Health Inequalities
National Support Team

Improving the Physical Health and Wellbeing of People with Mental Health Problems: Reducing the Gaps in Premature Mortality and Healthy Life Expectancy

Includes key actions with the potential to reduce mortality (see Appendix 1)

Identifying strengths and effective practice and making tailored recommendations on how to address gaps in service delivery

DH INFORMATION READER BOX

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For Recipient's Use	

Contents

A note on referencing: all references are included at the end of this document. In the main document text where references are highlighted in a small grey box they may appear to be out of sequence.

Foreword

National Support Teams (NSTs) were established by the Department of Health from 2006 to support local areas – including Local Authorities, Primary Care Trusts (PCTs) and their partners – to tackle complex public health issues more effectively, using the best available evidence. By undertaking intensive 'diagnostic' visits to local areas, spending time with key leaders (commissioners and providers) including senior managers, clinicians and front-line staff, the ten NSTs provided intelligence, support and challenge to local areas to assist in their achieving better public health outcomes. The programme finished in March 2011.

The ten subject specific teams (Sexual Health, Tobacco Control, Health Inequalities, Teenage Pregnancy, Childhood Obesity, Alcohol Harm Reduction, Infant Mortality, Response to Sexual Violence, Vaccination and Immunisation and Children and Young People's Emotional Wellbeing and Mental Health) were commissioned and established with a focus on improving health and reducing health inequalities.

The ten teams undertook more than 450 visits to local partnerships during the course of the programme and their findings and successes have been documented in Knowledge Management and Evaluation reports. Each team also produced reports setting out and consolidating the learning from their work. A further report that captures best practice identified by each team is planned to enable local areas to continue using the expertise and lessons learnt from the NST model.

The NST process involved a desk review of key documentation and data-based intelligence, and interviews with key informants, often in combination with a series of workshops or focus groups. Collation and analysis of findings was immediate, and the findings, including strengths and recommendations, were fed back straight away and on site to the key local players and leadership. Recommendations were accompanied by offers of support, either at the time of reporting, or as part of follow-up activity.

The Department is publishing a number of reports which distil the learning from the programme, and exemplify the methodology employed.

Executive Summary

This workbook is one of a series developed by the Health Inequalities National Support Team (HINST), in its work with the 70 local authorities covering populations in England with the highest levels disadvantage and poorest health. These workbooks are a summary of local views on good practice. The suggested approaches are not mandatory, and reflect learnings from a snapshot in time. Where there is clear established evidence to support interventions, this has been signposted in the footnote. This is offered as useful resource for commissioners: use is NOT mandatory.

The topic of this workbook – **Improving the Physical Health and Wellbeing of People with Mental Health Problems: Reducing the Gaps in Premature Mortality and Healthy Life Expectancy** – was selected as mental ill health is known to be a major contributor to poor physical health and premature morality. Mental health problems impact on health and wellbeing, and on mortality and life expectancy in the short, medium or long-term and generate huge costs in terms of NHS, social care, the wider economy and in terms of people's life opportunities and options.

This particular workbook focuses on one specific aspect of mental health inequalities, namely the impact poor mental health has on limiting life expectancy and increased morbidity – that is, other health problems that may arise for an individual alongside a mental health problem. The second section of this document sets out the evidence base to illustrate why HINST has selected 'Improving the Physical Health and Wellbeing of People with Mental Health Problems' as a key issue to tackle as part of a systematic and strategic approach to tackling population health inequalities.

The shared vision for mental health and wellbeing, as presented initially in New Horizons[1], and the National Suicide Prevention Strategy[2] and more recently in the Public Health White Paper[3] and the *No Health without Mental Health Cross-Government Mental Health Outcomes Strategy*[4], provide the context for the development of mental health and wellbeing. The link between mental health and health inequalities is a complex one. Whilst certain social circumstances are associated with mental health problems, it is also the case that experiences of mental illness can impact upon a person's socioeconomic status. Most patients with mental health problems are cared for in primary care, with only a small proportion of people requiring secondary mental health care services and an even smaller number requiring specialist mental health care. Nevertheless, the cost to the NHS and social care budgets, the costs to the wider economy and the human costs of mental ill health are substantial.

Poor mental health is both a contributor to and a consequence of wider health inequalities. It is associated with increased health-risk behaviours and increased morbidity and mortality from physical ill health. Promoting good mental health has multiple potential benefits. It can improve health outcomes, life expectancy and educational and economic outcomes and reduce violence and crime. However, as a wide range of research indicates (see next section) people with mental health problems experience poorer physical health and are more likely to die prematurely.

This workbook – which is recommended for use either to carry out a stock-take or to run a facilitated workshop – provides advice on achieving best outcomes at **population level**, and for identifying and recommending changes that could be introduced locally. Recommended workshop invitees are provided.

Central to the HINST approach is a diagnostic framework – *Commissioning for Best Population Level Outcomes* (see p14), which focuses on evidence-based interventions that produce the best possible outcomes at population level. Part of the framework addresses delivery of **service** outcomes in the most effective and cost effective manner. This is balanced by considerations of how the population uses services, and is supported to do so, in order that **optimal population level** outcomes that are fairly distributed.

The framework points to the following areas of intervention:

A CHALLENGE TO PROVIDERS

1. Known intervention efficacy
2. Local service effectiveness
3. Cost effectiveness
4. Accessibility
5. Engaging the public

B POPULATION FOCUS

6. Known population health needs
7. Expressed demand
8. Equitable resourcing
9. Responsive services
10. Supported self management

11. Adequate service volumes
12. Balanced service portfolio
13. Networks, leadership and coordination

The workbook is made up of sets of detailed questions for each of the above components. They provide local groups of commissioners and providers with ***a systematic approach to deciding what needs to be done in relation to reducing the gaps in premature mortality and healthy life expectancy for people with mental health problems*** to further improve population health and wellbeing, capitalising on evidence-based interventions. How these improvements will best be delivered and achieved in a given locality will be for local participants to decide. The workbook signposts good practice and guidance where this may be helpful.

The HINST recommends thirteen potential key actions that together will impact on reducing inequalities in mortality and morbidity for people with a mental health problem. These draw on different elements of the framework and are thus scattered throughout the different sections of the workbook. They can be identified by bold italic text. They are also summarised at the end of the workbook in Appendix I. The actions are:

1. *Needs assessment undertaken into the physical health needs of people with mental health problem that forms part of the Joint Strategic Needs Assessment (JSNA) and includes patient and carer expressed need as well as service data from all sectors.*

2. *Local public awareness and promotional work to highlight the added risk of premature mortality from manageable/preventable physical ill health conditions for people with a mental health problem.*

3. *A mental health (wellbeing and illness) strategy based on assessed need and targeted appropriately, that includes an emphasis on how services to support the physical health and wellbeing of people with mental health problems will be specifically commissioned, targeted and delivered and/or how meeting those needs will be built into wider population commissioning.*

4. *Recognition, built in to commissioning strategies and spending plans, that the spending on outreach to, and delivering services to, some communities/population groups may*

need higher spend than others to enable equitable outcomes (including people with mental health problems and those with a serious mental illness).

5. *A primary care register of all people with serious mental ill health problems, all of whom then have in place a jointly agreed care plan that includes their physical health and wellbeing.*

6. *A record of seven-day follow up for people discharged from inpatient mental health services.*

7. *Specific guidance on Quality and Outcomes Framework (QOF) exception reporting in relation to patients with mental health problems who are suffering from a physical ill health condition; monitoring of QOF exceptions to make sure that such patients are not being disproportionately excluded.*

8. *Local Enhanced Service or other incentive scheme to encourage primary care providers to engage in suicide prevention initiatives and/or targeted physical health initiatives for people with mental health problems.*

9. *Screening for cancers and NHS Health Check programmes aimed at helping to prevent heart disease, stroke, diabetes and kidney disease, and identify people at risk/with early onset which includes specific targeting to people with mental health problems, using the Mental Health Register as a focus for identifying relevant patients.*

10. *A comprehensive physical health check-up for all patients on admission to acute and residential community mental health settings. Effective liaison between these services and the patient's GP with the aim that all findings are recorded in both acute and GP patient records, and followed up.*

11. *Inclusion in contracts of a requirement for all community psychiatric nursing staff to undertake routine physical health monitoring (e.g. blood pressure, weight) and appropriate training for staff carrying out this work, especially when dealing with patient's who may need convincing of the usefulness of this. Good links between community psychiatric services and lifestyle change support services to enable easy referral routes.*

12. *Local voluntary, community and faith sector group and/or networks in existence locally to coordinate/advocate for people with mental health problems (including in relation to their physical ill health and wellbeing needs.*

13. *Equality Impact Assessments (EIAs) on all policies and commissioning plans, which include mental health and mental illness, cross-referenced with other equality issues (e.g. race, sexual orientation, disability, gender, religion/faith, human rights) in relation to all policies and services including the use of Mental Health Act provisions.*

Introduction

This is one of a series of diagnostic workbooks developed by the Health Inequalities National Support Team (HINST), while working with the 70 local authorities covering populations in England with the highest levels of deprivation and poorest health. The programme finished work in March 2011, but the Department of Health is publishing its key outputs for local commissioners and providers to use if they so wish. Each workbook topic was selected for the importance of its potential impact on health and wellbeing, and also on mortality and life expectancy in the short, medium or long-term.

At the core of each workbook is a diagnostic framework – Commissioning Services to Achieve Best Population Level Outcomes (see p14). The diagnostic focuses on factors that contribute to a process in which a group of evidence-based interventions produce the best possible outcomes at population level. Part of the structure addresses delivery of **service outcomes** in the most effective and cost effective manner. However this is balanced by considerations of how the population uses services, and is supported to do so, to enable **optimal population level outcomes** that are fairly distributed.

The framework is made up of a set of detailed, topic-based questions. These provide local groups of commissioners and providers with **a systematic approach to deciding what needs to be done** to further improve population health and wellbeing, capitalising on evidence-based interventions. **How** these improvements will best be achieved in a given locality will be for local participants to decide. The workbooks signpost good practice and guidance where this may be helpful.

The resource represented by this workbook can make a significant contribution during a period of transition for the NHS, as responsibility for commissioning of health and health related services transfers to the NHS Commissioning Board, GP Commissioning Consortia and supporting Health and Wellbeing Boards in their contribution to reducing health inequalities locally. Changes are also in progress within local government, social care and the voluntary sector. Current policy in relation to public services highlights the centrality of engaging people – as individual service uses and patients, and as whole communities, in their own health and wellbeing and that of the wider community.[5] The workbook will support the newly emerging organisations and networks as an aid to understanding commissioning processes towards achieving population level outcomes. Key processes that should significantly influence local commissioning priorities such as the development of Joint Strategic Needs Assessment and Health and Wellbeing Strategies, will be highlighted through the use of the workbooks. The skills and knowledge embedded within the realigned local Public Health teams will be critical in development and coordination of these key processes with reference to Public Health England.

The workbook is designed and tested to help areas identify which factors are important in the systematic and equitable delivery of health improvement. They should, therefore, provide a good framework for early identification of local solutions driven by the new perspectives being brought to bear.

The NHS also faces a challenging financial environment during the transition. Through the Spending Review, the Government protected the NHS, with cash funding growth of £10.6bn (over 10%) by 2014/15. Nevertheless, by historical standards this remains extremely challenging and the NHS has been developing proposals to meet the Quality, Innovation, Productivity and Prevention (QIPP) challenge of efficiency savings of up to £20bn by 2014/15 for re-investment. This means that considerations of the affordability,

and evidence on the cost-effectiveness and cost-benefit of the interventions presented should be of central consideration. Where possible priority should be given to interventions that are likely to lead to cash-releasing savings that can be re-invested in other services, based on a sound evidence base. Some of the relevant evidence has been referenced through the workbook.

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Local facilitators and participants will be aware of changes that may be outside the scope of this workbook and of any detail in the workbook that may have been superseded. These should be taken into account. To facilitate this, a generic workbook – *A Generic Diagnostic Framework for Addressing Inequalities in Outcome from Evidence-based Interventions* – has been produced (and is on the website), that could be used to guide the diagnostic questions and discussion during the workshop, with this detailed workbook being used alongside the generic one for reference.

How to Use this Workbook – a guide for facilitators

The objective of the workbook, used in a workshop setting, is to gain a picture of the local strengths and gaps in services in relation to the objective of achieving best outcomes at **population level**, and to identify and recommend changes that could be introduced.

The workbook is best used in a **facilitated** workshop setting for a **minimum of 8 and a maximum of 25 participants**. **Allow 4 hours for the workshop.** The participants in the workshop should include key individuals who are involved in planning, commissioning and delivering services and interventions in relation to the workbook topic through a partnership approach. The make-up of the group will vary according to local situations but the suggested minimal attendee list for this workbook is set out below:

Physical Health and Wellbeing of People with Mental Health Problems: Suggested Workshop Invitees

Please note that some of the services below may not exist in a locality, or service configuration may be different.

Mental Health Trust Medical Director	Head(s) of Community Mental Health
Mental Health Trust Chief Nurse	Patient /voluntary/community/faith sector representative (e.g. LINk/Mind)
Psychiatric liaison lead	PCT Board Mental health champion
Mental Health Commissioning lead (PCT)	LA Cabinet/LSP/Health and Wellbeing Board Mental Health lead/champion
Mental Health Commissioning lead (LA)	Homelessness and health lead
New GP Commissioning Cluster(s) lead(s)	Drug Action Team lead
Public Health (mental health lead)	Equalities lead (preferably disability lead if more than one) – MH Trust; PCT; LA
Public Health services commissioning lead	
Head of Health Improvement	Primary care quality lead
GP with a Special Interest in Mental Health	Long Term Conditions commissioner
Stop Smoking Service Lead	

Where there is more than one organisation (for example, acute trust) providing local services, it is advisable to invite senior representatives from each.

Provide a copy of this workbook to each participant at the workshop. It is suggested that the participants do not see the workbook in advance, but are informed that the workshop will be an opportunity to explore their knowledge of approaches to the issue with others who will bring differing perspectives. This will mitigate against any participants over-preparing, becoming defensive or being resistant to discussing – and finding solutions for – local issues.

The facilitator should be familiar with the workbook questions and the model described below, which enables a population level perspective to be taken. It is suggested that facilitators introduce the participants to this model and approach. Following the introduction, it is useful to look at section 13 first as this gives an overview of the situation in the area for this topic and helps to make sure all participants have an opportunity to contribute at the beginning. Finish by working through each of sections 1-12 of the model.

Group discussions about all of the questions in each section allow strengths, best practice and gaps to be identified, and the group to begin to think about where improvements could be made. A separate publication contains a facilitator's recording book, which can be used during the workshop to record this discussion. This need not be copied for workshop participants.

Key actions and lead stakeholders to take these actions forward can be identified during the workshop. The greatest impact is likely to result if summaries of these key actions and of the recognised strengths and recommendations from the workshop are produced and circulated to attendees and key accountable stakeholders within the partnership, following the workshop.

Throughout the workbook, some questions have been ***highlighted in bold italics*****.** These are questions that investigate areas of work that are likely to have the biggest impact on reducing health inequalities. They will help enable services to be delivered in a way that is systematic, reducing variability and resulting in population level change. These potential key actions are given in Appendix 1. It is sensible to put emphasis on these questions during the workshop.

Background to Population Level Interventions

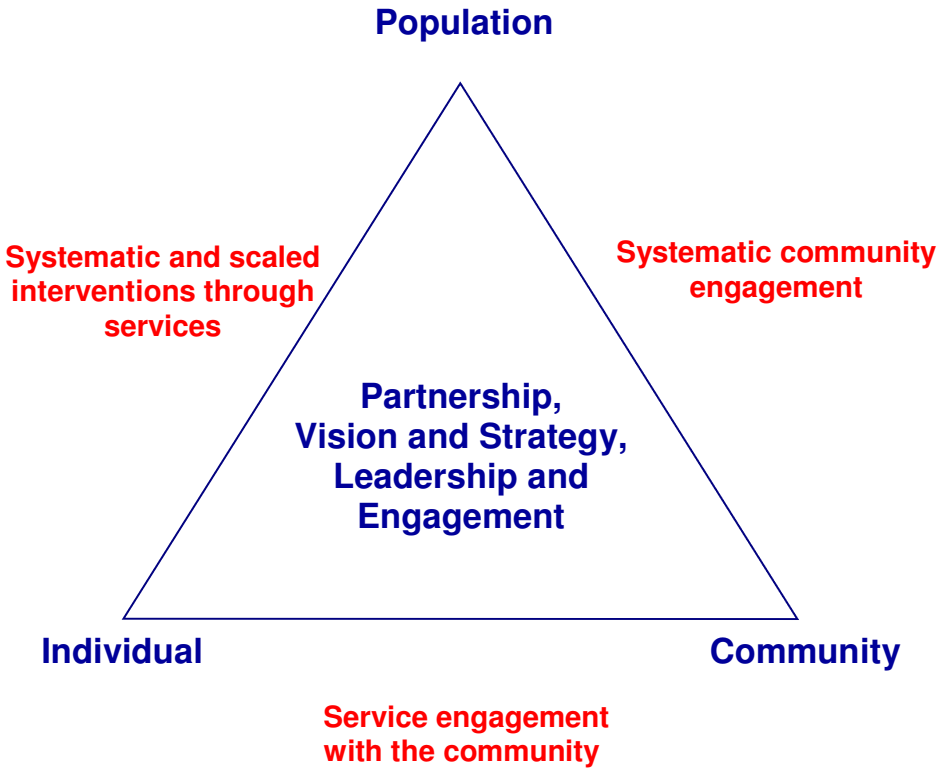
Challenging public health outcomes, such as achieving significant percentage change within a given population by a given date, will require systematic programmes of action to implement interventions that are known to be effective and reaching as many people as possible who could benefit.

Programme characteristics will include being:

- **Evidence based –** concentrating on interventions where research findings and professional consensus are strongest
- **Outcomes orientated –** with measurements locally relevant and locally owned
- **Systematically applied –** not depending on exceptional circumstances and exceptional champions
- **Scaled up appropriately –** 'industrial scale' processes require different thinking to small scale projects or pilots ('bench experiments'**)**
- **Appropriately resourced –** refocusing on core budgets and services rather than short bursts of project funding

- **Persistent –** continuing for the long haul, capitalising on, but not dependant on fads, fashion and changing policy priorities

Interventions can be delivered through three different approaches to drive change at population level, illustrated by the following diagram:



Producing Percentage Change at Population Level

C. Bentlev 2007

Population Approaches

Direct population level interventions will include developing healthy public policy, legislation, regulation, taxation and public funding strategies. These elements should support making 'healthy choices easy choices' for individuals and communities.

The impacts of such population level interventions, however, will not automatically 'trickle down' to all, often in particular missing those who are socially excluded for various reasons. Strategies for targeted communication and education, service support and even enforcement will be required to achieve full impact.

Individual Approaches through Services

Some interventions taken up at individual level, such as support for environment and behaviour change, therapies, treatments and rehabilitation, can change individual risk significantly, in some cases by 30-40%. The challenge is to achieve so many of those individual successes that it adds up to percentage change at population level. This will be achieved only if services take into account issues of system and scale to enable this to happen, and work to address population level outcomes as well as those for individual service users.

Improvements in health and wellbeing will require some reorientation of health and other services to take a more holistic view of individual circumstances, with regard to any personal characteristics/sub-population group status or socio-economic status and to focus on development of personal skills of staff and service users, so promoting healthy choices and actions.

Community Approaches
Individuals will only choose to use and benefit from certain behaviours and actions if those behaviours fit with the cultural and belief system of their own community. Communities can be based on place (neighbourhood, school, workplace), culture (ethnicity, faith) and others (disability, sexual orientation). Community development is one way of facilitating communities' awareness of the factors and forces that affect their wellbeing, health and quality of life.

Community engagement is often patchy, favouring those communities that already have leadership, organisation and some resources. Instead, it needs to be systematic in bringing top-down and bottom-up priorities together into plans. This will strengthen community action to create more supportive environments and develop knowledge and skills of community members.

Service links into communities can be superficial, of poor quality, unsystematic, and based on low levels of understanding. Connectivity between services can be disorganised and confusing. Use of the voluntary, community and faith sector as a bridge between services and community based structures needs to be more systematic and based on need rather than supply. Commissioning is key to this.

Commissioning Services to Achieve Best Population Level Outcomes

Substantial progress can be achieved in making an impact in the short, medium and long-term in relation to inequalities in mortality and life expectancy through a focus on existing services. Because of this, extra attention is given here to extracting maximum benefit from delivery of interventions for which there is strong evidence of effectiveness. In addition there is a deliberate emphasis wherever possible on improving access to services of a scale that will impact on bringing about a population level improvement in mortality and life expectancy within a two to three year period.

The detail is illustrated in the attached diagram on page 14 with the title 'Commissioning for Best Population Level Outcomes', otherwise known as the 'Christmas Tree' diagnostic, with an accompanying description of its component principles. The framework balances two sets of factors that determine whether optimal outcome can be achieved at population level from a given set of personal health interventions.

The right hand side of the diagram (1 to 5) – a challenge to providers: links the factors that will influence health *service* outcomes, that is how can we construct the most effective service.

However, optimal outcomes *at population level* will not be obtained without the following:

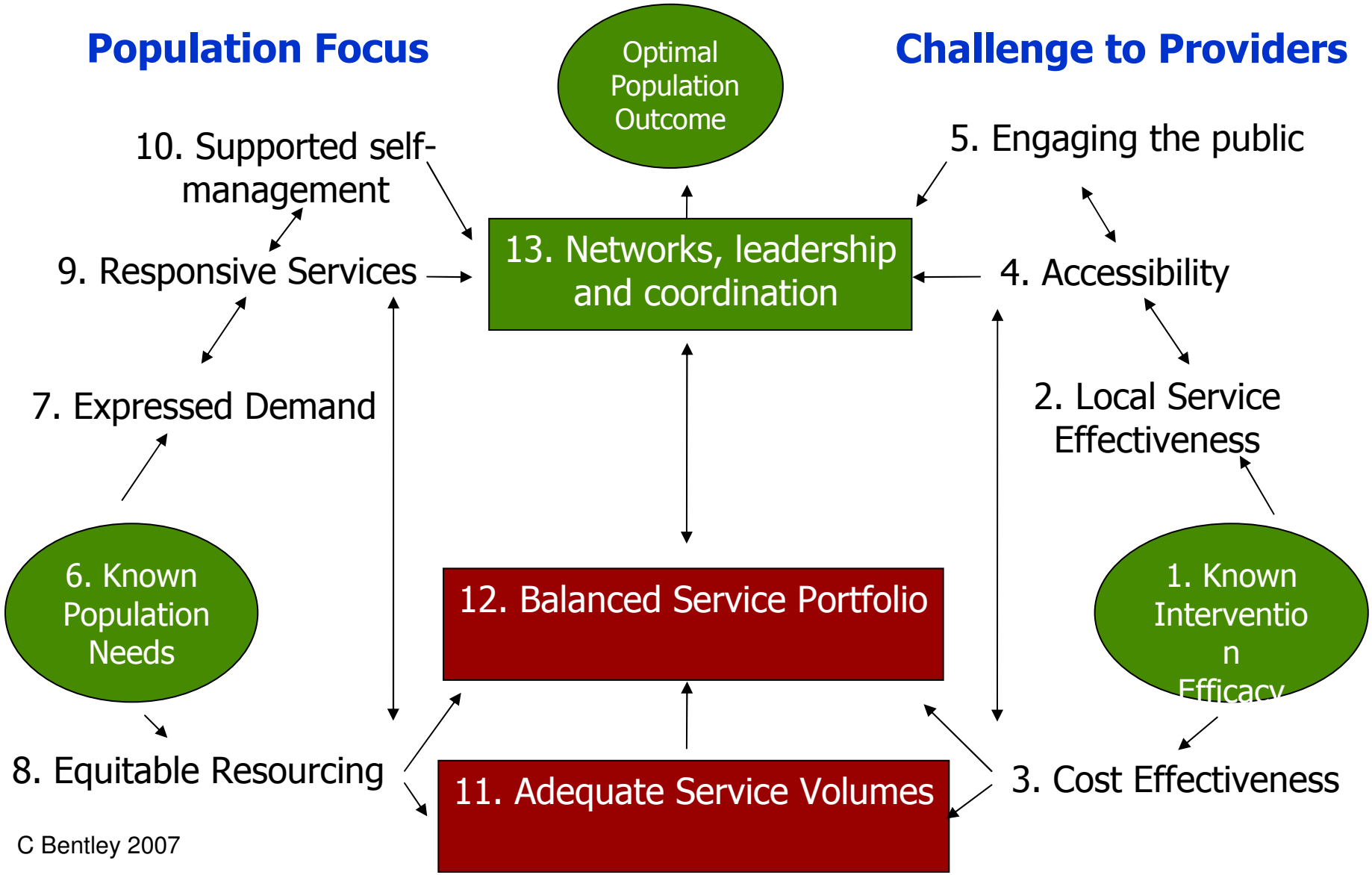
The left hand side of the diagram (6 to 10) – a population focus: identifies those factors that determine whether a community makes best use of the service provided – for

example, whether the benefits of personalised improvements to services are having a systematic impact on reducing health inequalities at the population level.

The balance between the two sides of the diagram – the commissioning challenge: Enabling equality of outcome, not just equality of access to service provision and support, is a significant and crucial challenge for commissioners. The 'Christmas Tree' diagnostic is a tool to help achieve this. The right side of the diagram enables commissioners to identify the best services available for their population. The left side allows commissioners to commission services and support that best meet the needs of all people in the local population. Attention to both sides of the diagram will assist in determining that all services are effective **and** engaged with and used by all of the diverse communities in the area they serve.

The central elements of the diagram are concerned with identifying the most effective services/interventions, which are also fully acceptable, accessible and effective in terms of take-up and compliance, and that there is adequate capacity to meet the need. Effective leadership and networks are needed to enable all these elements to be kept under review in order to consistently focus on continuous improvement and equality of morbidity and mortality outcomes.

Commissioning for Best Population Level Outcomes



C Bentley 2007

Commissioning for Best Population Level Outcomes

A CHALLENGE TO PROVIDERS

1. **Known Intervention Efficacy:** Looks at life saving interventions, for which there is strong evidence, that are implemented equitably and made available to as many people who could benefit as possible.

2. **Local Service Effectiveness:** Aim for service providers maintaining high standards of local effectiveness through education and training, driven by systems of professional and organisational governance and audit

3. **Cost Effectiveness:** Aim for programme elements that are as affordable as possible at population level

4. **Accessibility:** Aim for services are designed with the minimum barriers to access, balancing a drive to bring services closer to the patient with the need for efficiency and effectiveness of that service.

5. **Engaging the Public:** Working with service users and communities to aim for needs and requirements being placed at the centre of service provision and for quality assurance systems in place that makes the services acceptable to service users

B POPULATION FOCUS

6. **Known Population Needs:** Aim for a realistic assessment of the size of the problem locally, and its distribution geographically and demographically and the level and type of service being based upon this assessment.

7. **Expressed Demand:** Aim for as many people as possible suffering from the problem or its precursors, to present to services in a timely and appropriate fashion, through informing, educating and supporting the population.

8. **Equitable Resourcing:** Aim for the distribution of finance and other resources to support equitable outcomes according to need.

9. **Responsive Services:** When people present to services, aim to make sure they are afforded equal access to timely beneficial interventions according to need.

10. **Supported Self Management:** Where appropriate, help service users to be empowered to make choices about their circumstances and service offer on the basis of good information, and to be supported to utilise the service offer to best effect

11. **Adequate Service Volumes:** Commissioning adequate service volumes to aim for acceptable access times.
12. **Balanced Service Portfolio:** Aim for balance of services within pathways to avoid bottlenecks and delays.
13. **Networks, Leadership and Coordination:** Designating leadership and coordination to aim for services that are commissioned and networked to meet population need and the population is supported to use services and interventions appropriately

Whilst the service design elements are an immediate concern to providers, all sections of the 'Christmas Tree' diagnostic are of direct relevance to commissioners

Equality

Equalities perspectives need to be built into all whole population approaches. The Equality Act 2010 set out the public sector equality duty:

> *(1) A public authority must, in the exercise of its functions, have due regard to the need to:*
>
> > *(a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;*
> >
> > *(b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;*
> >
> > *(c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.*

The Act identifies a number of "protected" population groups/characteristics where specific elements of the legislation apply. These groups/characteristics are:

- *age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; sexual orientation.*

- Although socioeconomic inequalities are not specifically included in the Equality Act, there are a range of duties in relation to tackling inequalities included at different levels in new health and social care legislation, and for all key structures and partners involved in the commissioning and delivery of this legislation.
- The Health and Social Care Bill 2010 proposes new legal duties on health inequalities for the Secretary of State and the NHS. Subject to Parliamentary approval:
- • The Secretary of State for Health must have regard to the need to reduce health inequalities relating to the NHS and Public Health
- • The NHS Commissioning Board and GP consortia must have regard to reducing inequalities in access to, and outcomes of, healthcare.

In order to carry out these duties effectively an emphasis on socioeconomic disadvantage will be essential, as it is recognised as a major driver in relation to inequalities of access to, and outcomes of, health and wellbeing services.[6]

Useful Materials[7]

Why this topic has been chosen

The shared vision for mental health and wellbeing, as presented initially in New Horizons[8], and the National Suicide Prevention Strategy[9] and more recently in the Public Health White Paper[10] and the *No Health without Mental Health Cross-Government Mental Health outcomes strategy*[11], provide the context for the national strategic development of mental health and wellbeing.

The link between mental health and health inequalities is a complex one. Whilst certain social circumstances are associated with mental health problems, it is also the case that experiences of mental illness can impact upon a person's socioeconomic status. Most

patients with mental health problems are cared for in primary care with only a small proportion of people requiring secondary mental health care services and an even smaller number requiring specialist mental health care. Nevertheless the cost to the NHS budget, to social care budgets, the costs to the wider economy and the human costs of mental ill health are substantial.

Poor mental health is both a contributor to and a consequence of wider health inequalities. It is associated with increased health-risk behaviours and increased morbidity and mortality from physical ill health. Promoting good mental health has multiple potential benefits. It can improve health outcomes, life expectancy and educational and economic outcomes and reduce violence and crime. However as a wide range of research outlined below indicates, people with mental health problems experience poorer physical health and are more likely to die prematurely.

1. Scale and extent of the problem

The *Atlas of Variation in Healthcare* sets out some useful evidence and references that complement the following sections in this workbook.[12] In summary, some of the key issues and challenges that illustrate the complex interrelationship between mental health and poor physical health and premature mortality include:

- No other health condition matches mental ill health in the combined extent of prevalence, persistence and breadth of impact.
- Mental illness accounted for more disability adjusted life years lost per year than any other health condition in the UK and the figures for 2004 show that 20% of the total burden of disease was attributable to mental illness (including suicide), compared with 16.2% for cardiovascular diseases and 15.6% for cancer. No other condition exceeded 10%.
- The NHS spends 11% of its annual budget on mental health services. Recent estimates put the annual wider economic costs of mental health problems at around £77 billion.[13]
- There are substantial cost savings to be made by promoting mental health and wellbeing.
- Around 50% of lifetime mental illness (excluding dementia) starts before the age of 14 and continues to have a detrimental effect on an individual and their family for many years. Potentially a quarter to a half of mental health problems are preventable through interventions in the early years.
- 1 in 6 of the adult population experiences mental ill health at any one time
- 10% of children have a mental health problem, many of whom continue to have mental health problems into adulthood.
- 10% of new mothers suffer from postnatal depression.
- 19% of women and 13.5% of men are affected by depression or anxiety at any one time.
- 50% of all women and 25% of men will be affected by depression at some time in their life and 15% experience a disabling depression.
- 4% of population has a personality disorder.
  1% of population has a severe mental illness (psychosis).[14]

2. Mental health and equalities

Mental health, individual resilience and social exclusion are all influenced by a range and interaction of different factors across the life course such as social position, education,

housing, employment and exposure to violence. A social gradient in health exists in that better social and economic position results in better health[15]. Social and economic inequalities are fundamental drivers of health and wellbeing. In England each year, between 1.3 million and 2.5 million years of life are lost as a result of health inequality, which results in an annual cost of £56–68 billion[15].

Inequality affects mental health in a variety of ways:

- Relative deprivation is associated with increased risk of mental illness[16], with 15% of children at the lowest income levels experiencing mental health problems compared with 5% of children at the highest income levels[17].
- Higher income inequality is linked to higher rates of mental illness, decreased rates of trust and social capital, and increased hostility, violence and racism[18]: as well as lower wellbeing scores[19].
- Poor mental health is associated with unemployment, lower educational attainment, lower income/ material circumstances and other adverse life events[20]. It is also associated with increased risk-taking behaviour, so that increased smoking is responsible for a large proportion of the excess mortality of people with mental health problems[21]. One explanation 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[22]. Such stress may underlie the causes of some unhealthy behaviours[23].

Mental illness further exacerbates inequality and is associated with increased mortality and morbidity as well as poorer economic, health and social outcomes[24].

- Life expectancy for people with schizophrenia is an average of 25 years shorter compared with the general population and increased morbidity life expectancy is also a serious issue[25]. Those aged 25 to 44 experience 6.6 times increased cardiovascular mortality than an age-matched general population[26]. More premature deaths are due to treatable cardiovascular, pulmonary and infectious diseases (66%) than from suicide and injury (33%)[21]. This reflects increased health-risk behaviours such as smoking, as well as increased risk of obesity
- Impact of mental ill health on physical health: mental, social and behavioural problems interact. People with common mental health disorders are more likely to engage in behaviours that are detrimental to overall health – poor diet, less exercise, heavy smoking and drug and alcohol misuse. Depression at age 65, for example, is linked with a 70% increased risk of dying early and the risk of dying following a heart attack is increased six-fold.
- Discrimination and stigma experienced by those with mental health problems and other socially excluded groups further compounds inequality. The impact of stigma and discrimination can reduce employment opportunities, weaken supportive social networks and contribute to further socioeconomic inequality. People with mental health problems are more likely to be unemployed, and live in poverty and in neighbourhoods with less social and environmental capital
- Reduced access to quality medical care – both for physical and mental health problems

3. Groups who are at higher risk of mental health problems

Children and young people	Adults
• Children with parents who have mental health or substance misuse problems • Personal abuse or witnessing parents	• People with mental health illnesses or a history of self-harm • Young and middle aged men

with domestic violence • Looked after children • Child carers • Children and young people excluded from school • Teen parents • Young offenders • Lesbian, gay, bisexual, transgender young people • Young men • BME groups, especially young Asian women • Families living in socioeconomic disadvantage	• BME groups, especially young men of Afro-Caribbean origin • Homeless people • Adults with a history of violence or abuse • Offenders and ex-offenders • Lesbian, gay, bisexual, transgender adults • Travellers, asylum seekers and refugees • A history of being looked after/ adopted • People with learning disabilities • Isolated older people

3.1 Black and minority ethnic groups

- BME groups are, on average, three times more likely to experience psychosis than White British ones[27]. Risk of psychosis in Black Caribbean groups is nearly seven times higher than in the White population[28].
- Higher rates of common mental disorders have been found in South Asian and Irish subgroups than in their White British counterparts[29]; South Asian women are at more than two-fold higher risk[30].
- Black men are 2.5 times more likely than men in other ethnic groups to screen positive for Post Traumatic Stress Disorder[30].
- Suicide rates are higher among Black African (2.5 times) and Black Caribbean (2.9 times) men aged 13-24, and among Black African (3.2), Black Caribbean (2.7) and South Asian (2.8) women aged 25-39 than among their White British counterparts[31].

3.2 Lesbian, gay, bisexual and transgender (LGBT) people: The estimated prevalence of lesbian, gay, bisexual and transgender people in England is six per cent[32]. A systematic review of the international literature and meta-analysis on research on the mental health of 214,344 heterosexual and 11,971 LGBT people found[33]:

- *LGBT people*: LGBT people have a two-fold increase rate of suicide attempts, 1.5 times higher risk for depression and anxiety disorders, and higher risk of alcohol and substance misuse
- *Lesbians/bisexual women:* Lesbians and bisexual women are particularly at risk of substance dependence
- *Gay/bisexual men*: Gay and bisexual men are particularly at risk of lifetime prevalence of suicide attempt.

Higher prevalence of mental health problems among LGBT has also been reported across the UK, compared to heterosexual populations[34]. However, studies are scarce and there is no reliable data for older LGBT populations. Studies of LGBT populations have found that:

- 34.4% of transsexual people say they have attempted suicide at least once as an adult[35]; 20% say they have a mental health disability[36]
- 16% lesbians and bisexual women (survey n=6178) aged under 20 have attempted suicide[37].

A birth cohort of 967 young people in New Zealand found that 87.6% were exclusively heterosexual. The remainder were either bisexual (9.6%) or homosexual (2.8%). Rates of mental health problems were (small numbers for lesbians are in rounded figures):[38]

- major depression
  - Men – straight: 14.6%; bisexual: 42.9%; gay: 71.4%
  - Women – straight: 24.3%; bisexual: 37.3%; lesbian: 50.0%
- anxiety disorder
  - Men – straight: 10.2%; bisexual: 28.6%; gay: 85.7%
  - Women – straight: 21.2%; bisexual: 34.3%; lesbian: 40.0%
- suicide ideation
  - Men – straight:10.9%; bisexual: 28.6%; gay:71.4%
  - Women – straight: 9.7%; bisexual: 20.9%; lesbian: 30.0%
- suicide attempts
  - Men – straight: 1.6%; bisexual: 0%; gay: 28.6%
  - Women – straight: 1.5%; bisexual 4.5%; lesbian: 10.0%

A higher prevalence of mental health problems is also associated with higher use of mental health services in LGBT populations[39].

3.3 Learning disability: An estimated 1.2 million people in England have a mild learning disability and a further 210,000 have a severe learning disability[40]. People with learning disabilities are a highly heterogeneous group. They are also at much higher risk of mental health problems than the general population.

- *Children and adolescents in the UK*
  - Children with learning disability have psychiatric disorder prevalence rates of 36% compared with 8% in children without learning disability. They comprise 14% of all British children with a diagnosable psychiatric disorder[41].
  - Children with learning disability are 6.5 times more likely to have a psychiatric disorder, 3.5 times more likely to have an emotional disorder, 3.9 times more likely to have an anxiety disorder, 8.4 times more likely to have ADHD and 5.7 times more likely to have a conduct disorder than children in the general population[41] .
- *Adults in the UK*
  - Between 30% and 50% of adults with learning disability in the UK have mental health problems[42]. Levels of mental ill health are 47.9% in ages 20-64 years and 68.7% in ages 64+[43].
  - Adults with learning disability are at three times higher risk of schizophrenia and at double the risk of depression compared with adults in the general population[42].

3.4 Offenders and mental health: Offenders are a high-risk group for social exclusion and mental ill health. The table below shows the very high rates of mental illness and suicide among this group. Certain groups within the prison population, such as women, young offenders and people with learning difficulties or disabilities, are at even greater risk of poor health outcomes.

Prevalence of mental health problems in male and female prisoners and the general population[44]

Mental health Problem	**Male**			**Female**		
	Remand	**Sentenced**	**General population**	**Remand**	**Sentenced**	**General population**
Depression or anxiety	26%	19%	12%	36%	31%	16%
Psychosis	10%	7%	0.5%	14%		0.4%
Personality disorder	78%	64%	5.4%	50%		3.4%
Self-harm	5%	7%	-	9%	10%	-
Suicide attempt – ever	27%	20%	-	44%	37%	-

Sexual abuse	10%		11%	33%		21%
Hazardous drinking	58%	63%	38%	36%	39%	15%
Heroin in the last year	29%	21%	<1%	41%	26%	<1%
Crack-cocaine in last year	24%	18%	<1%	32%	20%	<1%

(Source: Singleton, 1997; Singleton, 2001; Coulthard, 2000 cited in *Nurse* 2008)

4. Interrelationship between physical health and mental health

Good mental health and wellbeing are associated with reduced mortality rates, both in healthy people and in those with illnesses[45]. These effects are independent of other factors, including anxiety and depression. People with poor mental health and wellbeing are at higher risk of dying early than people with a diagnosed mental illness[46].

Poor mental health powerfully affects physical health[47]. Mental illnesses increase vulnerability to communicable and non-communicable diseases and contribute to accidental and non-accidental injury. The overall burden of mental illness is likely to be far greater than current estimates because the connection between mental illness and other health conditions is not always recognised or understood.

Adverse psychosocial factors accumulate during life and increase the risk of poor mental health, which in turn reduces help-seeking and increases the risk of under-detection and under-treatment of physical and mental illness, poor compliance and premature death.

4.1 The impact of depression on inequalities in physical health:

- *Increased mortality at age 65:* A meta-analysis of 15 population based studies found that a diagnosis of depression in those over 65 was increased subsequent mortality by 70%[48].
- *Overall increased mortality:* Analysis of a large population survey found that depression was associated with a 50% increased mortality this is estimated to be comparable with that of smoking[49] .
- *Multiple causes for increased mortality:* Depression was associated with increased mortality for the following causes: cardiovascular disease 1.67 (95% CI 1.38-2.01), cancer 1.50 (1.19-1.89), respiratory disease 2.06 (1.26-3.38), metabolic disease 3.03 (1.46-6.28), nervous system diseases 4.66 (2.44-8.92), accidental death 2.09 (1.07-4.08), and mental disorders 6.75 (2.09-21.78)[49].
- *Depression and risk of CHD:* Systematic reviews of 11 prospective cohort studies in healthy populations show that depression predicts later development of coronary heart disease[50 51].
- *Depression and stroke:* Increased psychological distress is associated with 11% increased risk of stroke after adjusting for a range of possible confounders in analysis of a cohort study of 20,267 participants followed up over 8.5 years[52].
- *Depression and other conditions:* Prospective population-based cohort studies show that depression predicts later colorectal cancer[53], back pain[54], irritable bowel syndrome[55] and multiple sclerosis[56].
- *Depression and compliance:* Meta-analysis of factors related to non-compliance found that depressed patients were three times as likely to be non-compliant with treatment recommendations as non-depressed patients[57].

4.2 The impact of serious mental Illness on physical health:

- People with schizophrenia and bipolar disorder die an average 25 years earlier than the general population, largely due to physical health problems[58].
- Standardised Mortality Rates for those with Serious Mental Illness are 150 all cause, respiratory disease 250, cardiovascular disease 250 and infectious disease 500[59].
- Compared with the general population, among people with schizophrenia there is an increased prevalence of obesity (1.5-2 times), diabetes (2 times), dyslipidaemia (5 times), and smoking (2-3 times)[60].

4.3 Physical illness increases the risk of poor mental health: Many physical health conditions also increase the chances of poor mental health, for example:

- Physical illness increases risk of developing depressive disorder in a large population-based cohort (n=11,859)[61]. The risk was similar for a wide range of physical illnesses including hypertension, asthma, arthritis and rheumatism, back pain, diabetes, heart disease and chronic bronchitis.
- Up to 70% of all new cases of depression in older adults are caused by poor physical health[62]
- Physical illness and two or more recent adverse life events increases risk of mental illness by six times compared to without physical illness[63]
- There is a 20% rate of new onset of depression or anxiety in the year after diagnosis of cancer and first hospitalisation with a heart attack[64 65].
- Long-term conditions increase the risk of mental illness; people with diabetes have 2-3 times increased risk of depression, which is associated with increased healthcare consumption by 50-75% and increased symptoms[66]. People with COPD have 40-50% rates of depression and anxiety.

Work bringing together an overview of the relationship between diabetes and mental health highlighted a number of areas of concern:

- At least 40% of people with diabetes will report poor psychological functioning. Depression is 2 to 3 times more likely in those with diabetes, and it is not well recognised or treated. For people with long term depression, it might be thought that depression would be more likely to be recognised and treated due to the regular contact with services; however, that does not seem to be the case.
- Eating disorders are also more common in those with diabetes.
- Those with depression and diabetes often have poorer glycaemic control and perceive managing their condition to be more of a problem. When more than one long-term condition combines with depression, this can compound the effects and lead to significant differences in mortality and morbidity.
- Care plans and pathways for people with mental health needs and those with physical health needs are not usually integrated[67]

5. Risk behaviours

People with mental health problems are also more likely to engage in behaviours that increase the risk of poor health. For example, people with severe mental health problems are more likely to have poor diets, engage in less exercise, smoke heavily and be dependent on alcohol, thus increasing the risk of illness such as cardiovascular disease. People with psychosis have more sedentary lifestyle; more likely to be obese; less likely to eat fruit and vegetables[68]. In addition, antipsychotic medication can cause significant weight gain, dyslipidemia and more diabetes[69].

5.1 Smoking

Effects of smoking on mental health: Smoking increases risk of developing a mental disorder by 56%[70]. Smoking has been found to increase risk of depression and anxiety disorder in young people[71 72]. Smokers are also at higher risk of suicide[73].

Effects of mental health on smoking:

- *Children with a mental disorder* – are more likely to become smokers. Smoking is strongly associated with ADHD and conduct disorder[74 75] and with depressive disorders and drug and alcohol use[76].
- *Common mental disorders* – 44% of people with common mental disorder are smokers[77]. The number of depressive symptoms is related to the amount smoked[78 79]. Smoking is also associated with increased anxiety in the general population[80]. Anxiety predicts uptake of smoking and smoking increases risk of anxiety disorders[81].
- *Serious mental illness* – more than 70% of people with schizophrenia or affective psychosis smoke, and 76% of those with first episode psychosis[82].
- *People with mental disorder* – smoked 44% of all cigarettes smoked in the US[83] and 42% of all cigarettes smoked in Australia[84].

There are very high smoking rates among population groups with high levels of mental illness. For example, smoking rates are 85-90% among homeless people[85 86] and 80% among prison inmates[87].

Impact of smoking on people with mental illness: Smoking is responsible for most of the excess mortality of people with mental health problems[88]. Smokers with mental illness have a 10-fold increased death rate from respiratory disease[89]. People who smoke need to take higher doses of a number of antidepressants, antipsychotics, benzodiazepines and opiates, due to its effect on liver enzymes. The financial cost of smoking means people with mental health problems have less money available for other basic needs. Smoking is associated with less use of alternative coping strategies[90].

5.2 Alcohol

Mental illness increases the risk of alcohol problems: common mental illness doubles the risk of alcohol dependency and severe mental illness triples the risk[91]. There is evidence that alcohol misuse and mental disorders exacerbate each other. Anxiety, depression, low self-esteem and lack of success in attaining life goals are associated with drinking among adolescents[92]. Alcohol abuse by young people increases the risk of depression by a factor of six, and there is a reciprocal 'synergistic' relationship between depression and alcohol abuse[93].

Effects of alcohol on mental health: Mental disorders such as depression, anxiety and psychosis increase risk of misusing alcohol, and excessive alcohol consumption may increase risk of suicide and dementia.

The risk of hazardous drinking increases following two or more stressful life events[94]. For example, childhood sexual and physical abuse are significant factors in the development of alcohol problems in women (although not in men with similar traumatic experiences)[95 96].

A third of suicides in young people are associated with alcohol intoxication; 65% of adult suicides are associated with excessive drinking[91].

Heavy drinking may be a factor in one in four cases of dementia[97].

5.3 Obesity

Obesity disproportionately affects people with mental illness, learning disability and physical disability[98] [99]. Antipsychotic medication can cause significant weight gain, dyslipidemia and diabetes[100].

Obesity is more common in people with major depression, bipolar disorder and panic disorder and agoraphobia[101].

Although one study found that obesity at 18 years old is associated with 2.31 times the increased risk of suicide by age of 30[102], another prospective cohort study found that obesity was associated with a reduction in suicide[103].

The risk of obesity associated with mental disorder may increase with age: in one long-term follow-up study[104] the estimated proportion of people who were obese was 5.7% at age 40 for those with and without mental disorder. At age 70 the risk has increased to 34.6% of those with mental disorder, compared with 27.1% of those without.

5.4 Nutrition

People with mental illness may often have less healthy diets and make poorer dietary choices than people without mental illness[105]. They may eat less fresh fruit and vegetables, and are less likely to have breakfast.

The brain requires energy and a range of nutrients to function well. Good nutrition is vital for both physical and mental health. Although several studies indicate that some foods or nutrients may have a role in cognition and mental health, the evidence so far is from mainly observational studies and other environmental factors may also have an impact.

One international study found a worse two-year outcome in people with schizophrenia living in countries where the national diet includes higher amounts of refined sugar and dairy products. The same study found that countries in which the national diet includes low amounts of fish and seafood have a higher prevalence of depression[106].

Below summarises associated findings of nutrition on mental health and wellbeing. These findings currently demonstrate an association between mental health and nutrition, but more work on the causal effects of poor nutrition on mental health is required.

- There is some evidence from the reviews of iron, zinc, and omega-3 (n–3) fatty acids that highlights the role of nutrients in maternal and child mental health. Many of these nutrients affect the synthesis and function of dopamine and serotonin — neurotransmitter systems that are implicated in depressive disorders and behaviour problems such as attention-deficit hyperactivity disorder[107].
- *Breastfeeding has been associated* with a 5-10% increase in IQ over bottle-fed children, but is confounded by factors such as socioeconomic status, mothers education, etc. In the UK, breastfeeding rates are higher in women from higher socioeconomic groups and mothers education level[108].
- *Artificial food colours* and other food additives have been found to have a significant negative effect on the behaviour of children with ADHD[109]. Artificial colours or a sodium benzoate preservative (or both) was associated with exacerbation of hyperactive behaviours in 3-year-old and 8/9-year-old children in the general population[110].
- *Whole foods and depression* – a large prospective cohort study found that after adjusting for potential confounders, those consuming whole foods had relatively lower

rates of depression. In addition, high consumption of processed food was associated with increased rates of depression[111].

- Lack of *sufficient, safe and nutritious food* is associated with maternal depression and higher rates of behaviour problems in children[112].
- *Low B vitamins and high levels of homocysteine* have often been considered, as risk factors for cognitive decline and dementia in older people[113].
- *Sugars, caffeine, nicotine and alcohol* can have a direct effect on mood and mental health and wellbeing by negatively affecting the balance of neurotransmitters, causing down regulation of acetylcholine, serotonin, dopamine and adrenaline[114].
- Children who eat *breakfast* have better daily and long-term academic performance[115].

5.5 Physical activity

People with serious mental illness are less likely to exercise[116]. Regular physical activity is associated with improved mental health and wellbeing and lower rates of depression and anxiety across all age groups[117].

A consistent positive relationship has been shown between physical activity and mental capacity, especially in older people[118]. Physical activity also brings a range of benefits beyond direct health outcomes – specifically through promoting community cohesion and addressing health inequalities.

A UK household survey conducted in 2002 and 2004 in 39 disadvantaged communities found that increased levels of physical activity were associated with measurable and significant improvements in mental health and wellbeing[119]. NICE (2009) guidance on depression cites 17 RCTs showing that physical activity can reduce symptoms of depression, although the effect was reduced at follow-up. NICE (2009) concluded that the evidence supports physical activity as an effective treatment for sub-threshold depressive symptoms and mild to moderate depression. It also found that group physical activity has particular benefits for mental health.

The Workbook

Improving the Physical Health and Wellbeing of People with Mental Health Problems: Reducing the Gaps in Premature Mortality and Healthy Life Expectancy

Introduction to workbook

Mental health is a complex issue that is many dimensional. Commissioning and service and support delivery for mental health, although specialisms in their own right, not only involve (currently) joint commissioning between the NHS and social care. They also interact with other major areas of commissioning and service delivery – for example children's and older people's services.

At least four interactive dimensions need to be considered when using this workbook.

Each dimension has a continuum within it. Thus 'A' includes early childhood through to old age; 'B' includes everything from mild stress to acute mental illness. Individuals may be at any point on the continuum for each of the four dimensions (for example a teenager [A], with a diagnosis of depression [B], who is under the care of both his/her GP and CAMHS [C], who is socially isolated, overweight and a smoker [D]) .

A. **Life stage** – emergence of problems and diagnosis can be at any stage from early childhood to end of life, and may be short-term, last for a period of years or be a condition/diagnosis that will persist for the whole of a person's life
B. **Condition/diagnosis** – a continuum from stress and mild depression through to extreme psychosis
C. **Treatment/support settings** – a continuum from self-management through general primary care; specialist secondary care mental health outpatient services; supported community care (including, for example, specialist housing, drug rehabilitation); acute specialist mental health in-patient facilities and even secure units/prisons in some cases
D. **Impacts on physical wellbeing** – a continuum from prevention to effective management and treatment of diagnosed physical health conditions – tackling impact of wider social determinants (e.g. homelessness, low income, racism); prevention of conditions through improved public knowledge and awareness; encouragement and support to change to healthier behaviours and lifestyles; early identification of physical health conditions; appropriate treatment and self-management support.

However, within this complexity, mental health commissioning will need to consider inequalities in relation to a whole population approach so that complex and varied needs are identified and met, with that strategic commissioning framework. The potential overlap is a challenge, and thus there is a need for interlinking mental health needs assessment and commissioning with the wider range of health and social care commissioning roles and areas of responsibilities (e.g. children's health, long-term conditions). However this interweaving is key if the physical health and wellbeing needs of people with a mental health problem are to be specifically addressed.

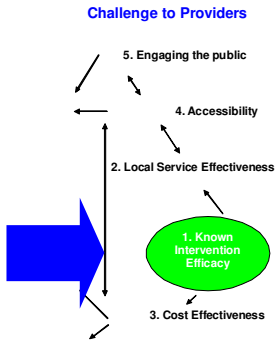
When working through the workbook it might be helpful to think of a range of scenarios/ population groups for which the workbook's diagnostic approach might be appropriate, as with the teenager example above. For example:

- A middle-aged woman with a diagnosis of agoraphobia, with frequent psychiatric hospitalisation and early onset of breast cancers – is she more or less likely to
    a) pick up those early signs herself and/or

b) have it picked up as part of a routine mammography as part of population screening

- than other women of the same age?

- A semi-literate, unemployed man in his late 30s with a diagnosis of bipolar disorder and diabetes, whose care is being managed by his GP. Is he more or less likely to attend for routine GP/diabetes clinics for monitoring of his diabetes and is he more or less likely to be able to effectively self-manage his diabetes?
- An older people in residential care with a diagnosis of Alzheimer's with undetected atrial fibrillation (AF). Is he/she more or less likely to have the AF condition a) picked up and b) treated than an older person who is mentally fully fit?



1 Known intervention efficacy

Looks at life saving interventions, for which there is strong evidence, that are implemented equitably and made available to as many people who could benefit as possible.

The following are practical measures that can be taken to enable a strategic approach to improving the physical wellbeing of people of people with mental ill health and preventing deaths where mental wellbeing or mental illness is a contributing or determining factor.

- Are these in place?
- Are they applied systematically?

1. ***A mental health (wellbeing and illness) strategy based on assessed need and targeted appropriately, that includes an emphasis on how services to support the physical health and wellbeing of people with mental health problems will be specifically commissioned, targeted and delivered.***

2. Development, implementation and impact monitoring within the overall mental health strategy of action plans for specific groups – such as offenders, people with problems of alcohol and drug use, people with dementia – which include an emphasis on how services to support the physical health and wellbeing of people with mental health problems will be specifically targeted and delivered.

3. ***A register of all people with serious mental ill health problems, all of whom then have in place a jointly agreed care plan <u>that includes</u> their physical health and wellbeing***

4. ***A record of seven-day follow-up for people discharged from inpatient mental health services.***

5. ***A comprehensive physical health check-up for all patients on admission to acute and residential community mental health settings. Effective liaison between these services and the patient's GP with the aim that all findings are recorded in both acute and GP patient records, and followed up.***

6. ***Inclusion in contracts of a requirement for all community psychiatric nursing staff to undertake routine physical health monitoring (e.g. blood pressure, weight) and appropriate training for staff carrying out this work, especially when dealing with patient's who may need convincing of the usefulness of this. Good links between community psychiatric services and lifestyle change support services to enable easy referral routes.***

7. ***Specific guidance on Quality and Outcomes Framework (QOF) exception reporting in relation to patients with mental health problems who are suffering from a physical ill health condition; monitoring of QOF exceptions to make sure that such patients are not being disproportionately excluded.***

8. ***Screening for cancers and NHS Health Check programmes aimed at helping to prevent heart disease, stroke, diabetes and kidney disease, and identify people at risk/with early onset which includes specific targeting to people with mental health problems, using the Mental Health Register as a focus for identifying relevant patients.***

9. Discussion and agreed self-management plans, and referral to appropriate support (e.g. weight management) with people with mental health problems, to manage the potential impact and side effects of medication in terms of weight gain and loss, nausea and lethargy. Discussion and support re: how additional medication (e.g. nicotine replacement therapy [NRT] as part of smoking cessation support) or major dietary changes (e.g. if involved in weight loss programme) might impact on/interact with existing medication.

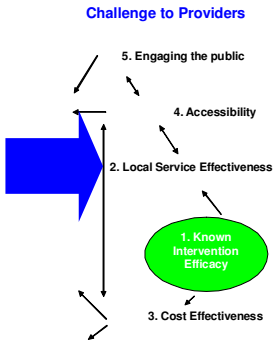
10. The availability of treatments/support in venues/via agencies/professionals with skills in working with people with mental health problems that will help address the physical wellbeing needs of people with mental ill health such as exercise prescriptions, weight management, smoking cessation, alcohol harm reduction.

11. Health Gain Schedule built into the contracts of all service providers (to include mental health brief interventions for all physical health and wellbeing providers), and physical health brief interventions (e.g. for alcohol harm reduction; smoking cessation and weight management support) in contracts for all mental health service providers (acute and community).

12. The availability of physical health interventions support for people with mental health conditions (including dementia) in secondary care settings including psychiatric acute settings; especially the impact of acute infection and dehydration on older people.

13. ***Equality Impact Assessments on all policies and commissioning plans, which include mental health and mental illness, cross-referenced with other equality issues (e.g. race, sexual orientation, disability, gender, religion/faith, human rights) in relation to all policies and services including the use of Mental Health Act provisions.***

14. Implementing NICE guidance relating to physical health needs, such as CG 66 Diabetes, CG 18 hypertension, CG 107 COPD, CG 43 Obesity, CG 108 Heart Failure, CG 68 Stroke to all patients with mental health as the primary presenting problem.



2 Local service effectiveness

Aim for service providers maintaining high standards of local effectiveness through education and training, driven by systems of professional and organisational governance and audit

1. Systematic measurement

- What mechanisms are in place to enable the delivery and evaluation of high quality services to meet the physical health needs of people with mental health problems? How systematic is this and what is the coverage?

- What outcomes are agreed and measured?

2. QOF

- How are the outcomes of QOF measured and where required, performance managed and improved?

3. Priority setting

- Is there a system for setting priorities in order to target services to people in most need (i.e. with one or more known existing physical health problems) and to those with lifestyles (e.g. drug and/or alcohol misuse or homelessness) who may be particularly vulnerable?

4. Health checks and brief interventions

- Do people with mental health problems have access to health checks that include cholesterol and blood glucose screening; blood pressure monitoring; weight management, exercise regimes and smoking cessation? Is uptake and inclusion for people with mental health problems specifically addressed?

- Are people with mental health problems being offered brief interventions for alcohol harm reduction and are therapists undertaking brief intervention training? How systematic is this and what is the coverage?

5. CPD

- What systems are in place for the systematic training and continuing professional development (CPD) of all frontline staff in improving the physical health of people with mental health problems? Does this include mental health and non-mental health staff in primary and secondary care? Does this training include, for example:
  - identification of people at risk (including a local profile of vulnerable individuals and groups)
  - screening and assessment

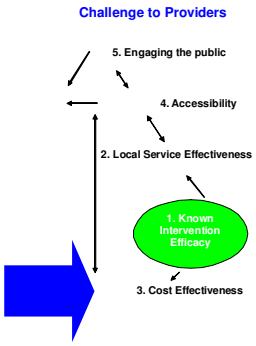
- basic understanding of contributory factors and determinants and the relationship between mental and physical health
- brief interventions
- referral pathways
- stigma of mental health
- pharmacological implications of physical and mental illness

- The following points should also be considered with respect to training and continuing professional development:
  - Are records kept of training received by frontline staff and is systematic action taken to fill any knowledge gaps?
  - Is there a mechanism to measure referrals from different organisations and staff groups?
  - Are reports produced on the number of referrals and resulting interventions and feedback both to commissioner and referring staff?
  - Is information being recorded systematically in primary and secondary care concerning physical health measures for people with mental health problems? This should include evidence that clinicians have considered the co-morbidity of physical and mental ill health, and how it impacts on patients; past history of mental health problems; the quality of interpersonal relationships and risks associated with poor living conditions and social isolation. How systematic is this and what is the coverage?

6. Clinicians

- Do clinicians consider the impact of mental illness on a person's physical health and wellbeing, such as reduction in exercise, smoking, diet and drug and alcohol use?

- Do clinicians consider social support and signpost patients to where to get help for the above?



3 Cost effectiveness

Aim for programme elements that are as affordable as possible at population level

1. Modelling

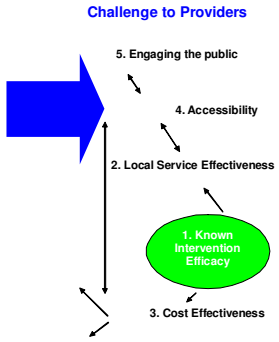
- Has a modelling exercise been undertaken to determine the financial costs of poor physical health amongst people with mental health problems to the local economy (health, social care and wider economies)? Has this identified potential resources that could be saved through effective prevention programme?

2. Commissioning

- Examples of potential savings could result from:
  - joint commissioning with local authority
  - Local Enhanced Service (LES) or the incentive schemes
  - prioritisation of intervention within caseloads
  - contingency budget for urgent cases, or people in need
  - assertive outreach to target physical screening and interventions to those with mental health problems who are not engaging

3. Quality, Innovation, Productivity and Prevention (QIPP)

- Are there examples of QIPP programmes relating to the physical health of people with mental health problems?



4 Accessibility

Aim for services are designed with the minimum barriers to access, balancing a drive to bring services closer to the patient with the need for efficiency and effectiveness of that service

1. Avoiding stigma

- How do mental health services avoid stigmatising eligible recipients?

- How do general primary care and secondary care services avoid stigmatising whilst at the same time specifically outreaching to and tailoring physical health support to meet the needs of people with mental health problems?

2. Access to health promotion and illness screening

- Do people with mental health problems have access to the health promotion and illness screening initiatives, such as smoking cessation, alcohol harm reduction, moderate exercise, the health checks programme? What particular ways are used to enable access? Is access reviewed (e.g. through Health Equity Audits)?

3. Skill mix

- Are the physical health needs of people with mental health problems reflected in the skill mix of the local provider workforce (both psychiatric and general health care)? Is the provider workforce being deployed according to equity of need? What evidence is being used to show equity of outcome?

4. Care pathway

- Are wider stakeholders such as the police, probation service, social services and voluntary organisations part of an agreed and effective care pathway that takes into account the physical health of people with mental health problems?

- Is there general/acute hospital liaison within mental health services and care pathways within primary and secondary care?

5. Identification of mental health problems

- Do primary care physical health registers and assessments specifically identify patients with mental health problems? Do NHS Health Checks pick up mental health problems as a risk factor?

6. Provider diversity

- Are there a range of providers who can provide for particular populations (e.g. BME communities, LGBT communities, homeless people)? Is there evidence that these

service providers link effectively with mainstream mental health and generic primary care services?

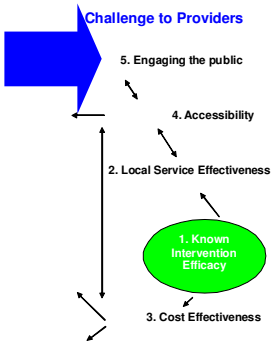
7. Health Trainers

- Do Health Trainers address mental wellbeing as part of their roles? Have they been trained in working with people with mental health problems?

8. Plurality of approach and provision

- Has full use been made of different approaches to supporting physical wellbeing that may be more appropriate/acceptable to people with certain mental health problems instead of/or to complement clinical care delivered one-to-one, in clinical settings – such as telemedicine, internet support, group work, self help/self management support, computerised therapy?

- How is the concept of plurality of service providers developing (e.g. voluntary, community and faith sector and innovation and lateral thinking) in terms of prevention services? Are there examples of co-location of services (e.g. smoking cessation and weight management)?



5 Engaging the public

Working with service users and communities to aim for needs and requirements being placed at the centre of service provision and for quality assurance systems in place that makes the services acceptable to service users

1. Public awareness

- ***Is there local public awareness and promotional work to highlight the added risk of premature mortality from manageable/preventable physical ill health conditions for people with a mental health problem?***

2. Evaluation

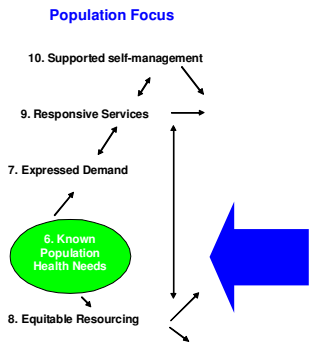
- Have patients and carers been involved in evaluating the effectiveness and quality of services? How is patient experience captured and fed into service redesign and commissioning?
  - Are there examples of changes that have occurred because of their input?
  - How do commissioners feedback changes made as a result of service user and carer engagement?

3. Civil society coordination

- ***Are there local voluntary, community and faith sector group and/or networks ('civil society') in existence locally to coordinate/advocate for people with mental health problems (including in relation to their physical ill health and wellbeing needs)? Are these commissioned services and if so, how is independence assured?***

4. 'Self perceived' barriers to access

- Has consideration been given to the effects that self-perceived barriers – such as stigma, fear of personal cost, previous negative experiences of services – have on the use of primary and secondary services, including wellbeing support such as smoking cessation? Assessing why certain population groups are not using existing mainstream services can give good pointers to the development of innovative, alternative services. Awareness of perceived barriers can assist in thinking though ways of 'promoting' services to people who may have fears or concerns that limit them accessing such services (e.g. emphasising that certain services are available free).



6 Known population needs

Aim for a realistic assessment of the size of the problem locally, and its distribution geographically and demographically and the level and type of service being based upon this assessment

1. Needs assessment

- ***Has a needs assessment taken place into the physical health needs of people with mental health problems? Does this form part of the Joint Strategic Needs Assessment (JSNA)? Does it include patient and carer expressed need as well as service data from all sectors?***

- Are services being commissioned and configured based on the JSNA and known population mental health needs and mental health inequalities?

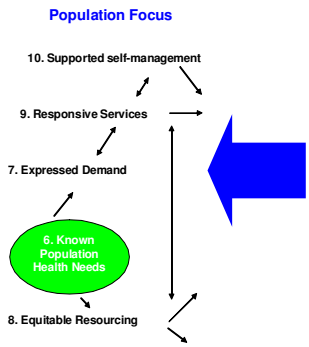
2. Data collection, sharing and use

- Are there arrangements for the collection, collation, analysis and sharing of good quality data relevant to the physical health of people with mental health problems between organisations?

- Does the sharing of data include, for example, lists of
  - organisations that hold and maintain key vulnerable people data, including GP lists, community services caseload registers, social care service
  - types of vulnerability to mental illness, physical illness, suicide
  - services that are relevant to health improvement and mental illness

3. Multi-agency strategy based on information on need

- Is there a multi-agency strategy prioritising action based on analysis as above, and including predictive modelling? Is this regularly reviewed to take account of changing circumstances (e.g. recession) and changes identified to the profile of those taking their lives or intentionally injuring themselves?



7 Expressed demand

Aim for as many people as possible suffering from the problem or its precursors, to present to services in a timely and appropriate fashion, through informing, educating and supporting the population.

1. Care planning

- Are physical health needs identified as part of the care planning for people with mental health problems, including their own self-expressed need? Is there a strategy to meet these needs based on equity of outcome and utilising social marketing principles? Is there a specialist team in place for assertive outreach to address the physical health needs of people with mental health problems?

2. Carers' assessments

- Are physical health and mental health and wellbeing needs identified as part of the carers' assessment for all carers, including their own self expressed need? How systematic is this and what is the coverage?

3. Alternative access points

- Are there alternative access points so that demand can be expressed from communities/individuals who may find it hard to access services through more traditional routes (e.g. women who are chaperoned on GP visits)?

4. Health Trainers/Advocates

- Are Health Trainers/health advocates used to signpost people with mental health problems to appropriate physical health services?

5. Non-NHS signposting

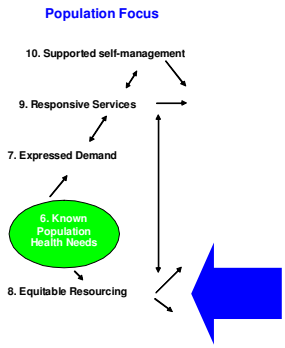
- Are other non-NHS services equipped to sign post people with mental health problems to appropriate physical health services? How systematic is this and what is the coverage?

6. Range of mental health presentations / training

- Is there a mechanism to help capture different presentations of mental illness, distress and physical illness in different cultural contexts? Is training available for front line workers to understand these differences and their implications? How systematic is this and what is the coverage?

7. Communication strategy

- Is there is a communication strategy, based on social marketing principles, to advertise services and access points for support and self-management and self care options?



8 Equitable resourcing

Aim for the distribution of finance and other resources to support equitable outcomes according to need.

1. Equitable outcomes

- ***Is there a recognition that the spending on outreach to, and delivering services to some communities/population groups may need higher spend than others to enable equitable outcomes (including people with mental health problems and those with a serious mental illness)? How is this built into commissioning strategies and spending plans? Is this mapped and does it identify and seek to address any gaps in availability?***

2. Workload review

- Do mental health services have a process of regular workload review related to need (including addressing the physical health needs of people with a mental health problem directly, or in partnership with primary, acute and/or wellbeing services) and if so, what action has been taken to address any issues raised by this?

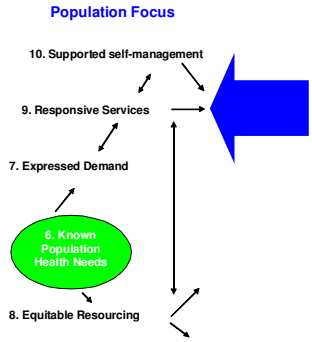
3. Local Enhanced Service

- ***Is there any Local Enhanced Service or other incentive scheme to encourage primary care providers to engage in suicide prevention initiatives and/or targeted physical health initiatives for people with mental health problems?***

4. Review

- Has there been a review undertaken to adjust provision of:
  - facilities
  - specialised staffing
  - outreach and community engagement

  ...against mapped levels of need for, uptake and use of services?



9 Responsive services

When people present to services, aim to make sure they are afforded equal access to timely beneficial interventions according to need.

1. QOF exception policies

- Do QOF exception policies unfairly impact on the potential access to physical wellbeing services for people with mental health problems?

2. Care plans

- What systems exist to develop care plans that are empowering and promote resilience to dealing with additional physical health and wellbeing difficulties alongside/in addition to mental health problems?

- Do care plans build in user-led outcomes? How systematic is this and what is the coverage?

3. Waiting times

- Are systems in place to review waiting times?

4. Crisis resolution and home treatment

- Are crisis resolution and home treatment services responsive to communities in highest need including disadvantaged wards? Are such services easily accessible to people who may not have easy telephone access? Are they available out of hours including on public holidays?

- What are the arrangements to audit the above?

5. Hospital discharge

- Is there a hospital discharge policy and offender release policy that takes into account the person's ability to self-manage their physical and mental health needs?

6. Wider determinants

- Have the PCT and local stakeholders, including local authority and provider organisations shown that they have considered the wider (particularly socioeconomic) determinants of mental health and developed services accordingly?

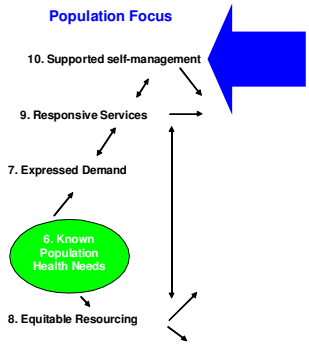
7. Guidance through complex care pathways

- Is support available (e.g. patient navigators, liaison staff, advocates) to guide people with mental health problems through complex care pathways? Is information provided in appropriate language, and support in culturally relevant ways?

8. Access to employment

- What support are mental health trusts providing in terms of additional help for their service users to secure and maintain employment?

- How has national funding to support improving access to employment for people with mental health problems been harnessed and deployed locally? Is evaluation in place to review effectiveness and equality impact?



10 Supported self management

Where appropriate, help service users to be empowered to make choices about their circumstances and service offer on the basis of good information, and to be supported to utilise the service offer to best effect

1. Access to health promotion and illness prevention

- Are people with mental health problems encouraged to access health promotion and illness prevention activities? Are the materials used appropriate and accessible in different formats and in different locations – especially those that may be used specifically by people with mental health problems – such as in- and out-patient psychiatric services and Improved Access to Psychological Therapies (IAPT) facilities?

2. Social marketing

- Are social marketing principles used to target messages effectively to promote a healthy lifestyle and health enhancing behaviours? Does this include:
  - segmentation of the target population
  - developing insight into preferences of segmented groups
  - using this insight to target messages to promote looked for behaviours

3. Language and cultural needs

- Does health promotion or self management of the co-morbidity of physical and mental illness accommodate local language and cultural needs?

4. Status – sharing information

- Can services offer support and guidance on sharing mental health status with other services, including those relating to physical health, wellbeing and lifestyle change support, employers, family, friends and neighbours?

5. Advocacy

- Is self-advocacy support/training available?

- Are advocacy services available and accessible to those in greatest need?

6. Building resilience

- What attempts are made to address the following concerns:
  - loss of independence
  - stigma around mental illness
  - self-management
  - impact of medication
  - relationships impact
  - caring for dependents (e.g. children)

- employment impact

- Are there schemes (e.g. befriending, MIND groups, Health Trainers) to help build resilient relationships and build social networks and social support for those with mental health problems?

7. Social prescribing

- Are social prescribing schemes available and accessible to a wide range of vulnerable communities (geographical and communities of interest/identity)?

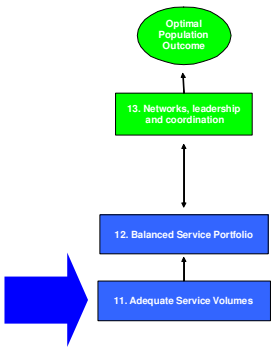
8. Assistive technology

- How far has assistive technology been developed as a means of self-management (e.g. computerised therapy, telecare)?

9. Dealing with medication

- Are the expectations of effects and side effects of medication discussed with people with mental health problems, and agreed self-management plans, referral routes to appropriate support (e.g. weight management) in place to manage the potential impact and side effects of medication including weight gain and loss, nausea and lethargy? How systematic is this and what is the coverage?

- Is there discussion and support in relation to how additional medication (e.g. nicotine replacement therapy as part of smoking cessation support) or major dietary changes (e.g. if involved in weight loss programme) might impact on/interact with existing medication?



11 Adequate service volumes

Commissioning adequate service volumes to aim for acceptable access times

1. Waiting times

- Are services for people with mental health problems commissioned with sufficient service volumes to prevent long waiting times (including audit and commissioning capacity)?

2. Service volumes based on data

- Are service volumes based on data such as a register of all people with serious mental ill health problems and to deliver on the seven day follow-up for people discharged from in-patient mental health services?

3. Physical health needs

- Do service volumes take into account the physical health needs of people with mental illness such that they are able to access a health check programme aimed at helping to prevent heart disease, stroke, diabetes and kidney disease, and identify people at risk/with early onset that includes specific targeting to people with mental health problems?

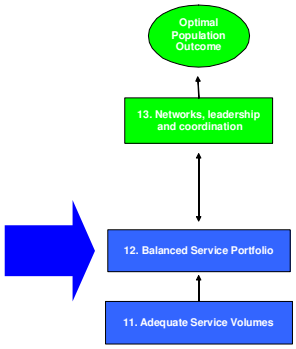
- Are there sufficient interventions available that can alleviate the physical needs of people with mental ill health, should they be systematically referred, such as exercise prescriptions, weight management, smoking cessation, alcohol harm reduction?

- Are there sufficient service volumes for physical health interventions for people with mental health conditions (including dementia) in secondary care settings including psychiatric acute settings?

- Are the physical health needs of people with mental illness taken into account when considering the necessary service volumes to implement NICE guidance relating to physical health needs?

4. Health Gain Schedule

- Is there a Health Gain Schedule that takes into account the necessary service volumes needed to meet the physical health needs of people with mental illness?



12 Balanced service portfolio

Aim for balance of services within pathways to avoid bottlenecks and delays

1. Systematic care pathways

- Do systematic care pathways exist for the following:
  - physical health interventions for people with mental health conditions (including dementia) in primary care settings
  - physical health interventions for people with mental health conditions (including dementia) in secondary care settings including psychiatric acute settings
  - mental health conditions and drug and/or alcohol in primary and secondary care
  - 7 day follow-up for people discharged from inpatient mental health services

- How are the above coordinated so that individuals' needs are addressed in a person-centred and timely manner?

2. Employment and settled accommodation

- Do the NHS Commissioners and local stakeholders show evidence of considering adults receiving secondary mental health services in employment and adults receiving secondary mental health services in settled accommodation?

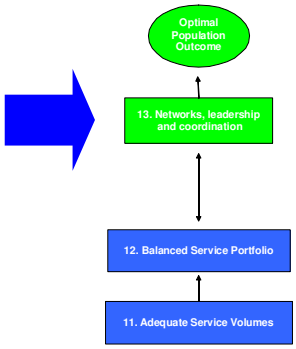
3. Care pathways and health promotion

- Do care pathways for people with mental health problems include routine health promotion and prevention advice appropriate to their age, gender and health status?

4. Evidence

- Is there evidence of the number of people assessed as moving to recovery as a proportion of those who have completed a course of psychological treatment?

- Do the local mental health trusts keep evidence about the proportion of users on new Care Programme Approach who have had a Health of the Nation Outcome Scale (HoNOS) assessment in the last 12 months?



13 Networks, leadership and coordination

Designating leadership and coordination to aim for services that are commissioned and networked to meet population need and the population is supported to use services and interventions appropriately

1. Mental health strategy

- Is there a local mental health strategy that includes the physical health needs of people with mental health problems?

- Does the strategy address the wider determinants of mental health and include the prevention of mental health problems and promoting mental wellbeing?

2. Audits / assessments / reviews

- Have any local audits/ assessments/ reviews taken place addressing mental health inequalities, and do they incorporate the physical health of people with mental health problems? Do they incorporate:
  - Equality Impact Assessment
  - Mental Health Equity Audit
  - Mental Wellbeing Impact Assessment
  - Overview & Scrutiny Review
  - Other?

- Did this result in new action and changes to strategy or delivery?

3. Joint commissioning

- Are there joint commissioning plans that address mental health inequalities through:
  - providing equity of mental health service provision to the most disadvantaged and excluded populations and communities
  - specific initiatives to address and improving the physical health of people with mental health problems

- Have the joint commissioning plans been equality impact assessed?

4. Health inequalities strategy

- Is there a local Health Inequalities strategy/ plan that incorporates the relationship between mental illness and health inequalities?
  - Is it comprehensive (as above)?
  - Does it detail specific action for key partners?
  - Are partners from PCT, LA, mental health trust, acute trust, voluntary, community and faith sector?
  - What is the level of authority of representation and commitment to the strategy?

5. Leadership

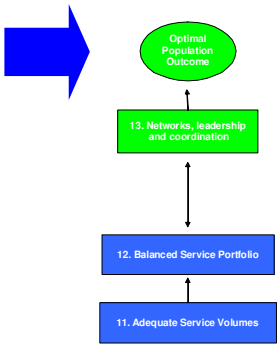
- Is there leadership and coordination for addressing mental health inequalities within:
  - NHS Commissioning
  - Mental health trust, including non-executive directors (NEDS)
  - Local authority, including elected members

6. Provider networks

- Is there a provider network, facilitated by commissioners with strong voluntary, community and faith sector representation that enables two-way liaison and service development?

7. Wider partnerships

- How are wider partnerships' initiatives addressing mental health inequalities to affect long-term impact on population health and health inequalities?



Optimal Population Outcome

1. What goals and outcomes will be used to measure improvement in the morbidity and mortality of people with mental health problems?

2. Are baseline measures available? Will it be possible to measure trends?

3. How will they be monitored and by whom?

4. How will progress be communicated to a wider audience?

5. Has there been any form of major event audit locally (e.g. tracking cardiovascular deaths back into primary care to check inclusion on registers and secondary prevention activity – such as blood pressure and cholesterol management; support to stop smoking). Has this audit registered mental health problems as part of the review? What did it show? What action has been taken as a result?

Appendix 1: Health Inequalities National Support Team: Improving the Physical Health and Wellbeing of People with Mental Health Problems – potential key actions for reducing mortality

1. *Needs assessment undertaken into the physical health needs of people with mental health problem that forms part of the Joint Strategic Needs Assessment (JSNA) and includes patient and carer expressed need as well as service data from all sectors.*

2. *Local public awareness and promotional work to highlight the added risk of premature mortality from manageable/preventable physical ill health conditions for people with a mental health problem.*

3. *A mental health (wellbeing and illness) strategy based on assessed need and targeted appropriately, that includes an emphasis on how services to support the physical health and wellbeing of people with mental health problems will be specifically commissioned, targeted and delivered and/or how meeting those needs will be built into wider population commissioning.*

4. *Recognition, built in to commissioning strategies and spending plans, that the spending on outreach to, and delivering services to some communities/population groups may need higher spend than others to enable equitable outcomes (including people with mental health problems and those with a serious mental illness).*

5. *A primary care register of all people with serious mental ill health problems, all of whom then have in place a jointly agreed care plan <u>that includes</u> their physical health and wellbeing.*

6. *A record of seven-day follow-up for people discharged from inpatient mental health services.*

7. *Specific guidance on Quality and Outcomes Framework (QOF) exception reporting in relation to patients with mental health problems who are suffering from a physical ill health condition; monitoring of QOF exceptions to make sure that such patients are not being disproportionately excluded.*

8. *Local Enhanced Service or other incentive scheme to encourage primary care providers to engage in suicide prevention initiatives and/or targeted physical health initiatives for people with mental health problems.*

9. *Screening for cancers and NHS Health Check programmes aimed at helping to prevent heart disease, stroke, diabetes and kidney disease, and identify people at risk/with early onset which includes specific targeting to people with mental health problems, using the Mental Health Register as a focus for identifying relevant patients.*

10. *A comprehensive physical health check-up for all patients on admission to acute and residential community mental health settings. Effective liaison between these services and the patient's GP with the aim that all findings are recorded in both acute and GP patient records, and followed up.*

11. *Inclusion in contracts of a requirement for all community psychiatric nursing staff to undertake routine physical health monitoring (e.g. blood pressure, weight) and appropriate training for staff carrying out this work, especially when dealing with*

patient's who may need convincing of the usefulness of this. Good links between community psychiatric services and lifestyle change support services to enable easy referral routes.

12. *Local voluntary, community and faith sector group and/or networks ('civil society') in existence locally to coordinate/advocate for people with mental health problems (including in relation to their physical ill health and wellbeing needs.*

13. *Equality Impact Assessments (EIAs) on all policies and commissioning plans, which include mental health and mental illness, cross-referenced with other equality issues (e.g. race, sexual orientation, disability, gender, religion/faith, human rights) in relation to all policies and services including the use of Mental Health Act provisions.*

Appendix 2: Glossary, acronyms and abbreviations

ADHD	Attention deficit hyperactivity disorder
AF	Atrial fibrillation
BME	Black and minority ethnic
CAMHS	Child and Adolescent Mental Health Services
CHD	Coronary heart disease
CPD	Continuing professional development
EIA	Equality Impact Assessment
HINST	Health Inequalities National Support Team
IMNST	Infant Mortality National Support Team
HoNOS	Health of the Nation Outcome Scale
IAPT	Improved Access to Psychological Therapies
JSNA	Joint Strategic Needs Assessment
LES	Local Enhanced Service
LGBT	Lesbian, gay, bisexual and transgender
NRT	Nicotine replacement therapy
People with mental health problems	Mental health problems generally refer to difficulties experienced with mental health that affect people in their everyday lives. Mental health problems can affect the way people feel, the way they think and the way they function. Mental health problems include conditions described as personality disorders, and also dementia. They can be mild or serious, fleeting or long lasting.
QIPP	Quality, Innovation, Productivity and Prevention
QOF	Quality and Outcomes Framework
(SMI) People with serious mental Illness (SMI)	Serious mental illness is a diagnosable psychiatric disorder resulting in significant impairment, disability or disadvantage. The term often refers to mental health problems that often require treatment in specialist services. Someone with a serious mental illness may have long periods when they are well and are able to manage their illness. Many people with serious mental health problems are able to live productive, fulfilling lives with appropriate support. Examples may include schizophrenia and psychosis.

Acknowledgements

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- Sarah Carter: Public Mental Health and Wellbeing Team: Department of Health
- Jude Stansfield : National Mental Health Development Unit: Department of Health North West
- Mark Wheatley: Public Health Specialist (Mental Health and Vulnerable Groups): NHS Leicester City

References

[1] HM Government (Dec 2009) *New Horizons: A shared vision for mental health*
[2] Department of Health (2002) *National suicide prevention strategy for England*
[3] HM Government (Dec 2010) *Healthy Lives, Healthy people: our strategy for public health in England*
[4] Department of Health (Feb 2011) *No health without mental health: A cross-Government mental health outcomes strategy for people of all ages*: *A call to action*www.dh.gov.uk/mentalhealthstrategy
[5] See for example NHS Constitution: http://www.nhs.uk/choiceintheNHS/Rightsandpledges/NHSConstitution/Pages/Overview.aspx and Localism Bill: http://services.parliament.uk/bills/2010-11/localism.html
And NHS and Social Care Bill: http://services.parliament.uk/bills/2010-11/healthandsocialcare.html
[6] The Marmot Review (2010) *Fair Society, Healthy Lives - Strategic Review of Health Inequalities in England post 2010* http://www.marmotreview.org/AssetLibrary/pdfs/Reports/FairSocietyHealthyLives.pdf
[7] Department of Health (2008) *Making the difference – The Pacesetters beginner's guide to service improvement for equality and diversity in the NHS* http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_086039
[8] HM Government (December 2009) *New Horizons: A shared vision for mental health*
[9] Department of Health (2002) *National suicide prevention strategy for England*
[10] HM Government (December 2010) *Healthy Lives, Healthy people: our strategy for public health in England*
[11] Department of Health (Feb 2011) *No health without mental health: A cross-Government mental health outcomes strategy for people of all ages*: *A call to action* www.dh.gov.uk/mentalhealthstrategy
[12] *The Atlas of Variation in Healthcare: reducing unwarranted variation to increase value and improve quality:* November 2011: www.rightcare.nhs.uk - has several pages and further useful references devoted to mental health – especially pages 34 to 39, including:

- NCI/NCISH *National Confidential Inquiry into Suicide and Homicide by People with Mental Illness* http://www.medicine.manchester.ac.uk/psychiatry/research/suicide/prevention/nci/
- Department of Health (2001) *Safety First: Five-year report of the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness*. Available at: http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4006679
- The national psychiatric morbidity survey programme provides information about the prevalence of relevant disorders. http://www.statistics.gov.uk/statbase/Product/asp?vlnk=8258&More=N
- A Brief (Number 4) outlining a method by which the findings of the national psychiatric morbidity survey can be applied locally, *Estimating the Prevalence of Common Mental Health Problems*, is available at: http://www.nepho.org.uk/uploads/doc338_52_Brief%2004.pdf
- This Brief is accompanied by an Excel spreadsheet setting out the results of the analysis for PCTs and local authorities in England: Estimating the Prevalence of Common Mental Health Problems Additional *Data:* http://www.nepho.org.uk/mho/Needs
- A Brief (Number 3) outlining a method by which the numbers of people with dementia can be predicted from population projections, Estimating Future Numbers of Dementia, is available at: http://www.nepho.org.uk/uploads/doc339_52_Brief%2003.pdf
- This Brief is accompanied by an Excel spreadsheet setting out tables providing projected numbers of sufferers for PCTs and local authorities in England 2008-2025*: Estimating the Future Numbers of Dementia Additional Data* http://www.nepho.org.uk/mho/Needs
- The Audit Commission's briefing about improving the efficiency of the adult mental health acute care pathway, *Maximising resources in adult mental health* (June 2010), is available at: http://www.audit-commission.gov.uk/nationalstudies/health/financialmanagement/Pages/100623maximisingresources.aspx
- The Audit Commission mental health benchmarking club provides benchmarking data to inform service planning, allowing mental health trusts to investigate:
  - Spend: variations and trends in spend per head of population, and variations in health versus local government spend
  - Economy: whether value for money is being achieved in the inputs to services
  - Efficiency: whether efficient use is being made of inputs to services.

  http://www.audit-commission.gov.uk/health/trustpractice/ourservices/mentalhealthtrusts/pages/benchmarkingclub.aspx

[13] Right Care (2010) *The NHS Atlas of Variation in Health Care*
[14] HM Government (2010) *Confident Communities, Brighter Futures. A framework for developing wellbeing*

[15] Marmot Review (2010) *Fair society, healthy lives. Strategic review of health inequalities in England post 2010*. www.ucl.ac.uk/gheg/marmotreview
[16] Melzer D, Fryers T, Jenkins R. (2004) Social Inequalities and the Distribution of Common Mental Disorders. Maudsley Monographs Hove, Psychology Press.
[17] ONS (2005) *Mental health of children and young people in Great Britain*, *2004*. (Green H, McGinnity A. Meltzer Hetal)
[18] Wilkinson RG, Pickett KE (2007) The problems of relative deprivation: why some societies do better than others. *Social Science and Medicine*, 65(9), 1965-1978
[19] Alesina A, Di Tella R, MacCulloch R (2004) Inequality and happiness: are Europeans and Americans different? *Journal of Public Economics*, 88, 2009-2042
[20] Barry M, Friedli L (2008) The influence of social, demographic and physical factors on positive mental health in children, adults and older people: State of science review. Foresight SR-B3 v1 stage 1. Foresight. Mental Capital and Wellbeing: Meeting the challenge of the 21st century. Government Office for Science, London
[21] Brown S, Barraclough B, Inskip H (2000) Causes of the excess mortality of schizophrenia. *British Journal of Psychiatry*, 177, 212–217
[22] Marmot M, Wilkinson R (2006) *Social Determinants of Health*, 2nd ed. Oxford: OUP, ISBN: 9780198565895
[23] Marmot M (2004) *Status syndrome*. London: Bloomsbury Publishing. ISBN: 0747570493
[24] WHO (2005) Mental Health Declaration for Europe. Facing the Challenges, Building Solutions. http://www.euro.who.int/__data/assets/pdf_file/0008/96452/E87301.pdf
[25] Parks J, Svendsen D, Singer P. Fort ME (2006) *Morbidity and mortality in people with serious mental illness*. National Association of State Mental Health Programme Directors, 13th technical report.
[26] Saha S, Chant D, McGrath J A (2007) Systematic Review of Mortality in Schizophrenia: Is the Differential Mortality Gap Worsening Over Time? *Arch Gen Psychiatry* 64, 1123-1131
[27] Kirkbride JB, Barker D, Cowden F et al (2008) 'Psychoses, ethnicity and socioeconomic status' *British J of Psychiatry*, 193: 18-24.
[28] Fearon P, Kirkbride J, MorganC et al (2006) 'Incidence of schizophrenia and other psychoses in ethnic minority groups: results from the MRC AESOP Study' *Psychological Medicine*, 36, 1541-1550.
[29] Weich S, Nazroo J, Sproston K, Mc Manus S, et al (2004) 'Common mental disorders and ethnicity in England: the EMPIRIC Study' *Psychological Medicine,* 34:8:1543-1551 Cambridge University Press
[30] McManus S, Meltzer H, Brugha T et al (2009) *Adult psychiatric morbidity in England 2007. Results of a household survey.* The Health & Social Care Information Centre, Social Care Statistics
[31] McKenzie K, Bhui K, Nanchahal K, Blizard B. (2008) 'Suicide rates in people of South Asian origin in England and Wales: 1993-2003' *Br J Psychiatry.* Nov;193(5):406-9
[32] DTI (2005) *Final Regulatory Impact Assessment: Civil Partnership Act 2004* (page 13), (online) http://www.berr.gov.uk/files/file23829.pdf
[33] King M, Semlyen J, SeeTai S et al (2008) 'A systematic review of mental disorder, suicide and deliberate self harm in lesbian, gay and bisexual people' *BMC Psychiatry*, 8:70.
[34] King M, McKeown E. (2003) *Mental health and social wellbeing of gay men, lesbians and bisexuals in England and Wales*. London: Mind
[35] Whittle S, Turner L, (2007) *Engendered Penalties: The Experience of Inequality and Discrimination by Trans People* London: Cabinet Office
[36] Morton J. (2008) *Transgender experience in Scotland. Research Summary* Scottish Transgender Alliance
[37] Hunt R, Fish J (2008) *Prescription for Change. Lesbian and bisexual women's health check.* Stonewall. www.stonewall.org.uk/documents/prescription_for_change.pdf
[38] Fergusson D, Horwood JL, Ridder EM, Beautrais AL, (2005) 'Sexual Orientation and Mental Health in a Birth Cohort of Young Adults' *Psychological Medicine* 35:971-81
[39] King M, Semlyen J,SeeTai S et al (2008) 'Asystematic review of mental disorder, suicide, and deliberate self harm in lesbian, gay and bisexual people' *BMC Psychiatry*, 8:70
[40] www.learningdisabilities.org.uk
[41] Emerson E, Hatton C (2007) *The mental health of children and adults with learning disabilities*. Lancaster University
[42] Smiley E (2005) 'Epidemiology of mental health problems in adults with learning disability: an update' *Advances in Psychiatric Treatment* 11: 214-222.2005 Royal College of Psychiatrists
[43] Cooper SA (1997) 'High prevalence of dementia among people with learning disabilities not attributable to Down's syndrome' *Psychological Medicine*, 27, 609-616
[44] SEPHO (2008) *Health of Offenders Factsheet.* By Nurse J, Basher D. www.sepho.org.uk
[45] Chida Y & Steptoe A (2008) 'Positive psychological wellbeing and mortality: A quantitative review of prospective observational studies' *Psychosomatic Medicine*, 70, 741-756
[46] Huppert FA & Whittington JE (2003) 'Evidence for the independence of positive and negative wellbeing: implications for quality of life assessment' *British Journal of Health Psychology,* 8:107-122

[47] Wilkinson & Marmot (eds) (2003) Social determinants of health: the solid facts www.euro.who.int/DOCUMENT/E81384.pdf
[48] Dewey ME & Saz P (2001) 'Dementia, cognitive impairment and mortality in persons aged 65 and over living in the community: a systematic review of the literature' *International Journal of Geriatric Psychiatry*, 16:751–761,
[49] Mykletun A, Bjerkeset O, Øverland S, Prince M, Dewey M, Stewart R, (2009) 'Levels of anxiety and depression as predictors of mortality: the HUNT study'. *British Journal of Psychiatry* 195: 118-125.
[50] Hemingway H & Marmot M (1999) 'Evidence based cardiology. Psychosocial factors in the aetiology and prognosis of coronary heart disease: systematic review of prospective cohort studies' *British Medical Journal, 318,* 1460-1467.
[51] Nicholson A, Kuper H, Hemingway H (2006) Depression as an aetiologic and prognostic factor in coronary heart disease: a meta-analysis of 6362 events among 146 538 participants in 54 observational studies. Eur Heart J 2006; 27(23):2763-2774.
[52] Surtees PG, Wainwright NWJ, Luben RN, Wareham NJ, Bingham SA, Khaw KT (2008) 'Psychological distress, major depressive disorder, and risk of stroke' *American Academy of Neurology* 70:788-794
[53] Kroenke CH, Bennett GG, Fuchs C, *et al.* (2005) 'Depressive symptoms and prospective incidence of colorectal cancer in women' *American Journal of Epidemiology, 162,* 839-848
[54] Larson SL, Clark MR & Eaton WW (2004) 'Depressive disorder as a long-term antecedent risk factor for incident back pain: a 13-year follow-up study from the Baltimore Epidemiological Catchment Area Sample' *Psychological Medicine, 34,* 211-219.
[55] Ruigómez A, García Rodríguez LA, & Panés J (2007) 'Risk of irritable bowel syndrome after an episode of bacterial gastroenteritis in general practice: influence of comorbidities' *Clinical Gastroenterology & Hepatology, 5,* 465-469.
[56] Grant I, Brown GW, Harris T *et al.* (1989) 'Severely threatening events and marked life difficulties preceding onset or exacerbation of multiple sclerosis' *Journal of Neurology, Neurosurgery and Psychiatry,* 8-13
[57] DiMatteo MR, Lepper HS & Croghan TW (2000) 'Depression is a risk factor for non-compliance with medical treatment: meta-analysis of the effects of anxiety and depression on patient adherence' *Annals of Internal Medicine, 160,* 2101–2107
[58] Parks J, Svendsen D, Singer P. Fort ME (2006) *Morbidity and mortality in people with serious mental illness. National Association of State Mental Health Programme Directors, 13th technical report*.
[59] McEvoy JP, Meyer JM, Goff DC, et al (2005) 'Prevalence of metabolic syndrome in patients with schizophrenia: Baseline results from the CATIE trial and comparison with national estimates from NHANES III' *Schizophrenia Research*
[60] Newcomer JW (2007) 'Antipsychotic medications: Metabolic and cardiovascular risk' *Journal of Clinical Psychiatry (supplement)*
[61] Patten SB (2001) 'Long-term medical conditions and major depression in a Canadian population study at waves 1 and 2' *Journal of Affective Disorders, 63,* 35-41.
[62] Evans S, Newton R, Higgins S (2005) 'Nutritional intervention to prevent weight gain in patients commenced on olanzapine: a randomized controlled trial' *Australian and New Zealand Journal of Psychiatry*, 39, 479-86.
[63] Melzer D, Fryers T, Jenkins R (2004) *Social Inequalities and the Distribution of Common Mental Disorders. Maudsley* Monographs Hove, Psychology Press
[64] Burgess C, Cornelius V, Love S, *et al.* (2005) 'Depression and anxiety in women with early breast cancer: five year observational cohort study' *British Medical Journal, 330,* 702-705.
[65] Dickens CM, Percival C, McGowan L, *et al.* (2004) 'The risk factors for depression in first myocardial infarction patients' *Psychological Medicine, 34,* 1083–1092.
[66] Simon G, Von Korff M, Lin E (2005) 'Clinical and functional outcomes of depression treatment in patients with and without chronic medical illness' *Psychological Medicine* 35:2:271-279.
[67] Rees, Dr. Sian Presentation to the Department of Health's 'Good Diabetes Care for All Forum': May 2010
[68] McCreadie (2003)' Diet, smoking and cardiovascular risk in people with schizophrenia' *British Journal Of Psychiatry* 183, 534-539
[69] Newcomer JW (2005) 'Second-generation (atypical) antipsychotics and metabolic effects: a comprehensive literature review' *CNS Drugs*; 19(suppl 1):1-93
[70] Cuijpers P, Van Straten A, Schuurmans J, Van Oppen P, Hollon S, Andersson G (2010) 'Psychotherapy for chronic major depression and dysthymia: A meta-analysis' *Clinical Psychology Review* 30:1, Feb 2010, pp 51-62
[71] Wu LT & Anthony JC (1999) 'Tobacco smoking and depressed mood in late childhood and early adolescence' *American Journal of Public Health*, 89, 1837–1840.
[72] Goodman E. & Capitman J (2000) 'Depressive symptoms and cigarette smoking among teens' *Paediatrics*, 106, 748–755.

[73] Malone KM, Waternaux C, Haas GL et al (2003) 'Cigarette smoking, suicidal behavior, and serotonin function in major psychiatric disorders' *American Journal Psychiatry* 160(4): 773-9
[74] Clark DB & Cornelius JR (2004) 'Childhood psychopathology and adolescent cigarette smoking: a prospective survival analysis in children at high risk for substance use disorders' *Addict Behav*. 29(4):837-41.
[75] Rohde P, Kahler CW, Lewinsohn PM, Brown RA (2004) 'Psychiatric disorders, familial factors, and cigarette smoking: II. Associations with progression to daily smoking' *Nicotine Tob Res*. 6(1):119-32.
[76] Upadhyaya H, Deas D, Brady K, Kruesi M (2002) 'Cigarette smoking and psychiatric comorbidity in children and adolescents' *Journal of the American Academy of Child and Adolescent Psychiatry* 41, 1295–1303.
[77] Farrell M, Howes S, Bebbington P et al. (2001) 'Nicotine, alcohol and psychiatric morbidity. Results of a national household survey' *British Journal Psychiatry* 179: 432-7.
[78] Coultard M, Farrell M, Singleton N, *et al* (2000) *Tobacco, Alcohol and Drug Use and Mental Health*. UK Department of Health
[79] Martini S, Wagner FA & Anthony JC (2002) 'The association of tobacco smoking and depression in adolescence: evidence from the United States' *Substance Use and Misuse*, 37, 1853–1867.
[80] Coultard M, Farrell M, Singleton N, *et al* (2000) *Tobacco, Alcohol and Drug Use and Mental Health*. UK Department of Health
[81] Sonntag H, Wittchen HU, Hofler M, *et al* (2000) 'Are social fears and DSM–IV social anxiety disorder associated with smoking and nicotine dependence in adolescents and young adults?' *European Psychiatry*, 15, 67–74.
[82] Wade D, Harrigan S, Edwards J, et al (2006) 'Course of substance misuse and daily tobacco use in first-episode psychosis' *Schizophrenia Res*. 81(2-3):145-50
[83] Lasser K, Boyd JW, Woolhander S et al. (2000) 'Smoking and mental illness: a population-based prevalence study' *JAMA* 284(20):2606-2610.
[84] SANE (2007) *Smoking and mental illness: Costs, Access Economics for Sane Australia* http://www.sane.org/images/stories/information/research/0903_info_smokesummary.pdf
[85] Gill B, Meltzer H, Hinds K & Petticrew M (1996) *Psychiatric Morbidity among Homeless People* (HMSO: London)
[86] Big Issue (2002) *Coming Up from the Streets: What Big Issue Vendors Need to Escape Homelessness. Vendor Survey October 2002*. Cardiff: The Big Issue Cymru
[87] Singleton N (1998) *Substance misuse among prisoners in England and Wales*, London 1997 (ONS)
[88] Brown S, Barraclough B & Inskip H (2000) 'Causes of the excess mortality of schizophrenia' *British Journal of Psychiatry*, 177, 212–217.
[89] Joukamaa M, Heliovaara M, Knekt P et al (2001) 'Mental disorders and cause-specific mortality' *British Journal Psychiatry*, 179, 498-502
[90] Malpass D, Higgs S, (2009) 'How is cigarette smoking maintained in depression? Experiences of cigarette smoking in people diagnosed with depression' *Addiction Research & Theory*, 17, 64-79
[91] Cornah D (2006) *Cheers? Understanding the relationship between alcohol and mental health*. London: Mental Health Foundation www.mentalhealth.org.uk
[92] Pullen L (1993) 'Psychological and demographic variables and their relationship to alcohol abuse in college students: a literature review' *Addictions Nursing Network* 1993; 5(1):17-22.
[93] Galaif ER, Sussman S, Newcomb MD, Locke TF (2007) 'Suicidality, depression, and alcohol use among adolescents: a review of empirical findings. *International Journal of Adolescent Medicine and Health* 19(1):27-35.
[94] Singleton N & Glyn L (2003) *Better or Worse: A Longitudinal Study of the Mental Health of Adults Living in Private Households in Great Britain*. London: Stationery Office.
[95] Makhija N (2007) 'Childhood abuse and adolescent suicidality; a direct kink and an indirect link through alcohol and substance misuse' *International Journal of Adolescent Medicine and Health* 19 (1), 45-51
[96] Langeland W & Hartgers C. (1998) 'Child sexual and physical abuse and alcoholism: A review' *Journal of Studies on Alcohol* 59(3):336-348,
[97] Marshall J, Guerrini I, and Thomson A, (2009) 'Introduction to This Issue: The Seven Ages of Man (or Woman)' *Alcohol & Alcoholism* 44:2, pp. 106-107
[98] Adamson A, Chadwick T, Dezateux C et al. (2007) *The changing social patterning of obesity: an analysis to inform practice and policy development*
[99] Dinan T (2004) Ed. Supplement on schizophrenia and diabetes, *British Journal of Psychiatry* 184(supplement) 47s53-s54
[100] Newcomer JW (2005) 'Second-generation (atypical) antipsychotics and metabolic effects: a comprehensive literature review' *CNS Drugs* 19(suppl 1):1-93
[101] Simon GE, Von Korff M, Saunders K et al (2006) 'Association Between Obesity and Psychiatric Disorders in the US Adult Population' *Arch Gen Psychiatry. 2006;63:824-830*
[102] Van Dam R, Walter C, Willett, Manson JE, Hu FB (2006) 'The relationship between overweight in adolescence and premature death in women' *Annals of Internal Medicine* 145:91-97

[103] Magnusson PK, Rasmussen F, Lawlor DA, Tynelius P, Gunnell D (2006) 'Association of body mass index with suicide mortality: a prospective cohort study of more than one million men' Am J Epidemiol. 163:1-8. [PMID: 16269577]
[104] Kivimäki M, Batty GD, Singh-Manoux A, Nabi H, Sabia S, Akbaraly TN, Vahtera J, Marmot MG, Jokela M, (2009) 'Association between common mental disorder and obesity over the adult life course' *British Journal of Psychiatry* 195, 149-155.
[105] McCreadie (2003) 'Diet, smoking and cardiovascular risk in people with schizophrenia' *British Journal Of Psychiatry* 183, 534-539
[106] Peet M (2004) 'International variations in the outcome of schizophrenia and the prevalence of depression in relation to national dietary practices: an ecological analysis' *British Journal of Psychiatry* 184, 404-408
[107] Black MM, Ramakrishnan U (2009) 'Maternal and child mental health: role of nutrition. Introduction' *American Journal of Clinical Nutrition* 01 Mar 2009 89/3(0-1), 00029165
[108] NHS Information Centre (2005) *Infant Feeding Survey* http://www.ic.nhs.uk/pubs/ifs2005
[109] Schab DW, Trinh NT (2004) 'Do artificial food colours promote hyperactivity in children with hyperactive syndromes? A meta-analysis of double-blind placebo-controlled trials' *J Dev Behav Pediatr* 2004; 25: 423–34.
[110] McCann D, Barrett A, Cooper A et al (2007) 'Food additives and hyperactive behaviour in 3-year-old and 8/9-year-old children in the community: a randomised, double-blinded, placebo-controlled trial' DOI:10.1016/S0140-6736(07)61306-3
[111] Akbaraly TN, Brunner EJ, Ferrie JE, Marmot MG, Kivimaki M, Singh-Manoux A (2009) 'Dietary pattern and depressive symptoms in middle age' *British Journal of Psychiatry* 195, 408–413. doi: 10.1192/bjp.bp.108.058925
[112] Melchior M, Caspi A, Howard LM et al (2009) 'Mental health context of food insecurity: a representative cohort of families with young children' *Pediatrics* 124;e564-e572
[113] Clarke R (2008) 'B-vitamins and prevention of dementia' *Proc Nutr Soc 2008*; 67: 75-81
[114] Cornah D (2006) *Feeding Minds: The Impact of Food on Mental Health*. London: Mental Health Foundation www.mentalhealth.org.uk
[115] Wesnes KA, Pincock C, Helm G, Hails S (2003) 'Breakfast reduces declines in attention and memory over the morning in schoolchildren' *Appetite* 41(3): 329-331
[116] Richardson CR, Faulkner G, McDevitt J, Skrinar GS, Hutchinson DS, Piette JD (2005) 'Integrating physical activity into mental health services for persons with serious mental illness' *Psychiatric services, 56* (3), 324–331
[117] Biddle JH, Ekkekakis P (2005) 'Physically active lifestyles and wellbeing' In F. Huppert, N. Baylis and B. Keverne (Eds) *The science of wellbeing,* 141-168. Oxford: Oxford University Press
[118] Foresight (2008) *Mental Capital and Wellbeing* http://www.foresight.gov.uk/Mental%20Capital/SR-E18_MCW.pdf
[119] Blank L, Grimsley M, Goyder E, Ellis E, Peters J (2007) 'Community-based lifestyle interventions: changing behaviour and improving health' Journal of Public Health 29(3):236-245