Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Final report

Dr Jane Parkinson
Public Health Adviser, NHS Health Scotland

December 2007

healthier scotland
SCOTTISH GOVERNMENT
healthyliving
NHS Health Scotland

TABLE OF CONTENTS

EXECUTIVE SUMMARY **2**
RECOMMENDATIONS **4**
1. THE INDICATORS OF MENTAL HEALTH PROGRAMME **6**
1.1 Background 6
1.2 How has the work progressed? 8
1.3 Rationale, boundaries and challenges 8
1.5 Who are the indicators for? 8
1.5 Indicator framework 9
1.6 National mental health data and sustainability 9
1.7 Awareness raising, consultation and dissemination 11
1.8 Indicator set 12
1.9 Continuing work 12
2. RATIONALE FOR THE CONSTRUCTS, WORKING UNDERSTANDINGS AND INDICATORS **13**
2.1 High Level Constructs **15**
2.1.1 Positive mental health 15
2.1.2 Mental health problems 20
2.2 Contextual Constructs - Individual **24**
2.2.1 Learning and development 24
2.2.2 Healthy living 25
2.2.3 General health 27
2.2.4 Spirituality 29
2.2.5 Emotional intelligence 31
2.3 Contextual Constructs - Community **33**
2.3.1 Participation 33
2.3.2 Social networks 35
2.3.3 Social support 36
2.3.4 Trust 38
2.3.5 Safety 39
2.4 Contextual Constructs - Structural **41**
2.4.1 Equality 41
2.4.2 Social inclusion 43
2.4.3 Discrimination 46
2.4.4 Financial security/debt 48
2.4.5 Physical environment 49
2.4.6 Working life 52
2.4.7 Violence 54
3.0 CONCLUSION **56**
REFERENCE LIST **57**
APPENDIX 1 Advisory Group Membership **67**
APPENDIX 2 Indicators List **68**
APPENDIX 3 Adult Indicators Data Sources, Questions and Scales **73**

Acknowledgements

Special thanks go to Dr Lynne Friedli, Chair of the Mental Health Indicators Advisory Group for her valuable input to the work and comments on this report. Additional thanks go to the members of the Mental Health Indicators Advisory Group for their input to the work, Emma Hogg, NHS Health Scotland, for her comments on the work and to NHS Health Scotland, Public Health Observatory Division colleagues for comments and advice on the details of the indicators. Lastly thanks go to those managing the national Scottish surveys and to the range of other people who provided comments along the way.

EXECUTIVE SUMMARY

Improving mental health is a national public health priority for Scotland. To date, there has been no assessment of the overall mental health of Scotland's population, without which it is difficult to determine whether mental health is improving in Scotland or to track progress. To this end, NHS Health Scotland was commissioned by the Scottish Government's[1] *National Programme for Improving Mental Health and Well-being* to establish a core set of national, sustainable mental health indicators to support the Scottish Government's drive on mental health improvement, as part of overall health improvement. These indicators, which will monitor the state of mental health in Scotland at a national level, are vital to the development of a comprehensive health monitoring system (see www.healthscotland.com/understanding/population/mental-health-indicators.aspx for further information on the indicators work).

The *Indicators of Mental Health Programme* has taken the term mental health to be an overarching term covering both mental health problems and positive mental health. Accordingly, this work has established mental health indicators that encompass both mental health problems and positive mental health.

It is envisaged that the indicators will:

- provide a summary mental health profile for Scotland that covers both positive mental health and mental health problems
- enable monitoring of changes in Scotland's mental health
- inform decision-making about priorities for action and resource allocation, and
- enable comparison between population groups and geographical areas of Scotland, as well as with other countries, where data allows

A mixed approach (taking into account current data, policy, evidence, expert-opinion and theory) was used to obtain measurable, meaningful indicators relevant to the policy making process and for which, as far as possible, data are available at a national level. The focus has been on indicators for adults in the first instance and the process has involved:

- identifying a desirable set of indicators
- scoping relevant data currently collected nationally in Scotland (both administrative and survey data)
- identifying a set of practical indicators which can currently be collected,
- identifying additional data needs for the indicators
- exploring and influencing data collection systems to ensure that these adequately cover mental health
- ensuring sustainability of data by liaising with the national survey teams

The indicators are structured under constructs (categories) of two types, although it is recognised that certain constructs overlap (Table 1):

1. High level constructs of mental health status – outcome measures
2. Contextual constructs – covering the risk and protective factors (determinants) and the

[1] Previously known as the Scottish Executive.

consequences of mental health, which may be at an individual, community or structural level.

Table 1: Constructs for the indicators (number of indicators)

HIGH LEVEL CONSTRUCTS		
Positive mental health (2)	Mental health problems (7)	
CONTEXTUAL CONSTRUCTS		
Individual	**Community**	**Structural**
Learning and development (1)	Participation (3)	Equality (2)
Healthy living (4)	Social networks (1)	Social inclusion (2)
General health (3)	Social support (2)	Discrimination (3)
Spirituality (1)	Trust (2)	Financial security/debt (2)
Emotional intelligence (1)	Safety (4)	Physical environment (6)
		Working life (6)
		Violence (3)

In total the indicator set consists of 55 indicators (one of which (equality analysis) involves analysing the other indicators by selected dimensions of equality). The full indicators list is given in Appendix 2. The majority of these use existing data, although 20 use data that will be new to the Scottish Health Survey from 2008, while another uses data newly collected in the Scottish Household Survey from 2007. Further work is required for four of the indicators in order to develop suitable question(s) that can be included in a national survey to collect the required data. Initial work to agree a consensus understanding of the construct is required for some of these as a starting point.

The focus on positive mental health in addition to mental health problems has been vital to the work. A suitable UK validated scale was not available for the assessment of overall positive mental health. Work was therefore commissioned to validate an existing promising scale: the Affectometer 2. This led to the development and validation of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). WEMWBS is designed specifically to assess population positive mental health of adults and will be included annually in the Scottish Health Survey from 2008, and will inform a Scottish Government national indicator and target to measure performance against government key objectives for 2008-11.

The development of a set of mental health indicators for Scotland is a significant milestone. It is a recognition of the importance of positive mental health to a 'flourishing' Scotland and the need for data on the extent of positive mental health, in addition to the prevalence of mental health problems. The current indicator set is necessarily limited by gaps and weaknesses in the evidence-base, availability of data and the feasibility of collecting data, as well as the complexities and ambiguities surrounding key concepts like spirituality. For all these reasons, the current indicator set is not the final answer to creating a summary profile of Scotland's mental health. It provides a firm basis on which to build and develop a greater understanding of the causes and consequences of mental health and how these can best be measured. It is envisaged that this work will also contribute to a greater focus on mental health impact, at a national and local level and across all sectors.

RECOMMENDATIONS

Inevitably a programme such as this identifies areas of further possible work and a number of important recommendations have come from the work. These are included in relevant sections throughout the rest of the report but are also listed below. These recommendations identify areas of work for others to take forward. NHS Health Scotland itself will maintain and update the national indicators dataset on the ScotPHO website (www.scotpho.org.uk), thus partly fulfilling recommendations 1 and 8 below.

1: Analysis of existing datasets
Continuing analysis of existing datasets is required and especially datasets coming from surveys which have included measures of positive mental health, specifically those which are starting to include WEMWBS. The latter will contribute to determining whether risk and protective factors differ for mental health problems and positive mental health.

2: Longitudinal studies
Longitudinal studies are required to help investigate whether identified associations between mental health and key personal, social and structural factors are causal, and the direction of causality, or coincidental.

3: Further validation of WEMWBS
Further validation of WEMWBS is essential. This includes the establishment of its sensitivity to change and its validity for use with different ethnic minority groups in the UK. As the understanding of positive mental health and its core elements evolves, so the development of a gold standard interview for positive mental health for use with individuals and to validate WEMWBS against should be considered.

4: Spirituality
There is a need to identify/develop question(s) which adequately tap into the concept of spirituality. Further work is initially needed to explore in detail the complex construct of spirituality - what it is, its relation to religion, what aspects set it apart from eudaimonic well-being[2] and meaning and purpose in life.

5: Emotional intelligence
Further work is required on the construct of emotional intelligence and its associated indicator. An in-depth review of the literature is needed to obtain a greater understanding of this complex construct and the academic debates. This will assist in developing the working understanding further and in developing an appropriate short scale or question(s) suitable for inclusion in general population surveys where space is limited.

6: 'Escape facilities'
Further work is required to assess the literature around the concept of 'escape facilities'[3] so that a suitable question(s) can be developed for inclusion in a general population surveys. This needs to take account of the fact that escape facilities may vary for individuals

[2] The eudaimonic perspective of well-being focuses on psychological functioning, good relationships with others and self realisation. This is the development of human potential which when realised results in positive functioning in life, and covers a wide range of cognitive aspects of mental health. (see section 2.1.1).
[3] A valued safe place where an individual can and wants to go to to 'escape' from things.

depending on their living environment. For example, urban/rural areas may differ.

7: Attitudes to violence

Further work is required to develop and test a question(s) to obtain data suitable for an indicator on attitudes to violence.

8: Updating the indicators

As the evidence-base improves and the nature, direction and magnitude of the relationship between personal, social and structural factors and mental health become better understood, so the indicators and their data sources may need adjusting. It is essential that this occurs if required. The indicators will also need to adapt to secular changes to questions in the source national surveys. It is important that survey managers of the national surveys remain aware of this important use of their data.

1. THE INDICATORS OF MENTAL HEALTH PROGRAMME

This report sets out the background, objectives, process and achievements of the *Indicators of Mental Health Programme* for adults. This includes the rationale and an overview of the evidence-base for the constructs and the indicators, working understandings, and the indicators, measures and data sources themselves, including the questions and scales used (Section 2, Appendix 2 and 3). A few graphs showing trends in some indicators are also included for illustration. A separate report provides full data analyses for the indicators for which data is currently available (Taulbut & Parkinson, forthcoming).

1.1 Background

Improving mental health is both a public health priority and a national priority in Scotland, as indicated in, for example, the public health white paper *Towards a Healthier Scotland*, 1999 (The Scottish Office, 1999), *Our National Health: a plan for action, a plan for change*, 2000 (Scottish Executive, 2000), *Partnerships for Care: Scotland's Health White Paper*, 2003 (Scottish Executive, 2003a), the strategic framework for health improvement *Improving Health in Scotland: The Challenge*, 2003 (Scottish Executive, 2003b) and more recently in *Delivering for Health* 2006 (Scottish Executive, 2006a), *Delivering for Mental Health* 2006 (Scottish Executive, 2006b) and *Better Health, Better Care: Action Plan* (Scottish Government, 2007a).

In 2001, the Scottish Government's[4] *National Programme for Improving Mental Health and Well-Being* (the National Programme) was established as part of the Scottish Government's drive for health improvement, public health and social justice. Its vision is to help improve the mental health of everyone in Scotland and to improve the quality of life, well-being and social inclusion of people who experience mental health problems. Its key aims outlined in the Action Plan for 2003-2006 were: to raise the profile of, and support further action in, mental health improvement; to address the stigma of mental health problems; to prevent suicide; and to promote and support recovery (Scottish Executive, 2003c).[5] Continuing as a key part of overall health improvement, the proposed direction and emphasis of the National Programme and mental health improvement in Scotland from 2008 to 2011 is to:

- promote and improve mental health
- prevent mental health problems, mental illness, co-morbidity and suicide
- support improvements in the quality of life, social inclusion, health, equality and recovery of people who experience mental illness
- address inequalities in mental health

Promoting positive mental health is seen to apply to each of the above main themes of promotion, prevention and support (Scottish Government, 2007b).

To date, there has been no assessment of the overall mental health[6] of Scotland's population.

[4] Previously known as the Scottish Executive.
[5] For more information on the National Programme and its work see www.wellscotland.info.
[6] The indicators work has taken the term mental health to be an overarching term covering both mental health problems and positive mental health, see *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale paper* (Parkinson, 2007a) for a full discussion. As much as possible the terms mental health problems and positive mental health have been used in this final report. However, in certain places in section 2 terminology used in original papers may be presented.

There is a need to measure mental health amongst the Scottish population to determine whether mental health is improving in Scotland and to track progress. To this end, NHS Health Scotland was commissioned by the Scottish Government's National Programme to take forward a programme of work with the aim of establishing a core set of national, sustainable mental health indicators[7] to support the Scottish Government's drive on mental health improvement, as part of overall health improvement. This is a support activity to the National Programme, as outlined in its 2003-2006 Action Plan (Scottish Executive, 2003c). These indicators are intended to provide a way of monitoring the state of mental health in Scotland, at a national level, and are vital to the development of a comprehensive health monitoring system (Parkinson, 2006a).

Promoting mental health and preventing mental health problems are priorities for the World Health Organization and for the European Union. Both the recent WHO Mental health Declaration and Action Plan for Europe (World Health Organization, 2005a; 2005b) and the EU Green paper on mental health (European Commission, 2005) highlight the importance of establishing good information on mental health and the need to establish systems and indicators to assess the mental health of populations.

Recent research suggests that mental health consists of two dimensions: mental health problems (mental illness, psychiatric morbidity) eg depression and anxiety, and positive mental health (mental well-being) which includes eg life satisfaction, positive relationships with others and purpose in life (see *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale paper* (Parkinson, 2007a) for a full discussion). Good mental health is therefore more than the absence of mental illness. Historically, however, assessment of population mental health has largely focused on levels of psychiatric morbidity using surveys and scales to determine prevalence of mental health problems (Stewart-Brown, 2002; World Health Organization *et al.,* 2004). The growing recognition of the importance of positive mental health has generated increased interest in developing indicators to measure positive mental health to accompany indicators of psychiatric morbidity (Stewart-Brown, 2002). Accordingly, the Scottish *Indicators of Mental Health Programme* has established mental health indicators that encompass both mental health problems and positive mental health. These are indicators for adults in the first instance.

It is envisaged that the Scottish adult indicators will:

- provide a summary mental health profile for Scotland that covers both positive mental health and mental health problems
- enable monitoring of changes in Scotland's mental health
- inform decision-making about priorities for action and resource allocation, and
- enable comparison between population groups and geographical areas of Scotland, as well as with other countries, where data allows

In taking forward the *Indicators of Mental Health Programme*, key expert input has been provided to NHS Health Scotland by an advisory group with representation from England, Wales and Scotland (Appendix 1). Comments from other experts and practitioners have also

[7] See www.healthscotland.com/understanding/population/mental-health-indicators.aspx for information on and outputs from the *Indicators of Mental Health Programme.*

fed into the work formally via consultation in February 2006 (Parkinson, & Mental Health Indicators Advisory Group, 2006) and through dissemination events March/April 2007 (Parkinson, 2007b). NHS Health Scotland colleagues in the Public Health Observatory Division have also provided input into the analysis of past data and the finer details of the indicators.

1.2 How has the work progressed?

A mixed approach (taking into account current data, policy, evidence, expert-opinion and theory) was used to obtain measurable, meaningful indicators relevant to the policy making process and for which, as far as possible, data are available at a national level. Basing the indicators, where possible, on existing data, has ensured the indicators are more than a 'wish-list,' as well as contributing to their sustainability.

The focus has been on indicators for adults, in the first instance, and the process has involved:

- identifying a desirable set of indicators
- scoping relevant data currently collected nationally in Scotland (both administrative and survey data)
- identifying a set of practical indicators which can currently be collected,
- identifying additional data needs for the indicators
- exploring and influencing data collection systems to ensure that these adequately cover mental health
- ensuring sustainability of data by liaising with the national survey teams

1.3 Rationale, boundaries and challenges

The full rationale behind the indicators programme is laid out in the paper *Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale paper* (Parkinson, 2007a). This also discusses the constraints and challenges within which the *Indicators of Mental Health Programme* worked. The main constraints and challenges have been:

- data limitations
- limitations of the evidence-base, including at times its equivocal nature and/or absence
- an absence of suitable scales or questions

A further key challenge has been ongoing debate about what are the necessary and sufficient elements that constitute and contribute to mental health. In many cases there is no consensus on mental health outcomes (especially for positive mental health), and there is no easy way of distinguishing between cause and effect. The pragmatic stance taken has aimed to select indicators that are essential for assessing population mental health and:

- are relevant
- have a clear and robust relationship to mental health, and
- reflect desirable aspirations for the population

1.4 Who are the indicators for?

The primary audience for these indicators is national policy makers and planners. As such the focus has been on the development of national indicators for the Scottish population.

Whilst the indicator set is national, local needs have not been ignored. Where possible, data from sources with a larger sample size have been used to allow some sub-national/population sub-group analyses. It is also envisaged that the national indicators form a set from which local colleagues can select those that are relevant to their needs. Where national data cannot be disaggregated to the required sub-national/population sub-group level, it is anticipated that the questions and scales used for the national indicators could be included in specific questionnaires by, for example, practitioners/planners to collect the data locally from the required sample.

1.5 Indicator Framework

The indicators are structured under constructs (categories) of two types, although it is recognised that certain constructs overlap and other configurations are possible [8] (Table 1):

1. High level constructs of mental health status – outcome measures
2. Contextual constructs – covering the risk and protective factors (determinants) and the consequences of mental health, which may be at an individual, community or structural level.

Table 1: Constructs for the indicators

HIGH LEVEL CONSTRUCTS		
Positive mental health	Mental health problems	
CONTEXTUAL CONSTRUCTS		
Individual	**Community**	**Structural**
Learning and development	Participation	Equality
Healthy living	Social networks	Social inclusion
General health	Social support	Discrimination
Spirituality	Trust	Financial security/debt
Emotional intelligence	Safety	Physical environment
		Working life
		Violence

1.6 National mental health data and sustainability

For the majority of the indicators, existing surveys were identified as the most suitable source of existing data and also the most suitable means to gain additional data for indicators where this was currently not available nationally (Parkinson, 2004). Of the national surveys relevant to adults, the main Scottish Government ones (the Scottish Health Survey, Scottish Household Survey, Scottish Crime and Justice Survey[9] and the Scottish House Condition Survey), with their larger sample sizes were chosen as these would allow greater disaggregation of the data.

Obvious data gaps were identified between currently collected data and that needed for the

[8] A draft list of desirable constructs for adults was consulted on in February 2006 (Parkinson & Mental Health Indicators Advisory Group, 2006).

[9] Previously known as the Scottish Crime and Victimisation Survey and priori to that the Scottish Crime Survey.

full indicator set. Many related to positive mental health. The indicators programme sought to fill these data gaps by exploring means of collecting the new data in national surveys. To identify suitable questions or validated scales to recommend for inclusion in the national surveys, supporting work was undertaken:

- a commissioned review of scales relating to positive mental health which are validated for use in the UK (Parkinson, in press).
- a review of questions/scales used in non-Scottish national surveys and cross-national surveys to collect data relating to the mental health of adults (O'Brien & Parkinson, forthcoming).[10]

A suitable UK validated scale was not available for the assessment of overall positive mental health. Work was therefore commissioned to validate an existing promising scale: the Affectometer 2 (Kammann & Flett, 1983; Stewart-Brown, 2002). This led to the development and validation of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Parkinson, 2006b; Tennant *et al.,* 2006; 2007a). WEMWBS is designed specifically to assess population positive mental health for adults and is discussed further in section 2.1.1. A WEMWBS user manual is currently being developed (Stewart-Brown & Janmohamed, forthcoming).

Ensuring the collection of new data in national Scottish surveys involved influencing the content of the chosen surveys. Individuals managing the surveys were consulted throughout the work to obtain current questionnaires, seek advice on best data to use, and determine survey developments. During the indicators work, all the major Scottish national surveys were reviewed. Consultations on the content of the national surveys were engaged with as much as possible according to the stage the indicators work had reached. For the Scottish Household Survey questionnaire review in 2006, questions of interest for retention and new topics that the indicators work would like included were highlighted, but it was not possible to detail specific new questions for addition. However, due to links established with other policy areas (section 1.7), input was provided to support cases made by other policy areas for new questions relevant to the indicators work.

The review of the Scottish Health Survey questionnaire in 2007 was more timely. Nine proforma submissions were made for the adult indicators. These included one which made the case for retaining the GHQ-12 in the survey, and eight making the case for inclusion of new questions to cover new topics: positive mental health; life satisfaction; depression; anxiety; self-harm; aspects of social capital (participation, social networks, social support and trust); working life; and discrimination and harassment. All the submissions were successful and, subject to piloting, the new questions will be included in future Scottish Health Surveys (Table 2). The success of these was assisted by input and supporting statements from individuals across several policy areas (Scottish Government, researchers, practitioners etc). Gaining this support benefited from preparatory work which had sought to highlight the importance of the indicator work to other policy areas (section 1.7).

[10] UK surveys were of primary interest. This review also indicates where comparison of Scottish data to that of other countries may be possible.

Table 2: New topics included in the Scottish Health Survey for the indicators

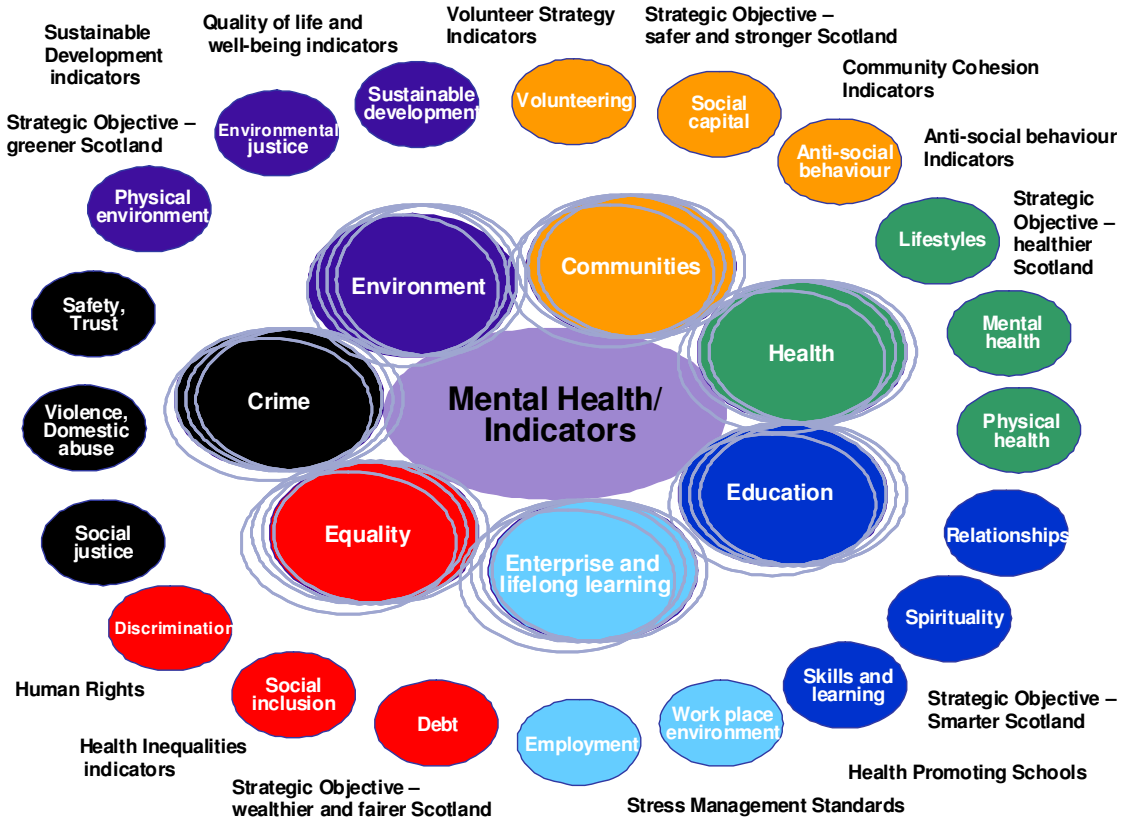
Topic	Part of survey
Positive mental health	Annual core, adult and young adult self-completion booklets
Life satisfaction	Annual core, individual interview
Depression	Annual nurse interview
Anxiety	Annual nurse interview
Self-harm	Annual nurse interview
Social capital	Module to a sub-sample either annually or biennially
Working life	Module to a sub-sample either annually or biennially
Discrimination/harassment	Module to a sub-sample either annually or biennially

As well as engaging with the survey review processes to seek the collection of new data, this engagement was also important to ensure that existing data already identified as being collected in the surveys and needed for the indicators continue to be collected.

1.7 Awareness raising, consultation and dissemination

As noted, it has been important to the progress of the indicators work to highlight the cross-cutting nature of mental health and the relevance, importance and contribution of the indicator set to policy areas and agendas other than health improvement (Figure 1). The indicators programme worked to build relationships with other policy areas, and those developing other indicator sets and national datasets, so that by working together, shared goals and overlapping data needs may be met. It also means that, where possible, the indicators will be of practical benefit to a broad spectrum of users.

Figure 1: Illustration of the cross-cutting nature of mental health and the indicator set



To aid in this, two awareness raising meetings were held in 2005 for national survey managers, and senior partners from across the Scottish Government and national agencies to highlight the contribution of the indicators work to many diverse policy agendas. This started the process of seeking to influence mental health data collected in Scottish national surveys.

Views were sought through consultation on the first framework for the constructs through the *Indicators of Mental Health and Well-being - Constructs Consultation Paper* which was disseminated in February 2006 (Parkinson & Mental Health Indicators Advisory Group, 2006). This invited feedback on the preliminary thinking behind, and the rationale for, proposed constructs for the indicators for adults. Comments received informed further development of the indicator set with the framework being revised to its current structure of high level and contextual constructs.

Key elements of the work were also shared with colleagues in Scotland in five dissemination events in March/April 2007 (Parkinson, 2007b). These stimulated further debate around the final choice of indicators and led to further refinement of the final indicator list.

1.8 Indicator set

The full adult indicator set is listed in Appendix 2 and the questions and scales which are used to obtain the data for the indicators in Appendix 3. Indicators cover all adults aged 16 years and above unless otherwise stated.

In total the indicator set consists of 55 indicators (one of which (indicator - equality analysis) involves analysing the other indicators by selected dimensions of equality). The majority of these use existing data, although 20 use data that will be new to the Scottish Health Survey from 2008, while another uses data newly collected in the Scottish Household Survey from 2007. Further work is required for four of the indicators in order to develop suitable question(s) that can be included in a national survey to collect the required data. Initial work to agree a consensus working understanding of the construct is required for some of these as a starting point.

1.9 Continuing work

Work is underway in NHS Health Scotland to analyse data that already exists for the indicators (Taulbut & Parkinson, forthcoming). This will be reported on in early 2008 and will consist of trend analyses as well as analyses of the indicators by age, gender and Scottish Index of Multiple Deprivation (SIMD) or social class if this is not available. The report will be placed on the ScotPHO website (www.scotpho.org.uk) and will be updated annually.[11]

Ongoing advocacy is important to influence both future data collection in Scotland for mental health, to ensure that data can be collected for indicators which are still data less, and to ensure continued sustainability of the indicators. This will also ensure that the national mental health data can be adjusted as necessary as the evidence-base is improved over future years. Finally, further work is required for the indicators (sections 2.2.4, 2.2.5, 2.4.5 and 2.4.7) where suitable questions or scales have not yet been identified.

[11] Some of the indicators vary across age groups and with gender. If the indicators are applied at a local level and comparisons are being made, appropriate standardisation (age and sex) will be necessary.

2. RATIONALE FOR THE CONSTRUCTS, WORKING UNDERSTANDINGS AND INDICATORS

This section sets out the rationale for the inclusion of each of the constructs and indicators under the framework established for the indicators work (see Table 1) (Parkinson, 2007a). This includes an overview of the evidence-base for the constructs and the indicators, but is not a systematic review of the extensive literature.[12] It is important to note that the quality and quantity of the evidence varies and there is a considerable need for further research on the social determinants of both mental health problems and positive mental health.

Also included for each construct is a working understanding of the construct, and a table of the indicators, measures and data sources for each indicator under that construct. The majority of the survey data are from either a random adult or all adults in a household according to the survey methodology. However, for a few indicators the data are obtained from the highest income householder or their partner, which will be indicated. Where the required data has not previously been collected before or consistently collected in a national Scottish survey for an indicator, but will now be collected in future years, the data source is highlighted in pink. Where no suitable data source or question(s)/scale has been identified for an indicator this is highlighted in orange. A few graphs showing data analyses and trends for some of the indicators are also included for illustration (for full analysis of existing data for the indicators see Taulbut & Parkinson, forthcoming).

Finally, the full list of indicators, measures, and their data sources, and the questions/scales which are used in the various surveys to collect the data for the indicators are included in Appendix 2 and 3, respectively.

Limitations of the evidence base

There are several limitations with the current evidence-base for mental health. These include:

- equivocal evidence
- the use of different terminologies, definitions and means of assessing mental health in studies which makes it hard to draw clear conclusions
- a lack of longitudinal studies
- uncertainty of the direction of causality so evidence mainly indicates associations
- few suitable studies in some areas of the evidence-base
- the majority of the evidence-base coming from studies assessing factors that affect mental health problems rather than positive mental health, it is unknown if these are necessarily the same
- studies controlling for other variables to differing extents

More research is needed, including greater analyses of existing datasets, in order to investigate in greater detail factors which are associated with mental health and to start addressing these current limitations in the evidence-base. Longitudinal studies are also essential to further investigate identified associations to help establish whether these are coincidental or causal, and if causal the direction of causality.

[12] As much as possible the terms mental health problems and positive mental health have been used in the following sections. However, in certain places terminology used in original papers is presented.

Recommendation 1: Analysis of existing datasets
Continuing analysis of existing datasets is required and especially datasets coming from surveys which have included measures of positive mental health, specifically those which are starting to include WEMWBS. The latter will contribute to determining whether risk and protective factors differ for mental health problems and positive mental health.

Recommendation 2: Longitudinal studies
Longitudinal studies are required to help investigate whether identified associations between mental health and key personal, social and structural factors are causal, and the direction of causality, or coincidental.

2.1 High Level Constructs

2.1.1 Positive mental health

Rationale

The *Indicators of Mental Health Programme* has taken mental health to cover both positive mental health and mental health problems, and evidence is accumulating for the existence of these two psychometrically distinct, but correlated, dimensions (see section 4.1.1 in Parkinson, 2007a). There is also growing evidence for the importance of positive mental health to the mental health, health and well-being of individuals and the population (see section 4.2 in Parkinson, 2007a). Thus, it is essential for a mental health profile of the population to have an overall measurement of positive mental health.

Working understanding

Interest in the concept of positive mental health has grown with the recognition that mental health is not only about mental health problems and that everyone has mental health needs. Positive mental health is, however, a complex construct with continuing debate about its precise nature. For instance, what constitutes positive mental health and what are its precursors? It is conceptualised in various ways and it is unlikely with current understanding that any one model will meet universal approval. Adding to this, the term 'positive mental health' is often used interchangeably with 'mental well-being', which in turn may be represented as 'well-being'.[13] It is, however, now largely agreed that positive mental health encompasses more than the absence of mental health problems and covers both experience and functioning, having two distinct perspectives which have informed distinct bodies of research in positive mental health (Ryan and Deci, 2001; Keyes *et al.*, 2002; Huppert *et al.,* 2005a):

- the hedonic perspective - focusing on the subjective experience of affect and life satisfaction
- the eudaimonic perspective - focusing on psychological functioning, good relationships with others and self realisation. This is the development of human potential which when realised results in positive functioning in life, and covers a wide range of cognitive aspects of mental health.

Positive mental health generally refers to a range of emotional and cognitive attributes associated with a self-reported sense of well-being and/or resilience in the face of adversity, it is more than the absence of mental health problems and may also be present in people with a mental illness diagnosis. Dimensions cited include: self-esteem, internal locus of control or mastery, resilience, satisfaction with life, optimism, social integration, sense of coherence and satisfying relationships. Recent European work has taken positive mental health to refer:

> '*to the emotional, affective aspects of well-being (affect balance, happiness, certain aspects of life satisfaction) and cognitive aspects (eg coping, optimism, certain features of life satisfaction)*'(Korkeila, 2000; STAKES, 2001).

Other frequently cited elements of positive mental health include the capacity to:

- develop emotionally, creatively, intellectually and spiritually

[13] Throughout the indicators work the term positive mental health has been used except in some instances when the terminology adopted by others has been used instead.

- initiate, develop and sustain mutually satisfying personal relationships
- face problems, resolve them and learn from them ie able to cope with adversities (resilience)
- have the capacity to contribute to family and other social networks, local community and society
- have a positive sense of well-being
- have individual resources including self-esteem, optimism, and sense of mastery and coherence
- be confident and assertive
- be aware of others and empathise with them
- use and enjoy solitude
- play and have fun
- laugh, both at themselves and at the world

(Based on www.mentalhealth.org.uk/page.cfm?pagecode=PMWM)

For Keyes, positive mental health includes emotional well-being (subjective well-being), psychological well-being and also social well-being (Keyes, 2002). Social well-being is divided into social coherence, social integration, social acceptance, social contribution and social actualisation.

The European Social Survey Round 3 (2006) included a new module with questions designed to capture personal and social well-being that also distinguished between how people feel and how people function. It adopted a definition of well-being (positive mental health) which incorporates both how people feel - the hedonic aspects of well-being, such as pleasure, enjoyment, satisfaction - and also how people function - the eudaimonic aspects of well-being, such as competency, interest or engagement, meaning or purpose in life. It gave equal emphasis to personal well-being and to inter-personal or social well-being (Huppert *et al.*, 2005b).

For the indicators programme, positive mental health consists of subjective well-being (affect and life satisfaction), and psychological well-being (which covers a wider range of cognitive aspects of mental health than affect and life satisfaction). This equates to the elements below (Table 3) and covers both the hedonic and eudaimonic perspectives.

Table 3: Elements of positive mental health used in the indicators work

Positive Mental Health (PMH)
Subjective Well-Being (Hedonic)
Affect – feelings, emotions and moods (importantly the presence of positive affect and absence of negative affect) **Life Satisfaction –** cognitive evaluation of one's life
Psychological Well-Being* (Eudaimonic)
Self-acceptance - feeling good about yourself whilst being aware of your limitations This equates to possessing a positive attitude towards oneself, recognising various parts of oneself, such as one's good and bad qualities, feeling self-confident and accepting one's past life and all its positive and negative experiences.

Positive Relations with Others - seeking to develop and maintain warm and trusting interpersonal relationships
This equates to possessing warm and trusting relationships with others, being capable of strong empathy, affection and intimacy.

Environmental Mastery - shaping the environment so as to meet personal needs and desires
This equates to taking advantage of environmental opportunities, of participating in work and familial activities and of possessing a sense of competence in managing everyday activities.

Autonomy - sustaining individuality within a larger social context, seeking a sense of self-determination and personal authority
This equates to independence, self-determination and the ability to resist social pressure to think or act in certain ways. A person with autonomy possesses an internal locus of control and can evaluate the self by a personal standard.

Purpose in Life - endeavouring to find meaning in one's efforts and challenges
This equates to having goals, intentions and a sense of direction which contributes to the feeling that life is meaningful.

Personal Growth - making the most of one's talents and capacities
This equates to being open to new experiences, being capable of facing challenges and tasks at different periods of life and considering the self as growing and expanding over time (process of self-realisation).

* six elements from Ryff's model of psychological well-being which cover positive psychological functioning and a wider range of cognitive aspects of mental health (Ryff, 1989; Ryff & Keyes, 1996).

The Warwick-Edinburgh Mental Well-being Scale

The review of national Scottish mental health data indicated an absence of data on positive mental health, including its overall assessment. A suitable UK validated scale for the assessment of overall positive mental health for adults was also not available. Affectometer 2 had previously been identified as a promising scale for assessing population positive mental health (for adults) (Kammann & Flett, 1983; Stewart-Brown, 2002), having intuitive appeal to practitioners and policy makers in the UK and appearing to correspond to current definitions of positive mental health. Whilst it had not been validated for use in the UK, Affectometer 2 had been included in Scotland's Health Education Population Survey in 2002 (HEPS) and initial analyses were promising (Tennant *et al.*, 2007b). Researchers at Warwick and Edinburgh Universities were therefore commissioned to psychometrically validate Affectometer 2 in the UK, and if necessary adapt it or develop a new shortened scale to better assess population positive mental health. This work took place between April 2005 and June 2006 and led to the development of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) and its initial UK validation using student groups (Parkinson, 2006b; Tennant *et al.,* 2006). WEMWBS was designed to be short enough to be used in population-level surveys, and was subsequently included in two national Scottish surveys, the September wave of the HEPS 2006 and the 2006 'Well? What do you think?' survey, to provide population data. As part of its validation, these data have been analysed and indicate that WEMWBS is a psychometrically sound scale to measure positive mental health of adults at the population level in the UK (Tennant *et al.,* 2007a).

What WEMWBS covers

WEMWBS aims to capture a wide conception of positive mental health. It covers both

hedonic and eudaimonic aspects of positive mental health including positive affect (feelings of optimism, cheerfulness, relaxation), satisfying interpersonal relationships and positive functioning (energy, clear thinking, self acceptance, personal development, competence and autonomy)

As well as covering relationships with self, three items cover relationships with others. This reflects the importance of interpersonal relationships to mental health - academics writing from different perspectives on positive mental health all appear agree on the importance of positive interpersonal relationships. The capacity for mutually satisfying and enduring relationships has been identified as a key aspect of good mental health (World Health Organization *et al.*, 2004). Positive relationships with self, intimate others, and strangers are also held to be important determinants of positive mental health (Bowlby, 1969; Fonagy & Higgitt, 2000). Interpersonal relationships influence mental health and well-being at the levels of the community, workplace, school and family and perceived satisfaction with social relations may be more significant than availability, extent and quantity (Stewart-Brown, 2005). However, relationships in their negative sense may also be an important precipitating factor in violence and an independent predictor of mental health problems (Stewart-Brown, 2005).

WEMWBS largely covers the elements of positive mental health included in the indicator programme's working understanding of positive mental health. Although there is not a specific item covering life satisfaction, hedonic well-being is well represented and a separate indicator of life satisfaction is included in the indicator set.

In view of the evolving nature of the understanding of positive mental health, WEMWBS is likely to need modification in the future to accommodate expansion of knowledge and understanding relating to the core components of positive mental health.

Indicators, measures and data sources

POSITIVE MENTAL HEALTH		
INDICATOR	**MEASURE**	**DATA SOURCE**
Positive mental health	Mean adult score on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)	Scottish Health Survey*
Life satisfaction	Mean adult score of how satisfied individuals are with their life as a whole nowadays	Scottish Health Survey*

* Data has not previously been collected or consistently collected in a national Scottish survey but will now be collected in future years.

WEMWBS is now also being used for one of the Scottish Government's forty five national indicators and targets to measure performance against the government's key objectives for 2008-2011. Indicator 15: Increase the average mental well-being score of adults on the Warwick-Edinburgh Mental Well-being Scale by 2011 (Scottish Government, 2007c). These objectives and associated indicators are also to form the basis of a Single Outcome Agreement to be agreed between each Local Authority and the Scottish Government as outlined in the Scottish Budget Spending Review 2007 Concordat between the Scottish Government and local government (Scottish Government & COSLA, 2007).

The complete validation of a new scale takes a considerable amount of time and involves many different assessments. Whilst the validity and reliability of WEMWBS has been tested in population samples, further validation is desirable. Specifically the sensitivity to change of WEMWBS needs to be assessed. Work is ongoing to provide this information and the possible use of WEMBWS in a longitudinal survey will be a huge opportunity for its further validation. Whilst WEMWBS is being used in national surveys such as the Scottish Health Survey, it must be remembered that WEMWBS has not been validated specifically with different ethnic minority groups.

Recommendation 3: Further validation of WEMWBS

Further validation of WEMWBS is essential. This includes the establishment of its sensitivity to change and its validity for use with different ethnic minority groups in the UK. As the understanding of positive mental health and its core elements evolves, so the development of a gold standard interview for positive mental health for use with individuals and to validate WEMWBS against should be considered.

2.1.2 Mental health problems

Rationale

Mental health problems are a major public health concern. Surveys have shown that approximately one in four adults experience some form of mental health problem at any one time (Singleton *et al.*, 2001). In recent surveys, just over a quarter of the population in Scotland reported having experienced a mental health problem at some time in their life (Glendinning *et al.*, 2002; Braunholtz *et al.*, 2004; 2007). In 1990, five of the leading ten causes of disability worldwide were mental health problems (unipolar depression, alcohol dependence, bipolar disorder, schizophrenia and obsessive-compulsive disorder) (Murray & Lopez, 1996) whilst in 2002, unipolar depression was ranked fourth worldwide and self-inflicted injuries seventeenth. There is also wide acknowledgement of an increase in mental health problems at a global level (Murray & Lopez, 1996; Mathers & Lonar, 2006). It is projected that by 2030 unipolar depression will be the second leading cause of disease burden worldwide, and the leading cause in high-income countries, alcohol use disorders the fourth leading cause of disease burden in high-income countries and self-inflicted injuries will become the fourteenth worldwide (Mathers & Lonar, 2006). In 2004/2005, the total cost of mental health problems in Scotland was estimated to be £8.6 billion (Scottish Association for Mental Health, 2006).

Depression and anxiety

In view of their significant health and social impact, it is essential that a mental health profile of the population includes an assessment of overall mental health problems as well as an assessment of depression and anxiety.[14] Recent research has indicated that depression is associated with a significantly greater decrement in health than the chronic diseases angina, arthritis, asthma and diabetes (Moussavi *et al.,* 2007). In 2003/2004, depression and anxiety were among the top ten conditions recorded at GP consultations in Scotland (ScotPHO website www.scotpho.org.uk/web/site/home/Healthwell-beinganddisease/MentalHealth/Data/data_depression.asp) and between April 2005 and March 2006, it is estimated that over a quarter of a million patients were seen by their GP for problems related to depression and anxiety (ISD Scotland website www.isdscotland.org/isd/information-and-statistics.jsp?pContentID=3711&p_applic=CCC&p_service=Content.show&).

Alcohol and drugs

The misuse of alcohol is a growing problem in Scotland leading to an increase in alcohol-related deaths (Scottish Executive, 2007; Substance Misuse Information Strategy Team, 2007). Severe alcohol and drug misuse are classified as mental health problems when they meet the criteria in the WHO International Classification of Diseases (ICD-10) under 'mental and behavioural disorders due to psychoactive substance use' (www.who.int/classifications/apps/icd/icd10online/). This covers dependency syndromes.

The number of people misusing drugs is difficult to assess and currently data are not collected in Scottish surveys on dependency. All deaths associated with drug use are, however, investigated and those from mental and behavioural disorders due to psychoactive substance use determined, making the number of deaths due to drug misuse a robust indicator (Substance Misuse Information Strategy Team, 2006).

[14] Stress is covered under working life.

Suicide

Whilst it is recognised that there is some debate about the use of suicide as an indicator of mental health problems, the relationship between mental health and suicide being complex and influenced by many factors, it is none the less considered important as an indicator, especially as a significant proportion of those who complete suicide have a mental health problem. This indicator is also necessary to monitor progress towards the Scottish Government's target of a 20% reduction in suicide in Scotland by 2013 (10-year 'Choose Life' national strategy and action plan to prevent suicide in Scotland (Scottish Executive, 2002)). This is now also an NHS performance target (HEAT target) and target 2 in the mental health delivery plan, 2006 (Scottish Executive, 2006b).

Self-harm

Prevalence of self-harm is an important indicator of profound mental distress, as well as being a risk factor for suicide. Because of its links to many common determinants of psychological distress (e.g. drug and alcohol use, depression, anxiety disorders and violence), and its association with subsequent suicide, it has been considered that monitoring of population self-harm rates may provide a useful proxy of mental distress (Hawton *et al.*, 2003; World Health Organization *et al.*, 2004). The lifetime prevalence of deliberate self-harm without suicide intent in the adult population (16 – 74) in Great Britain in 2000 was around 2.5% (Meltzer *et al*., 2002a), and between 1999 and 2004 approximately 14-16,000 discharges from Scottish acute hospitals had a diagnosis of deliberate self-harm, which in itself is an underestimation of the extent of self-harm in the population (ISD Scotland website www.isdscotland.org/isd/files/imhipnewsletterapr06.pdf). Given its impact on individuals and society as a whole, it is important to include an indicator of self-harm. Additionally, due to small numbers it can be difficult to monitor change in suicide over time, especially at a sub-national level. As self-harm is a key predictor of completed suicide, inclusion of self-harm would provide a very useful proxy measure for suicide (Hawton *et al.*, 2003; Platt *et al.*, 2006; 2007).

Working understanding

The construct mental health problems covers a continuum from symptoms that meet the criteria for clinical diagnosis[15] of mental illness, to symptoms at a sub-clinical threshold which interfere with emotional, cognitive or social function.

Indicators, measures and data sources

MENTAL HEALTH PROBLEMS		
INDICATOR	**MEASURE**	**DATA SOURCE**
Common mental health problems	Percentage of adults who score 4 or more on the General Health Questionnaire-12 (GHQ-12) (a score of 4 or more indicates a possible mental health problem over the past few weeks)	Scottish Health Survey
Depression	Percentage of adults who have a symptom score of 2 or more on the depression section of the Revised Clinical Interview Schedule (CIS-R) (a score of 2 or more	Scottish Health Survey*

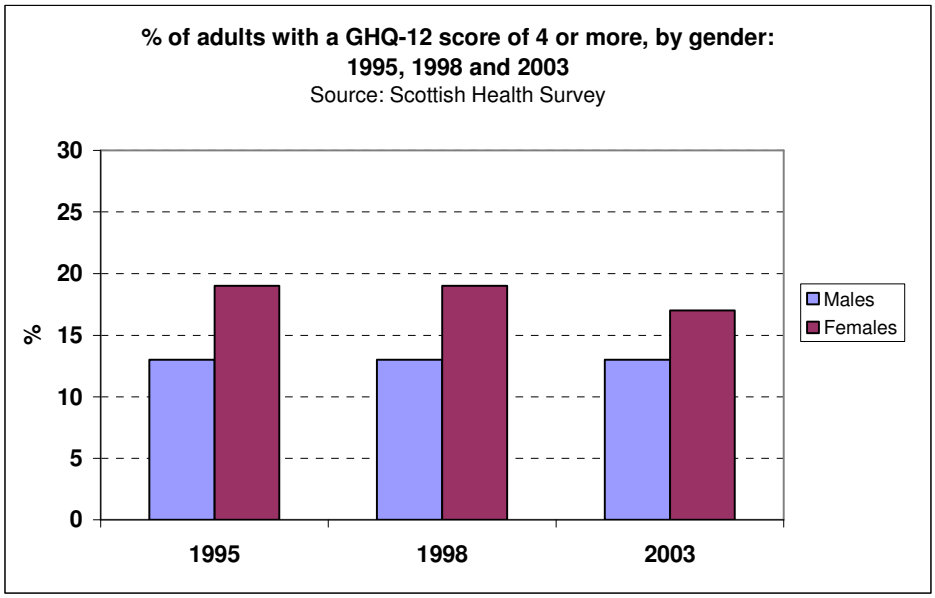
[15] Defined through recognised classifications such as the International Classification of Disease (ICD10) or the Diagnostic Statistical Manual Version IV (DSM IV).

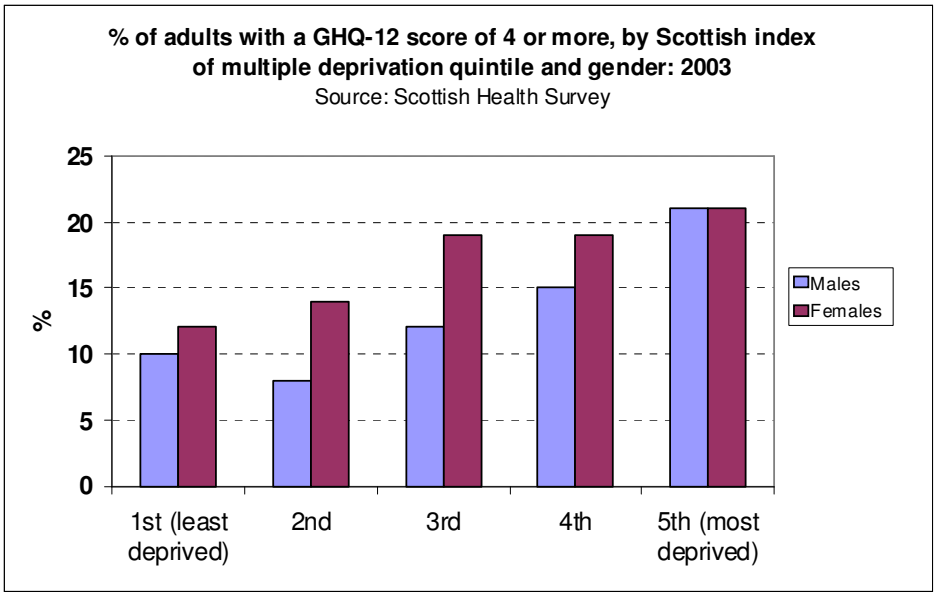
	indicates symptoms of moderate to high severity experienced in the previous week)	
Anxiety	Percentage of adults who have a symptom score of 2 or more on the anxiety section of the Revised Clinical Interview Schedule (CIS-R) (a score of 2 or more indicates symptoms of moderate to high severity experienced in the previous week)	Scottish Health Survey*
Alcohol dependency	Percentage of adults who score 2 or more on the CAGE questionnaire (a score of 2 or more indicates possible alcohol dependency in the previous 3 months)	Scottish Health Survey
Drug-related death	Deaths per 100,000 adults in the past year from 'mental and behavioural disorders due to psychoactive substance use'	General Register Office for Scotland
Suicide	Deaths per 100,000 adults in the past year by intentional self-harm and by undetermined intent	General Register Office for Scotland
Deliberate self-harm	Percentage of adults who have deliberately harmed themselves but not with the intention of killing themselves in the past year	Scottish Health Survey*

* Data has not previously been collected in a national Scottish survey but will now be in future years.

Illustrative data

Indicator - Common mental health problems




% of adults with a GHQ-12 score of 4 or more, by Scottish index of multiple deprivation quintile and gender: 2003
Source: Scottish Health Survey
25
20
15
10
5
0
%
1st (least deprived)
2nd
3rd
4th
5th (most deprived)
Males
Females

2.2 CONTEXTUAL CONSTRUCTS - INDIVIDUAL

2.2.1. Learning and development

Rationale

There is good evidence that participating in learning is associated with a range of mental health benefits and also contributes to the adoption of healthy behaviours, although there is a need to distinguish between concepts like growth/development and participation in learning opportunities (Aldridge & Lavender, 2000; Dench & Regan, 2000; James, 2001a,b,c; Feinstein *et al*, 2003, Friedli *et al.*, 2007).

In a study looking at the health impact of participation in learning in a sample of 10,000 adults between the ages of 33 and 42, Feinstein *et al.* found that learning plays an important role in contributing to the small shifts in attitudes and behaviours that take place during mid adulthood (Feinstein *et al.*, 2003; Preston & Feinstein, 2004). These included positive changes in:

- exercise taken
- life satisfaction
- race tolerance
- authoritarian attitudes
- political interest
- number of memberships
- voting behaviour

The four different types of adult learning (academic and vocational qualifications, work-related training and leisure courses) contribute differently to these and gender differences exist (Feinstein *et al.*, 2003; Feinstein & Hammond, 2004; Preston & Feinstein, 2004). No evidence, however, was found for self-reported participation in adult learning protecting against the onset of or progression into clinical depression (Feinstein *et al.*, 2003).

More recently, Hammond and Feinstein have found positive associations in this sample between participating in adult learning and optimism and efficacy (Hammond & Feinstein, 2006). This adds to qualitative work which indicates that for some adults taking courses contributes to positive well-being and health (citations in Hammond & Feinstein, 2006). There was, however, no association with satisfaction with life so far or depression.

Working understanding

This construct covers participation in all forms of adult learning, both taught and non-taught.

Indicators, measures and data sources

LEARNING AND DEVELOPMENT		
INDICATOR	**MEASURE**	**DATA SOURCE**
Adult learning	Percentage of adults (no longer in continuous full-time education) who participated in some type of adult learning (taught or non-taught) in the last year	Annual Population Survey

2.2.2 Healthy living

Rationale

This construct is based on the hypothesis that healthy lifestyle choices (ie health behaviours, notably physical activity, diet, alcohol consumption and drug use) influence and are influenced by mental health.

There is robust evidence for the impact of physical activity and exercise on mental health, although not necessarily for a causal link:

- as a treatment or therapy for existing mental health problems;
- to improve the quality of life for people with mental health problems;
- to prevent the onset of mental health problems;
- to improve the positive mental health of the general population

(Etnier *et al.*, 1997; Fox, 2000; Grant, 2000; Mutrie, 2000; Huppert *et al.,* 2005a; Mental Health Foundation, 2005; Friedli *et al.*, 2007).

Evidence linking diet to mental health is emerging but promising, with some studies suggesting an association between certain food and both emotional and cognitive function and mental health problems such as depression (Cornah, 2006a; van de Weyer, 2006; Friedli *et al.*, 2007). For example, a randomised double blind placebo trial in a prison found a significant reduction in violent behaviour following food supplements (Gesch *et al.*, 2002). It has been suggested that changing diets could be a contributing factor in the rise of mental health problems, although more research is required into the link between diet and mental health (Cornah, 2006a; van de Weyer, 2006; The British Dietetic Association, 2006).

There is a clear association between alcohol misuse and mental health problems although the direction of causality is debated (Cornah, 2006b; Friedli *et al.*, 2007). It has been recommended that the current alcohol consumption guidelines may need to be lowered to reduce the risk of anxiety and depression. A relationship also exists between alcohol misuse and an enhanced risk of physical harm, poor social functioning, and factors such as violence, domestic abuse and anti-social behaviour which can all influence mental health.

The risks associated with illicit drug use are similar to those of alcohol misuse (Friedli *et al.*, 2007). For cannabis, recent research suggests that it can be a cause of psychotic illnesses in those who are genetically vulnerable (see references cited in Royal College of Psychiatrists Public Education Editorial Board, 2006).

Working understanding

Healthy living encompasses health behaviours such as diet, physical activity, alcohol consumption and drug use.

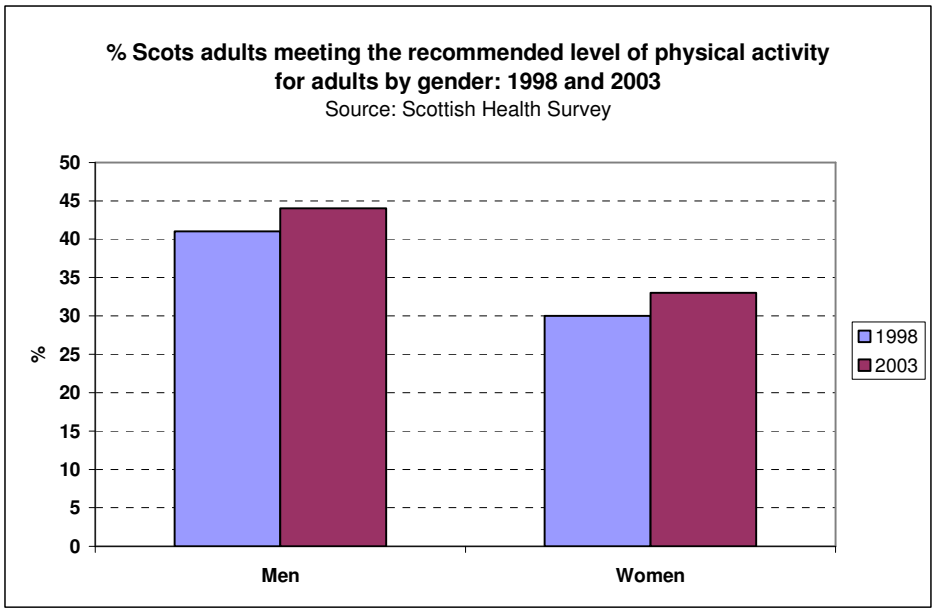
Indicators, measures and data sources

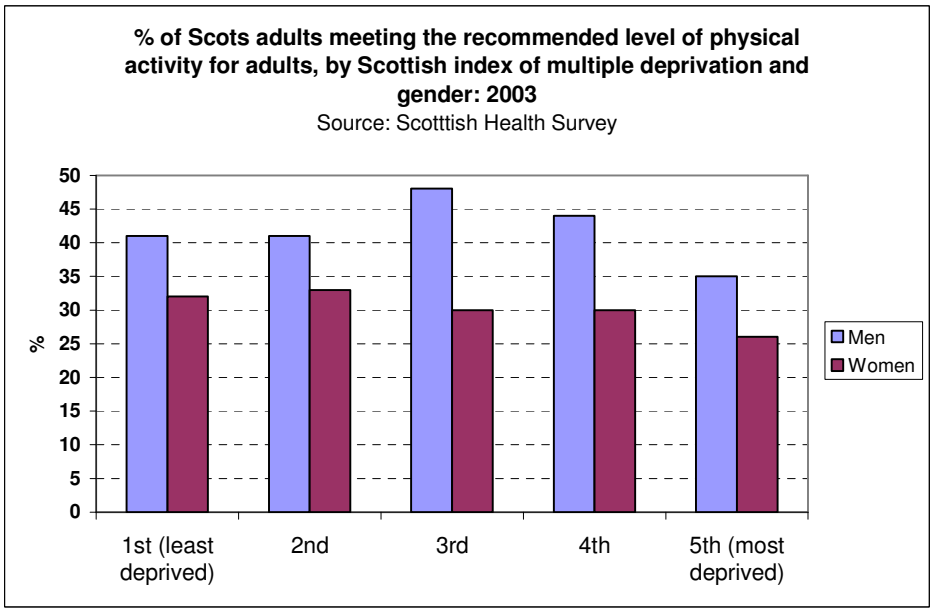
HEALTHY LIVING		
INDICATOR	**MEASURE**	**DATA SOURCE**
Physical activity	Percentage of adults who met the recommended level of physical activity for adults (30 minutes or more moderate to vigorous physical activity on at least 5 days per week) in the previous four weeks	Scottish Health Survey

Healthy eating	Percentage of adults who ate five or more portions of fruit and vegetables in the previous day[16]	Scottish Health Survey
Alcohol consumption	Percentage of adults whose usual weekly consumption of alcohol in the past year was at or below the recommended weekly limit (21 units for men and 14 units for women)	Scottish Health Survey
Drug use	Percentage of adults (aged 16-59) who have taken drugs in the past year	Scottish Crime and Justice Survey

Illustrative data

Indicator – Physical activity





[16] Proxy for percentage of adults likely to heed public health messages about healthy eating and hence have a diet conducive to good mental health.

2.2.3 General health

Rationale

The co-occurrence of physical illness and mental health problems is well known and growing evidence suggests a complex interplay between physical and mental health (World Health Organization *et al.*, 2004). Mental health is increasingly seen as fundamental to physical health, and physical illness and disability influence the risk of mental health problems (Department of Health, 2001; Prince *et al.*, 2007). For instance, depression predicts the onset and progression of both physical and social disability, and conversely disability is an important risk factor for depression (Prince *et al.*, 2007). Psychiatric morbidity surveys in Great Britain have found that various long-standing physical health conditions increased the rate of mental health problem reporting (Meltzer *et al.* (1995) cited in Singleton & Glyn, 2003; Singleton *et al.*, 2001). People with two or more physical illnesses have been found to be at six times the risk of a disabling mental health problem and surveys have also shown associations with limiting long-standing physical complaints (Melzer *et* al., 2004). In a longitudinal study, low ratings on a general health subscale were strongly associated with having a mental health problem at both time points, long-standing physical health complaints were associated with later development and with persistence of common mental health problems, and difficulties with performing a range of activities of daily living was generally associated with persistence of mental health problems (Singleton & Glyn, 2003). The effect of physical health on mental health may result from factors such as the difficulties of living with the illness, lifestyle changes and effects on relationships and socialising.

Positive mental health has also been shown to be associated with general health including self-rated health status (Dolan *et al.*, 2006). Analysis of British Household Panel Survey data found that positive mental health is strongly associated with having no or few physical health problems (Hu *et al.*, 2007), whilst analysis of the Midlife in the United States survey (MIDUS) data has shown an association of a low level of positive mental health with high limitations of daily living (Keyes, 2002). Recent Scottish surveys have also found that those with higher levels of positive mental health (according to their WEMWBS score) gave better self-reported general health ratings (Braunholtz *et al.,* 2007; Tennant *et al.,* 2007a).

Working understanding

This construct covers general health and long-standing physical health problems as well as disabilities.

Indicators, measures and data sources

GENERAL HEALTH		
INDICATOR	**MEASURE**	**DATA SOURCE**
Self-reported health	Percentage of adults who perceive their health in general to be good or very good	Scottish Health Survey
Long-standing physical condition or disability	Percentage of adults who have a long-standing physical condition or disability (long-standing = troubled the person for at least 12 months, or likely to affect them for at least 12 months)	Scottish Health Survey
Limiting long-standing physical	Percentage of adults who have a long-standing physical condition or disability which limits their	Scottish Health Survey

condition or disability	daily activities	

2.2.4 Spirituality

Rationale

Spirituality is considered by many to be an important factor for positive mental health although some consider it to be an actual part of eudaimonic well-being (van Dierendonck & Mohan, 2006). The complexity of the construct, which is often conflated with organised religion, as well as methodological limitations, make it difficult to draw definite conclusions from the literature (Ellison, & Levin, 1998; Hill & Pargament, 2003; Friedli, 2004; World Health Organization *et al.*, 2004; Cornah, 2006c; Friedli *et al.*, 2007).

Whilst spirituality can exist independently of religion, for many their spirituality exists within a religious context. Much of the research focuses on formalised religion and the observable, measurable components of this, such as church attendance, although religious practice/affiliation is not a necessary or sufficient measure of spirituality. Religious involvement is associated with positive mental health outcomes (Ellison & Levin, 1998), and religious commitment with better mental health outcomes (Aukst-Margetic & Margeti, 2005). Some studies have shown that religiosity can lower the incidence and prevalence of depression, is negatively correlated with suicide, is one of the factors most strongly negatively associated with alcohol and drug use and, as a coping mechanism, may have a positive effect on people living with schizophrenia. There is good evidence that regular engagement in religious activities is positively associated with happiness, life satisfaction, positive emotion and reduced risk of depressive symptoms. Whilst the majority of studies report a positive association between measures of religion and happiness, contradictory findings are common and can rely on the precise measure of happiness used and whether it relates more to psychological well-being or subjective well-being. In one analysis, studies with a psychological well-being scale showed an association whilst those with a subjective well-being scale did not (Lewis & Cruise, 2006).

It may be that social interactions are more important than beliefs, although there is evidence that beliefs affect mental health, with religious people generally being happier than non-religious people, and some studies showing that belief in God is positively associated with higher life satisfaction, lower probability of suicide, and has positive effects on depressive symptoms and GHQ scores (Dolan *et al.*, 2006; Friedli *et al.*, 2007). There is also evidence that praying is associated with high amounts of positive emotions. Importantly, however, it is also known that religious beliefs and practice can also harm mental health (Cornah, 2006c; Friedli *et al.*, 2007).

Some studies addressing spirituality rather than religious activity suggest a link between spirituality and positive mental health (van Dierendonck & Mohan, 2006), with evidence that elements of spirituality, including belief in a transcendent being, are associated with reduced depressive symptoms (Cornah, 2006c; Friedli *et al.*, 2007). Qualitative research has also suggested a link between spirituality and reduced levels of anxiety, and yoga and meditation have been shown to be associated with improvement in mental health and reduced anxiety and depression. Emerging literature is also suggesting a link between religion, spirituality and post-traumatic stress disorder. Spirituality and support from faith communities have been seen as an important source of support for those with mental health problems (Rose (1996) and Mental Health Foundation (2000) cited in Department of Health, 2001; World Health Organization *et al.*, 2004; Friedli *et al.*, 2007).

Explanations for the link between spirituality and mental health include:

- shifting locus of control
- social inclusion and participation involving social support
- promotion of a more positive lifestyle
- provision of a framework to cope with and reduce the stress of difficult life situations
- production of a sense of meaning
- stimulation of hope and optimism
- positive effects on various physiological mechanisms (endocrine and immune systems) involved in health including mental health

(Idler *et al.*, 2003; Aukst-Margetic & Margeti, 2005; Cornah, 2006c; van Dierendonck & Mohan, 2006). Whether spirituality and/or religious involvement offer additional protection, over other sources of these benefits (e.g. belonging to a club or social network) is unclear.

Whilst the evidence has been criticised as weak and inconsistent, and there are limitations in current research, there have been a number of calls for the regular inclusion of religiosity and spirituality measures in health research studies (Ellison & Levin, 1998; Hill & Pargament, 2003; Aukst-Margetic & Margeti, 2005). This field is emerging, topical and of growing public and political interest. Its inclusion as a construct could help to advance the evidence-base.

Working understanding

Given the considerable problems with defining spirituality, and the difficulties of distinguishing between religion and spirituality, a working understanding of this construct has yet to be agreed. The importance attached by many people to this area means that it has been selected as an indicator, although considerable further work will be required on its definition and on identifying sources of data.

Indicators, measures and data sources

SPIRITUALITY		
INDICATOR	**MEASURE**	**DATA SOURCE**
Spirituality	Assessment of spirituality	No suitable data source identified

Data on religious affiliation and attendance rather than spirituality is currently collected in Scotland. The scales identified in the review of positive mental health scales were too long and were considered unsuitable to recommend for use in a national survey for the assessment of spirituality (Parkinson, in press). No suitable questions were identified either in the surveys included in the review of mental health questions/scales used in other countries' national surveys or in cross-national surveys (O'Brien & Parkinson, forthcoming). Others have also noted that '*there is a need for measures of religion and spirituality that cut across a range of religious traditions without robbing those traditions of their distinctive and substantive characteristics*' (Cornah, 2006c).

Recommendation 4: Spirituality

There is a need to identify/develop question(s) which adequately tap into the concept of spirituality. Further work is initially needed to explore in detail the complex construct of spirituality - what it is, its relation to religion, what aspects set it apart from eudaimonic well-being and meaning and purpose in life.

2.2.5 Emotional intelligence

Rationale

Although a contested field, a growing body of research suggests that emotional intelligence is associated with positive life outcomes across a range of domains including mental health (both positive mental health and mental health problems) (see discussions in Austin *et al.*, 2005; Day *et al.*, 2005). Emotional intelligence is regarded by some as a key skill for inter-personal relationships and therefore important for positive mental health, both at the individual, group and societal level. The benefits of being able to read feelings from nonverbal cues have been demonstrated in a range of countries (Goleman, 1995).

It has been stated that high emotional intelligence reflects above average mental health and that it '*will emerge as the most important single dimension of mental health*' (Vaillant, 2003). Some research suggests that deficits in various components of emotional intelligence are related to an increase in the propensity to be abusive (Winters *et al.*, 2004), and that low emotional intelligence is a significant predictor of both alcohol- and drug-related problems (Riley & Schutte, 2003). Inclusion of emotional intelligence as a construct could help to advance the evidence-base and this area of positive mental health.

Working understanding

Emotional intelligence (sometimes referred to as emotional literacy or emotional competence) is a relatively new concept and is defined by researchers in a number of ways (Day *et al.*, 2005). It has been suggested that these definitions can be classified as either trait or ability emotional intelligence and that these are separate constructs (Petrides and Furnham (2003) cited in Day *et al.*, 2005). Assessment of these two classifications of emotional intelligence also differs. Overall, definitions of emotional intelligence represent 'work in progress' (in much the same way as definitions of positive mental health currently do) and different authors emphasise different aspects while presenting a common core of involving accurately perceiving the emotions you are feeling and self-regulation/management.

For the trait emotional intelligence view, which is assessed by self-report measures, emotional intelligence is seen as being able to recognize and regulate emotions in self and others (Abraham (1999), Goleman (1998) and Schutte *et al*. (2001) cited in Reeves, 2005). According to Goleman, it consists of four major components: awareness of self and others and management of self and others (Goleman *et al.* (2002) cited in Reeves, 2005). It covers being self-aware (to accurately perceive the emotions you are feeling); self-regulation/management (the ability to handle difficult and powerful emotions and redirect them in a positive manner); and empathy (the awareness of others' feelings). Vaillant states that emotional intelligence can be defined by the following criteria according to Goleman (Vaillant, 2003):

- accurate conscious perception and monitoring of one's own emotions
- modification of one's emotions so that their expression is appropriate - this involves the capacity to self-soothe anxiety and to shake off hopelessness and gloom
- accurate recognition of and response to emotions in others
- skill in negotiating close relationships with others
- capacity for focusing emotions (motivation) on a desired goal - this involves delayed gratification and adaptively displacing and channelling impulse

For others emotional intelligence is an actual intelligence with four mental abilities for processing emotional information. This ability-based view of emotional intelligence is defined as a set of abilities which facilitate: perceiving and identifying emotions, integrating emotions into thought processes, understanding emotions, and managing emotions thereby promoting emotional and intellectual growth (Mayer & Salovey (1997) cited in Vitello-Cicciu, 2003; Freshwater & Stickle, 2004; Day *et al.*, 2005). This model involves cognitive processing of information and so reflects mental abilities (rather than perceived abilities) and requires objective performance tests. This contrasts to Goleman who argues for the inclusion of a range of emotional skills and personality traits, namely self-awareness, self management, social awareness and social skills.

Indicators, measures and data sources

EMOTIONAL INTELLIGENCE		
INDICATOR	**MEASURE**	**DATA SOURCE**
Emotional intelligence	Assessment of emotional intelligence	No suitable data source identified

Data on emotional intelligence is not currently collected in Scotland. The scales identified in the review of positive mental health scales were not suitable for recommendation for use in a national survey, primarily due to their length (Parkinson, in press). No question(s) to capture data for this indicator were identified either in the surveys included in the review of mental health questions/scales used in other countries' national surveys or in cross-national surveys (O'Brien & Parkinson, forthcoming).

Recommendation 5: Emotional intelligence

Further work is required on the construct of emotional intelligence and its associated indicator. An in-depth review of the literature is needed to obtain a greater understanding of this complex construct and the academic debates. This will assist in developing the working understanding further and in developing an appropriate short scale or question(s) suitable for inclusion in general population surveys where space is limited.

2.3 CONTEXTUAL CONSTRUCTS - COMMUNITY

It is important to note that in most studies, the associations listed below are attenuated after adjustment for material deprivation.

2.3.1 Participation

Rationale

Opportunities for participation and influence generally appear to have an impact on mental health. A significant inverse association has been found between participation and mental health problems whilst a positive correlation generally exists between life satisfaction and happiness and participation in the community, although these relationships are not found in all studies (De Silva *et al.*, 2005; Dolan *et al.,* 2006). The effect may be through a combination of enhancing social contact and increasing self-efficacy and agency. Levels of mental health also influence people's capacity to participate. Lack of participation in organisations is associated with greater overall mortality risk (Kaplan *et al.*, 1994), partly because social integration acts as a buffer against depression which in turn influences cardiovascular risk and outcomes (Marmot & Wilkinson, 2006). Greater levels of community participation have been associated with reduced experience of psychological distress (Berry & Rickwood, 2000) and residents who are more involved in their local community also tend to be happier, regardless of the physical quality of their homes (Halpern (1995) cited in Stansfeld, 2006).

Evidence for the benefits of participation through volunteering is mixed (Dolan *et al*., 2006). Supporting evidence indicates that volunteering benefits volunteers in addition to the benefits for the receiver/community (Wilson, 2000). It has been shown to enhance positive mental health and reduces depression and depressive symptoms in the presence of stressors (Rietschlin, 1998; Van Willigen, 2000; Thoits & Hewitt, 2001). Much of the evidence relates to older volunteers (Wheeler *et al.* (1998) cited in Department of Health, 2001; Morrow-Howell *et al.*, 2003; Greenfield & Marks, 2004), who are also more likely to gain psychological benefits (positive association with increased life satisfaction, and negative effect on depression) from volunteering than younger people (Van Willigen, 2000; Musick, & Wilson, 2003; Lum, & Lightfoot, 2005). Volunteering also benefits those experiencing mental health problems, who self-report that voluntary activity can improve their mental health (Ellis & Davis Smith, 2004). A recent Scottish survey has indicated that those with good positive mental health appear to be more likely to have given up time to be a volunteer or organiser than those with poor positive mental health, although as indicated by others, the direction of causality is unknown (Dolan *et al.,* 2006; Braunholtz *et al.,* 2007).

Working understanding

Participation covers social participation (e.g., involvement in organised groups), civic participation which covers individual involvement in local and national affairs, and perceptions of ability to influence them (Harper & Kelly, 2003). This construct includes volunteering which is:

> '*the giving of time and energy through a third party, which can bring measurable benefits to the volunteer, individual beneficiaries, groups and organisations, communities, environment and society at large. It is a choice undertaken of one's own free will, and is not motivated primarily for financial gain or for a wage or salary*.' (Scottish Executive, 2004).

Volunteering is part of helping behaviours, entailing more commitment than spontaneous assistance but is narrower in scope than care provided to family and friends, and can be thought of as more formalised and public than caring, involving commitment of time and effort (Wilson, 2000). It is unpaid work on behalf of those with whom one has no contractual, familial, or friendship obligation (Van Willigen, 2000).

Indicators, measures and data sources

PARTICIPATION		
INDICATOR	**MEASURE**	**DATA SOURCE**
Volunteering	Percentage of adults who participated in volunteering at least 5 or 6 times in the past year	Scottish Household Survey
Involvement in local community	Percentage of adults who feel involved in their local community a great deal or a fair amount	Scottish Health Survey*
Influencing local decisions	Percentage of adults who strongly agree or agree that they can influence decisions affecting their local area	Scottish Health Survey*

* Data has not previously been collected or consistently collected in a national Scottish survey but will now be in future years.

2.3.2 Social networks

Rationale

Social networks can act as protective factors for the onset and recurrence of mental health problems and may affect the course of an episode of mental illness (World Health Organization *et al.*, 2004; Social Exclusion Unit, 2004). Those with few social contacts are more vulnerable to mental health problems than those with many (Melzer *et al.* (2004) and Whelan (1993) cited in Stewart-Brown, 2005). Social networks can also act as a stress buffer. The larger and more diverse an individual's social network, the greater likelihood of having access to functional relationships and the more potential health benefits are likely (Cooper, *et al.*, 1999). Strong association between levels of social networks and quality of life, particularly in high stress situations, have been reported (Achat *et al.* (1998) cited in Korkeila, 2000). Brugha *et al.* found that both quantity and perceived quality of social networks predicted recovery from depression in women (Brugha *et al.*, 1990). For positive mental health, there is evidence that better social networks and more time spent socialising is associated with higher levels of life satisfaction and happiness (Dolan *et al.*, 2006). Recent use of WEMWBS in a Scottish survey has shown that people with higher positive mental health were more likely to see friends or relatives at least once a week (Braunholtz *et al.*, 2007).

It is important to recognise that information on social networks does not indicate the quality of the social connections within that network and that negative pressure from, or interaction with, social networks may have negative effects on health. However, overall the effects of social networks on mental health are generally positive. It is also unclear whether having one confiding relationship for social support is more important than a large number of unsupportive relationships from a social network. However, one view is that the larger and more diverse an individual's social network, the more likely it is that there will be supportive relationships within it (Friedli *et al.*, 2007).

Working understanding[17]

Formal and informal networks, central to the concept of social capital, are defined as the personal relationships accumulated when people interact with each other in families, workplaces, neighbourhoods, local associations and a range of informal and formal meeting places (Morgan & Swann, 2004). They are the web of identified social relationships that surround an individual and the characteristics of those linkages, a set of people with whom one maintains contact and has some form of social bond (Bowling, 2005).

Indicators, measures and data sources

SOCIAL NETWORKS		
INDICATOR	**MEASURE**	**DATA SOURCE**
Social contact	Percentage of adults who have contact (in person, by phone, letter, email or through the internet) at least once a week with family, friends or neighbours who do not live with them	Scottish Health Survey*

***** Data has not previously been collected in a national Scottish survey but will now be collected.

[17] Although it is recognised that social networks and social support overlap, social networks (e.g. contacts, number of contacts, frequency, network density) are distinguished here from social support i.e. the functional aspects of support (e.g. type of support – emotional, practical and quality – negative or positive).

2.3.3 Social support

Rationale

The relationship between social support and risk of mortality and morbidity is well established (Cohen & Wills, 1985; Dalgard & Lund-Haheim, 1998; Hemingway & Marmot, 1999). Social support, especially perceived social support, correlates strongly with measures on mental health, and is especially important for mental health when experiencing stress (Cooper *et al.*, 1999; Korkeila, 2000; Stewart-Brown, 2005). For instance, a lack of social support is associated with depression and other mental health problems,[18] whilst social support is significantly associated with positive mental health, lower frequencies of some mental disorders and is a protective factor against adverse mental health outcomes (see references cited in Cooper *et al.,* 1999, Korkeila, 2000 and Stewart-Brown, 2005). A lack of social support is also associated with a decreased likelihood of recovery from mental health problems (Pevalin & Goldberg (2003) cited in Friedli *et al.*, 2007) and a lack of supportive relationships is an independent factor in the development of mental health problem (Melzer *et al.*, 2004). Adults whose primary support group (the total number of close friends and relatives) is less than three have been found to be at greatest risk of psychiatric morbidity, a risk greater for men than women (Brugha *et al.*, 1993, 2005).

Perceived rather than actual social support appears to be the key factor in influencing mental health (Cooper *et al.*, 1999; Friedli *et al*., 2007), although overall ratings for perceived social support largely agree with ratings by members of a person's social network (Antonucci & Israel (1986) cited in Korkeila, 2000). It is proposed that perceived availability of social support can buffer the effects of stress on psychological distress, depression and anxiety (Cohen, 2004). Social support may also be protective against some of the mental health impacts of racism. For instance, political refugees who have access to social support are at lower risk of mental illness than those who do not (Gorst-Unsworth & Goldenberg (1998) cited in Stewart-Brown, 2005).

Although the level of received social support has connections to personality features, coping styles and socio-economic factors, the association of a lack of social support with an increased risk for mental health problems make it a useful indicator for a mental health monitoring (Korkeila, 2000).

However, there is also evidence that providing social support can have a negative impact on a person's mental health (Friedli, 2007). For informal care givers, especially to close kin, giving more care is associated with lower levels of subjective well-being, more depressive symptoms and possible mental health problems than for non-carers (Dolan *et al.*, 2006). Dolan *et al*'s analysis of data from the British Household Panel Survey has indicated that full-time caring negatively affects well-being. Support that is prompted by a sense of duty and obligation particularly by family members can be a cause of stress for both the giver and receiver (Thoits (1992) and (1995) cited in Friedli, 2007).

Working understanding

Social support is a feature of, and is derived from, a person's social network including family, and relates to both received and perceived social support, although perceived social

[18] Although it is hard to rule out the possibility of predisposition, for example, individuals vulnerable to depression may be less likely to form close relationships.

support is of greater importance. Three types of attributes of social support have been identified: emotional, instrumental, and informational and appraisal (Cooper *et al.,* 1999; Langford (1997) cited in Korkeila, 2000). It has been described as:

> '*an interactive process in which emotional, instrumental or financial aid is received from one's social network' and 'information leading the individual to believe that he/she is cared for and loved, esteemed, and a member of a network of mutual obligations*.' (Bowling, 2005).

Thus, social support relates to supportive relationships and to the quality of interpersonal relationships and only exists if it benefits the recipient. Providing unpaid care for others is also included in this construct.

Indicators, measures and data sources

SOCIAL SUPPORT		
INDICATOR	**MEASURE**	**DATA SOURCE**
Social support	Percentage of adults with a primary support group of three or more to rely on for comfort and support in a personal crisis	Scottish Health Survey[¥]
Caring	Percentage of adults who provide 20 or more hours of care per week to a member of their household or to someone not living with them, excluding help provided in the course of employment	Scottish Health Survey*

[¥] Data has not previously been collected in this national Scottish survey but will now be collected in future years.

***** The required data has not previously been collected in a national Scottish survey but will now be collected in future years.

2.3.4 Trust

Rationale

High levels of community trust have been associated with reduced psychological distress, although the research evidence is mixed and under-developed (Department of Health, 2001; World Health Organization *et al*, 2004). Stafford *et al.* found that people living in neighbourhoods characterised by low trust or low tolerance/respect for others were nearly 1.5 times as likely to rate their health as poor (Stafford *et al.*, 2004). Lack of trust in unfamiliar others is a risk factor for psychological problems (Berry & Rickwood, 2000). As with social support and participation, low levels of mental health may also influence capacity to trust.

Berry and Rickwood found that out of trust in friends, family and community, only lack of trust in community predicts psychological distress indicating that the belief that unfamiliar others are trustworthy may be protective (Berry & Rickwood, 2000). A landmark study described by Halpern (Halpern (1995) cited in Stansfeld, 2006) introduced a range of environmental measures to reduce fear of crime and reduce 'a strong sense of distrust'. An increase in residents' feelings of safety and perception of the 'friendliness of the neighbourhood' was strongly associated with a fall in measures of anxiety and depression and improved self esteem.

Reviewing research on large data sets in relation to positive mental health, Dolan *et al.* conclude that the evidence supports an association between the degree of trust in others and higher life satisfaction, happiness and lower probability of suicide, and that the effects are relatively large, although the evidence is limited (Dolan *et al.*, 2006). Trust in key public institutions was also found to be associated with higher life satisfaction.

Working understanding

Trust is widely used as an indicator of social capital or as an outcome of social capital or both (Harper, 2001; Harper & Kelly, 2003). The construct of trust here covers levels of trust in others generally, including strangers, as well as trust locally in neighbours.

Indicators, measures and data sources

TRUST		
INDICATOR	**MEASURE**	**DATA SOURCE**
General trust	Percentage of adults who trust most people	Scottish Health Survey*
Neighbourhood trust	Percentage of adults who trust most people in their neighbourhood	Scottish Health Survey*

***** Data has not previously been collected or consistently collected in a national Scottish survey but will now be in future years.

2.3.5 Safety

Rationale

Both crime rates and fear of crime have a significant impact on health and mental health, including an individual's sense of physical and emotional vulnerability (Norris & Kaniasty (1994) and Keithley & Robinson (1999) cited in Chu *et al.*, 2004). Fear of crime may impact on mental health as much as crime itself, causing stress, anxiety and depression, and can greatly affect the quality of people's lives by causing social exclusion as well as mental distress (Skogan & Maxfield (1981) and Baumer (1985) cited in Chu *et al.*, 2004). This effect is not necessarily the result of previous victimisation. Amongst specific populations of community-dwelling older adults, fear of crime is prevalent and impacts on mental health increasing the risk of mental health problems, poorer psychological well-being and other health-related behaviours such as exercise as well as socialising which impact on mental health (Benson, 1997).

As indicated under trust, an increase in residents' feelings of safety and perception of the 'friendliness of the neighbourhood' has been strongly associated with a fall in measures of anxiety and depression and improved self esteem (Halpern (1995) cited in Stansfeld, 2006). Controlling for being a victim of crime, living in an unsafe area has been shown to reduce life satisfaction (Dolan *et al.*, 2006).

Working understanding

Safety covers an individual's sense of security that they will not be attacked, abused verbally or physically or have items stolen from within or outside the home, as well as their perception of and worry about crime. Feelings of safety are context, time and location specific and are strongly influenced by age, gender, ethnicity and by religious affiliation.

Indicators, measures and data sources

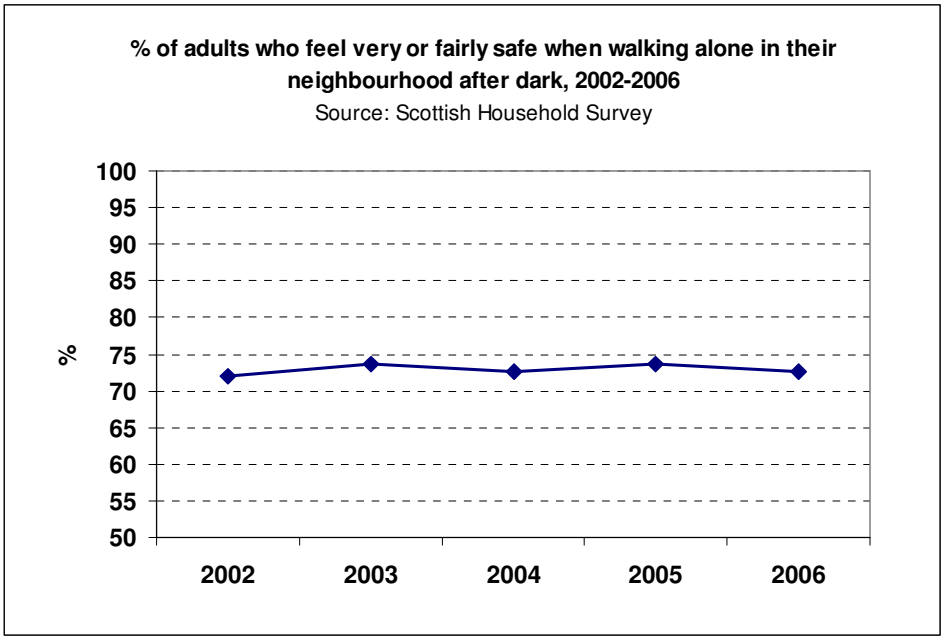
SAFETY		
INDICATOR	**MEASURE**	**DATA SOURCE**
Neighbourhood safety[19]	Percentage of adults who feel very or fairly safe walking alone in their neighbourhood after dark	Scottish Household Survey
Home safety[19]	Percentage of adults who feel very or fairly safe when at home alone at night	Scottish Household Survey
Non-violent neighbourhood crime	Percentage of adults who have been a victim of non-violent crime (definition covers household crime, theft from the person and other personal theft http://openscotland.gov.uk/Publications/2007/10/12094216/11) occurring locally	Scottish Crime and Justice Survey
Perception of local crime	Percentage of adults who perceive crime (including people having their homes broken into, people being mugged/robbed, people having their property or vehicle damaged, people experiencing theft of or theft from	Scottish Crime and Justice Survey

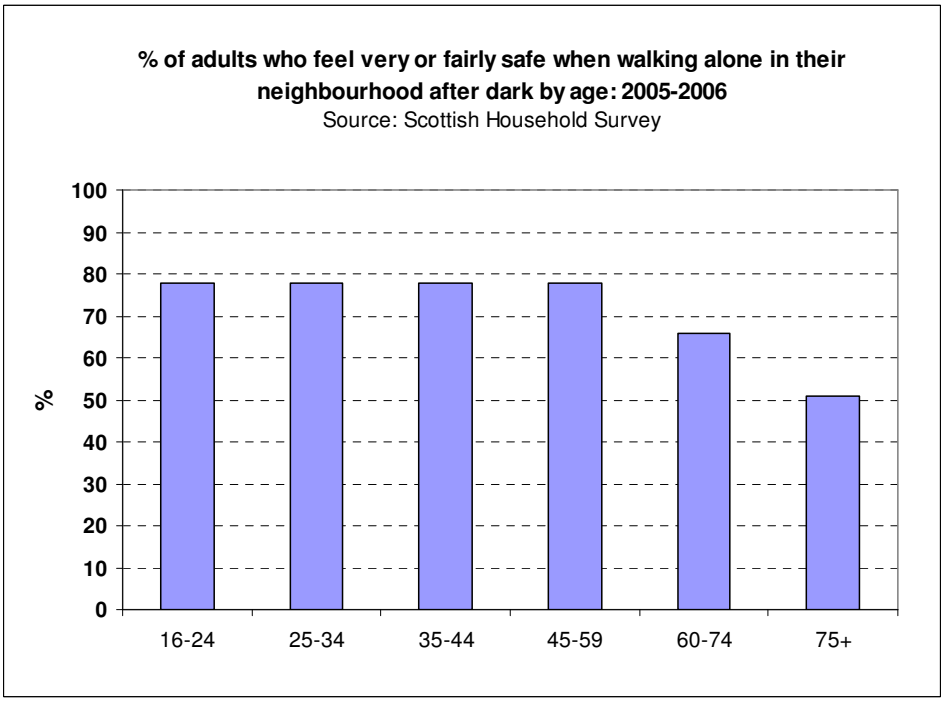
[19] The Scottish Crime and Justice Survey is currently revising the questions to capture data on safety to improve those for neighbourhood safety and home safety. These indicators may therefore need to be adjusted as these new questions come on stream, especially if, as has been suggested, the existing safety questions are discontinued in the Scottish Household Survey making the Scottish Crime and Justice Survey the data source for these indicators.

	their car or vehicle, people being assaulted/attacked in public, and drug dealing and drug abuse) to be very or fairly common in their local area	

Illustrative data

Indicator- Neighbourhood safety





2.4 CONTEXTUAL CONSTRUCTS - STRUCTURAL

The inclusion of structural constructs recognises the need to take account of wider fiscal, economic and legislative factors that impact on the mental health of people in Scotland.

2.4.1 Equality

Rationale

The overwhelming majority of research and data is concerned with the impact of inequality on health, rather than the specific impact of equality, although a significant theme in the work of Wilkinson and others is that societies with high levels of equality have better health and social outcomes (Wilkinson and Pickett, 2006; Dorling *et al*., 2007).

Inequality is both a cause and consequence of mental health problems (Fryers *et al.*, 2003; Rogers & Pilgrim, 2003; Melzer, *et al.*, 2004; Social Exclusion Unit, 2004; Wilkinson, 2005). Mental health problems are not distributed randomly in the population but are more common in socially disadvantaged populations, in areas of deprivation, and are associated with unemployment, less education, low income or material standard of living (Rogers & Pilgrim, 2003; Melzer *et al.*, 2004). The 20% - 25% of the population who are obese and continue to smoke are concentrated among the 26% of the population living in poverty, measured in terms of low income and multiple deprivation of necessities (Gordon *et al*., 2000). This is also the population with the highest prevalence of anxiety and depression (Melzer *et al.*, 2004). Levels of mental health (both mental health problems and positive mental health) also differ with a range of demographic factors such as age, gender, ethnicity (Myers *et al.*, 2005; Dolan *et al.,* 2006; Tennant *et al.,* 2007a)

Although the relative importance of material deprivation and psychosocial factors is contested, there is robust evidence that psychological and emotional pathways are an important route through which material deprivation impacts on health, social relationships and life chances. In the developed world, it has been argued by many that levels of income inequality (the gap between rich and poor), as a measure of relative deprivation, are a more significant determinant of population health than absolute income (Kawachi *et al.*, 1997; Wilkinson, 2005). Many health and social problems associated with relative deprivation - including mental health problems, low trust and violence - are more prevalent in unequal societies and income inequality has been suggested to be central to the creation of the problems of relative deprivation (Wilkinson & Pickett, 2006; 2007). Those sceptical about the importance of inequality believe that income is related to health because it is a determinant of material living standards which are claimed to have a major effect on health (see discussion and papers such as Lynch *et* al. (2004a) cited in Wilkinson & Pickett, 2006). Indeed, at the individual rather than societal level, those with more income are healthier.

Dolan *et al.* have concluded that the evidence for the impact of income inequality on well-being (largely assessed by life satisfaction) is mixed but that relative income has a significant negative relationship to happiness and life satisfaction (Dolan *et al.,* 2006). They also conclude that the evidence cannot rule out an effect of absolute income but that the impact of this is smaller.

Working understanding

There are multiple dimensions to equality, which is reported in the form of inequalities of a

health outcome or determinant. For an overall assessment of inequality this has been confined to income inequality, differences in per capita income or household income across populations, which is an indicator and determinant of the scale of socioeconomic stratification in society and assesses how equal a society is. Whilst there are several dimensions to equality which it would be ideal to analyse the indicators by, for example, all the equality strands of the Scottish Government (age, gender, ethnicity, faith, disability and sexual orientation), being realistic with the data has meant that analysis has been restricted to selected variables.

Indicators, measures and data sources

EQUALITY		
INDICATOR	**MEASURE**	**DATA SOURCE**
Income inequality	GINI coefficient	Scottish Government Income & Poverty Statistics
Equality analysis	Analysis of the indicators by selected variables; age, gender and Scottish Index of Multiple Deprivation[20] (SIMD definition www.scotland.gov.uk/Topics/Statistics/SIMD/Overview) or social class (National Statistics socio-economic classification (NS-SEC) definition: www.statistics.gov.uk/methods_quality/ns_sec/default.asp) or occupation	Scottish surveys, plus administrative data sets for SIMD

[20] The Scottish Index of Multiple Deprivation is a measure of area deprivation.

2.4.2 Social inclusion

Rationale

Social inclusion is generally studied from the perspective of social exclusion, which refers to the marginalisation of certain groups from the normal activities of society, because of social or economic factors. Key areas of exclusion include employment, education, leisure, recreation and access to credit.

Social exclusion on any grounds is both a cause and consequence of mental health problems (Rogers & Pilgrim, 2003; Social Exclusion Unit, 2004). Research in the field of stress biology suggests that the feelings associated with exclusion, for example, the chronic stress of racism, injustice, fear of crime, lack of control and perceived powerlessness, impact on the immune system, the endocrine system and the cardiovascular system (Wilkinson, 2005).

Individuals with mental health problems are also amongst the most excluded people in society. Contributing to this is the fact that unemployment rates of individuals with a mental health problem are higher than for individuals with any other condition/disability and those in work with a mental health problem are at higher risk of losing their job (Curran *et al.*, 2004; Social Exclusion Unit, 2004). Unemployment or being economically inactive itself is also associated with mental health problems and mediates many other aspects of social exclusion such as income, poverty, social networks and participation (Jin *et al.*, 1997; Melzer *et al.*, 2004; Mclean *et al.*, 2005; Thomas *et al.*, 2005). Dolan *et al.* have found that unemployment is highly detrimental to life satisfaction and happiness, which cannot be explained only in terms of lost income, although this is moderated by living close to others who are also unemployed (Dolan *et al.*, 2006). Others have also found lack of paid employment to be more strongly associated with a decrease in positive mental health than with an increase in psychological symptoms (Huppert & Whittington, 2003; Hu *et al.*, 2007). Using WEMWBS, significant differences in level of positive mental health across employment status has been found, with those unemployed showing lower levels of positive mental health (Tennant *et al.,* 2007a).

It has been suggested that, as for income (section 2.4.1), the benefits of education may be positional (relative) rather than absolute (Dolan *et al.*, 2006). Reviews have found that mental health problems are associated with less education, assessed by both qualifications achieved and years completed (Melzer *et al.*, 2004), but that for positive mental health the evidence on the relationship between education and well-being is mixed, with the choice of assessment scale (hedonic vs. eudaimonic) making a difference (Dolan *et al.*, 2006). Evidence of an association between education and mental health problems includes there being a much higher prevalence of depression among women and men with low literacy skills (Hammond, 2002). The effect of education on reducing the risk of depression has been found to be broadly consistent throughout life, to be stronger for women and to be largest at low to mid-level qualifications (Chevalier & Feinstein, 2006).

Working understanding

Social inclusion is usually defined in terms of not being socially excluded i.e. the various ways in which people are excluded or marginalised (economically, politically, socially, and culturally) from the accepted norms within a society. Gordon *et al.* define social exclusion as:

'*a lack or denial of access to the kinds of social relations, social customs and activities in which the great majority of people in British society engage. In current usage, social exclusion is often regarded as a 'process' rather than a 'state' and this helps in being constructively precise in deciding its relationship to poverty*' (Gordon *et al.,* 2000).

The Cabinet Office Social Exclusion Unit has noted that social exclusion is:

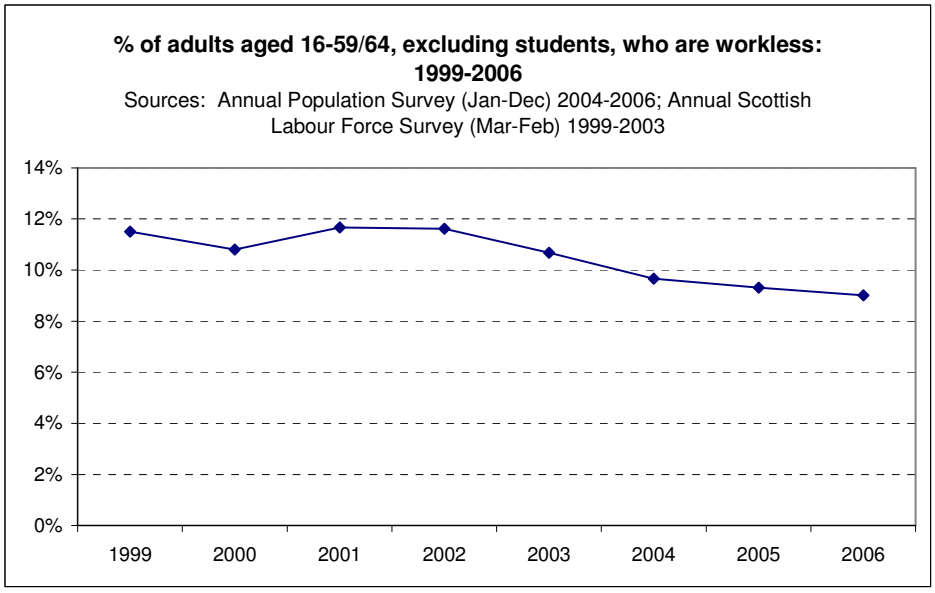
'What can happen when people or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high crime environments, bad health, poverty and family breakdown.' (Social Exclusion Unit, 1998) and importantly that…*'The most important characteristic of social exclusion is that these problems are linked and mutually reinforcing, and can combine to create a complex and fast-moving vicious cycle*.' (Social Exclusion Unit, 2001).

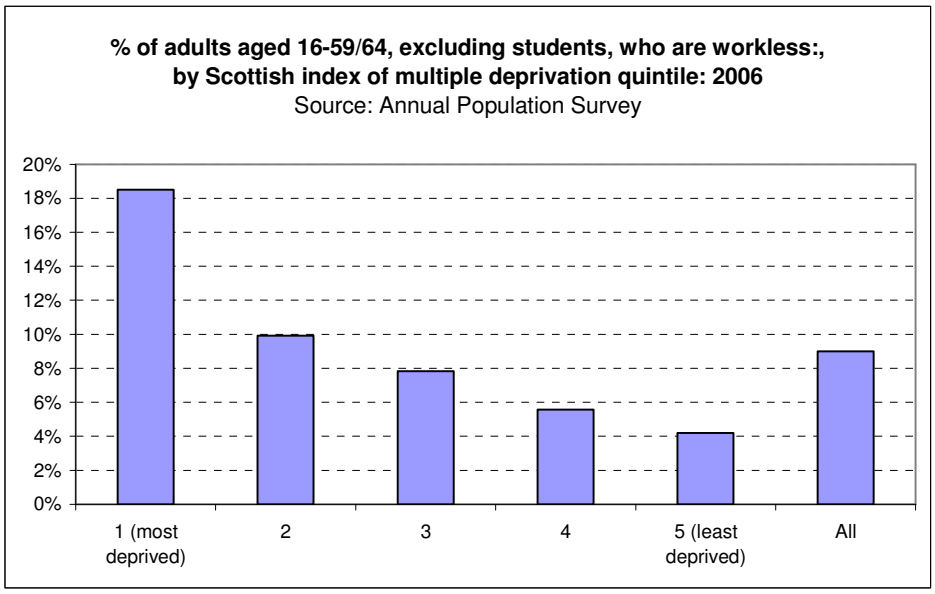
Indicators, measures and data sources

SOCIAL INCLUSION		
INDICATOR	**MEASURE**	**DATA SOURCE**
Worklessness	Percentage of adults (women aged 16-59 and men aged 16-64), excluding students, who are unemployed or economically inactive and who want to work	Annual Population Survey
Education	Percentage of adults (women aged 16-59 and men aged 16-64) with at least one academic or vocational educational qualification	Annual Population Survey

Illustrative data

Indicator- Worklessness




% of adults aged 16-59/64, excluding students, who are workless:,
by Scottish index of multiple deprivation quintile: 2006
Source: Annual Population Survey
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
1 (most deprived)
2
3
4
5 (least deprived)
All

2.4.3 Discrimination

Rationale:

Discrimination, on the grounds of race, gender, religion etc, impacts adversely on mental health, affecting a person's dignity and self-esteem, and can lead to a sense of alienation, isolation, fear, and intimidation and make it difficult for individuals to feel socially included and to integrate into society (Gostin (2001) cited in World Health Organization *et al.*, 2004; Tidyman (2004) cited in Myers *et al.*, 2005). There is a substantial literature on the health and mental health impact of all forms of discrimination.

Racial discrimination is a risk factor for common mental health problems in ethnic minority groups and is associated with poorer mental health (Rogers & Pilgrim, 2003; Krieger (2000) and Shah (2004) cited in Myers *et al.*, 2005), for example, a diminished sense of well-being, low self-esteem, lack of control or mastery, psychological distress, and depression, anxiety and other mental illnesses (Brown *et al.* (2000), Kessler *et al.* (1999), Williams & Williams-Morris (2000) and Williams *et al.,* (2003) cited in World Health Organization *et al.*, 2004). Both the experience of racial harassment as well as perceptions of racial discrimination are a significant factor in the poor health of black and minority ethnic groups and numerous studies indicate the impact of racism, racist victimisation and discrimination for people from black and minority ethnic communities on mental health and well-being (Nazroo & Karlsen, 2001; Chakraborty & McKenzie, 2002). Similarly, in the case of sexual orientation, homophobia/discrimination experiences are associated with psychological distress (Cochran (2001) and McNair *et al.* (2001) cited in Myers *et al.*, 2005), with homophobia shown to predict psychological distress and suicidal ideation in gay men (Meyer (1995) cited in Stewart-Brown, 2005). Many people with disabilities and mental health problems also face stigma and discrimination which can be very debilitating and the biggest barrier for social inclusion (Social Exclusion Unit, 2004). For instance, unemployment rates of people with long-term mental health problems are higher than in other groups of people with disabilities, contributing to their social exclusion.

Working understanding

Discrimination is the treatment (directly or indirectly, mandated by law (*de jure*) or by custom or practice (*de facto*)) of a particular group of people less favourably than others, usually in relation to race, colour, ethnicity, religion, gender, disability, sexuality or age. A review of the health impact of discrimination defined it as follows:

> '*discrimination is a socially structured and sanctioned phenomenon, justified by ideology and expressed in interactions, among and between individuals and institutions, intended to maintain privileges for members of dominant groups at the cost of deprivation for others'* (Krieger 1999).

A wide perspective on discrimination has been taken to include harassment and abuse due to discrimination.

Indicators, measures and data sources

DISCRIMINATION		
INDICATOR	**MEASURE**	**DATA SOURCE**
Discrimination	Percentage of adults who report having been unfairly treated or discriminated against in the past year	Scottish Health Survey*

Racial discrimination	Percentage of adults who think racial discrimination is a big problem in Scotland	Scottish Crime and Justice Survey
Harassment	Percentage of adults who have personally experienced harassment or abuse in the past year due to discrimination	Scottish Health Survey*

* The required data has not previously been collected in a national Scottish survey but will now be collected in future years.

2.4.4 Financial security/debt

Rationale

People who experience financial strain are at greater risk of common mental health problems than are those without financial worries (see references cited in Bostock, 2004). They can also take longer to recover from mental health problems (Weich & Lewis, 1998). Dolan *et al.* cite evidence that those needing to borrow money midweek or being unable to pay off credit cards are more likely to be unhappy and less satisfied with life, and that having a poorer perception of one's financial situation is usually associated with lower life satisfaction (Dolan *et al.*, 2006). Their analysis of British Household Panel Survey data also found that having problems paying for accommodation is associated with poorer life satisfaction. A recent Scottish survey found that those who found it easy to manage on their income had higher positive mental health than those who found it difficult to manage (Braunholtz *et al.,* 2007).

High debt to income ratios are associated with stress, anxiety and poor physical and self-reported health (Bostock, 2004), although secure debts, such as mortgages, or debts for investments have not been found to impact on life satisfaction (Dolan *et al.*, 2006). 'Predatory lending', where people who are ineligible for mainstream credit are forced to rely on the alternative credit industry (small, short term loans at very high interest rates), leads to increasing indebtedness, a source of stress and worry (Palmer and Conaty, 2002)

Additionally, debt and financial insecurity means individuals are less able to influence fundamental issues affecting their health and well-being, such as where they live, shop, and what they eat. People with mental health problems are also more likely to be in debt (Meltzer *et al.*, 2002b; Citizens Advice Bureau, 2004).

Working understanding

This construct covers whether individuals have access to financial resources ie savings and sufficient money for everyday needs, including level of debt, as well as access to financial services such as banks or building societies.

Indicators, measures and data sources

FINANCIAL SECURITY/DEBT		
INDICATOR	**MEASURE**	**DATA SOURCE**
Financial management	Percentage of households managing very or quite well financially these days	Scottish Household Survey*
Financial inclusion	Percentage of households with access to a bank account, building society account, credit union account, or post office card account	Scottish Household Survey*

* Data for this indicator comes from the highest income householder or spouse/partner

2.4.5 Physical environment

Rationale

A growing body of UK and international research highlights the potential importance of access to green spaces, valued 'escape facilities',[21] safety on the streets, neighbourhood quality, noise and spatial density (home and neighbourhood) and social fragmentation (related to tenure, mobility, perceived neighbourhood quality) (Evans, 2003; Chu *et al.*, 2004; Guite *et al.,* 2006; Stafford & McCarthy, 2006; Clark *et al.*, 2007). There are, however, significant methodological challenges in demonstrating the precise relationship between elements of the physical environment (built and natural) and mental health impact and caution is needed in interpreting the evidence.

Characteristics of the built environment can have direct effects on mental health (eg high rise housing, housing quality, crowding, loud external noise, indoor air quality) as well as indirect effects through psychosocial processes (eg personal control, socially supportive relationships, recovery from stress) (Evans, 2003). Five key domains have been identified through which the urban and built environment might impact on positive mental health (Chu *et al.*, 2004):

- control over the internal housing environment including noise;
- quality of housing design and maintenance;
- presence of valued 'escape facilities' eg café, a transportation link or a park, especially where there is high residential density where it acts as a buffer and can be considered as a restorative environment;
- crime and fear of crime;
- social participation.

The latter two relate to the design of the environment. Further work has demonstrated more specifically that within these domains there are five factors which act independently to predict poor mental health and vitality; noise from neighbours; perceptions of crime; feelings of over-crowding in the home; access to green spaces; and community facilities (Guite *et al.,* 2006).

The picture, however, is equivocal. Recent reviews have concluded that there is:

- mixed, weak evidence for a relationship between overcrowding and mental health (mostly assessed via mental health problems) (Centre for Comparative Housing Research, 2004; Chu *et al.*, 2004; Clark *et al.*, 2007)
- some evidence for an association between noise exposure and anxiety and depression, although other evidence for a link to mental health is equivocal (Institute for Environment and Health, 1997; Chu *et al.*, 2004; Clark *et al.*, 2007). There have been suggestions that noise can exacerbate existing mental health problems and also reduce communication, create annoyance and increase aggressive behaviour.
- weak, limited and mixed evidence for effect of housing quality/condition (including dissatisfaction with housing) on mental health and for neighbourhood quality (Evans, 2003; Chu *et al.*, 2004; Taske *et al.*, 2005; Clark *et al.*, 2007) but stronger evidence for an association between the effect of housing or neighbourhood regeneration and mental health.

[21] A valued safe place where an individual can and wants to go to to 'escape' from things.

Survey research into public attitudes and environmental justice in Scotland has shown that how people perceive the quality of their local environment is associated with their physical and mental health (Curtice *et al.*, 2005). Those who believed the environment in their neighbourhood to be poor, as judged by street level incivilities (eg litter, dog fouling, graffiti) and absence of goods (lack of safe places for children to play, few pleasant places to walk), were more likely than those with fewer environmental concerns to report anxiety, depression and a generally poor state of health. After controlling for age, gender and social class, those with the highest level of street level incivilities were twice as likely to report anxiety and 1.8 times more likely to report depression. They were also less trustful of others, more resigned about the difficulties of their area, and more likely to live in fear of crime (after controlling for age, gender, social class and education). Those living in the most deprived areas of Scotland were substantially more likely to report a street level incivility or an absence of a good than those living in less deprived areas. Others have also found that those who report that they like the appearance of their neighbourhood are less likely to report emotional distress as assessed by GHQ-20 (Wilson *et al.*, 2004). In a recent Scottish survey, people who had higher levels of positive mental health were more likely than those with a low level to report being satisfied with their neighbourhood (Braunholtz *et al.*, 2007).

Many studies find an association between access to nature, green or open spaces and better mental health (Clark *et al.*, 2007). Recent reviews have concluded that there is a positive association with mental health as well as physical, spiritual and social well-being (Maller *et al.*, 2002; Friedli *et al.*, 2007; Newton, 2007; Croucher *et al.*, personal communication). Benefits are cognitive, affective and behavioural, with impacts including: fostering psychological well-being; increased life satisfaction, self-esteem and self-confidence; increased positive mood states and decreased negative emotions such as anger; reduced anxiety; reduced stress and an aid to coping as an escape facility from daily stresses. Wider impacts include reduced negative social behaviours such as crime, violence and other incivilities, and increased physical activity and social interaction.

Working understanding

This construct covers the built environment such as internal housing characteristics, external housing (design and maintenance), local area characteristics and amenities, and the natural environment e.g. parks and green spaces. A good physical environment for mental health is one which promotes control over the internal environment, provides buildings that the majority of residents like, where there is access to green spaces**,** sports and leisure facilities, shops, community, social and entertainment facilities, where people do not feel over-crowded in their own home or neighbourhood, where people have the opportunity to get together in social events regularly and where street noise, aggression and harassment are minimised and people feel they can influence local decisions.

Indicators, measures and data sources

PHYSICAL ENVIRONMENT		
INDICATOR	**MEASURE**	**DATA SOURCE**
Neighbourhood satisfaction	Percentage of adults who rate their neighbourhood as a very or fairly good place to live	Scottish Household Survey
Noise	Percentage of adults who are bothered very often or fairly often by noise when home indoors	Scottish House Condition Survey*

Escape facilities	Assessment of perceived availability of a valued safe place where an individual can and wants to go to to 'escape' from things	No suitable data source identified
Greenspace	Percentage of adults who feel they have a safe and pleasant park, green or other area of grass in their neighbourhood, excluding personal private garden space, that they and their family can use	Scottish Household Survey
House condition	Percentage of adults rating the condition of their house or flat as very or fairly good	Scottish House Condition Survey*
Overcrowding	Percentage of adults who feel their home has too few rooms	Scottish House Condition Survey*

* Data for this indicator comes from the highest income householder or spouse/partner

Recommendation 6: 'Escape facilities'

Further work is required to assess the literature around the concept of 'escape facilities' so that a suitable question(s) can be developed for inclusion in a general population surveys. This needs to take account of the fact that escape facilities may vary for individuals depending on their living environment. For example, urban/rural areas may differ.

2.4.6 Working life

Note: Employment is strongly protective of mental health (Melzer et al., 2004) and is covered under the construct of social inclusion (see section 2.4.2).

Rationale

A significant amount of evidence, including evidence from the Whitehall II studies (Ferrie, 2004), indicates that the workplace, working environment and working practices, significantly influence mental health and well-being, especially anxiety and depression (Stansfeld *et al.*, 1998; Stansfeld *et al.*, 1999). The impact extends beyond occupational illnesses and injuries, with stressful psychosocial work environments having adverse effects on health including mental health (Marmot & Wilkinson, 1999; Rogers & Pilgrim, 2003; Ferrie, 2004).

Stress in the workplace is now a major issue causing many days of work to be lost at a great cost (www.hse.gov.uk/stress/index.htm) and stress-related and other mental health problems are major reasons for individuals moving from employment onto incapacity benefit (Marmot & Wilkinson, 1999; Cooper, 2006). Lack of control and high workload (demands) are significant causes of stress. Both high job demand and low job control (measured by the degree of authority over decisions and use of skills, including the opportunity to develop skills) and high effort with low reward (measured in: self-esteem, career opportunities including job security and promotion prospects, and financial remuneration) are detrimental to mental health (de Jonge *et al.*, 2000; Ferrie, 2004; Mackay *et al.*, 2004). Control over work has been shown to have a protective effect on mental health (Mackay *et al.*, 2004). There is debate about whether demand and control exert an effect on mental health in their own right, with job control being especially important, or whether it is an imbalance between the two which is of more importance (Marmot & Wilkinson, 1999; Mackay *et al.*, 2004). The demand-control model has been extended to include support, both from managers and colleagues, lack of which impacts on mental health (Ferrie, 2004; Mackay *et al.*, 2004). Workplace social support from both managers and colleagues has a protective effect on mental health, and adverse changes in workplace support have been associated with worsening general mental health including symptoms of depression (Ferrie, 2004; Mackay *et al.*, 2004). De Lange *et al.* only found modest support for the demand-control-(support) hypothesis but good evidence for independent causal links between demand, control and support and psychological well-being, distress, anxiety and depression (de Lange *et al.*, 2003).

The recent HSE Management standards for work-related stress include two types of indicators: job content and job context. Those for job content cover job demands, control and support (Mackay *et al.*, 2004).

Some studies suggest that working more than a certain number of hours is detrimental to positive mental health (happiness) (Dolan *et al.*, 2006) and the Whitehall II studies show that work/family conflict affects mental health, suggesting that a good work-life balance may be protective (Ferrie, 2004).

Working understanding

Working life covers all aspects of the working environment, including workplace culture,

management style, remuneration, appraisal, and hours worked.

Indicators, measures and data sources

WORKING LIFE		
INDICATOR	**MEASURE**	**DATA SOURCE**
Stress	Percentage of adults who find their job very or extremely stressful	Scottish Health Survey*
Work-life balance	Mean score for how satisfied adults are with their work-life balance (paid work)	Scottish Health Survey*
Demand	Percentage of adults who often or always have unrealistic time pressures at work	Scottish Health Survey*
Control	Percentage of adults who often or always have a choice in deciding the way they do their work	Scottish Health Survey*
Manager support	Percentage of adults who strongly or tend to agree that their line manager encourages them at work	Scottish Health Survey*
Colleague support	Percentage of adults who strongly or tend to agree that they get the help and support they need from colleagues at work	Scottish Health Survey*

* Data has not previously been collected in a national Scottish survey but will now be collected in future years.

2.4.7 Violence

Rationale

Living with or experiencing violence or the fear of violence, which can include psychological abuse, is a significant risk factor for poor mental health. This includes domestic abuse/violence (especially significant for women and children), child abuse and community violence (Golding, 1999; Department of Health, 2002; Krug *et al.*, 2002; Department of Health, 2003; McVeigh *et al*., 2005). It also includes elder abuse, abused elderly people suffer more from depression or psychological distress than their non-abused peers (Krug *et al.*, 2002). Chronic vigilance (related to fear of threat) may lead to metabolic disturbance but the health and mental health impacts are not well documented (Taylor, 1998).

Strong evidence indicates a relationship between experience of violence and adverse mental health outcomes. For example, women who have experienced interpersonal violence have high rates of eg depression, anxiety, stress, phobias, and chemical abuse and are at heightened risk for suicidal behaviour and self-harm (Krug *et al.*, 2002). Intimate partner violence has been shown to be responsible for more ill health and premature death in women under 45 than any other well-known risk factor, with mental health problems making the most significant contribution (Victorian Health Promotion Foundation, 2004). Living in a violent relationship also affects a woman's self-esteem, ability to participate in the world and often leads to feelings of hopelessness and a heightened risk for suicide and suicide attempts (Krug *et al.*, 2002). There is a strong association between drinking alcohol and victimisation, especially domestic violence, sexual assault and child abuse (Strategy Unit, 2003; Cabinet Office, 2004). Sexual violence is also associated with a number of mental health and behavioural problems in adults, and women sexually abused in adulthood are more likely to attempt or commit suicide (Krug *et al.*, 2002).

Working understanding

This relates to the intentional use of physical force or power, threatened or actual, against another person, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.[22] Violence can be of a physical, sexual or psychological nature being wider than purely physical violence, for example, including domestic abuse that is more related to psychological/emotional abuse than actual or threatened physical contact.

Indicators, measures and data sources

VIOLENCE		
INDICATOR	**MEASURE**	**DATA SOURCE**
Partner abuse	Percentage of adults physically or emotionally abused[23] by a partner or ex-partner in the past year	Scottish Crime and Justice Survey
Neighbourhood violence	Percentage of adults who have experienced violence (definition covers assault and robbery http://openscotland.gov.uk/Publications/2007/10/12094	Scottish Crime and Justice Survey

[22] Adapted from the World Health Organization definition (Krug *et al.*, 2002).

[23] The term abuse is used for consistency with the terminology in the Scottish Crime and Victimisation Survey 2006 www.scotland.gov.uk/Resource/Doc/200037/0053443.pdf. Terms use by others include domestic violence, intimate partner violence and interpersonal violence.

	216/11), excluding violence by a household member, occurring locally in the past year	
Attitudes to violence	Percentage of adults who think that violence is acceptable in some circumstances	No suitable data source identified

Whilst a question to assess attitudes to violence was developed from those used in the Omnibus survey 2004 for the Home Office on acceptance of domestic violence, and piloted for the Scottish Health Survey 2008, feedback indicated that the question was ambiguous and the usefulness of the data obtained was questionable.

Recommendation 7: Attitudes to violence

Further work is required to develop and test a question(s) to obtain data suitable for an indicator on attitudes to violence.

3.0 CONCLUSION

The development of a set of mental health indicators for Scotland is a significant milestone. It is a recognition of the importance of positive mental health to a 'flourishing' Scotland and the need for data on the extent of positive mental health, in addition to the prevalence of mental health problems.

The current indicator set is necessarily limited by gaps and weaknesses in the evidence-base, availability of data and/or the feasibility of collecting data, as well as the complexities and ambiguities surrounding key concepts like spirituality. For all these reasons, the current indicator set is not the final answer to creating a summary profile of Scotland's mental health. It provides a firm basis on which to build and develop a greater understanding of the causes and consequences of mental health and how these can best be measured. It is envisaged that this work will also contribute to a greater focus on mental health impact, at a national and local level and across all sectors. The recent discussion paper from the Scottish Government *Towards a Mentally Flourishing Scotland: The Future of Mental Health Improvement in Scotland 2008-11* (Scottish Government, 2007b) highlights the potential utility of this indicator set for local assessments. This consultation paper suggests:

> 9.1 Action 1 – Promotion of Mental Wellbeing
> Developing a local understanding of individual and community mental wellbeing, building on work in NHS Health Scotland on mental health indicators, to record baselines and assist in assessing effectiveness of programmes of work and changes in local population mental wellbeing.

Recommendation 7: Updating the indicators
As the evidence-base improves and the nature, direction and magnitude of the relationship between personal, social and structural factors and mental health become better understood, so the indicators and their data sources may need adjusting. It is essential that this occurs if required. The indicators will also need to adapt to secular changes to questions in the source national surveys. It is important that survey managers of the national surveys remain aware of this important use of their data.

REFERENCE LIST

Aldridge F, & Lavender P (2000). The impact of learning on health. National Institute of Adult Continuing Education: Nottingham.

Aukst-Margetic B, & Margeti B (2005). Religiosity and health outcomes: review of literature. *Collegium Antropologicum*, 29, 365-371.

Austin E, Saklofske D, & Egan V (2005). Personality, well-being and health correlates of trait emotional intelligence. *Personality and Individual Differences,* 38, 547-558.

Benson S (1997). The older adult and fear of crime. *Journal of Gerontological Nursing,* 10, 25-31.

Berry HL, & Rickwood DJ (2000). Measuring social capital at the individual level: personal social capital, values and psychological distress. *International Journal of Mental Health Promotion*, 2, 35-44.

Bostock J (2004). The high price of poverty. *Mental Health Today*, November, 27-29.

Bowlby J (1969). Attachment and loss, volume 1: Attachment. Hogarth Press & the Institute of Psychoanalysis: London.

Bowling A (2005). Measuring health: a review of quality of life measurement scales (3rd ed.). Oxford University Press: Maidenhead.

Braunholtz S, Davidson S, & King S (2004). Well? What do you think? (2004): The second national Scottish survey of public attitudes to mental health, mental well-being and mental health problems. The Scottish Executive: Edinburgh.

Braunholtz S, Davidson S, Myant K, & O'Connor R (2007). Well? What do you think? (2006): The third national Scottish survey of public attitudes to mental health, mental well-being and mental health problems. Scottish Government Social Research: Edinburgh.

Brugha TS, Bebbington TE, MacCarthy B, Sturt E, Wykes T, & Potter J (1990). Gender, social support and recovery from depressive disorders: a prospective clinical study. *Psychological Medicine*, 20, 147-156.

Brugha TS, Wing JK, Brewin CR, MacCarthy B, & Lesage A (1993). The relationship of social network deficits with deficits in social functioning in long-term psychiatric disorders. *Social Psychiatry and Psychiatric Epidemiology*, 28, 218-224.

Brugha TS, Weich S, Singleton N, Lewis G, Bebbington PE, Jenkins R, & Meltzer H (2005). Primary group size, social support, gender and future mental health in a prospective study of people living in private households throughout Great Britain. *Psychological Medicine*, 35, 705-714.

Cabinet Office (2004). Alcohol harm reduction strategy for England. Strategy Unit: London.

Centre for Comparative Housing Research & Health Policy Research Unit DeMontfort University. (2004). The impact of overcrowding on health and education: a review of the evidence and literature Office of the Deputy Prime Minister: London.

Chakraborty A, & McKenzie K (2002). Does racial discrimination cause mental illness? *British Journal of Psychiatry*, 180, 475-477.

Chevalier A, & Feinstein L (2006). Sheepskin or prozac: the causal effect of education on mental health. Centre for the Economics of Education: London.

Chu A, Thorne A, & Guite H (2004). The impact on mental well-being of the urban and physical environment: an assessment of the evidence. *Journal of Mental Health Promotion*, 3 (2), 17-32.

Citizens Advice Bureau (2004). Out of the picture: CAB evidence on mental health and social exclusion. Citizens Advice Bureau: London.

Clark C, Myron R, Stansfeld S, & Candy B (2007). A systematic review of the evidence on the effect of the built and physical environment on mental health. *Journal of Public Mental Health,* 6, 14-27.

Cohen S (2004). Social relationships and health. *American Psychologist,* 59, 676-684.

Cohen S, & Wills TA (1985). Stress, social support and the buffering hypothesis. *Psychological Bulletin*, 98, 310-357.

Cooper C (2006). The challenges of managing the changing nature of workplace stress. *Journal of Public Mental Health,* 5, 6-9.

Cooper H, Arber S, Fee L, & Fin J (1999). The influence of social support and social capital on health: A review and analysis of British data. Health Education Authority: London.

Cornah D (2006a). Feeding minds: the impact of food on mental health. Mental Health Foundation: London.

Cornah D (2006b). Cheers? Understanding the relationship between alcohol and mental health. Mental Health Foundation: London.

Cornah D (2006c). The impact of spirituality on mental health: a review of the literature. Mental Health Foundation: London.

Croucher K, Myers L, & Bretherton J (personal communication). The links between greenspace and health: a critical literature review. Greenspace Scotland: Stirling.

Curran C, Knapp M, & Beecham J (2004). Mental health and employment: some economic evidence. *Journal of Mental Health Promotion*, 4 (1), 13-25.

Curtice J, Ellaway A, Robertson C, Allardice G, Robertson R, & Morris G (2005). Public attitudes and environmental justice in Scotland. The Scottish Executive: Edinburgh.

Dalgard OS, & Lund-Hahei, L (1998). Psychological risk factors and mortality: a prospective study with special focus on social support, social participation and local of control in Norway. *Journal of Epidemiology and Community Health*, 52, 476-481.

Day A, Therrien D, & Carroll S (2005). Predicting psychological health: assessing the incremental validity of emotional intelligence beyond personality, type A behaviour and daily hassles. *European Journal of Personality,* 19*,* 519-536.

De Jonge J, Bosma H, Peter R, & Siegrist J (2000). Job strain, effort-reward imbalance and employee well-being: a large-scale cross-sectional study. *Social Science and Medicine*, 50, 1317-1327.

De Lange A, Taris T, Kompier M, Houtmand I, & Bongers P (2003). The "very best of the millennium": longitudinal research and the demand-control-(support) model. *Journal of Occupational Health Psychology,* 8, 282-305.

De Silva M, McKenzie K, Harpham T, & Huttly S (2005). Social capital and mental illness: a systematic review. *Journal of Epidemiology and Community Health,* 59, 619-627.

Dench S, & Regan J (2000). Learning in later life: motivation and impact. Department for Education and Skills: London.

Department of Health (2001). Making it happen: A guide to delivering mental health promotion. Department of Health: London.

Department of Health (2002). Women's mental heath: into the mainstream - strategic development of mental health care for women. Department of Health: London.

Department of Health (2003). Mainstreaming gender and women's mental health implementation guidance. Mental Health, Health & Social Care Standards & Quality Group: London.

Dolan P, Peasgood T, & White M (2006). Review of research on the influences on personal well-being and application to policy making. Defra: London.

Dorling D, Mitchell R, & Pearce J (2007). The global impact of income inequality on health by age: an observational study. *British Medical Journal,* 335, 873

Ellis A, & Davis Smith J (2004). A sense of purpose. *Mental Health Today*, February, 20-23.

Ellison C, & Levin J (1998). The religion-health connection: evidence theory and future direction. *Health Education and Behaviour*, 5, 700-720.

Etnier JL, Salazar W, Landers DM, Petruzzello SJ, Han M, & Nowell P (1997). The influence of physical fitness and exercise upon cognitive functioning: a meta analysis. *Journal of Sport and Exercise Psychology*, 19, 249-277.

European Commission (2005). Green paper: Promoting the mental health of the population. Towards a strategy on mental health for the European Union. EU: Brussels.

Evans G (2003). The built environment and mental health. *Journal of Urban Health*, 80, 536-555.

Feinstein L, Hammond C, Woods L, Preston J, & Bynner J (2003). The contribution of adult learning to health and social capital. Centre for Research on the Wider Benefits of Learning: London.

Feinstein L, & Hammond C (2004). The contribution of adult learning to health and social capital. *Oxford Review of Education,* 30, 199-221.

Ferrie J (Ed.) (2004). Work, stress and health: the Whitehall II study. Public and Commercial Services Union: London.

Fonagy P, & Higgitt A (2000). An attachment theory perspective on early influences on development and social inequalities. In: WAIMH Handbook of infant mental health (pp. 520-560). Osofsky J, & Fitztgerald H (Eds.). John Wiley: New York.

Fox KR (2000). Physical activity and mental health promotion: the natural partnership. *International Journal of Mental Health Promotion*, 2, 4-12.

Freshwater D, & Stickle T (2004). The heart of the art: emotional intelligence in nurse education. *Nursing Inquiry*, 11, 91-98.

Friedli L (2004). Medicine for the soul. *Mental Health Today*, February, 24-26.

Friedli L, Oliver C, Tidyman M, & Ward G (2007). Mental health improvement: evidence based messages to improve mental well-being. NHS Health Scotland: Edinburgh.

Fryers T, Melzer D, & Jenkins R (2003). Social inequalities and the common mental disorders. *Social psychiatry and psychiatric epidemiology,* 38, 229-237.

Gesch CB, Hammond SM, Hampson SE, Eves A, & Crowder MJ (2002). Influence of supplementary vitamins, minerals and essential fatty acids on the antisocial behaviour of young adult prisoners: Randomised, placebo-controlled trial. *British Journal of Psychiatry*, 181, 22-28.

Glendinning R, Buchanan T, Rose N, & Hallam A (2002). Well? What do you think? A national Scottish survey of public attitudes to mental health, well being and mental health problems. Scottish Executive Social Research: Edinburgh.

Golding JM (1999). Intimate partner violence as a risk factor for mental disorders: a meta-analysis. *Journal of Family Violence*, 14, 99-132.

Goleman D (1995). Emotional intelligence. New York: Bantam Books.

Gordon D, Adelman L, Ashworth K, Bradshaw J, Levitas R, Middleton S, Pantazis C, Patsios D, Payne S, Townsend P, & Williams J (2000). Poverty and social exclusion in Britain. Joseph Rowntree Foundation: York.

Grant T (Ed.) (2000). Physical activity and mental health: national consensus statements and guidelines for practice. Somerset Health Authority/Health Education Authority: London.

Greenfield EA, & Marks NF (2004). Formal volunteering as a protective factor for older people's psychological well-being. *Journal of Gerontology*, 59B, S258-S264.

Guite H, Clark C, & Ackrill G (2006). The impact of the physical and urban environment on mental well-being. *Public Health,* 120, 1117-1126.

Hammond C (2002). Learning to be healthy. Wider benefits of learning papers: No 3. Institute of Education: London.

Hammond C, & Feinstein L (2006). Are those who flourished at school healthier adults? What role for adult education? Centre for Research on the Wider Benefits of learning: London.

Harper R (2001). Social capital: a review of the literature. Office for National Statistics: London.

Harper R, & Kelly M (2003). Measuring social capital in the United Kingdom. Office for National Statistics: London.

Hawton K, Zahl D, & Weatherall R (2003). Suicide following deliberate self-harm: long-term follow up of patients who presented to a general hospital. *British Journal of Psychiatry,* 182, 537-542.

Hemingway H, & Marmot M (1999). Evidence based cardiology: psycho-social factors in the aetiology and prognosis of coronary heart disease, systematic review of prospective studies. *British Medical Journal*, 318, 1460-1467.

Hill PC, & Pargament KI (2003). Advances in the conceptualization and measurement of religion and spirituality. Implications for physical and mental health research. *American Psychologist*, 58, 64-74.

Hu Y, Stewart-Brown S, Twigg L, & Weich S (2007). Can the 12 item General Health Questionnaire be used to measure positive mental health? *Psychological Medicine,* 37, 1005-1013.

Huppert FA, & Whittington JE (2003). Evidence for the independence of positive and negative well-being: Implications for quality of life assessment. *British Journal of Health Psychology*, 8, 107-122.

Huppert FA, Baylis N, & Keverne B (Eds.) (2005a). The science of well-being. Oxford University Press: Oxford.

Huppert F, Marks N, Clark A, Siegrist J, Stutzer A, & Vitterso J (2005b). Personal and social well-being module for the European Social Survey, Round 3.

Idler EL, Musick MA, Ellison CG, George LK, Krause N, Ory MG, Pargament KI, Powell LH, Underwood LG, & Williams DR (2003). Measuring Multiple Dimensions of Religion and Spirituality for Health Research Conceptual Background and Findings from the 1998 General Social Survey. *Research on Aging*, 25, 327-365.

Institute for Environment and Health (1997). IEH report on the non-auditory effects of noise. Institute for Environment and Health: Leicester.

James K (2001a). Evaluation of the St Austell prescriptions for learning project. National Institute of Adult Continuing Education: Nottingham.

James K (2001b). Prescribing learning, a guide to good practice in learning and health. National Institute of Adult Continuing Education: Nottingham.

James K (2001c). Prescriptions for learning project Nottingham: 1st evaluation report. National Institute of Adult Continuing Education: Nottingham.

Jin R, Shah C, & Svoboda T (1997). The impact of unemployment on health: a review of the evidence. *Journal of Public Health Policy,* 18*,* 275-301.

Kammann R, & Flett R (1983). Affectometer 2: A scale to measure current level of general happiness. *Australian Journal of Psychology*, 35, 259-265.

Kaplan GA, Wilson TW, Cohen RD, Kauhanen J, Wu M, & Salonen TJ (1994). Social functioning and overall mortality: prospective evidence from the Kuopio ischemic risk factor study. *Epidemiology*, 5, 495-500.

Kawachi I, Kennedy BP, & Lochner, K (1997). Health and social cohesion: why care about income inequality? *British Medical Journal*, 314, 1037-1040.

Keyes CLM. (2002). The mental health continuum: from languishing to flourishing. *Journal of Health and Social Behavior*, 43, 207-222.

Keyes CL, Shmotkin D, & Ryff C (2002). Optimizing well-being: the empirical encounter of two traditions. *Journal of Personality and Social Psychology,* 82, 1007-1022.

Korkeila JJA (2000). Measuring aspects of mental health. National Research and Development Centre for Welfare and Health: Helsinki.

Krieger N (1999). Embodying inequality: a review of concepts, measures and methods for studying health consequences of discrimination International. *Journal of Health Services,* 29 (2) 295-352

Krug EG, Dahlberg LL, Mercy JA, Zwi AB, & Lozano R (Eds.) (2002). World report on violence and health. World Health Organization: Geneva.

Lewis C, & Cruise S (2006). Religion and happiness: consensus, contradictions, comments and concerns. *Mental Health, Religion and Culture,* 9, 213-225.

Lum T, & Lightfoot E (2005). The effects of volunteering on the physical and mental health of older people. *Research on Ageing*, 27, 31-55

Mackay CJ, Cousins R, Kelly PJ, Lee S, & McCaig RH (2004). 'Management Standards' and work-related stress in the UK: Policy background and science. *Work and Stress*, 18, 91-112.

Maller C, Townsend M, Brown P, & St Leger L (2002). Healthy parks healthy people: the health benefits of contact with nature in a park context: a review of current literature. Deakin University and Parks Victoria: Melbourne.

Marmot M, & Wilkinson R (Eds.) (1999). Social determinants of health. Oxford University Press: Oxford.

Marmot M, & Wilkinson R (Eds.) (2006). Social determinants of health. Oxford University Press: Oxford.

Mathers C, & Lonar D (2006). Projections of the global mortality and burden of disease from 2002 to 2030. *PLoS Medicine,* 3, 2011-2030.

Mclean C, Carmona C, Francis S, Wohlgemuth C, & Mulvihill C (2005). Worklessness and health - what do we know about the causal relationship? Evidence review. Health Development Agency: London.

McVeigh C, Hughes K, Bellis MA, Ashton JR, Syed Q, & Reed E (2005). Violent Britain: people, prevention and public health. Centre for Public Health, Liverpool John Moores University: Liverpool.

Meltzer H, Gill B, Petticrew M, & Hinds K (1995). Surveys of psychiatric morbidity in Great Britain. Report 2: physical complaints, service use and treatment of adults with psychiatric disorder. HMSO: London.

Meltzer H, Lader D, Singleton N, Jenkins R, & Brugha T (2002a). Non-fatal suicidal behaviour among adults aged 16 to 74 in Great Britain. The Stationery Office: London.

Meltzer H, Singleton N, Lee A, Bebbington P, Brugha T, & Jenkins R (2002b). The social and economic circumstances of adults with mental disorders. The Stationery Office: London.

Melzer D, Fryers T, & Jenkins R (2004). Social inequalities and the distribution of common mental disorders. Maudsley Monograph 44. Psychology Press: Hove.

Mental Health Foundation (2005). Up and running? Exercise therapy and the treatment of mild or moderate depression in primary care. Mental Health Foundation: London.

Morgan A, & Swann C (Eds) (2004). Social capital for health: issues of definition, measurement and links to health. Health Development Agency: London.

Morrow-Howell N, Hinterlong J, Rozario PA, & Tang F (2003). Effects of volunteering on the well-being of older adults. *Journal of Gerontology*, 58B, S137-S145.

Moussavi S, Chatterji S, Verdes E, Tandon A, Patel V, & Ustum B (2007). Depression, chronic disease, and decrements in health: results from the World Health Surveys. *The Lancet,* 370, 851-858.

Murray CW, & Lopez AD (Eds.) (1996). The global burden of disease: A comprehensive assessment of mortality and disability from disease, injuries and risk factors in 1990 and projected to 2020. Harvard School of Public Health: Cambridge, Mass.

Musick MA, & Wilson J (2003). Volunteering and depression: the role of psychological and social resources in different age groups. *Social Science and Medicine*, 56, 259-269.

Mutrie N (2000). The relationship between physical activity and clinically defined depression. In: Physical activity and psychological well-being. Biddle, SJH, Fox, KR, & Boutcher SH (Eds.). Routledge: London.

Myers F, McCollam A, & Woodhouse A (2005). Addressing mental health inequalities in Scotland: Equal minds. The Scottish Executive: Edinburgh.

Nazroo YJ, & Karlsen S (2001). Ethnic inequalities in health: social class, racism and identity ESRC Research Findings 10 from the Health Variations Programme. Lancaster University: Lancaster.

Newton, J. (2007). Wellbeing and the natural environment: a brief overview of the evidence. Defra: London.

O'Brien R, & Parkinson J (forthcoming). International mental health data: Review of data on the mental health and well-being of adults collected in national (excluding Scotland) and cross-national surveys. NHS Health Scotland: Glasgow.

Palmer H, & Conaty P (2002). Profiting from poverty. New Economics Foundation: London.

Parkinson J (2004). Mental health indicators survey options appraisal. NHS Health Scotland: Glasgow.

Parkinson J (2006a). Establishing national mental health and well-being indicators for Scotland. *Journal of Public Mental Health* 5 (1), 42–48.

Parkinson J (2006b). Measuring positive mental health: Developing a new scale. NHS Health Scotland: Glasgow.

Parkinson J (2007a). Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Rationale paper. NHS Health Scotland: Glasgow.

Parkinson J (2007b). Establishing a core set of national, sustainable mental health indicators for adults in Scotland: Report on dissemination events March/April 2007. NHS Health Scotland: Glasgow.

Parkinson J (Ed.) (in press). Review of scales of positive mental health validated for use with adults in the UK: Technical report. NHS Health Scotland: Glasgow.

Parkinson J, & Mental Health Indicators Advisory Group (2006). Indicators of mental health and well-being - Constructs consultation paper. NHS Health Scotland: Glasgow.

Platt S, McLean J, McCollam A, Blamey A, Mackenzie M, McDaid D, Maxwell M, Halliday E, &Woodhouse A (2006). Evaluation of the first phase of Choose Life: the national strategy and action plan to prevent suicide in Scotland. Scottish Executive Social Research: Edinburgh.

Platt S, Boyle P, Crombie I, Feng Z, & Exeter D (2007). The epidemiology of suicide in Scotland 1989 - 2004: an examination of temporal trends and risk factors at national and local levels. Scottish Executive Social Research: Edinburgh.

Preston, J. & Feinstein, L. (2004). Adult education and attitude change. Centre for Research on the Wider Benefits of learning: London.

Prince M, Patel V, Saxena S, Maj M, Moselko J, Phillips MR, Rahmna, A (2007). No health without mental health. *The Lancet,* 370, 859-877.

Reeves A (2005). Emotional intelligence: Recognizing and regulating emotions. *AAOHN Journal*, 53, 172-176.

Rietschlin J (1998). Voluntary association membership and psychological distress. *Journal of Health and Social Behavior*, 39, 348-355.

Riley H, & Schutte NS (2003). Low emotional intelligence as a predictor of substance-use problems. *Journal of Drug Education*, 33, 391-398.

Rogers A, & Pilgrim D (2003). Mental health and inequality. Palgrave Macmillan: Basingstoke.

Royal College of Psychiatrists Public Education Editorial Board (2006). Cannabis and mental health. Royal College of Psychiatrists: London.

Ryan R, & Deci E (2001). On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology,* 52*,* 141-166.

Ryff CD (1989). Happiness is everything or is it? Explorations on the meaning of psychological wellbeing. *Journal of Personal Social Psychology*, 57, 1069-1081.

Ryff C, & Keyes C (1996). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology,* 69, 719-727.

Scottish Association for Mental Health (2006). What's it worth? The social and economic costs of mental health problems in Scotland. Scottish Association for Mental Health: Glasgow.

Scottish Executive (2000). Our national health: A plan for action, a plan for change. The Scottish Executive: Edinburgh.

Scottish Executive (2002). Choose Life: A national strategy and action plan to prevent suicide in Scotland. The Scottish Executive: Edinburgh.

Scottish Executive (2003a). Partnerships for care: Scotland's health white paper. The Scottish Executive: Edinburgh.

Scottish Executive (2003b). Improving health in Scotland - The challenge. The Stationery Office Bookshop: Edinburgh.

Scottish Executive (2003c). National programme for improving mental health and well-being: Action plan 2003-2006. The Scottish Executive: Edinburgh.

Scottish Executive (2004). Volunteering strategy. The Scottish Executive: Edinburgh.

Scottish Executive (2006a). Delivering for health. The Scottish Executive: Edinburgh.

Scottish Executive (2006b). Delivering for mental health. The Scottish Executive: Edinburgh.

Scottish Executive (2007). Plan for action on alcohol problems: update. The Scottish Executive: Edinburgh.

Scottish Government (2007a). Better health, better care: Action plan. The Scottish Government: Edinburgh.

Scottish Government (2007b). Towards a mentally flourishing Scotland: The future of mental health improvement in Scotland 2008-11 - a discussion paper. The Scottish Government: Edinburgh.

Scottish Government (2007c). Scottish budget spending review 2007. The Scottish Government: Edinburgh.

Scottish Government & COSLA (2007). Concordat between the Scottish Government and local government. The Scottish Government: Edinburgh.

Singleton N, Bumpstead R, O'Brien M, Lee A, & Meltzer H (2001). Psychiatric morbidity among adults living in private households, 2000. Office for National Statistics: London.

Singleton N, & Glyn L (2003). Better or worse: a longitudinal study of the mental health of adults living in private households in Great Britain. Office for National Statistics: London.

Social Exclusion Unit (1998). Bringing Britain together: a national strategy for neighbourhood renewal. Office of the Deputy Prime Minister: London.

Social Exclusion Unit (2001). Preventing social exclusion. Office of the Deputy Prime Minister: London.

Social Exclusion Unit (2004). Mental health and social exclusion: social exclusion unit report. Office of the Deputy Prime Minister: London.

Stafford M, Bartley M, Marmot M, Boreham R, Thomas R, & Wilkinson R (2004). Neighbourhood social cohesion and health: investigating associations and possible mechanisms. In: Social capital for health: issues of definition, measurement and links to health. Morgan A, & Swann C (Eds.). Health Development Agency: London.

Stafford M, & McCarthy M (2006). Neighbourhoods, housing and health. In: Social determinants of health (pp. 297-317). Marmot M, & Wilkinson R (Eds.). Oxford University Press: Oxford.

STAKES (2001). Minimum data set of European mental health indicators. Proposed set of mental health indicators; definitions, description and sources. National Research and Development Centre for Welfare and Health: Helsinki.

Stansfeld S, Bosma H, Hemingway H, & Marmot M (1998). Psychosocial work characteristics and social support as predictors of SF-36 functioning: the Whitehall II study. *Psychosomatic Medicine*, 60, 247-255.

Stansfeld S, Fuhrer R, Shipley M, & Marmot M (1999). Work characteristics predict psychiatric disorder: prospective results from Whitehall II study. *Occupational and Environmental Medicine*, 56, 302-307.

Stansfeld SA (2006). Social support and social cohesion. In: Social determinants of health (pp. 148-171). Marmot M, & Wilkinson R (Eds.). Oxford University Press: Oxford.

Stewart-Brown S (2002). Measuring the parts most measures do not reach: a necessity for evaluation in mental health promotion. *Journal of Mental Health Promotion*, 1 (2), 4-9.

Stewart-Brown S (2005). Interpersonal relationships and the origins of mental health. *Journal of Public Mental Health*, 4 (4), 24-29.

Stewart-Brown S, & Janmohamed, K. (forthcoming). Warwick-Edinburgh Mental Well-being Scale: User manual version 1. NHS Health Scotland: Glasgow.

Strategy Unit (2003). Alcohol harm reduction project interim analytical report. Cabinet Office: London.

Substance Misuse Information Strategy Team (2006). Drug misuse statistics Scotland 2006. ISD Scotland: Edinburgh.

Substance Misuse Information Strategy Team (2007). Alcohol statistics Scotland. ISD Scotland: Edinburgh.

Taske N, Taylor L, Mulvihill C, & Doyle N (2005). Housing and public health: a review of reviews of interventions for improving health. Evidence briefing. National Institute for Health and Clinical Excellence: London.

Taulbut M, & Parkinson J (forthcoming). Scottish adult mental health and well-being indicators: 2008. NHS Health Scotland: Glasgow.

Taylor S (1998). Summary on reactive responding. Psychosocial working group, MacArthur Network on SES and Health.

Tennant R, Fishwick R, Platt S, Joseph S, & Stewart-Brown S. (2006). Monitoring positive mental health in Scotland: validating the Affectometer 2 scale and developing the Warwick-Edinburgh Mental Well-Being Scale for the UK. NHS Health Scotland: Glasgow.

Tennant R, Hiller L, Fishwick R, Platt S, Joseph S, Weich S, Parkinson J, Secker J, & Stewart-Brown S (2007a). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): development and UK validation. *Health and Quality of Life Outcome*, 5 (63), page numbers to be determined.

Tennant R, Joseph S, & Stewart-Brown S (2007b). The Affectometer 2: a measure of positive mental health in UK populations. *Quality of Life Research*, 16 (4), 687-695.

The British Dietetic Association (2006). The role of diet in the management of mental health service users. Media release, Birmingham.

The Scottish Office (1999). Towards a healthier Scotland: A white paper on health. The Stationery Office: Edinburgh.

Thoits PA, & Hewitt LN (2001). Volunteer work and well-being. *Journal of Health and Social Behavior*, 42, 115-131.

Thomas C, Benzeval M, & Stansfeld SA (2005). Employment transitions and mental health: an analysis from the British household panel survey. *Journal of Epidemiology and Community Health*, 59, 243-249.

Vaillant GE (2003). Mental health. *American Journal of Psychiatry*, 160, 1373-1384.

Van de Weyer C (2006). Changing diets, changing minds: how food affects mental well being and behaviour. Sustain: London.

Van Dierendonck D, & Mohan K. (2006). Some thoughts on spirituality and eudaimonic well-being. *Mental Health, Religion and Culture,* 9, 227-238.

Van Willigen M (2000). Differential benefits of volunteering across the life course. *Journal of Gerontology*, 55B, S308-S318.

Victorian Health Promotion Foundation (2004). The health costs of violence: measuring the burden of disease caused by intimate partner violence. Victorian Health Promotion Foundation: Carlton South.

Vitello-Cicciu JM (2003). Innovative leadership through emotional intelligence. *Nursing Management*, 34, 203-210.

Weich S, & Lewis G (1998). Poverty, unemployment and common mental health disorders: population-based cohort study. *British Medical Journal*, 317, 115-119.

Wilkinson R (2005). The impact of inequality: how to make sick societies healthier. Routledge: London.

Wilkinson R, & Pickett K (2006). Income inequality and population health: a review and explanation of the evidence. *Social Science and Medicine,* 62, 1768-1784.

Wilkinson R, & Pickett K (2007). The problems of relative deprivation: Why some societies do better than others. *Social Science and Medicine,* 65, 1965-1978.

Wilson J (2000). Volunteering. *Annual Review of Sociology*, 26, 215-240.

Wilson K, Elliot S, Law M, Eyles J, Jerrett M, & Keller-Olaman S (2004). Linking perceptions of neighbourhood to health in Hamilton Canada. *Journal of Epidemiology and Community Health,* 58, 192-198.

Winters J, Clift RJW, & Dutton DG (2004). An exploratory study of emotional intelligence and domestic abuse. *Journal of Family Violence*, 19, 255-267.

World Health Organization, Department of Mental Health and Substance Abuse, Victorian Health Promotion Foundation & University of Melbourne (2004). Promoting mental health: concepts, emerging evidence, practice. World Health Organization: Geneva.

World Health Organization Europe (2005a). Mental health declaration for Europe facing the challenges, building solutions. World Health Organization Europe: Helsinki.

World Health Organization Europe (2005b). Mental health action plan for Europe: facing the challenges, building solutions. World Health Organization Europe: Helsinki.

APPENDIX 1

Advisory Group Membership

- Dr Lynne Friedli (Chair), Mental Health Promotion Specialist
- Dr Jenny Bywaters, Senior Public Mental Health Adviser, National Institute for Mental Health England, Department of Health
- Dr Hilary Guite, Consultant Public Health/ Acting Director of Public Health Greenwich TPCT
- Dr Sunjai Gupta, Senior Medical Officer, Public Health Systems and Governance, Department of Health
- Gregor Henderson, Mental Health Improvement Advisor, National Programme for Improving Mental Health and Well-being, Scottish Executive
- Jackie James, Principal Health Development Specialist, National Public Health Service for Wales
- Professor Rachel Jenkins, Director, WHO Collaborating Centre, Head of Section of Mental Health Policy HSRD Institute of Psychiatry, London
- Professor Howard Meltzer, Professor of Mental Health and Disability, University of Leicester
- Professor Steve Platt, Director Research Unit in Health, Behaviour and Change, Edinburgh University
- Professor Sarah Stewart-Brown, Director of the Health Sciences Research Institute, Chair of Public Health, Warwick University

APPENDIX 2

INDICATORS LIST

HIGH LEVEL CONSTRUCTS

INDICATOR	MEASURE	DATA SOURCE
Positive Mental Health		
Positive mental health	Mean adult score on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)	Scottish Health Survey*
Life satisfaction	Mean adult score of how satisfied individuals are with their life as a whole nowadays	Scottish Health Survey*
Mental Health Problems		
Common mental health problems	Percentage of adults who score 4 or more on the General Health Questionnaire-12 (GHQ-12) (a score of 4 or more indicates a possible mental health problem over the past few weeks)	Scottish Health Survey
Depression	Percentage of adults who have a symptom score of 2 or more on the depression section of the Revised Clinical Interview Schedule (CIS-R) (a score of 2 or more indicates symptoms of moderate to high severity experienced in the previous week)	Scottish Health Survey*
Anxiety	Percentage of adults who have a symptom score of 2 or more on the anxiety section of the Revised Clinical Interview Schedule (CIS-R) (a score of 2 or more indicates symptoms of moderate to high severity experienced in the previous week)	Scottish Health Survey*
Alcohol dependency	Percentage of adults who score 2 or more on the CAGE questionnaire (a score of 2 or more indicates possible alcohol dependency in the previous 3 months)	Scottish Health Survey
Drug-related deaths	Deaths per 100,000 adults in the past year from 'mental and behavioural disorders due to psychoactive substance use'	General Register Office for Scotland
Suicide	Deaths per 100,000 adults in the past year by intentional self-harm and by undetermined intent	General Register Office for Scotland
Deliberate self-harm	Percentage of adults who have deliberately harmed themselves but not with the intention of killing themselves in the past year	Scottish Health Survey*

* Data source highlighted in pink indicates that the required data has not previously been collected or consistently collected in a national Scottish survey but will now be in future years.

CONTEXTUAL CONSTRUCTS

INDIVIDUAL LEVEL		
INDICATOR	**MEASURE**	**DATA SOURCE**
Learning and Development		
Adult learning	Percentage of adults (no longer in continuous full-time education) who participated in some type of adult learning (taught or non-taught) in the last year	Annual Population Survey
Healthy Living		
Physical activity	Percentage of adults who met the recommended level of physical activity for adults (30 minutes or more moderate to vigorous physical activity on at least 5 days per week) in the previous four weeks	Scottish Health Survey
Healthy eating	Percentage of adults who ate five or more portions of fruit and vegetables in the previous day	Scottish Health Survey
Alcohol consumption	Percentage of adults whose usual weekly consumption of alcohol in the past year was at or below the recommended weekly limit (21 units for men and 14 units for women)	Scottish Health Survey
Drug use	Percentage of adults (aged 16-59) who have taken drugs in the past year	Scottish Crime and Justice Survey
General Health		
Self-reported health	Percentage of adults who perceive their health in general to be good or very good	Scottish Health Survey
Long-standing physical condition or disability	Percentage of adults who have a long-standing physical condition or disability (long-standing = troubled the person for at least 12 months, or likely to affect them for at least 12 months)	Scottish Health Survey
Limiting long-standing physical condition or disability	Percentage of adults who have a long-standing physical condition or disability which limits their daily activities	Scottish Health Survey
Spirituality		
Spirituality	Assessment of spirituality	No suitable data source identified
Emotional Intelligence		
Emotional intelligence	Assessment of emotional intelligence	No suitable data source identified

COMMUNITY LEVEL		
INDICATOR	**MEASURE**	**DATA SOURCE**
Participation		
Volunteering	Percentage of adults who participated in volunteering at least 5 or 6 times in the past year	Scottish Household Survey
Involvement in local community	Percentage of adults who feel involved in their local community a great deal or a fair amount	Scottish Health Survey*
Influencing local decisions	Percentage of adults who strongly agree or agree that they can influence decisions affecting their local area	Scottish Health Survey*
Social Networks		
Social contact	Percentage of adults who have contact (in person, by phone, letter, email or through the internet) at least once a week with family, friends or neighbours who do not live with them	Scottish Health Survey*
Social Support		
Social support	Percentage of adults with a primary support group of three or more to rely on for comfort and support in a personal crisis	Scottish Health Survey¥
Caring	Percentage of adults who provide 20 or more hours of care per week to a member of their household or to someone not living with them, excluding help provided in the course of employment	Scottish Health Survey*
Trust		
General trust	Percentage of adults who trust most people	Scottish Health Survey*
Neighbourhood trust	Percentage of adults who trust most people in their neighbourhood	Scottish Health Survey*
Safety		
Neighbourhood safety	Percentage of adults who feel very or fairly safe walking alone in their neighbourhood after dark	Scottish Household Survey
Home safety	Percentage of adults who feel very or fairly safe when at home alone at night	Scottish Household Survey
Non-violent neighbourhood crime	Percentage of adults who have been a victim of non-violent crime (definition covers household crime, theft from the person and other personal theft http://openscotland.gov.uk/Publications/2007/10/12094216/11) occurring locally	Scottish Crime and Justice Survey
Perception of local crime	Percentage of adults who perceive crime (including people having their homes broken into, people being mugged/robbed, people having their property or vehicle damaged, people experiencing theft of or theft from their car or vehicle, people being assaulted/attacked in public, and drug dealing and drug abuse) to be very or fairly common in their local area	Scottish Crime and Justice Survey

* Data source highlighted in pink indicates that the required data has not previously been collected or consistently collected in a national Scottish survey but will now be in future years.
¥ Data has not previously been collected in this national Scottish survey for this indicator but will now be collected in future years.

STRUCTURAL LEVEL		
INDICATOR	**MEASURE**	**DATA SOURCE**
Equality		
Income inequality	GINI coefficient	Scottish Government Income & Poverty Statistics
Equality analysis	Analysis of the indicators by selected variables; age, gender and Scottish Index of Multiple Deprivation[ξ] (SIMD, definition www.scotland.gov.uk/Topics/Statistics/SIMD/Overview) or social class (National Statistics socio-economic classification (NS-SEC), definition www.statistics.gov.uk/methods_quality/ns_sec/default.asp) or occupation	Scottish surveys, plus administrative datasets for SIMD
Social Inclusion		
Worklessness	Percentage of adults (women aged 16-59 and men aged 16-64), excluding students, who are unemployed or economically inactive and who want to work	Annual Population Survey
Education	Percentage of adults (women aged 16-59 and men aged 16-64) with at least one academic or vocational educational qualification	Annual Population Survey
Discrimination		
Discrimination	Percentage of adults who report having been unfairly treated or discriminated against in the past year	Scottish Health Survey[*]
Racial discrimination	Percentage of adults who think racial discrimination is a big problem in Scotland	Scottish Crime and Justice Survey
Harassment	Percentage of adults who have personally experienced harassment or abuse in the past year due to discrimination	Scottish Health Survey*
Financial Security/Debt		
Financial management	Percentage of households managing very or quite well financially these days	Scottish Household Survey[Ψ]
Financial inclusion	Percentage of households with access to a bank account, building society account, credit union account, or post office card account	Scottish Household Survey[Ψ]
Physical Environment		
Neighbourhood satisfaction	Percentage of adults who rate their neighbourhood as a very or fairly good place to live	Scottish Household Survey
Noise	Percentage of adults who are bothered very often or fairly often by noise when home indoors	Scottish House Condition Survey[Ψ]
Escape facility	Assessment of perceived availability of a valued safe place where an individual can and wants to go to to 'escape' from things	No suitable data source identified
Greenspace	Percentage of adults who feel they have a safe and pleasant park, green or other area of grass	Scottish Household Survey

[ξ] SIMD is a measure of area deprivation.
[*] Data source highlighted in pink indicates that the required data has not previously been collected in a national Scottish survey but will now be in future years.
[Ψ] Data for this indicator comes from the highest income householder or spouse/partner.

	in their neighbourhood, excluding personal private garden space, that they and their family can use	
House condition	Percentage of adults rating the condition of their house or flat as very or fairly good	Scottish House Condition Survey[Ψ]
Overcrowding	Percentage of adults who feel their home has too few rooms	Scottish House Condition Survey[Ψ]
Working Life		
Stress	Percentage of adults who find their job very or extremely stressful	Scottish Health Survey[*]
Work-life balance	Mean score for how satisfied adults are with their work-life balance (paid work)	Scottish Health Survey*
Demand	Percentage of adults who often or always have unrealistic time pressures at work	Scottish Health Survey*
Control	Percentage of adults who often or always have a choice in deciding the way they do their work	Scottish Health Survey*
Manager support	Percentage of adults who strongly or tend to agree that their line manager encourages them at work	Scottish Health Survey*
Colleague support	Percentage of adults who strongly or tend to agree that they get the help and support they need from colleagues at work	Scottish Health Survey*
Violence		
Partner abuse	Percentage of adults physically or emotionally abused by a partner or ex-partner in the past year	Scottish Crime and Justice Survey
Neighbourhood violence	Percentage of adults who have experienced violence (definition covers assault and robbery http://openscotland.gov.uk/Publications/2007/10/12094216/11), excluding violence by a household member, occurring locally in the past year	Scottish Crime and Justice Survey
Attitude to violence	Percentage of adults who think that violence is acceptable in some circumstances	No suitable data source identified

[Ψ] Data for this indicator comes from the highest income householder or spouse/partner.
[*] Data source highlighted in pink indicates that data has not previously been collected in a national Scottish survey but will now be in future years.

APPENDIX 3

ADULT INDICATORS DATA SOURCES, QUESTIONS AND SCALES[24]

HIGH LEVEL INDICATORS

POSITIVE MENTAL HEALTH

Positive mental health – WEMWBS, Scottish Health Survey, annual adult (18+) and young adults (16-17) self-completion booklets

Life satisfaction – question from the European Social Survey, Scottish Health Survey, annual core face to face survey

All things considered, how satisfied are you with your life as a whole nowadays?

0 extremely dissatisfied to10 extremely satisfied

MENTAL HEALTH PROBLEMS

Common mental health problems – GHQ-12, Scottish Health Survey, annual adult (18+) and young adults (16-17) self-completion booklets

Depression – CIS-R Depression section, Scottish Health Survey, annual Nurse module from 2008

Anxiety – CIS-R Anxiety section, Scottish Health Survey, annual Nurse module from 2008

Alcohol Dependency – CAGE questionnaire, Scottish Health Survey, annual adult (18+) and young adults (16-17) self-completion booklets

Drug-related Death – General Register Office for Scotland

Suicide – General Register Office for Scotland deaths by intentional self harm and by undetermined intent combined

Deliberate self-harm – question adapted from the CIS-R Deliberate self harm section, Scottish Health Survey, annual Nurse module from 2008

Have you ever deliberately harmed yourself in any way but not with the intention of killing yourself?

Yes

No

ASK if = yes

Was this

In the last week?

In the last year?

At some other time?

[24] Current versions of the national survey questionnaires should also be consulted to ensure that the latest version of question are used. For example, questions for the Scottish Health Survey have come from the current draft 2008 survey. Minor alterations may be made after full testing of the questionnaire but these will not have a major impact on the indictors.

CONTEXTUAL CONSTRUCTS - INDIVIDUAL LEVEL

LEARNING AND DEVELOPMENT

Adult learning – Variables used ADLEARN, EDAGE, ED13WK, Annual Population Survey
Refer to www.statistics.gov.uk/StatBase/Product.asp?vlnk=1537&Pos=&ColRank=2&Rank=544 volume 3 for information on how these variables are currently obtained from the survey questions

HEALTHY LIVING

Physical Activity – Scottish Health Survey[25] annual core
Series of questions adapted from the Allied Dunbar National Fitness survey 1990. Covers four main types of physical activity over the previous 4 weeks assessing time spent on activity, intensity of activity and frequency of activity:

- Home-based activities (housework, gardening, building work and DIY)
- Walking
- Sports and exercise
- Activity at work.

Activity recommendations = 30 minutes or more moderate to vigorous physical activity on at least 5 days per week.

Healthy Eating – Scottish Health Survey[22] annual core
Composite from a range of questions to determine the number of portions of fruit and vegetables consumed yesterday where yesterday means the 24 hours from midnight to midnight.
Questions cover: vegetables (fresh, frozen and canned), vegetables in composites (eg vegetable curry), salads, pulses, fruit (fresh, frozen and canned), dried fruit, fruit in composites (eg apple pie) and pure fruit drinks.
Note: respondents are asked if this is typical

Alcohol Consumption – Scottish Health Survey[22], annual core
Range of questions using the quantity frequency method to assess usual weekly consumption in the past year
Weekly recommended limits = 21 units for men and 14 units for women

Drug use – Scottish Crime and Justice Survey
Have you taken 'X' in the last 12 months

- Yes
- No
- Don't want to answer

[25] Scottish Health Survey questionnaire is undergoing piloting and a dress rehearsal (5 November - 10 December 2007). There may be slight alterations to the Scottish Health Survey questions in the final questionnaire.

This question is repeated for the following loop values:

- Amphetamine (Speed, Sulph, Whizz, Uppers)
- Cannabis (Marijuana, Pot, Grass, Hash, Ganja, Blow,Dope, Spliff, Joints, Weed)
- Cocaine (Coke, Charlie, Snow, Base)
- Crack (Rock, Sand, Stone, Pebbles)
- Ecstasy ('E','X', Eccies, 'Xtc', Mdma)
- Heroin (Smack, Skag, 'H', Morphine, Brown, Junk, Gear)
- Lsd (Acid, Tabs, Trips, Stars, White Lightning)
- Magic Mushrooms (Mushies, Psilocybin)
- Methadone/Physeptone (Phy, Meth, Juice)
- Semeron (Sems)
- Temazepam (Ruggers, Jellies, Eggs, Beans)
- Valium (Vallies, Blues)
- Anabolic Steroids (Steroids)
- Poppers (Amyl Nitrite)
- Crystal Meth (Ice, Glass, Tina)
- Ketamine (Green, K, Special K, Super K, Vitamin K)
- Glues, Solvents, Gas Or Aerosols (To Sniff Or Inhale)

GENERAL HEALTH

Self-Reported Health – Scottish Health Survey[22] annual core

How is your health in general? Would you say it was

very good
good
fair
bad, or
very bad?

Long-standing physical condition or disability and limiting long-standing physical condition or disability – Scottish Health Survey[22] annual core

Do you have a long-standing physical or mental condition or disability that has troubled you for at least 12 months, or that is likely to affect you for at least 12 months?

Yes
No

If yes

What is the matter with you?

Note: Scottish Health Survey codes up to 6 conditions or disabilities so it will be possible to remove data from those with only a mental condition or disability

Does (this) limit your activities in any way?

Yes

No

SPIRITUALITY

Spirituality – No suitable data source

EMOTIONAL INTELLIGENCE

Emotional intelligence - No suitable data source

CONTEXTUAL VARIABLES - COMMUNITY LEVEL

PARTICIPATION

Volunteering – Scottish Household Survey

The next set of questions are about the kinds of things that some people do to give up their time, without pay, to help people or for the benefit of their neighbourhood or a wider area, and either through organisations or acting as individuals.

Thinking back over the last 12 months, have you given up any time to help any clubs, charities, campaigns or organisations. I mean in an unpaid capacity

Yes

No

Regardless of the response, all individuals are asked whether they have undertaken any work or given unpaid help to any of these types of groups or organisations at any time in the past 12 months

Children's activities associated with schools for example school trips, sports days, discos, in the classroom

Youth/children's activities (outside school)

Education for adults

Sport/exercise (coaching or organising)

Religion / Politics

The elderly

Health, disability and social welfare

Safety, first aid

The environment, animals

Justice and human rights

Local community or neighbourhood groups

Citizens' groups
Hobbies/recreation/arts/social clubs
Trade union activities
None
Don't know

And have you undertaken any work or given unpaid help to ANY OTHER groups or organisations in the past 12 months?
Yes
No
Don't know

Thinking about ALL unpaid help you give for organisations, how frequently do you do this?
Several times a week
About once a week
Less than once a week but at least once a month
Less than once a month, but a least five or six time s a year
A few times a year
Less often
Never

Involvement in local community - Scottish Health Survey, Module B questions to be asked either annually or biennially (question was previously included in the Scottish Household Survey 2000-2003)

How involved do you feel in the local community?
A great deal
A fair amount
Not very much
Not at all
Don't know

Influencing local decisions - Scottish Health Survey, Module B questions to be asked either annually or biennially 2008 (question taken from the Office for National Statistics harmonised social capital set)

To what extent do you agree or disagree with the following statement**:**
I can influence decisions affecting my local area?
Strongly agree
Agree
Neither agree nor disagree

Disagree
Strongly disagree
(SPONTANEOUS) Don't have an opinion
(SPONTANEOUS) Don't know

SOCIAL NETWORKS

Social contact - Scottish Health Survey, Module B questions to be asked either annually or biennially 2008 (question based on question in the Office for National Statistics harmonised social capital set)

Not counting the people you live with, how often do you personally contact your relatives, friends or neighbours either in person, by phone, letter, email or through the internet

On most days
Once or twice a week
Once or twice a month
Less often than once a month
Never
(SPONTANEOUS) Don't know

SOCIAL SUPPORT

Social support - Scottish Health Survey, Module B questions to be asked either annually or biennially 2008 (question taken from the Office for National Statistics harmonised social capital set)

If you had a serious personal crisis, how many people, if any, do you feel you could turn to for comfort and support?

Caring - Scottish Health Survey, annual core (questions from both the individual and household questionnaire sections)

Individual questionnaire

Do you provide any regular help or care for any sick, disabled or frail person not living with you?
(Excludes any help provided in the course of employment)

Yes
No

In total, how many hours do you spend each week providing help or unpaid care for (him/her/them)? SHOW CARD
Continuous care would be if the person needs to have someone with them at all times of the day and night

1 - 4 hours per week
5 - 19 hours per week
20-34 hours per week
35-49 hours per week

50+ hours per week
Continuous care
Varies
Don't know

Household questionnaire

Is there anybody in the household, including yourself, who needs regular help or care because of ill-health, disability or frailty?
Yes
No

Who is it that provides help or care for *{household member}*? Does anyone else provide help or care for them?
1 RECORD PERSON NUMBER WITHIN HOUSEHOLD OR
2 Other person/s outside the household provides care
3 No care is provided for household member

IF = Someone within household THEN

Typically, how many hours of help or care [do you] provide per week?
1 - 4 hours per week
5 - 19 hours per week
20 - 34 hours per week
35 - 49 hours per week
50+ hours per week
Continuous care (where the person needs to have someone with them at all times of the day and night)
Varies
Don't know

TRUST

General trust - Scottish Health Survey, Module B questions to be asked either annually or biennially 2008 (question from ONS harmonised social capital set)

Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?
Most people can be trusted
Can't be too careful in dealing with people
(SPONTANEOUS) It depends on people/circumstances
(SPONTANEOUS) Don't know

Neighbourhood trust - Scottish Health Survey, Module B questions to be asked either annually or biennially 2008 (question from ONS harmonised social

capital set)

Would you say that ...

most of the people in your neighbourhood can be trusted

some can be trusted

a few can be trusted

or, that no-one can be trusted?

(SPONTANEOUS: Just moved here)

(Spontaneous) Don't know

SAFETY

Neighbourhood safety - Scottish Household Survey[26]

How safe do you feel walking alone in your neighbourhood after dark? Would you say you feel….?

Very safe

Fairly safe

A bit unsafe

Very unsafe

Don't know

Home safety - Scottish Household Survey*

How safe do you feel when you are alone in your home at night? Would you say you feel….?

Very safe

Fairly safe

A bit unsafe

Very unsafe

Don't know

Non-violent neighbourhood crime - Scottish Crime and Justice Survey

Composite from a range of questions which cover household crime, theft from the person and other personal theft http://openscotland.gov.uk/Publications/2007/10/12094216/11)

Perception of local crime - Scottish Crime and Justice Survey[27]

How common do you think the following things are in your local area? By local area, I mean the area within 15 minutes walk of your home.

[26] The Scottish Crime and Justice Survey has included these questions in past years and is creating better questions to assess safety. The Scottish Household Survey may drop these questions in future years but currently is the best source of data.

[27] The Scottish Crime and Justice Survey is revising this question for future years.

Very common
Fairly common
Not very common
Not at all common
Don't know

- People having their car or other vehicles stolen
- People having things stolen from their car or other vehicles
- Deliberate damage to property or vehicles
- People's homes being broken into
- People being mugged or robbed
- People being physically assaulted or attacked in the street or other public places
- People being physically attacked because of their skin colour, ethnic origin or religion
- People being sexually assaulted
- Drug dealing and drug abuse

(- People behaving in an anti-social manner in public – data from this option is not used for the indicator)

CONTEXTUAL VARIABLES - STRUCTURAL LEVEL

EQUALITY

Income inequality – Scottish Government Income and Poverty Statistics

GINI coefficient

Equality Analysis – Scottish national surveys

Analyses by Age
Gender
Scottish Index of Multiple Deprivation (SIMD) (definition: www.scotland.gov.uk/Topics/Statistics/SIMD/Overview) or social class (National Statistics socio-economic classification (NS-SEC) www.statistics.gov.uk/methods_quality/ns_sec/default.asp) or occupation where this is not possible.

Note: it is acknowledged that there is a lack of data to analyse the indicators by other equality strands

SOCIAL INCLUSION

Worklessness - Variables used INECAC05 (INECACR for earlier years), Annual Population Survey

Refer to www.statistics.gov.uk/StatBase/Product.asp?vlnk=1537&Pos=&ColRank=2&Rank=544 volume 3 for information on how these variables are currently obtained from the questions in the survey

Education - Variable used HIQUAL with no qualification option used (became HIQUAL4 in 2004, and HIQUAL% in 2005), Annual Population Survey

Refer to www.statistics.gov.uk/StatBase/Product.asp?vlnk=1537&Pos=&ColRank=2&Rank=544 volume 3 for information on how these variables are currently obtained from the questions in the survey

DISCRIMINATION

Discrimination - Scottish Health Survey, Module B questions to be asked either annually or biennially

Have you personally been unfairly treated or discriminated against in the last 12 months, that is since (*date 12 months ago*), for any of the reasons on this card?

Please just tell me the letter next to the reasons that apply.

PROBE: What else?

D (Your accent)
K (Your ethnicity)
W (Your age)
T (Your language)
G (Your colour)
L (Your nationality)
B (Your mental ill-health)
H (Any other health problems or disability)
A (Your sex)
C (Your religious beliefs or faith)
P (Your sexual orientation)
E (Where you live)
O (Other reason)
N (No/None of these)

Racial discrimination - Scottish Crime and Justice Survey

First, do you think (problem) is a problem in Scotland today or not? RANDOMISE LIST

And now thinking about…..(repeated for each problem) IF NECESSARY: Do you think this is a problem in Scotland today, or not?

Racial Discrimination (Presented In Random Order From A List Of The Following)
Unemployment
Standards Of Health Care
Crime
Standards Of Housing
Drug Abuse
Standards Of Education
Alcohol Abuse
Standards Of Public Transport

Anti-Social Behaviour (Always Asked Last)

A big problem
A bit of a problem
Not a problem
Don't know

Harassment - Scottish Health Survey,[28] Module B questions to be asked either annually or biennially

Have you personally experienced harassment or abuse in the last 12 months, that is since (*date 12 months ago*), for any of the reasons on this card? Please just tell me the letter next to the reasons that apply.

PROBE: What else?

D (Your accent)
K (Your ethnicity)
W (Your age)
T (Your language)
G (Your colour)
L (Your nationality)
B (Your mental ill-health)
H (Any other health problems or disability)
A (Your sex)
C (Your religious beliefs or faith)
P (Your sexual orientation)
E (Where you live)
O (Other reason)
N (No/None of these)

FINANCIAL SECURITY/DEBT

Financial management - Scottish Household Survey (household part of questionnaire)

Taking everything together, which of the phrases on this card best describes how you and your household are managing financially these days?

Manage very well

[28] If after the Scottish Health Survey piloting and dress rehearsal this question is not included the following Scottish Household Survey question will be used

In the last three years, have you experienced any kind of verbal or physical harassment, bullying or violence in Scotland?

Yes

No

(On the most recent occasion) why do you think that happened?

Age / Sex / Race/nationality / Sexual orientation / Religion / Some other reason (write in)

Manage quite well
Get by alright
Don’t manage very well
Have some financial difficulties
Are in deep financial trouble
Refused
Don’t know

Financial inclusion - Scottish Household Survey, household questionnaire

Which of these accounts, if any, do you or your partner have?

Bank account
Building society account
Credit union account
Post office card account
No, none of these
Refused

PHYSICAL ENVIRONMENT

Neighbourhood satisfaction - Scottish Household Survey

Thinking now about the neighbourhood you live in, how would you rate it as a place to live?

Very good
Fairly good
Fairly poor
Very poor
No opinion
If pressed, define 'your neighbourhood' as 'the street you live in and the streets nearby' (urban) or 'the local area' (rural).

Noise - Scottish House Condition Survey

When you are indoors at home, how often, if ever, are you bothered by noise? If hears but not bothered, code 'Never'.

Very often
Fairly often
Not very often
Never
Don't know

Escape facility – no suitable data source

Greenspace - Scottish Household Survey

Leaving aside any private garden space that you might have, is there a park, green or other area of grass in this neighbourhood that you and your family can use that is safe and pleasant?

Yes

No

House condition - Scottish House Condition Survey

Overall, how do you rate the general condition of this house/flat?

Very good

Fairly good

Average/alright

Fairly poor

Very poor

Don't know

Overcrowding - Scottish House Condition Survey

In your view, does your house/flat have too few rooms, too many rooms, or about the right number for your current household?

Too few

Too many

About right

WORKING LIFE

Stress - Scottish Health Survey, Module B questions to be asked either annually or biennially (question from the Workplace Health and Safety Survey)

Some people tell us that their jobs are stressful. In general, how do you find your job?

Not at all stressful

mildly stressful

moderately stressful

very stressful

extremely stressful

don’t know

refused

Work-life balance - Scottish Health Survey, Module B questions to be asked either annually or biennially (question from the European Social Survey 2006/7 well-being module)

How satisfied are you with the balance between the time you spend on your paid work and the time you spend on other aspects of your life?

Extremely dissatisfied (0) to extremely satisfied (10), don’t know

Demand and Control - Scottish Health Survey, Module B questions to be asked either annually or biennially (question from the HSE Psychosocial Working Conditions Survey)

I'm going to read out some statements about working conditions in your main job. Each statement refers to your [+vWcurr+] job and I would like you to say how often certain circumstances or conditions apply by saying 'never', 'seldom', 'sometimes', 'often' or 'always' in response to the statement.

DEMAND: I have unrealistic time pressures at work

Always
Often
Sometimes
Seldom
Never

CONTROL: I have a choice in deciding how I do my work

Always
Often
Sometimes
Seldom
Never

Manager support and Colleague support Scottish Health Survey, Module B questions to be asked either annually or biennially (question from the HSE Psychosocial Working Conditions Survey)

Now I am going to read some statements about your work or workplace in your current job and I would like you to say whether you strongly disagree, tend to disagree, neutral, tend to agree or strongly agree with these statements.

MANAGER SUPPORT: My line manager encourages me at work

Strongly agree
Tend to agree
Neutral
Tend to disagree
Strongly disagree

COLLEAGUE SUPPORT: I get the help and support I need from colleagues at work

Strongly agree
Tend to agree
Neutral

Tend to disagree
Strongly

VIOLENCE

Partner abuse - Scottish Crime and Justice Survey (questions are to change in 2008. For information on the new questions contact Beth MacMaster Beth.MacMaster@scotland.gsi.gov.uk)

In the period since X did your partner or your ex-partner ever do either of the following? YOU CAN CHOOSE MORE THAN ONE ANSWER ….

Say frightening things to you (such as threatening to harm you or someone close to you, such as your children)
Use force towards you (this could include grabbing, pushing, shaking, hitting, kicking etc)
No
Don't want to answer

Neighbourhood Assault - Scottish Crime and Justice Survey
Composite from a range of questions
Scottish Crime and Justice Survey uses the term violence to cover assault and robbery, where robbery is defined as actual or attempted theft of personal property or cash directly from the person, accompanied by force or the threat of force. http://openscotland.gov.uk/Publications/2007/10/12094216/11)

Attitudes to violence – no suitable data source