistent relationship between low levels of mental wellbeing and neglect of self, neglect of others and a range of self harming behaviours, including self sedation and self medication e.g. through alcohol, high fat and sugar consumption.

It is not always clear whether the most significant factor is emotional wellbeing or cognitive ability. Intelligence has been described as "cognitive capital", that provides protection through mediating:

- early circumstances that influence health (material, family interaction)
- acquisition of factors that influence health – material, psycho social capital, status, control, wellbeing)
- self care/health literacy
- cognition as a biomarker of underlying physiological processes that regulate health.

*Batty et al 2006a*

---

23. The finding that both violence and teenage births are associated with relative, rather than absolute poverty may reflect gender differentiated responses to low social status (Pickett et al 2005) and is consistent with wider evidence on gender differences in how mental distress is expressed.

While a number of studies show that childhood IQ protects against harmful health related behaviours and chronic disease, in most cases this is largely (but not wholly) explained by educational attainment or adult SES (Box 8; Deary and Batty 2007).

**Box 8: Resilience and cognitive ability**

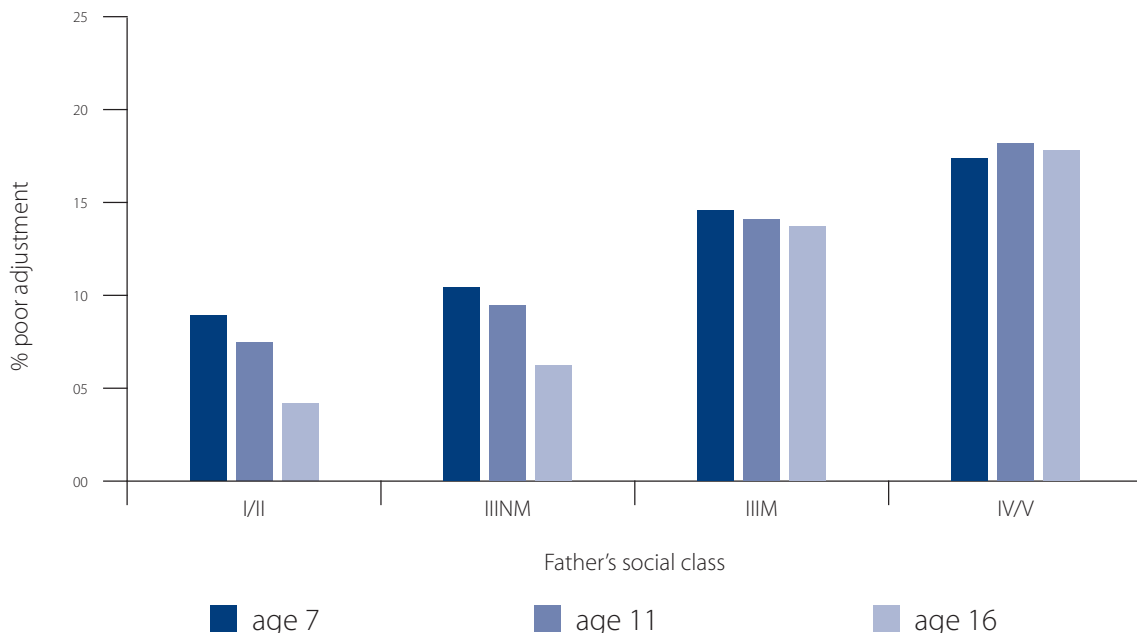
Low IQ scores ascertained in childhood, early adulthood, mid-life, and older age are associated with elevated rates of later death and disease; IQ scores are socially patterned;

In our analyses, only one fifth of socioeconomic-health gradients were reduced to statistical non-significance ( $P > 0.05$ ), and in half of the associations examined the risk of ill health in the socioeconomically disadvantaged group was still twice that of the advantaged group. These observations notwithstanding, all the relations were markedly attenuated when we added IQ to the sex adjusted models. The degree of this attenuation depended on the indicator of socioeconomic position and health under consideration.

Batty et al 2006b

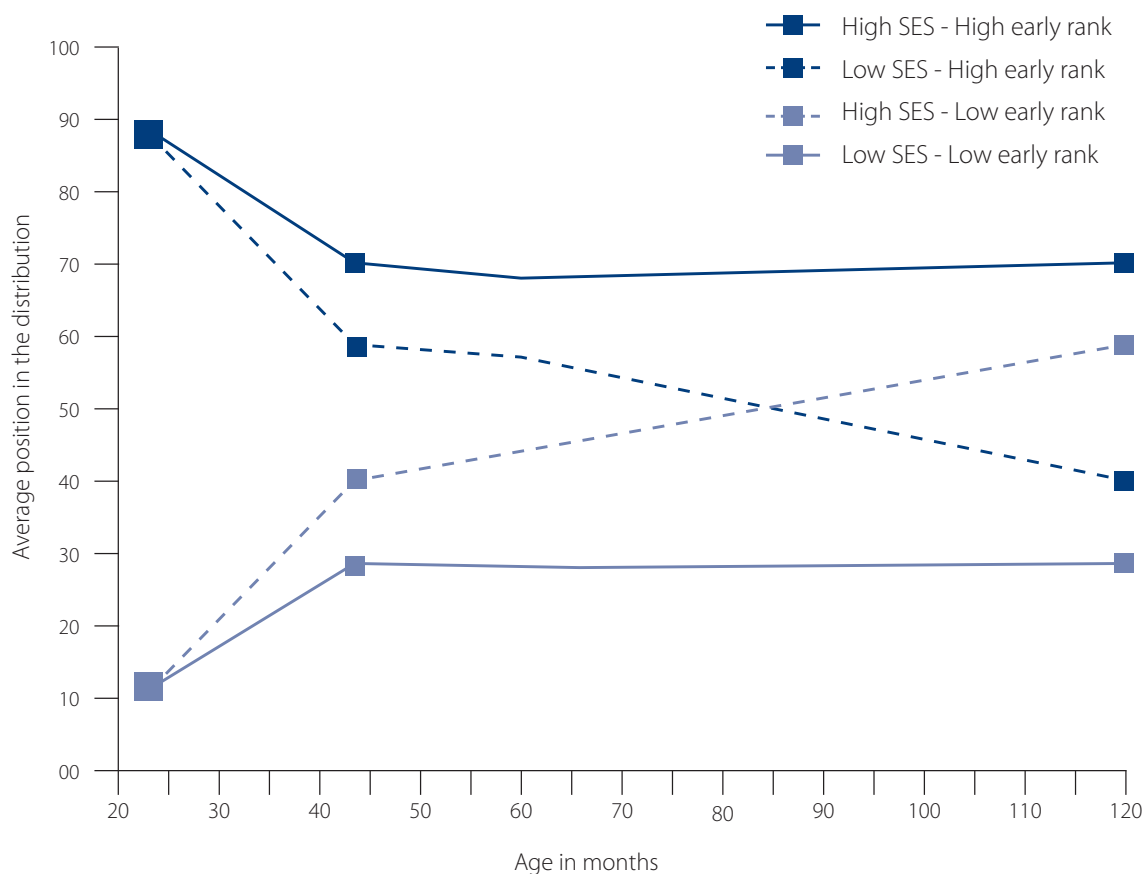
Research on emotional adjustment looks at attachment and the security of attachments in close relationships in an attempt to establish a childhood contribution to adult resilience, notably in the face of adverse social environments e.g. fragmented or deprived neighbourhoods (Stansfeld et al 2004; Fagg et al 2006).

**Fig 4. Rates of poor social/emotional adjustment, by father’s social class at birth. Source: Power and Matthews, 1997 cited in Graham and Power 2004**



Economic adversity has a significant influence on the risk of poor adjustment and there are marked socio-economic gradients in social and emotional adjustment across childhood, with no evidence that the gradients narrow as children get older (Figure 4). A considerable body of research suggests that socioeconomic status patterns anxiety, aggression, confidence, emotional and cognitive development, concentration and hence readiness for school. For those who are poor, the effects of material disadvantage are only partially offset by better emotional and cognitive skills. Children showing initial positive adjustment may falter later, because support structures are lacking. By the age of six, poor bright children have been overtaken by less able children from well-off homes (Figure 5). Studies following children's progress show that these trends persist. At age 16, children from economically disadvantaged backgrounds with above-average reading skills early in life do worse in their exams than economically privileged children who had lower reading skills at age 5. High ability in early life is generally not able to protect against the effects of childhood economic disadvantage (Bartley 2006; Schoon 2006).

**Fig 5. Progress in educational outcomes for very young children by socio-economic status at birth**



**Source: Feinstein 2003 cited in Equalities Review 2007 p. 49**

These findings do not contradict the evidence from studies showing the protective advantages of emotional and cognitive capital and secure attachment: the influences of parenting on child development are profound and pervasive. The EPPE study showed that the strongest effect on children's resilience (defined as better than expected attainment) at ages 5 and 10 was their level of self regulation (independence and concentration) at the start of school (Sylva et al 2007). Sources of resilience are even more important for children in low income homes. These include:

- breast feeding (see for example Montgomery Scott et al 2006)
- parental beliefs and behaviour that promote self esteem
- social support and support from other adults e.g. grandparents
- quality of the home learning environment.

Poor children with resilient factors do better on a range of indicators – *but they do so in relation to their equally poor peers*. The impressive results of pre-school programmes for deprived children e.g. Perry High Scope show that those on the programme did very much better than those not on the programme (Schweinhart et al 2005). However, better off children had better outcomes without a programme (Bartley 2006). The EPPE study also found that for disadvantaged children, attending a high quality school or having a good home learning environment were not enough on their own: they required both to overcome disadvantage (Sylva et al 2007).

Although much of the focus is on early years, resilience in adolescence also has powerful effects, leading to an increased likelihood of escape from social and economic disadvantage, a lower risk for psychological problems in adulthood and protection in the context of continuing disadvantage. Adolescent resilience delays the timing of life transitions such as marriage and parenthood to a more 'age-appropriate' time, as well as providing individuals with the resources to handle the stresses involved in these transitions (Sacker et al 2002; Sacker and Schoon 2007). The RELACHS study also found that largest part of the variability in adolescent 'strengths and difficulties' (SDQ as a measure of mental health) was associated with individual characteristics.<sup>24</sup> Most of the adolescents in this study were living in areas of high social disadvantage but the greatest distress scores were for White adolescents, compared with both Asian and Black groups. Individual or family level protective factors or psychological resilience had a significant influence in the face of urban deprivation (Fagg et al 2006; Stansfeld et al 2004). Both those in families with harmonious relationships and those with no financial stress had significantly lower SDQ scores i.e. better mental health.

---

24. Research with East London Adolescents: Community Health Survey (RELACHS). The survey collected data on mental health measured by the Strengths and Difficulties Questionnaire (SDQ), and on various aspects of individual and family circumstances.

## 7.4 Resilient policies

These themes have also been addressed at a policy level, in international comparative studies looking at how social welfare policies and practices build or undermine resilience in poor households (Jones et al 2006; see also Navarro et al 2004; Starfield and Birn 2007). For example, the data show that poverty is both more prevalent and also more damaging to health in the United Kingdom than in Sweden and that key aspects of the social and policy context add to and reinforce the negative experience of being poor and vice versa (Jones et al 2006). Commenting on the study in relation to debates about resilience, Whitehead (Whitehead and Dhalgren 2006) says:

*“For too long, concepts of welfare dependency and the deficit model in relation to these families have gone unchallenged. Yet Jones’ recent data, for example, reveal that many clients, despite considerable misfortune, have qualities of resilience which often go unacknowledged. Instead of pathologizing them as problems, there is a need to analyse how these families manage and cope in often dire circumstances”*

This comparative study adds to other evidence suggesting that welfare regimes, political ideologies and associated power relationships all influence health (Starfield and Birn 2007) and notably, that contact with public welfare that transmits or reproduces stigma and humiliation has a significant influence on health and wellbeing. This research also echoes evidence from mental health service users about the negative influence of low expectations and discriminatory attitudes among professionals (Social Exclusion Unit 2004; Mental Health Foundation 2000).

*In Britain it is very evident that some of the poorest people feel abused and disrespected by public welfare provision and are hurt by the manner in which they are characterized by the tabloid press. Not only do they get less welfare than their Swedish counterparts, but they receive it in a context that is often dehumanizing and unpleasant.*

*Jones et al 2006 p. 430*

These findings are of special significance in relation to mental health on a number of different levels. They confirm the relationship between the erosion of the scaffolding of mental wellbeing – respect, dignity, self esteem, identity and justice – and health outcomes. But they also highlight the weaknesses of understanding the adverse outcomes associated with poverty in terms of individual, behavioural, psychological, and moral failings. See Box 9.

### Box 9: Poverty and powerlessness

*It is evident that the consequences of an individualized view of poverty can often be devastating... The sheer lack of respect and understanding given to the disadvantaged in Britain is highly corrosive of wellbeing, and all the more so because it is constant and overwhelming. We have had welfare recipients tell us how every interaction they have with the official welfare world is negative: no one has a good word to say to them; they spend hours shuttling between agencies in grimy offices that reinforce their powerlessness. Their time is of no account because they are considered to be of no account.*

Jones et al 2006 p. 439

By contrast, studies of lay perceptions of health inequalities in the United Kingdom show that among all lower socioeconomic groups there was widespread acceptance of the idea that sharp inequalities exist and that these are linked to health (Davidson et al 2006). These views are much less marked in higher SES groups, who were more likely to see health as a result of life style choices, rather than social conditions. Among poorer respondents, people often identified mental stress as a mediator between socioeconomic circumstances and poor health as well as the direct health implications of, for example, poor housing. People routinely compared themselves to others in constructing their identities, *"they could readily identify with people who don't have a 'sense of pride' because they sometimes struggled to maintain their own and were acutely aware of how they were judged by others"* (p. 2178). Davidson et al concluded: *"People at the bottom of the social hierarchy have to bear the direct consequences of their poverty alongside living in a society which also makes them acutely aware of the goods and privileges they lack"* (p. 2180).

A comprehensive body of qualitative research looking at United Kingdom lay beliefs specifically about 'looking after your mental health' also found sophisticated frameworks for explaining causes of mental stress. Focus groups in Northern Ireland listed:

*financial worries; work stress or unemployment; family relationships; health of family; relationship breakdown; lifestyle too busy; no free time; loneliness; medication; not being helped; bullying; alcoholism/drug abuse.*

Once some of the taboos and language barriers around the term 'mental' had been addressed, it was clear that many people are aware of their own mental health (however that is described or conceptualised) and what influences it, and have a wide range of strategies for coping with adversity, keeping their spirits up and dealing with low mood, stress and anxiety (Friedli et al 2007).

## 8. Life course

*"Tend to the social and the individual will flourish"*

*Jonathan Rutherford 2008 p. 18*

A life course approach maps the links between childhood circumstances and adult outcomes using birth cohort studies. In particular, research in this area has demonstrated clear pathways through which inequalities from conception, early childhood and through adolescence contribute to poor health in adulthood (Graham and Power 2004). Life course studies have highlighted the importance of critical points of transition – pre-school, going to school, the move to high school, starting work, redundancy, retirement and bereavement – that influence and are influenced by emotional, cognitive and social development. Outcomes in education and criminal justice as well as teenage pregnancy are key examples. Looking across the life cycle, the rich get richer in terms of mental health, while classes four and five get poorer (Blaxter 1990).<sup>25</sup> The mental health impact of adversity in later life is mediated by social factors and psychological robustness inherited from earlier years (Rogers and Pilgrim 2003).

Life course research also demonstrates that *'disadvantage is not an event that strikes at a single point'* (Graham and Power 2004 p. 1) and has a cumulative impact on the development of the resources children need to secure health. Above all, a life course approach has highlighted the centrality of mental health to children's life chances. Emotion (self esteem, self efficacy), cognition (readiness to learn) and a positive social identity have been described as the 'personal capital' of children, an accumulating set of assets influencing a wide range of health outcomes both in childhood and in later life (Poulton et al 2002; Kuh et al 2004). This is evident in the intersection of deprivation and social development, for example, children who fail at school investing in identities that do not depend on success at school and seeking alternative sources of affirmation. Gender has a strong influence on these pathways, partly because of its importance in establishing identity and ethnicity may also be significant (Wickrama et al 2005).

Mental health may be a key factor in explaining the power of the life course model in predicting outcomes. Disadvantage in early life makes an important contribution to poor health in adulthood; emotional and behavioural problems are both an important cause of disability in childhood and predict poor health in later life. The associations are stronger if exposure occurs at specific points or there are accumulated effects e.g. of socioeconomic deprivation or clustering (Galobardes et al 2004). Controlling for adult socio-economic status attenuates the relationship, but the risk from childhood remains, demonstrating that childhood and adult circumstances contribute independently to health outcomes and that the strength of childhood influence varies for different outcomes.

One hypothesis would be that outcomes most strongly influenced by mental health are likely to be *those where childhood circumstances have the greatest impact and that these intersect with those outcomes most strongly influenced by social position*. The following case study looks at outcomes for young people with conduct disorder in childhood, drawing on data from a 25 year longitudinal study.

---

25. Depression and poor mental health contribute significantly to poor physical health outcomes for older people and are correlated with significantly increased use of services. Older people with CIS-R scores of 12 are five times more likely to report difficulties with daily living (Evans et al 2003).a

## 8.1 Life course: a case study - young people and conduct disorder

This case study, drawn from research on the economic impact of mental health problems, helps to demonstrate the lifetime impact of poor mental health (SCMH 2003; Friedli and Parsonage 2007).

Conduct disorder is the most common mental health problem in childhood. In about 40% of cases it persists into adulthood and is strongly predictive of a range of poor outcomes, including criminal behaviour, substance misuse, poor educational and labour market performance and disrupted personal relationships (Stewart-Brown 2004; Scott et al 2001). This combination of early manifestation and persistence over the lifetime is a significant feature of mental health problems that is untypical of poor health generally and is one of the major reasons why mental health problems have such a profound impact across the life course. Conduct disorder affects 5.8% of all children in Great Britain between the ages of 5 and 16, with the rate rising from 4.9% among those aged 5-10 to 6.6% among those aged 11-16 (Green et al 2005). Prevalence is roughly twice as high among boys as among girls.

### Longitudinal evidence on adult outcomes

A study by Fergusson et al (2005) provides data from a 25-year longitudinal study of a birth cohort of young people in New Zealand. Information was collected on child conduct problems at age 7-9 and subsequently on a wide range of outcomes in early adulthood, including crime, substance use, mental health, suicide, sexual/partner relationships and education/employment.

The sample population in the New Zealand survey can be divided into three broad groups, corresponding to:

- those with no conduct problems at age 7-9 years (50%)
- those with some conduct problems (45%)
- those with conduct disorder (5%)

The New Zealand figure of 5% for the size of the most disturbed group corresponds closely with the estimate of 4.9% quoted above for the prevalence of childhood conduct disorder among 5-10 year olds in Great Britain.

The New Zealand survey confirms the evidence of other longitudinal studies that conduct problems in childhood are associated with a wide range of adverse consequences in later life. This association holds true even after controlling for potentially confounding factors such as individual intelligence and socio-economic disadvantage in early life. It is found, for example, that those in the bottom 5% in terms of disturbed childhood behaviour are four times as likely as those in the top 50% to have committed a violent offence by age 25, three times as likely to have attempted suicide and nearly three times as likely to have become a teenage parent, after controlling for other potential influences in each case, and nearly one and a half times more likely to have no qualifications (figure 6).<sup>26</sup>

---

<sup>26</sup> The lifetime pay of someone without qualifications is about 44% of the national average.



**Fig 6. Long term outcomes associated with childhood behavioural problems**

|   | <b>crime</b> | <b>smoking</b> | <b>drugs</b> | <b>depression</b> | <b>suicide</b> | <b>no quals</b> |
|---|--------------|----------------|--------------|-------------------|----------------|-----------------|
| • top 50%<br>(no conduct problems)      | <b>1.00</b>  | <b>1.00</b>    | <b>1.00</b>  | <b>1.00</b>       | <b>1.00</b>    | <b>1.00</b>     |
| • middle 45%<br>(some conduct problems) | <b>1.95</b>  | <b>1.24</b>    | <b>1.51</b>  | <b>1.24</b>       | <b>1.69</b>    | <b>1.18</b>     |
| • bottom 5%<br>(conduct disorder)       | <b>4.13</b>  | <b>1.59</b>    | <b>2.39</b>  | <b>1.57</b>       | <b>3.00</b>    | <b>1.45</b>     |

**Source: Friedli L and Parsonage M (2007) Mental health promotion: building an economic case**

Based on these outcomes, both prevention and promotion would achieve considerable economic benefits:

- **Prevention:** prevention is defined here in terms of early intervention to help those who would otherwise be in the most disturbed 5% of the childhood population (i.e. those with conduct disorder), such that they are able to achieve the same adult outcomes as those in the middle 45% (i.e. those with some conduct problems in childhood but not conduct disorder). The associated saving in lifetime costs is estimated at around £230,000 per case. Savings in costs relating to crime are the largest component, accounting for 71% of the total, followed by savings in costs resulting from mental illness in adulthood (13%) and increases in lifetime earnings (7%).
- **Promotion:** promoting positive mental health is defined here in terms of action to help those in the middle 45% of the childhood population (“moderately mentally healthy”) to achieve the same adult outcomes as in the top 50% (“flourishing”). The lifetime benefit is estimated at around £115,000 per case, which is more or less exactly half the benefit of preventing a case of childhood conduct disorder. Again savings in crime costs are the largest single element (61% of the total), followed by savings in the costs of adult mental illness (19%) and increases in lifetime earnings (9%).

*Friedli and Parsonage 2007; see also Scott et al 2001*

In a similar economic analysis of early childhood interventions across the USA, working with children and parents to improve readiness for school, Karoly shows a rate of return for each dollar invested of 3:1 and 7:1 up to age 21, 9:1 at 27 and 17:1 at 40 (Karoly et al 2003).

## 9. Mental health and inequalities: pathways of influence

*"The poor will always be with us, but what it means to be poor depends on the kind of 'us' they are 'with.'"*

*Zygmunt Bauman*

*"... a country will have a higher level of average happiness the more equally its income is distributed."*

*Layard 2005, p. 52*

As we have noted, the relationship between a) health, b) material circumstances (indicators of wealth and income) and c) inequalities (indicators of socioeconomic position) is the subject of debates that have very significant implications for mental health. If relative deprivation is the major determinant of health, then emotional and cognitive responses to inequality are of crucial importance.<sup>27</sup>

Rogers and Pilgrim (2003) highlight three key issues in understanding the mental health impact of socio-economic inequalities:

- social divisions - mental health problems both reflect deprivation and contribute to it
- social drift - the social and ecological impact of adversity, including the impact of physical health problems and the cycle of invisible barriers which prevent or inhibit people from benefiting from opportunities
- social injuries – mental distress as an outcome of demoralisation and despair.

Poor mental health is thus both a cause and a consequence of the experience of social, economic and environmental inequalities. Mental health problems are more common in areas of deprivation and poor mental health is consistently associated with unemployment, less education, low income or material standard of living, in addition to poor physical health and adverse life events. Lone parents, those with physical illnesses and the unemployed make up 20% of the population, but these three groups contribute 36% of all those with neurotic disorders, 39% of those with limiting disorder and 51% of those with disabling mental disorders (Melzer et al 2004).

A preliminary analysis suggests that higher national levels of income inequality are linked to a higher prevalence of mental illness and, in contrast with studies of physical morbidity and mortality, as countries get richer rates of mental illness increase (Pickett et al 2006). As comparable data for more countries become available, it will be possible to estimate the independent, ecological associations between mental health, inequality and income levels.

---

27. If the European Union would succeed in reducing all health inequalities by 10% (25%), economic benefits would amount to €14 (35) billion Euros through gains in health as a 'capital good', €70 (175) billion through gains in health as a 'consumption good', €18 (44) billion through reduced health care costs, and €6 (15) billion through reduced social security costs (Mackenbach et al 2007 p. 51)

Richard Wilkinson's work analyses relative deprivation as a catalyst for a range of *feelings* which influence health through physiological responses to chronic stress, through the damaging impact of low status on social relationships and through a range of behaviours seen as a direct or indirect response to the social injuries associated with inequalities (Wilkinson 1996, 2005). These 'relational features of deprivation' have stimulated a greater focus on the psycho-social dimensions of poverty, for example being ashamed to appear in public and not being able to participate in the life of the community (Zavaleta 2007).

Recent analysis also suggests a significant relationship between inequality and levels of violence, trust and social capital (Wilkinson and Pickett 2007b). Rutherford has suggested that "*Violence is more common where there is more inequality because people are deprived of the markers of status and so are more vulnerable to the anxieties of being judged by others*" (Rutherford 2008 p. 15). Taking the UNICEF data on children's wellbeing as a starting point, Pickett and Wilkinson found that adolescent pregnancy, violence, poor educational performance, mental illness and imprisonment rates were all higher in more unequal countries and in more unequal states within the USA (Box 10). Unicef looked at 40 indicators (for the period 2000-2003) covering material wellbeing, family and peer relationships, health and safety, behaviour risks, education and sense of wellbeing. Those countries at the top of the list: the Netherlands, Sweden, Denmark and Finland were also those with the lowest levels of relative income poverty. Those with the highest levels of inequality, the United Kingdom and the USA, scored lowest for most measures of children's wellbeing. The UNICEF data suggests that children's responses to inequality are similar to those found in the adult population and are similarly related to the effects of social status differentiation: greater inequality heightens status competition and status insecurity (and does so across all income groups) (Wilkinson and Pickett 2007a).

#### **Box 10: Child wellbeing and income inequality**

The overall index of child wellbeing was closely and negatively correlated with income inequality ( $r=-0.64$ ,  $P=0.001$ ) and children in relative poverty ( $r=-0.67$ ,  $P=0.001$ ) but not with average income ( $r=0.15$ ,  $P=0.50$ ). (p. 1)

Adjustment for income inequality or children in relative poverty did not change the lack of association between child wellbeing and average income in rich countries.

Income inequality at the state level (USA) was significantly correlated with rates of teenage births, juvenile homicides, infant mortality, low birth weight, child overweight, mental health problems, and high school dropouts as well as with worse educational scores (p. 4)

For the UNICEF index, higher levels of inequality measures were significantly associated with worse outcomes for infant mortality, low birth weight, polio immunization, average maths scores, the proportion of teenagers in further education, fewer children saying their peers are kind, teenage birth rates, experience of bullying, and childhood overweight (p. 4)

Source: Pickett K and Wilkinson R (2007) Child wellbeing and income inequality in rich societies: ecological cross sectional study *British Medical Journal*

The recently published European 'Happy Planet' index for EU countries found that inequalities of income, education, health and social opportunity are the key factors that have a damaging impact on wellbeing, with overall sense of wellbeing largely determined by income equality, trust within the population and voluntary and political engagement (Thompson et al 2007).

The impact of inequality has been explored further in an analysis of 126 countries worldwide (Dorling et al 2007). This study is significant because it demonstrates that the relationship between inequality and mortality is not confined to developed nations and that the impact of inequality on health varies with age, with the greatest impact on mortality in OECD countries at ages 15-29 and at ages 25-39 worldwide. Although psychosocial stress is unlikely to be the only explanation, harm from competition and protection from cooperation appear to have the strongest effect in early to middle adulthood. This analysis also shows that *"as inequality reaches its maximum influence, affluence reaches its minimum, perhaps confirming wider hypotheses about a tipping point in the mental health of richer countries"* (Dorling et al 2007). It is also worth noting that the contextual effects of inequalities mean that even localities (or people) at the same level of income will have lower mortality if they are in more, rather than less, equal states. Equality produces benefits that are widely shared across all income groups (Wilkinson and Pickett 2007a).

The fact that the experience of relative deprivation influences health does not diminish the importance of access to material resources that support health and wellbeing. Nor does it imply that people should or could, adapt emotionally or cognitively to inequity. As we have seen, Amartya Sen has argued that the *'ability to go about without shame'* is a basic human freedom. Sen draws on the observation by Adam Smith, writing in 1776, that *'a creditable day labourer would be ashamed to appear in public without a linen shirt'* (Sen cited in Zavaleta 2007). In 18<sup>th</sup> century Europe, the absence of a linen shirt was an indicator of a certain level of poverty, but it was also an indicator of a feeling – shame – that erodes the self esteem, self worth, agency and confidence that are essential to flourishing mental wellbeing. Bringing together wellbeing measures and measures of poverty and relative deprivation will contribute significantly to efforts to understand and improve both mental health and levels of inequality.

## 10. Conclusions

*"Imagining the possibility of another way of living together is not a strong point of our world of privatised utopias"*

*Zygmunt Bauman 2005 p. 117*

*"Consumption offers the pleasurable pursuit of desire, but it is also a mass symbolic struggle for individual social recognition, which distributes shame and humiliation to those lower down the hierarchy. The pain of failure, of being a loser, of being invisible to those above, cuts a deep wound in the psyche."*

*Rutherford 2008 p. 14/15*

The findings explored in this report have a number of implications. They confirm that mental health is a fundamental element of the resilience, health assets, capabilities and positive adaptation that enable people to cope, to flourish and to experience good health and social outcomes. Improving mental health brings significant benefits for health and quality of life, for individuals and for communities: these benefits are not only or necessarily the result of the absence of mental illness, but are due to aspects of positive mental health. Mental health is also a key factor in explaining the power of the life course model in predicting outcomes and highlights the centrality of emotional wellbeing to children's life chances. Self esteem, self efficacy, readiness to learn and a positive social identity are protective assets, influencing a very wide range of health and social outcomes. Evidence that risk from childhood contributes independently to health in adulthood reinforces the importance of conditions that support children's mental health as well as the importance of a life span approach to mental health promotion and "early" intervention.

Mental health is also a key pathway through which inequality impacts on health. There is overwhelming evidence that inequality is a key cause of stress in itself and also exacerbates the stress of coping with material deprivation. This chronic stress is written on the body through specific physiological reactions, which are triggered by conscious and unconscious emotional and cognitive responses. Social position influences level and duration of exposure to the social injuries associated with low status, and also capacity to recover – socio-economic differences in the time it takes for blood pressure to return to normal after a stressful event are a compelling example of this. The fact that poverty is more damaging in some circumstances than in others highlights the urgent need to address policy responses that underline precisely those characteristics that individuals and communities need to survive adversity: respect, dignity, self esteem, positive identity and connectedness. Evidence of the shame and humiliation that accompany poverty demonstrates the importance of addressing both the material and social dimensions of deprivation. Mental health is produced socially: the presence or absence of mental health is above all a social indicator and therefore requires social, as well as individual solutions. A focus on collective efficacy, as well as personal efficacy is needed (Bandura 2000 cited in Alkire 2007 p. 15). Opportunities for individuals and communities to retain or achieve social recognition and to stay or become connected, contribute significantly to resilience, but social recognition and collective activity are frequent casualties of current economic and cultural trends.

Health behaviour is a further significant pathway. Capacity, capability and motivation to choose health are strongly influenced by mental health and wellbeing and there is a growing emphasis on cognitive approaches to achieving behaviour change. At the same time, the relationship between behaviour, (including rates of violence and teenage births), and relative deprivation raises serious questions about framing health behaviour in terms of individual 'lifestyle' choice or cognitive deficits. Health damaging behaviours may be a rational option or survival strategy in the context of material struggle that is intensified by constant reminders of low status.

A greater understanding of inequalities also helps to explain the limits of what promoting positive mental health can achieve. Greater recognition of the importance of psychological assets needs to be matched by efforts to tackle the conditions that undermine emotional resilience, especially for children.

In their report for the Commission on the Social Determinants of Health, Whitehead and Dahlgren (2006) argue that key inequalities in outcomes relate to:

- behaviour
- health
- the consequences of illness
- access to services.

A wealth of existing research exists to suggest that mental health is a significant determinant in each case, influencing:

- capacity and motivation for healthy behaviours
- risk for physical health (e.g. coronary heart disease)
- chronic disease outcomes (e.g. diabetes)
- relationship to health services, including uptake and treatment (e.g. patterns of concordance).

Although it is frequently noted that health enables a person to function as an agent and contributes to inequalities in people's capability to function, it is *mental health* that constitutes a key determinant of agency and helps to explain the relationship between low levels of mental wellbeing and neglect of self, neglect of others and a range of self harming behaviours, including self sedation and self medication e.g. through alcohol, high saturated fat and sugar consumption. At the same time, this report has highlighted the evidence that the importance of mental health is directly and indirectly related at every level to human responses to inequalities.

## 10.1 Implications for policy and practice

This report highlights the importance of policies and programmes to support improved mental health for the whole population. There are already many examples of good practice in promotion and prevention (WHO 2004a, b). The priorities now are to achieve greater commitment to public mental health in all 53 Member States of the WHO European Region and to stimulate increased efforts and action in the following areas. For each area examples of possible policy interventions are given:

### 1. Social, cultural and economic conditions that support family life

- systematically work to reduce child poverty
- support parents and the development of children in early years through parenting skills training and high quality pre-school education
- strengthen inter agency partnerships to reduce violence and sexual abuse
- increase access to safe places for children to play, especially outdoors
- make the business case for good work/life balance and provide adequate maternity and paternity leave.

### 2. Education that equips children to flourish both economically and emotionally

- increase uptake of the health promoting schools approach, involving teachers, pupils, parents and the wider community
- support parents to improve the home learning environment (HLE)
- value social, sports and creative achievements, as well as academic performance.

### 3. Employment opportunities and workplace pay and conditions that promote and protect mental health

- support efforts to improve pay, working conditions and job security, notably for the most vulnerable workers
- make the business case for improving job control, social support and effort/reward imbalance
- early referral to workplace based support for employees experiencing psychiatric symptoms or personal crises to avert employment breakdown.

#### **4. Partnerships between health and other sectors to address social and economic problems that are a catalyst for psychological distress**

- improve access to non medical sources of support through social prescribing/community referral or co production models e.g. timebanking, to address basic skills, housing/transport problems, debt, isolation, limitations in daily living, opportunities for arts, leisure and physical activity etc.

#### **5. Reducing policy and environmental barriers to social contact**

- policy responses to personal misfortune e.g. poverty, unemployment and other adversity should not stigmatise or blame the victims
- develop community transport schemes
- promote volunteering and develop 'social outcome' indicators
- work with planners to introduce/re-introduce 'stop and chat' public spaces
- ensure that public spaces such as shopping malls do not exclude specific groups, for example teenagers.

In addition to specific interventions and initiatives, a key goal is to encourage policy makers across all sectors to think in terms of 'mental health impact'. Economic growth at the cost of social recession is not a sustainable strategy for Europe. This means that at the heart of questions concerning 'mental health impact' is the need to protect or recreate opportunities for communities to remain or become connected. Understanding the importance of mental health has the potential to contribute significantly to new thinking about sustainable economic growth and achieving greater social cohesion in the face of major demographic and political change across the region. The quality of social relationships is a key factor in individual and collective resilience in the face of adversity and a complex combination of individual, cultural, environmental and economic factors impact on our capacity to build and maintain relationships. These include such diverse aspects of life as social skills, food preparation, transport, child friendly spaces, work/life balance, access to green, open spaces, financial security and informal labour markets, as well as opportunities for collective organization and action.

It has been said that the public mental health equivalent of sewers and clean water are respect and justice. This suggests that important as specific interventions are – in early years, in schools, in the workplace, in neighbourhoods and in primary care – the urgent policy priority is to promote and protect respect and justice – the underlying principles that support mental wellbeing.



## 11. References

- Adi Y et al. (2007) Systematic review of the effectiveness of interventions to promote mental wellbeing in children in primary education: Report 1: Universal Approaches Non-violence related outcomes. Warwick  
(<http://www.nice.org.uk/guidance/index.jsp?action=download&o=36337>).
- Agyemang C et al. (2007) The association of neighbourhood psychosocial stressors and self-rated health in Amsterdam, the Netherlands. *Journal of Epidemiology and Community Health* 61:1042-1049.
- Alkire S (2007) Concepts and Measures of Agency. Oxford, Oxford University Press Oxford Poverty and Human Development Initiative ([www.ophi.org.uk](http://www.ophi.org.uk)).
- Anderson J, Huppert F, Rose G (1993) Normality, deviance and minor psychiatric morbidity in the community. A population-based approach to General Health Questionnaire data in the Health and Lifestyle Survey. *Psychological Medicine*, 23:475–85.
- Barker P (2000) The national service framework for mental health *Mental Health Review*, 5:14-6.
- Barry MM and Jenkins R. (2007) *Implementing Mental Health Promotion* Oxford, Churchill Livingstone, Elsevier.
- Bartley M (ed.) (2006) *Capability and Resilience: beating the odds*. ESRC Human Capability and Resilience Research Network London, UCL Department of Epidemiology and Public Health.  
([www.ucl.ac.uk/capabilityandresilience](http://www.ucl.ac.uk/capabilityandresilience)).
- Bartley M et al. (forthcoming) Resilience as an asset for healthy development. In: *Health Assets and the social determinants of health*. WHO Regional Office for Europe.
- Batty GD et al. (2006) Does IQ explain socioeconomic inequalities in health? Evidence from a population based cohort study in the west of Scotland. *British Medical Journal* 332:580-584.
- Batty GD, Deary IJ, Macintyre S (2006) Low childhood IQ and life course socio-economic disadvantage as predictors of alcohol hangovers in adulthood: The Aberdeen Children of the 1950s Study. *Journal of Epidemiology and Community Health* 60: 872–874.
- Bauman Z. (2005) *Work, consumerism and the new poor* Maidenhead. Open University Press.
- Bauman Z. (2007a) *Liquid Times: living in an age of uncertainty*. Cambridge, Polity Press.
- Bauman Z (2007b) Has the future a left? *Soundings: a journal of politics and culture*.  
(<http://www.lwbooks.co.uk/journals/articles/bauman07.html>).
- Benyamini Y et al. (2000) Positive affect and function as influences on self-assessments of health: Expanding our view beyond illness and disability. *Journals of Gerontology: Psychological Sciences* 55(B):107–116  
(<http://psychsoc.gerontologyjournals.org/cgi/content/abstract/55/2/P107>).
- Blair M et al. (2003) *Child Public Health*. Oxford, Oxford University Press.
- Blanchflower D, Oswald AJ (2002) *Wellbeing over time in Britain and the USA*. Warwick  
(<http://www2.warwick.ac.uk/fac/soc/economics/staff/faculty/oswald/finaljpubecwellbeingjune2002.pdf>).
- Blaxter M. (1990) *Health and Lifestyles*. London, Routledge.
- Braunholtz S et al. (2007) *Well? What Do You Think? The Third National Scottish Survey of Public Attitudes to Mental Health, Mental Wellbeing and Mental Health Problems (2006)*. Edinburgh, Scottish Government.
- Bunker SJ et al (2003) 'Stress' and coronary heart disease: psychosocial risk factors National Heart Foundation of Australia Position Statement Update *Medical Journal of Australia* 178:272-6  
([http://www.mja.com.au/public/issues/178\\_06\\_170303/bun10421\\_fm.html](http://www.mja.com.au/public/issues/178_06_170303/bun10421_fm.html)).

## References

- Carlisle S (2006) Series of papers on cultural influences on mental health and wellbeing in Scotland (<http://www.wellscotland.info/publications/consultations4.html>).
- Chandola T, Brunner E, Marmot M (2006) Chronic stress at work and the metabolic syndrome: prospective study. *British Medical Journal* 332: 521 -5.
- Christopher JC and Hickinbottom S (2008) Positive psychology, ethnocentrism, and the disguised ideology of individualism *Theory and Psychology* 18:5:563-589
- Commission on Social Determinants of Health (CSDH) (2007) Achieving health equity: from root causes to fair outcomes: interim statement Geneva, CSDH ([http://www.who.int/social\\_determinants/resources/interim\\_statement/en/index.html](http://www.who.int/social_determinants/resources/interim_statement/en/index.html)).
- CSDH (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization. [http://whqlibdoc.who.int/publications/2008/9789241563703\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241563703_eng.pdf)
- Cropanzano R and Wright TA (1999) A 5-year study of change in the relationship between wellbeing and job performance *Consulting Psychology Journal: Practice and Research* 51:252–265.
- Cummins S et al. (2007) Understanding and representing place in health research: a relational approach *Social Science & Medicine* 65:1825-1838.
- Dahlgren G and Whitehead M (2006) European strategies for tackling social inequities in health: a discussion paper on levelling up (Draft). WHO Collaborating Centre for Policy Research on Social Determinants of Health University of Liverpool/WHO Europe: Copenhagen.
- Danner DD, Snowdon DA, Friesen WV (2001) Positive emotions in early life and longevity: Findings from the nun study. *Journal of Personality and Social Psychology*. 80: 804–813.
- Davidson R, Kitzinger J, Hunt K (2006) The wealthy get healthy, the poor get poorly? Lay perceptions of health inequalities. *Social Science and Medicine* 62:2171-2182.
- Deary IJ and Batty GD (2007) Cognitive epidemiology: glossary. *Journal of Epidemiology and Community Health* 61:378-384.
- De Botton A (2004) *Status Anxiety*. London, Hamilton.
- Department of Health (2001) *Making it happen: a guide to delivering mental health promotion* London, The Stationary Office.
- De Silva M.J. et al. (2005) Social capital and mental illness: a systematic review. *Journal of Epidemiology and Community Health* 59: 619-627.
- De Silva MJ et al. (2007) Social capital and mental health: a comparative analysis of four low income countries. *Social Science and Medicine* 64:1:5-20.
- Diener E and Seligman ME (2002) Very happy people. *Psychological Science* 13(1) 81–84.
- Dolan P, Peasgood T, White M (2006) *Review of research on the influences on personal wellbeing and application to policy making*. London, DEFRA ([http://www.defra.gov.uk/science/project\\_data/DocumentLibrary/SD12005/SD12005\\_4017\\_FRP.pdf](http://www.defra.gov.uk/science/project_data/DocumentLibrary/SD12005/SD12005_4017_FRP.pdf)).
- Doran T, Drever F, Whitehead M (2006) Health under- and over-achievement in English local authorities. *Journal of Epidemiology and Community Health* 60:686–93.
- Dorling D, Mitchell R, Pearce J (2007) The global impact of income inequality on health by age: an observational study. *BMJ Research* 335:873 (<http://press.psprings.co.uk/bmj/october/inequality.pdf>).

- Eckersley R (2005) *Well & Good: Morality, Meaning and Happiness*. 2<sup>nd</sup> ed. Melbourne, Text Publishing.
- Eckersley R (2006) Is modern Western culture a health hazard? *International Journal of Epidemiology* 35: 252-258 (<http://ije.oxfordjournals.org/cgi/content/full/35/2/252?etoc>).
- Equalities Review (2007) *Fairness and Freedom: the final report of the equalities review* London, Cabinet Office ([www.theequalitiesreview.org.uk](http://www.theequalitiesreview.org.uk)).
- European Commission (2005) *Improving the mental health of the population: Towards a strategy on mental health for the European Union* Brussels, European Commission ([http://ec.europa.eu/health/ph\\_determinants/life\\_style/mental/green\\_paper/consultation\\_en.htm](http://ec.europa.eu/health/ph_determinants/life_style/mental/green_paper/consultation_en.htm)).
- Evans O et al (2003) *The mental health of older people: Report based on the analysis of the ONS Survey of Psychiatric Morbidity among Adults in Great Britain carried out in 2000 for the Department of Health, the Scottish Executive Health Department and the Welsh Assembly Government* ([http://www.statistics.gov.uk/downloads/theme\\_health/PMA-MentalOlder.pdf](http://www.statistics.gov.uk/downloads/theme_health/PMA-MentalOlder.pdf)).
- Fagg J et al. (2006) Psychological distress among adolescents, and its relationship to individual, family and area characteristics in East London. *Social Science & Medicine* 63(3):636-648.
- Feinstein L (2003) Inequality in the Early Cognitive Development of British Children in the 1970 Cohort. *Economica* 70(277):73-98.
- Feinstein L and Bynner J (2004) The importance of cognitive development in middle childhood for adulthood socioeconomic status, mental health, and problem behaviour. *Child Development* 75: 1329–1339.
- Fergusson D, Horwood J, Ridder E (2005) Show me the child at seven: the consequences of conduct problems in childhood for psychosocial functioning in adulthood. *Journal of Child Psychology & Psychiatry* 46 (8):837-849.
- Ferrie JE (ed.) (2007) *Work, stress and health: Findings from the Whitehall II study*. London, Cabinet Office/University College London.
- Fredrickson BL and Joiner T (2002) Positive emotions trigger upward spirals toward emotional wellbeing. *Psychological Science* 13(2): 172-5.
- Friedli L (2004) Editorial *Journal of Public Mental Health* 3:12-6.
- Friedli L (2005a) Editorial *Journal of Public Mental Health* 4:12-4.
- Friedli L (2005b) Promoting mental health in the United Kingdom: a case study in many parts. *Australian e-Journal for the Advancement of Mental Health* 4(2) ([www.auseinet.com/journal/vol4iss2/friedlieditorial.pdf](http://www.auseinet.com/journal/vol4iss2/friedlieditorial.pdf)).
- Friedli L et al. (2007) *Mental health improvement: evidence based messages to promote mental wellbeing*. Edinburgh, NHS Health Scotland.
- Friedli L and Parsonage M (2007) *Building an economic case for mental health promotion* Belfast, Northern Ireland Association for Mental Health.
- Galobardes G, Lynch J, Smith GD (2007) Measuring socioeconomic position in health research. *British Medical Bulletin* 81-82:21-37.
- Gordon D et al (2000) *Poverty and Social Exclusion in Britain*. York, Joseph Rowntree Foundation.
- Graham H (2004) Social determinants and their unequal distribution: clarifying policy understandings. *Millbank Quarterly* 82:1:101-24.
- Graham H, Power C (2004) *Childhood disadvantage and adult health: a life course framework*. London, Health Development Agency.

## References

- Green H et al. (2005) *Mental health of children and young people in Great Britain, 2004* London, Office for National Statistics.
- Harris EC, Barraclough B (1998) Excess mortality of mental disorder. *The British Journal of Psychiatry* 173:11-53.
- Harrison D et al. (2004) *Assets for Health and Development (AHDP) Developing a Conceptual Framework*. Copenhagen, WHO Regional Office for Europe.
- Harter JK, Schmidt FL, Keyes CLM (2003) Wellbeing in the workplace and its relationship to business outcomes: a review of Gallup Studies  
(<http://media.gallup.com/DOCUMENTS/whitePaper--WellbeingInTheWorkplace.pdf>).
- Haworth J and Hart G (2007) *Wellbeing: Individual, Community and Social Perspectives*. Basingstoke, Palgrave MacMillan.
- Huppert F.A. and Whittington J.E (2003) Evidence for the independence of positive and negative wellbeing: implications for quality of life assessment. *British Journal of Health Psychology* 8:107-122.
- Huppert F. (2005) Positive mental health in individuals and populations. In Huppert F, Bayliss N, Keverne B (eds) *The science of wellbeing*. Oxford, Oxford University Press, 307-340.
- Huppert F (2008) State of Science Review SRX-2: psychological wellbeing: evidence regarding its causes and consequences. Office of Science and Innovation: Foresight Mental Capital and Wellbeing Project.  
[http://www.foresight.gov.uk/Mental%20Capital/SR-X2\\_MCWv2.pdf](http://www.foresight.gov.uk/Mental%20Capital/SR-X2_MCWv2.pdf)
- Irwin LG, Siddiqi A, Hertzman C (2007) *Early Child Development : A Powerful Equalizer Final Report for the World Health Organization's Commission on the Social Determinants of Health Geneva: CSDH*  
([http://www.who.int/social\\_determinants/resources/eecd\\_kn\\_report\\_07\\_2007.pdf](http://www.who.int/social_determinants/resources/eecd_kn_report_07_2007.pdf)).
- Jané-Llopis et al. (2004) Review of mental health promotion and prevention effectiveness. In: *The Evidence of Mental Health Promotion Effectiveness* (Eds.) E. Jané-Llopis, M.M. Barry, C. Hosman and V. Patel. IUHPE Special Issue.
- Jones C et al. (2006) Studying social policy and resilience in families facing adversity in different welfare state contexts – the case of Britain and Sweden. *International Journal of Health Services* 36 (3): 425–442.
- Karoly LA, Kilburn MR, Cannon JS (2003) *Early childhood interventions: proven results, future promises* Rand Labor and Population  
([http://rand.org/pubs/monographs/2005/RAND\\_MG341.pdf](http://rand.org/pubs/monographs/2005/RAND_MG341.pdf)).
- Kessler RC et al. (1996) Epidemiology of co-occurring addictive and mental disorders: implications for prevention and service utilization. *American Journal of Orthopsychiatry* 66, 17-31.
- Keyes CLM (2002) The mental health continuum: from languishing to flourishing in life. *Journal of Health and Social Research* 43:207-22.
- Keyes, CLM (2004) The nexus of cardiovascular disease and depression revisited: the complete mental health perspective and the moderating role of age and gender. *Aging and Mental Health*, 8(3):266-274.
- Keyes CLM (2005) Mental illness and/or mental health? Investigating axioms of the complete state model of health *Journal of Consulting and Clinical Psychology* 73:539-548.
- Keyes CLM (2006) Mental health in youth: is America's youth flourishing? *American Journal of Orthopsychiatry* 76:3 395-402  
(<http://content.apa.org/journals/ort/76/3/395>).
- Keyes CLM (2007) Anything less than mental health as flourishing in adults. Presentation to Public Mental Health Leadership Event London/Manchester 15th October.

- Krantz G (2002) Violence against women: a global public health issue. *Journal of Epidemiology and Community Health* 56:242-243.
- Krieger N (2001a) Theories for social epidemiology in the 21<sup>st</sup> century: an ecosocial perspective *International Journal of Epidemiology* 30:668-677.
- Krieger N (2001b) A glossary for social epidemiology *Journal of Epidemiology and Community Health* 55:693-700.
- Krueger PM et al. (2004) Neighbourhoods and homicide mortality: an analysis of race/ethnic differences *Journal of Epidemiology and Community Health* 58:223-230.
- Krug EG et al. (2002) *World report on violence and health*. Geneva, World Health Organization.
- Kubzansky LD and Kawachi I. (2000) Going to the heart of the matter: Do negative emotions cause coronary heart disease? *Journal of Psychosomatic Research* 48: 323–337.
- Kuh D et al. (2004) Socioeconomic pathways between childhood and adult health. In: Kuh DL, Ben-Shlomo Y (eds). *A Life Course Approach to Chronic Disease Epidemiology: tracing the origins of ill health from early to adult life* Oxford, Oxford University Press.
- Layard R. (2005) *Happiness: Lessons from a New Science* London, Allen Lane.
- Lehtinen V, Sohlman B, Kovess-Masfety V (2005) Level of positive mental health in the European Union: Results from the Eurobarometer 2002 survey. *Clinical Practice and Epidemiology in Mental Health* 1:9.
- Levy BR et al. (2002) Longevity increased by positive self-perceptions of aging. *Journal of Personality and Social Psychology* 83: 261–270 (<http://content.apa.org/journals/psp/83/2/261>).
- Leyland AH et al. (2007) Cause-specific inequalities in mortality in Scotland: two decades of change. A population-based study. *BMC Public Health* 7:172.
- Lindstrom C and Lindstrom M (2006) Social capital, GNP per capita, relative income and health: an ecological study of 23 countries. *International Journal of Health Services* 36:4:679-696.
- Lynch JW et al. (2000) Income inequality and mortality: importance to health of individual income, psychosocial environment, or material conditions. *British Medical Journal* 320: 1200-1204 (<http://www.bmj.com/cgi/content/full/320/7243/1200?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=1&author1=lynch%2C+J&andorexacttitle=and&andorexacttitleabs=and&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&fdate=1/1/2000&tdate=12/31/2000&resourcetype=HWCIT>).
- Lyubomirsky S, King L, Diener E (2005) The Benefits of Frequent Positive Affect: Does Happiness Lead to Success? *Psychological Bulletin* (<http://www.apa.org/journals/releases/bul1316803.pdf>).
- McDaid D. Making the case for investment in mental health promotion and mental disorder prevention activities in Europe. Presentation to Symposium of the Mental Health Economics European Network, Brussels, 13 December 2007.
- Mackenbach JP, Meerding WJ, Kunst AE (2007) Economic implications of socio-economic inequalities in health in the European Union. Brussels, Health and Consumer Protection Directorate-General, European Commission ([http://ec.europa.eu/health/ph\\_determinants/socio\\_economics/documents/socioeco\\_inequalities\\_en.pdf](http://ec.europa.eu/health/ph_determinants/socio_economics/documents/socioeco_inequalities_en.pdf)).
- McKenzie K and Harpham T (2006) *Social Capital and Mental Health* London, Jessica Kingsley.

## References

- Marks N and Shah H (2004) A wellbeing manifesto for a flourishing society. *Journal of Mental Health Promotion* 3:4-9-15.
- Marks N et al. (2006) Sustainable Development and Wellbeing: Relationships, Challenges and Policy Implications. A Report by the Centre for Wellbeing, nef (the New Economics Foundation) for DEFRA (Department of the Environment, Food and Rural Affairs). London, ([http://www.defra.gov.uk/science/project\\_data/DocumentLibrary/SD12007/SD12007\\_4606\\_FRP.pdf](http://www.defra.gov.uk/science/project_data/DocumentLibrary/SD12007/SD12007_4606_FRP.pdf)).
- Martikainen P, Bartley M, Lahelma E (2002) Psychosocial determinants of health in social epidemiology *International Journal of Epidemiology* 31(6):1091-3.
- Mauthner N, Platt S (1998) Selective literature review of measures of mental health and emotional wellbeing. London, Health Development Agency.
- Meltzer H et al. (2000) Mental health of children and adolescents in Great Britain. A survey carried out in 1999 by the social survey division of the office of national statistics. London, The Stationery Office.
- Melzer D, Fryers T, Jenkins R. (2004) Social Inequalities and the Distribution of Common Mental Disorders. Maudsley Monographs Hove, Psychology Press.
- Mental Health Foundation (2000) Strategies for living London, Mental Health Foundation.
- Mental Health Foundation (2006a) Feeding Minds - The impact of food on mental health London, Mental Health Foundation.
- Mental Health Foundation. (2006b) Cheers? Understanding the relationship between alcohol and mental health. London, Mental Health Foundation.
- Merikangas KR et al. (1998) Comorbidity of substance use disorders with mood and anxiety disorders: result of the International Consortium in Psychiatric Epidemiology. *Addictive Behaviors*, 23, 893-907.
- Mitchell R, Backett-Milburn K. (2006) Health and resilience: what does a resilience approach offer health research and policy? Edinburgh: RUHBC, University of Edinburgh, RUHBC Findings series,.
- Mohan J et al. (2004) Social capital, geography and health: developing and applying small-area indicators of social capital in the explanation of health inequalities. In: Morgan A , Swann C (eds) *Social Capital for Health: Issues of Definition, Measurement and Links to Health*. London, Health Development Agency.
- Montgomery Scott M, Ehlin A, Sacker A (2006) Breast feeding and resilience against psychosocial stress. *Archives of Disease of Childhood* 91:990-994
- Morgan A. and Swann C (eds) (2004) *Social Capital for Health: Issues of Definition, Measurement and Links to Health*. London, Health Development Agency.
- Moscato B et al. (1997) Gender differences in the relation between depressive symptoms and alcohol problems: a longitudinal perspective. *American Journal of Epidemiology* 146: 966-974.
- Naess O et al. (2008) Life course influence of residential area on cause-specific mortality. *Journal of Epidemiology and Community Health* 62(1):29-34.
- National Institute for Clinical Excellence. (2007) NICE public health guidance 6 Behaviour change at population, community and individual levels. London, NICE (<http://www.nice.org.uk/nicemedia/pdf/PH006guidance.pdf>).
- Navarro V et al. (2004) The importance of the political and the social in explaining mortality differentials among the countries of the OECD, 1950–1998. In: Navarro V (ed.) *The Political and Social Contexts of Health*. Baywood, Amityville, NY.
- Osborn DPJ et al. (2007) Relative Risk of Cardiovascular and Cancer Mortality in People With Severe Mental Illness from the United

- Kingdom's General Practice Research Database Archives of General Psychiatry 64:242-249.
- Ostir GV et al. (2000) Emotional wellbeing predicts subsequent functional independence and survival. *Journal of the American Geriatrics Society* 48:473–478.
- Ostir GV et al. (2001). The association between emotional wellbeing and the incidence of stroke in older adults. *Psychosomatic Medicine* 63: 210–215.
- Parkinson J (2006) *Measuring Positive Mental Health: Developing a New Scale*. NHS Health Scotland, Glasgow.
- Parkinson J (ed) (2008) *Review of scales of positive mental health validated for use with adults in the UK: Technical report*. NHS Health Scotland, Glasgow.
- Patel V and Goodman A (2007) Researching protective and promotive factors in mental health *International Journal of Epidemiology* 36:703-707.
- Pelled LH, Xin KR (1999) Down and out: An investigation of the relationship between mood and employee withdrawal behavior *Journal of Management* 25: 875–895.
- Pevalin DJ and Rose D (2003) Social capital for health: Investigating the links between social capital and health using the British Household Panel Survey. Wivenhoe, Institute for Social and Economic Research University of Essex.
- Phelan M, Stradins L, Morrison S (2001) Physical health of people with severe mental illness *British Medical Journal* 322:443-444.
- Pickering J (2007) Is wellbeing local or global? A perspective from ecopsychology. In: Haworth J, Graham H (eds) *Wellbeing: individual, community and social perspectives* Basingstoke, Palgrave MacMillan, 149-162.
- Pickett KE, James OW, Wilkinson RG (2006) Income inequality and the prevalence of mental illness: a preliminary international analysis. *Journal of Epidemiology and Community Health* 60:646-647.
- Pickett KE, Mookherjee J, Wilkinson RG (2005) Teenage births and violence are related to income inequality among rich countries. *American Journal of Public Health* 95:1181-1183. (<http://www.ajph.org/cgi/content/full/95/7/1181?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=1&author1=pickett%2C+K&andorexacttitle=and&andorexacttitleabs=and&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&fdate=1/1/2005&tdate=12/31/2005&resourcetype=HWCIT>).
- Pickett KE and Wilkinson RG (2007) Child wellbeing and income inequality in rich societies: ecological cross sectional study. *British Medical Journal* 335:1080 (<http://www.bmj.com/cgi/content/full/335/7629/1080>).
- Popay J, et al. (2007) Social problems, primary care and pathways to help and support: addressing health inequalities at the individual level. Part I: the GP perspective. *Journal of Epidemiology and Community Health* 61: 966-971.
- Poulton R et al. (2002) Association between children's experiences of socioeconomic disadvantage and adult health: a life-course study *British Medical Journal* 360: 1640-5.
- Power C & Matthews S (1997) Origins of health inequalities in a national population sample. *Lancet* 350, 1584–1589.
- Pressman S and Cohen S (2005) Does positive affect influence health? *Psychological Bulletin* 131:6 925-971.
- Priest P (2006) That was then, this is now *Clinical Psychology Forum* 162:25-28 (<http://www.bps.org.uk/dcp/dcp-publications/dcp-newsletter.cfm>).
- Regidor E (2006) Social determinants of health: a veil that hides socioeconomic position and its relation with health. *Journal of Epidemiology and Health* 60:896-901.

## References

- Rehm J et al. (2003) Alcohol. In: World Health Organization. Comparative Quantification of Health Risks: Global and Regional Burden of Disease due to Selected Major Risk Factors. Geneva, World Health Organization.
- Rogers A and Pilgrim D (2003) Inequalities and mental health London, Palgrave Macmillan.
- Rogers A and Pilgrim D (2005) A sociology of mental health and illness Maidenhead, Open University.
- Rose G (1992) The strategy of preventive medicine Oxford, Oxford University Press.
- Rutherford J (2008) The culture of capitalism. Soundings: journal of culture and politics 38: 8-18. (<http://www.lwbooks.co.uk/journals/soundings/articles/02%20s38%20%20rutherford.pdf>).
- Ryan RM, Deci EL (2001) On happiness and human potentials: a review of research on hedonic and eudaimonic wellbeing. Annual Review of Psychology 52:141-166.
- Ryff CD and Singer B. (2002) From social structure to biology. Integrative science in pursuit of human health and wellbeing. In Snyder CR, Lopez SJ (ed.) Handbook of Positive Psychology. Oxford, Oxford University Press, 541-55.
- Sacker A, Schoon I, Bartley M (2002) Social inequality in education achievement and psychosocial adjustment throughout childhood: magnitude and mechanism. Social Science and Medicine 55: 863-880.
- Sacker A and Schoon I (2007) Educational resilience in later life: Resources and assets in adolescence and return to education after leaving school at age 16. Social Science Research 36(3):873-896.
- Sainsbury Centre for Mental Health (2003). The economic and social costs of mental illness. London, SCMH.
- Sainsbury Centre for Mental Health (2007) Mental Health at Work: Developing the business case London, SCMH. ([http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL79TMEC/\\$file/mental\\_health\\_at\\_work.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL79TMEC/$file/mental_health_at_work.pdf)).
- Samman E (2007) Psychological and subjective wellbeing: a proposal for internationally comparable indicators Oxford: University of Oxford Oxford Poverty and Human Development Initiative. ([http://www.ophi.org.uk/pubs/Samman\\_Psych\\_Subj\\_Wellbeing\\_Final.pdf](http://www.ophi.org.uk/pubs/Samman_Psych_Subj_Wellbeing_Final.pdf)).
- Sartorius N and Schulze H. (eds.) (2005) Reducing the stigma of mental illness: a report from a global programme of the World Psychiatric Association. Cambridge, Cambridge University Press.
- Schoon I. (2006) Risk and Resilience. Adaptations in changing times. Cambridge, Cambridge University Press.
- Schoon I (2007) Adaptations to changing times: Agency in context. International Journal of Psychology. 42(2):94-101 (<http://www.informaworld.com/10.1080/00207590600991252>).
- Schweinhart L et al. (2005) The High/Scope Perry Preschool study through age 40. Ypsilanti MI: High/Scope Press.
- Scott S et al. (2001) Multicentre controlled trial of parenting groups for childhood antisocial behaviour in clinical practice. British Medical Journal 323: 194.
- Seligman M. (2003) Authentic happiness. Using the new positive psychology to realize your potential for lasting fulfillment. New York, Simon and Schuster.
- Sen A (1985) Wellbeing, agency and freedom: the Dewey lectures 1984. The Journal of Philosophy. 82:4:160-221.
- Singh-Manoux A and Marmot M (2005) Role of socialization in explaining social inequalities in health. Social Science and Medicine. 60:2129-2133.
- Singleton N et al. (1998) Psychiatric Morbidity of Prisoners in England and Wales. London, ONS.



- Social Exclusion Unit (2004) *Mental Health and Social Exclusion: Social Exclusion Unit Report*. London Office of the Deputy Prime Minister.
- Solar O and Irwin A. (2005) *Towards a Conceptual Framework for Analysis and Action on the Social Determinants of Health Discussion paper (Draft)*. Commission on Social Determinants of Health/WHO, Geneva.
- Stahl T et al. (2006) *Health in all policies: prospects and potentials* Helsinki, Ministry of Social Affairs and Health (<http://www.stm.fi/Resource.phx/eng/subjt/inter/eu2006/hiap/index.htm>.i1153.pdf).
- Stansfeld SA et al. (2004) Ethnicity and social deprivation and psychological distress in adolescents. *British Journal of Psychiatry* 185:233–238.
- Starfield B and Birn AE (2007) Income redistribution is not enough: income inequality, social welfare programmes and achieving equity in health. *Journal of Epidemiology and Community Health* 61:1038-1041.
- Stead M et al. (2007) *Research to Inform the Development of a Social Marketing Strategy for Health Improvement in Scotland*. Stirling, Institute for Social Marketing.
- Steptoe A (2005) How stress gets under your skin: psychobiological studies of social status, stress and health. Glasgow Centre for Population Health Seminar Series 2: Paper 1.
- Steptoe A and Feldman P (2001) Neighbourhood problems as sources of chronic stress: development of a measure of neighbourhood problems and associations with socioeconomic status and health. *Annals of Behavioural Medicine* 23:3 177-185.
- Steptoe A et al. (2007) Neuroendocrine and cardiovascular correlates of positive affect measured by ecological momentary assessment and by questionnaire. *Psychoneuroendocrinology* 32(1):56-64 ([http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6TBX-4MHPC17-1&\\_user=10&\\_rdoc=1&\\_fmt=&\\_orig=search&sort=d&view=c&\\_acct=C000050221&\\_version=1&\\_urlVersion=0&\\_userid=10&md5=6b2fb04760cde5fe9e23aeb38e1d94ff](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TBX-4MHPC17-1&_user=10&_rdoc=1&_fmt=&_orig=search&sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=6b2fb04760cde5fe9e23aeb38e1d94ff)).
- Steptoe A and Wardle J (2005) Positive affect and biological function in everyday life. *Neurobiology of Aging* 26 (S1):108-112.
- Stevenson B and Wolfers J (2008) Economic growth and subjective wellbeing: reassessing the Easterlin Paradox (<http://bpp.wharton.upenn.edu/betseys/papers/Happiness.pdf>).
- Stewart-Brown S (1998) Public health implications of childhood behaviour problems and parenting programmes. In: Buchanan A, Hudson BL (ed.) *Parenting, Schooling & Children's Behaviour: Interdisciplinary approaches*. Aldershot, Ashgate Publishing.
- Stewart-Brown S (2003) Research in relation to equity: extending the agenda. *Pediatrics* 112:3:763-765.
- Stewart-Brown S (2004) Mental health promotion: childhood holds the key? *Public Health Medicine* 5:3 8-17.
- Sylva K et al. (2007) *Effective pre-school and primary education 3-11 project (EPPE 3-11) a longitudinal study funded by the DfES (2003-2008) Promoting Equality in the Early Years: report to the Equalities Review* London, Institute of Education ([http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/promoting\\_equality\\_in\\_the\\_early\\_years.pdf](http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/promoting_equality_in_the_early_years.pdf)).
- Taulbut M and Parkinson J (forthcoming) *Scottish Adult Mental Health and Wellbeing Indicators 2008* Edinburgh: NHS Health Scotland
- Tennant R et al. (in press) *The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS): development and UK validation, Health and Quality of Life Outcomes*
- Thoits PA and Hewitt LN (2001) Volunteer work and wellbeing. *Journal of Health and Social Behavior* 42:115–131.

## References

- Thompson S et al (2007) *The European Happy Planet Index: An index of carbon efficiency and wellbeing in the EU*. London, New Economics Foundation  
([http://www.neweconomics.org/gen/z\\_sys\\_PublicationDetail.aspx?pid=242](http://www.neweconomics.org/gen/z_sys_PublicationDetail.aspx?pid=242)).
- Tudor K (1996) *Mental Health Promotion: Paradigms and practice*. London, Routledge.
- Tunstall H et al. (2007) Is economic adversity always a killer? Disadvantaged areas with relatively low mortality rates. *Journal of Epidemiology and Community Health* 61:337-343.
- UNICEF Innocenti Research Centre (2007) *Child poverty in perspective: an overview of child wellbeing in rich countries* Florence, Innocenti Report Card.
- Walsh D, Taulbut M, Hanlon P (2008) *The Aftershock of Deindustrialisation: Trends in mortality in Scotland and other parts of post-industrial Europe*. Glasgow: Glasgow Centre for Population Health  
(<http://www.gcph.co.uk/content/view/144/68/>).
- Wang JL and Patten SB (2002) Prospective study of heavy alcohol use and the risk of major depression in the Canadian general population. *Depression and Anxiety* 15:42-45.
- Whitehead M and Dahlgren G (2006) *Concepts and principles for tackling social inequities in health: a discussion paper on levelling up (Draft)*. WHO Collaborating Centre for Policy Research on Social Determinants of Health. University of Liverpool/WHO Europe, Copenhagen.
- Whittington JE and Huppert FA (1996) Changes in the prevalence of psychiatric disorder in a community are related to changes in the mean level of psychiatric symptoms. *Psychological Medicine* 26:1253-60.
- Wickrama K, Noh S, Bryant C (2005) Racial differences in adolescent distress: Differential effects of the family and community for blacks and whites. *Journal of Community Psychology* 33:3 261-282.
- Wilkinson RG (1996) *Unhealthy societies: the afflictions of inequality*. London, Routledge.
- Wilkinson R (2005) *The Impact of Inequality: How to Make Sick Societies Healthier*. London, Routledge.
- Wilkinson RG and Pickett KE (2006) Income inequality and population health: a review and explanation of the evidence. *Social Science and Medicine* 62:1768-1784.
- Wilkinson R and Pickett K (2007a) Income Inequality and socioeconomic gradients in mortality. *American Journal of Public Health* 97:10.
- Wilkinson R and Pickett K (2007b) The problems of relative deprivation: why some societies do better than others. *Social Science and Medicine* 65:1965.
- Williams SJ (1998) Capitalizing on emotions? Rethinking the inequalities in health debate *Sociology* 32(1):121-40  
(<http://www.socresonline.org.uk/3/4/1.html>).
- Windle M (2000) A latent growth curve model of delinquent activity among adolescents. *Applied Developmental Science* 4: 193-207  
(<http://www.questia.com/PM.qst?a=o&se=gglsc&d=97720948>).
- World Health Organization (2003) *Investing in mental health*. Geneva, World Health Organization  
([http://www.who.int/mental\\_health/media/investing\\_mnh.pdf](http://www.who.int/mental_health/media/investing_mnh.pdf)).
- World Health Organization (2004a) *Prevention of mental disorders: Effective interventions and policy options, Summary Report*.

A report of the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Prevention Research Centre of the Universities of Nijmegen and Maastricht. Geneva, World Health Organization ([http://www.who.int/mental\\_health/evidence/en/prevention\\_of\\_mental\\_disorders\\_sr.pdf](http://www.who.int/mental_health/evidence/en/prevention_of_mental_disorders_sr.pdf)).

World Health Organization (2004b) Promoting mental health: Concepts, emerging evidence, practice: summary report. A Report from the World Health Organization, Department of Mental Health and Substance Abuse in collaboration with the Victorian Health Promotion Foundation (VicHealth) and The University of Melbourne. Geneva, World Health Organization ([http://www.who.int/mental\\_health/evidence/en/promoting\\_mhh.pdf](http://www.who.int/mental_health/evidence/en/promoting_mhh.pdf))

World Health Organization (2005) Burden of disease project (<http://www.who.int/healthinfo/bodproject/en/index.html>).

World Health Organization (2006) Burden of disease statistics. (<http://www.who.int/healthinfo/bod/en/index.html>).

Wright TA and Staw BM (1999). Affect and favorable work outcomes: Two longitudinal tests of the happy - productive worker thesis. *Journal of Organizational Behavior* 20: 1–23.

Wulsin LR, Vaillant GE, Wells VW (1999) A systematic review of the mortality of depression, *Psychosomatic Medicine* 61:6-17.

Zaveleta RD (2007) The ability to go about without shame: a proposal for internationally comparable indicators of shame and humiliation. Working Paper 3. Oxford, University of Oxford ([http://www.ophi.org.uk/pubs/Zavaleta\\_Shame\\_Humiliation\\_Final.pdf](http://www.ophi.org.uk/pubs/Zavaleta_Shame_Humiliation_Final.pdf)).

## 12. Appendices

### Appendix One: Reference Group

#### **Professor Margaret Barry**

National University of Ireland, Galway  
Ireland

#### **Dr Jenny Bywaters**

Former Senior Public Mental Health Advisor  
NIMHE, Department of Health  
England

#### **Margaret Carlin**

Dumfries and Galloway NHS Health Board  
Scotland

#### **Dr Hilary Guite**

Public Health Consultant  
Greenwich Primary Care Trust  
London, England

#### **Gregor Henderson**

Formerly Director of National  
Programme for Improving Mental health  
and Wellbeing in Scotland  
Scotland

#### **Dr Rachel Jenkins**

Institute of Psychiatry  
London, England

**Dr Tanja Kamin**

Faculty of Social Sciences,  
University of Ljubljana  
Slovenia

**Dr Corey Keyes**

Emory University  
Atlanta, USA

**Dr Allyson McCollam**

Scottish Development Centre  
for Mental Health  
Scotland

**Dr Andrew McCulloch**

Mental Health Foundation  
United Kingdom

**Dr Matt Muijen**

WHO Europe  
Copenhagen, Denmark

**Professor Carol Tannahill**

Glasgow Centre for  
Population Health  
Scotland

## Appendix Two: The Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

**Below are some statements about feelings and thoughts.**

**Please tick the box that best describes your experience of each over the last 2 weeks**

| STATEMENTS   | None of the time | Rarely | Some of the time | Often | All of the time |
|--|------------------|--------|------------------|-------|-----------------|
| I've been feeling optimistic about the future      | 1                | 2      | 3                | 4     | 5               |
| I've been feeling useful                           | 1                | 2      | 3                | 4     | 5               |
| I've been feeling relaxed                          | 1                | 2      | 3                | 4     | 5               |
| I've been feeling interested in other people       | 1                | 2      | 3                | 4     | 5               |
| I've had energy to spare                           | 1                | 2      | 3                | 4     | 5               |
| I've been dealing with problems well               | 1                | 2      | 3                | 4     | 5               |
| I've been thinking clearly                         | 1                | 2      | 3                | 4     | 5               |
| I've been feeling good about myself                | 1                | 2      | 3                | 4     | 5               |
| I've been feeling close to other people            | 1                | 2      | 3                | 4     | 5               |
| I've been feeling confident                        | 1                | 2      | 3                | 4     | 5               |
| I've been able to make up my own mind about things | 1                | 2      | 3                | 4     | 5               |
| I've been feeling loved                            | 1                | 2      | 3                | 4     | 5               |
| I've been interested in new things                 | 1                | 2      | 3                | 4     | 5               |
| I've been feeling cheerful                         | 1                | 2      | 3                | 4     | 5               |

Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

© NHS Health Scotland, University of Warwick and University of Edinburgh, 2006, all rights reserved.  
<http://www.healthscotland.com/documents/1467.aspx>

Mental health is fundamental to the resilience, health assets, capabilities and positive adaptation that enable individuals and communities both to cope with adversity and to reach their full potential.

Drawing on the literature on health and inequalities, this report argues that improving mental health brings significant benefits for health and quality of life – not only through the absence of mental illness, but because positive mental health is of itself a protective asset, influencing a very wide range of health, social and economic outcomes.

But mental health is also a key pathway through which social inequality impacts on health. There is overwhelming evidence that inequality is a key cause of stress in itself and also exacerbates the stress of coping with material deprivation.

Mental health itself is produced socially. Opportunities for individuals and communities to retain or achieve social recognition and to stay or become connected contribute significantly to resilience, but are frequent casualties of adverse economic and cultural trends.

The presence or absence of mental health is above all a social indicator. Therefore what Europe needs are policies and programmes to support improved mental health for the whole population. Achieving this requires social as well as individual solutions.

## **World Health Organization Regional Office for Europe**

Scherfigsvej 8  
DK-2100 Copenhagen Ø  
Denmark

Tel: +45 39 17 17 17

Fax: +45 39 17 18 18

Email: [postmaster@euro.who.int](mailto:postmaster@euro.who.int)

Website: [www.euro.who.int](http://www.euro.who.int)