Scottish Needs Assessment Programme

Needs Assessment
SNAP
A National Approach

PUBLIC HEALTH AND MENTAL HEALTH GAIN

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Scottish Needs Assessment Programme

Priority Services Network

Public Health and Mental Health Gain

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EXECUTIVE SUMMARY

Aims and objectives of report

The aim of this report is to help Health Boards work with others to:

- create a profile of the mental health status of their population

- assess the global needs for mental health promotion and treatment and care services

- evaluate population based and clinical outcomes.

Profiling mental health status

Target populations whose mental health status should be defined are :

- the public at higher risk

- the mentally unwell

- those with major disabilities as a result of severe and enduring mental health disorders

The report discusses methods which could be applied by Health Boards to define and measure the incidence and prevalence of mental health disorders in these and indicates how this would be aided by :

- obtaining access to OPCS data-sets from the recent studies on the prevalence of psychiatric morbidity and disability;

- studying the feasibility of establishing a network of mental health sentinel practices utilising the continuous morbidity recording scheme;

- reviewing the sampling community mental health team caseload data (based on the EPPIC system if pilot studies prove the current approach to be practicable) to derive indicative diagnostic information.

National agencies can contribute by :

- linking community based and SMR 4 hospital recording systems.;

- introducing in the latter a category for better recording of discharge planning within the NHS and whether the patient has been the subject of a care programme (CPA);

- reviewing the feasibility of an annual or biennial census on those receiving NHS continuing care in psychiatric hospitals.

Assessing needs for mental health promotion and treatment and care services

To help improve the health problems defined by profiling mental health status in the three target populations, Boards should assess the needs for:

- health promotion programmes for the public at higher risk;
- primary care services for the mentally unwell;
- community support networks for those with major disabilities as a result of chronic mental health disorders.

This last target population is at highest risk of ill health yet most difficult to reach. The health protection of at-risk groups has always been a public health priority. Ensuring adequate and co-ordinated provision for this vulnerable group should be seen in this light.

The report indicates key services to be developed and co-ordinated to meet identified needs and discusses certain methodological issues. It recommends that Health Boards should work with their partners in:

- developing programmes which incorporate a range of effective health promotion interventions ;
- assessing the need for different primary care interventions especially counselling;
- auditing the level of met and unmet need in those with severe chronic mental illness;
- ensuring the appropriate utilisation of services through defining and measuring case mix.

Evaluating population based and clinical outcomes

The report discusses two sets of outcome measures :

clinical, i.e. those related to the impact of specific interventions or services on groups of patients

population based, i.e. those related to the broader impact of a range of social, health, economic, cultural and environmental factors on groups within the population.

Health Boards should place more emphasis on ensuring that robust processes are in place to analyse and interpret clinical and population based outcome indicators.

Regarding clinical outcomes, the key properties of any outcome measure must be its usefulness to the service and therefore its potential value to clients.

Boards should review two parameters to monitor the influence locally of social and economic factors affecting mental health:

- the suicide rate (including undetermined deaths) by age, sex and deprivation category;

- the number of people discharged from hospital with a diagnosis of attempted or para-suicide per thousand population by age sex and deprivation category;

To help assess the impact of primary care services on the relatively large proportion of the population who are mentally unwell, an appropriate methodology should be developed for assessing the impact of interventions to treat depression on overall levels of social functioning in defined local populations.

With regard to those with major disabilities as a result of chronic mental health disorders, a study should be carried out into the feasibility of an annual census, using a standardised tool, of those receiving a formal care programme. This should permit linkage with an individual's previous years' assessments.

INTRODUCTION

Mental illness is one of the three priorities for the NHS in Scotland. This high profile is partly due to the growing recognition of mental health as a major public issue.

The recent report on the Roles and Responsibilities of Health Boards (Scottish Office), states that “safeguarding the health of, and defining the health care needs of, the local population are fundamental responsibilities of Boards.” This involves assessing people’s state of health and appraising how and to what extent it should be improved, i.e. what is the health gain.

The purpose of this report is to suggest ways in which a Health Board, through its public health professionals, can define and review the mental health gain in their resident population.

AN APPROACH TO MONITORING HEALTH GAIN

All Boards review health gain but mostly in the short to medium term as it relates to specific health care services. If safeguarding health is a fundamental responsibility of Health Boards it will require the development of longer term processes which seek to define and measure the factors outlined below:

HEALTH GAIN

DEFINE	***MEASURE***
populations and their health problems	mental health status
what needs to be done to help them	needs
whether what is done makes any difference	outcomes

PROFILING MENTAL HEALTH STATUS

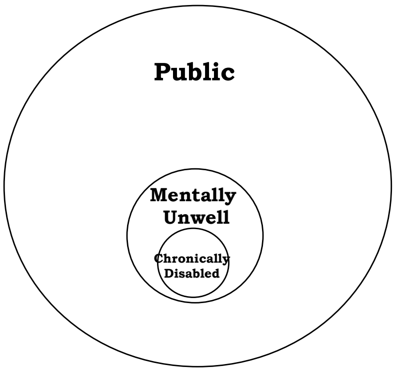
As indicated in the previous section, mental illness is not a homogenous entity but encompasses a range of problems, disorders and disabilities. These vary in the duration and severity of impact, from the time limited presence of relatively minor symptoms to enduring severe psychotic illness. Different types of professionals have contrasting perspectives on and vary in the degree of contact they have with the spectrum of mental health disorders. Prioritisation within this spectrum of dysfunction is an ever present topic of debate.

It is also clear that there is a high probability of an adult at some time in his/her life suffering an episode of mental ill health. The public at whole therefore is at risk of mental illness although this risk is higher at different times of life.

From a public health perspective therefore three overlapping target populations can be defined:

- the public at higher risk (numbering tens of thousands in most mainland Health Board areas)
- the mentally unwell (numbering at any one time thousands in a mainland Health Board area)
- those with major disabilities as a result of chronic mental health disorders (numbering at any one time hundreds in a mainland Health Board area)

Figure 1



TARGET POPULATIONS

There are varying definitions of the characteristics of these populations. A summary of their principal features is given in Table 1.

Table 1

MENTAL HEALTH TARGET POPULATIONS MAIN CHARACTERISTICS		
the public at higher risk (i)	**the mentally unwell (ii)**	**those with major disabilities as a result of chronic mental health disorders (iii)**
those undergoing considerable life or lifestyle changes particularly at and around: – bereavement – adolescence – childbirth – retirement – job loss – major illness	those with significant psychopathology, but without chronic disabling characteristics, especially: – depressive episode – phobias – obsessive compulsive disorder – panic disorder – generalised anxiety – mixed anxiety/depressive disorder	serious persistent or intermittent psychological disturbance with at least one of the following: – psychotic diagnosis, organic illness or injury – previous compulsory admissions – a long period in hospital (aggregate of length of stay of one year in last five years or three or more admissons with LOS greater than 3 months in the last five years) – serious risk of violence, self-injury or self-neglect – inability to live in community without support due to limited social skills
those who are socially and/or economically disadvantaged, especially: – the unemployed – the economically inactive – those with no educational qualifications – lone parents with children		

(i) CRAG/SCOTMEG Commission/Care Approach

(ii) OPCS Study (Melzer et al)

(iii) Audit Programme)

No one set of indicators can elucidate the size and nature of these target populations, trends in the disorders affecting them and help understand their causes. Resource constraints inhibit the ability of public health professionals to carry out regular in-depth studies in their local communities. Creating and updating a profile of the mental health status of the population will therefore involve collating data on mortality, morbidity and disability from various sources through what is often an iterative rather than purely scientific process. Examples of profiles developed by different health authorities have been collated by the Department of Health (Jenkins et al) - see appendix 1.

Mental Health Related Mortality

Suicide, although not a common cause of death, contributes a disproportionate number of years of life lost to the total community because of its relatively high incidence in early adulthood. It is the subject of great debate and concern, particularly due to the increase in rates in young men. Because of this it is important for Health Boards to collect and analyse suicide related data.

Interpretation is difficult because:

- the ascertainment and classification of deaths as suicides can vary in different settings due to moral and judicial aspects of death certification;

- although local factors can have an impact, national influences are likely to be more important.

Interpreting trends in suicide rates involves using other data-sets particularly those on deaths of an undetermined cause and attempted suicide and para-suicide. Between 60-90% of suicides have evidence of mental illness (Milne at al). Because it is a routinely collected statistic, the suicide rate can therefore act as a “tip of the iceberg” indicator of the mental health status of a population although caution must be exercised as changes in rates can be due to higher or lower case fatality as suicide methods alter.

Its use as an indicator of the effectiveness of specialist mental health care is more limited. Fewer than 20% of female suicides and 10% of male suicides have been psychiatric in-patients in the 12 months before their death. Improved detection, diagnosis and treatment of depressive illness at primary care level may have an effect in preventing a proportion of potential suicides (Rutz et al) but are unlikely to reverse overall trends.

Qualitative findings from reviews of suicides as critical incidents can be of use to specialist services when the individual concerned has been in contact with them. Collating and analysing reports could provide greater insight for service providers than statistical comparisons between suicide rates in those who have had an episode of psychiatric hospital care in the last twelve months.

Mental Health Related Morbidity and Disability

Community based studies

Given the complexities with psychiatric epidemiological research methodologies, it is usually beyond the means of a single Board to mount large scale definitive community based surveys. Information on the extent of mental illness and disability is therefore inferred from routine statistics (see below) or comes from applying prevalence and incidence rates obtained through major research. By far the most complete research data sets for these purposes is the OPCS Survey of Psychiatric Morbidity in Great Britain (Melzer et al) and to a lesser extent, the OPCS surveys of Disability in Great Britain (Martin et al). (See previous section - the Burden of Mental Illness).

However, an obstacle to effectively interpreting and utilising the findings in a local context is their presentation of data in fixed tables in documents. Gaining access to the complete data-set for further non-publishable uses would facilitate local applications.

Research findings from other parts of the world can be misleading because of social and cultural differences. However, prevalence and risk factor data for specific disorders (classified using DSM III) are available from the US National Institute of Mental Health’s Epidemiologic Catchment Area Programme. There are also review articles on most major mental health disorders which summarise results from different epidemiological studies (Eaton, Bromet, Howarth).

Primary care consultations

Data from primary care is already collected in England and Wales through the Royal College of General Practitioners national study. In Scotland the Continuous Morbidity Recording project developed by the Information Services Division in collaboration with the Department of General Practice of the University of Aberdeen is exploring the creation of an on-going database. Morbidity data are based on the Read coding system (currently version 2 with version 3 being developed). The standard national computing system GPASS is being updated to accommodate this. Initiatives to assess the scope for the employment of information generated from these initiatives are currently taking place in different sites.

The development of the READ coding system (Read) theoretically can help overcome one of the major problems with psychiatric morbidity recording methods in primary care - the unsatisfactory nature of ICD 9 and the DSM III classification systems. These were mainly developed to meet the requirements of hospital based specialist practice. However there is a lack of studies to compare the reliability and viability of the READ system in this field.

Another major difficulty with primary care based diagnostic recording methodologies (such as continuous morbidity recording) is the wide variation in case detection and ascertainment by GPs (Cooper). Studies have revealed that differences in prevalence rates for mental health disorders in patients registered with different general practitioners seems to be more related to the diagnostic habits of individual doctors than demographic and socio-economic variables (Shepherd). Partly to overcome this, standardised psychiatric screening tools have been developed. A common finding has been an under-diagnosis of mental illness by primary care practitioners. One study found that 46% of psychiatric cases were missed by GPs

(Marks et al). Doctors with greater interest in and concern for the individual patient and more experienced in patient management were more likely to detect mental ill health. Further work has shown that much depends on the GP's interview technique (Goldberg et al). This is particularly important in somatization - presenting psychological disturbance by physical complaints.

However, doubts have been raised as to the usefulness of case finding techniques in day to day practice partly because of variable findings on whether their application actually makes a difference to the outcome for the patient (Gonzales J. et al). One feature which has been highlighted is GPs' problems with predicting the prognosis of disorders which have been diagnosed. Another is the danger of medicalizing the range of unhappiness and unpleasantness experienced by individuals.

Given the burden on GPs and the need to elucidate the nature and scale of mental ill health in the community, greater emphasis should be placed on developing a robust and selective means of measuring psychiatric morbidity schemes in general practice. One avenue could be to build on the continuous morbidity recording development by establishing sentinel practices where more in-depth diagnostic recording could take place.

A recent study of general practice data retrieval in Northern Ireland using the GPASS system in sentinel practices revealed wide variation in rates which were attributed to different diagnostic behaviour between doctors (Baydell). It also emphasised that the completeness of recording by doctors depends upon there being clear purposes for using the data. Employing diagnostic data as an element in assessing the impact of primary care services on mental health would be one potential use. The need for specific validation studies with practices co-operating in the current continuous morbidity recording scheme is essential.

Referrals to community based specialist services

With more care taking place in the community and with this, a resurgence of the debate on the priorities for community based services, there is a need to define more clearly the groups of patients receiving services from community mental health teams, community psychiatric nurses and clinical psychologists. Data on their disorders can be obtained from either psychiatric case registers or routine NHS systems.

Prevalence data from specialist psychiatric case registers have been presented in the previous section. An obvious shortcoming of their use for morbidity monitoring, particularly of less severe conditions, is their dependence on the extent to which GPs recognise mental disturbance and the reasons for referral to another service. Furthermore, diagnostic variations are not only the property of GPs and psychiatrists are often not uniform in classification of morbidity (Fryers). Registers are expensive to maintain and are limited in number, there being only four in the UK.

Indicative morbidity data as a by-product of routine information systems designed for other purposes usually has a poorer record of diagnostic accuracy than specific registers which have better quality control systems (Fryers).

In Scotland the development of the community health data set by the EPPIC project (Effective Providing and Purchasing in the Community) presents an opportunity for extending the data collected on mental illness. Health Boards which have piloted the system are encountering difficulties at the data collection stage. It appears further work on streamlining is required to make the system more practicable to clinicians.

The patient based information is mainly problem oriented. But diagnostic data can be derived from sampling caseloads. Some Boards have developed case-mix indicators based on the Audit Commission (Audit Commission) (see page 2) or other criteria as supplementary data to be collected. In Lothian, community mental health profiles utilising aggregate data from EPPIC have been drawn up to compare differences between small areas.

Linkage between community based systems and the SMR 4 hospital recording system should be a priority. Developments in this area can establish the pattern of care being provided and facilitate cohort analysis of the impact of care on patient groups so that an on-going picture can be provided of the pattern of care.

Hospital admissions

The limitations of hospital information in monitoring ill health are well known. However, it is still the most commonly used data-set for public health purposes.

The SMR 4 hospital mental health record has been revised as part of the COPPISH development although changes have been few: the introduction of a significant facility classification, e.g. intensive psychiatric care unit. The introduction of ICD 10 should enable information to be linked with READ coding systems.

A key recent advance in information use has been the linkage of hospital records so that a patient rather than episode record can be created. As mentioned above, the linkage between the SMR4 and EPPIC community data set will facilitate the tracking groups of patients and following up cohorts. The SMR 4 should be enhanced with a “hook” for the link between hospital and community based records. Part of this should include the introduction of a category for better recording of discharge planning or whether the patient has been the subject of a care programme.

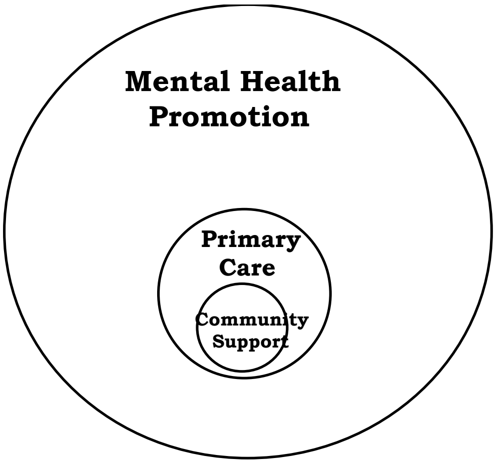
Although much reduced in number, there will still be a group of patients who will require psychiatric continuing care in a special facility from the NHS. Most Health Boards have reviewed the need for this service recently, many of them employing the Community Placement Questionnaire (Clifford et al). For people with learning disability and older people with physical disability tools have been developed to assess patients in continuing care and the resources needed to care for them. The possibility of extending this approach to adult mental health nationally through the introduction of an annual or biennial census should be reviewed.

ASSESSING NEEDS

All health board and local authorities in Scotland have been involved in developing mental health strategies. Most focus on those with mental illnesses and disabilities who require community care. However, as indicated above, mental ill health is a more widespread problem. National and local mental health policy should therefore deal with a range of issues relating to the target populations defined above. Ensuring health gain in the three target populations outlined previously entails distinct but overlapping approaches. These are for:

the public at risk	promoting mental health
the mentally unwell	ensuring adequate primary care
the chronically disabled	developing community support networks

APPROACHES TO MENTAL HEALTH



The public at higher risk - promoting mental health

The recent CRAG report detailed an approach to the primary prevention of mental illness (Scottish Office). Key health gain objectives for mental health promotion are:

To decrease the levels of mental health morbidity and mortality by :

- facilitating the development of coping behaviours in key at risk groups
- increasing public knowledge and combating stigma
- promoting improvements in social and economic conditions

To promote mental well-being by:

- seeking to influence public policies so that they facilitate the development of self-esteem in individuals and families
- advocating the improvement of local and work environments which limit factors disposing to mental ill health
- facilitating the uptake of the right type of mental health services

One approach to this has been defining factors which detract from or enhance mental health. Risk factors for mental health have been grouped into four sets:

- organic factors: genetic disorders or traumatic injury or degenerative disease
- stress factors: demands greater than an individual capacity to meet
- social factors: social stress due to discrimination or disadvantage
- familial factors: relationship dysfunction in families

Factors enhancing mental health can also be placed in three groups:

- coping skills: abilities to enable people deal with daily problems
- self esteem: an appreciation of self worth
- support mechanisms: situations/events where people can discuss a mutual problem
- family support: encouraging parent/child bonding, cohesive home envoronments and the absence of abuse

The importance of establishing the effectiveness of specific health interventions has been highlighted in the recent CRAG report on the primary prevention of mental illness (Scottish Office). There have however been a number of studies which have shown the effectiveness of interventions in preventing mental disorder (Killoran Ross) (see Appendix 2). Obviously it is impossible for a single intervention delivered at a single point in time to have a life time effect. Boards therefore should work with their partners in developing programmes which incorporate a range of effective interventions.

Improving mental well-being requires the amelioration of the social and economic factors which lead to mental ill health. Obviously, this depends upon forces which are outwith the control of local NHS or government agencies. However, Boards can seek to influence this agenda and produce change at a more micro level through their health promotion programmes, many of which impact on mental well-being. Key programmes in this respect are:

- the development of health alliances
- health promotion for young people
- community development work with socially disadvantaged groups

Lastly, the distress of sufferers and the ability to cope is significantly affected by general attitudes to mental health. These are often based on fear and ignorance and the perception that it is "weak" to be seen not to be coping. These attitudes are not uncommonly fuelled by media reporting creating a climate of risk and danger. Boards should work with local media and patients and carer groups to develop means of promoting a more positive image towards mental health and counteracting stigma.

The mentally unwell - ensuring adequate primary care

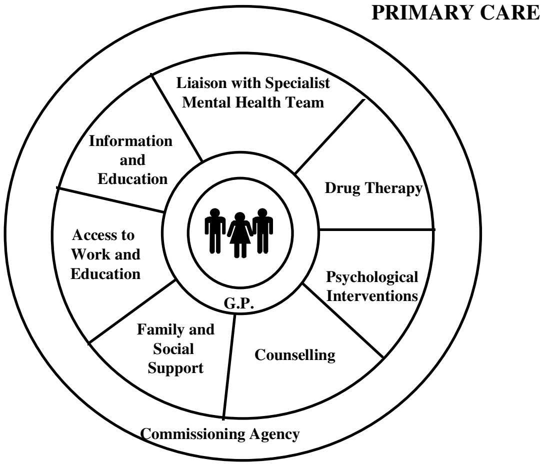
As indicated in the SNAP report "The Burden of Mental Health Problems", 14% of adults will suffer from neurotic psychopathology in a given week and 7% will consult with a general practitioner in a year. Meeting the needs of this group most obviously resides in primary care and other community based services.

Key health gain objectives for primary care are:

- To improve social functioning by:
    - ensuring the early recognition of mental illness
    - controlling symptomatology
    - preventing relapse

Figure 3 shows the range of locally based services required to help the mentally unwell. Most of these are controlled or can be accessed through primary care services. It is the function of Health Boards in partnership with primary care professionals to develop a framework for commissioning these services.

Figure 3



A key component of local services is liaison with specialist mental health teams. Specialist assessment by psychiatrists to aid the primary care management of patients and to diagnose those with more severe and enduring problems is essential in ensuring effective primary mental health care. Boards and Trusts should facilitate effective joint working among general psychiatrists, general practitioners and other mental health professionals.

General practitioners are key figures in assessing the need for these services and co-ordinating their delivery. However, one should not forget that much of the help required is not necessarily health care, e.g. counselling can be available either through the NHS or from the voluntary sector, e.g. the Marriage Guidance Council. Indeed the increase in NHS counselling services, particularly with the advent of GP fundholding, has raised concerns of clinical effectiveness (debatable), rationing (prioritising the mentally unwell over the severely disabled) and service fragmentation (particularly of community psychiatric nursing services). Addressing these issues should be a priority.

Those with severe and enduring mental health disorders - developing community support networks

This target group is significantly disabled as a result of their illness and require regular social, housing and health care support. Meeting their needs requires close collaboration among a range of agencies particularly when as at present, great changes are taking place in the organisation, modes and settings for providing these supports. Review of experience in the United States has highlighted the need to focus on service users' quality of life and to seek to improve this through creating a network of accessible community supports (Turner-Crowson).

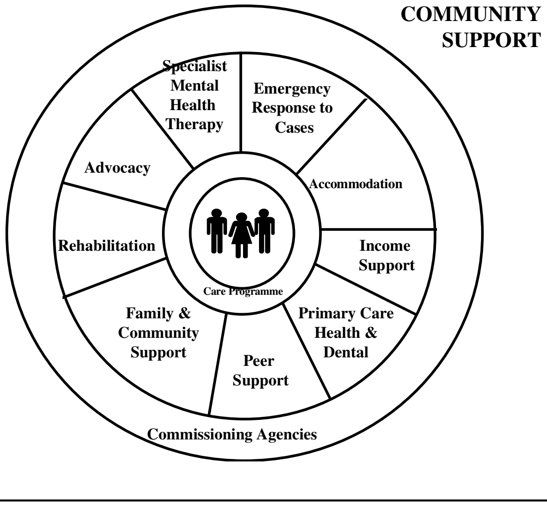
Key objectives for community support networks are:

- To improve the quality of life of those with chronic disabling mental health services by:
  - identifying and reviewing the need for care
  - maintaining and improving social functioning
  - maintaining and improving mental health status
  - preventing and reducing relapses and their severity

The main elements of a community support network are shown in Figure 4.

The need for robust joint commissioning arrangements to develop these networks is obvious. However, currently many of the key players such as local enterprise companies or GPs are absent. There is a need to involve these appropriately without being captured in a bureaucratic web.

Figure 4



This target population is at highest risk of ill health yet most difficult to reach. They are often less adept at making their voice heard but more likely to place stress on their families and others. The health protection of at-risk groups has always been a public health priority. Ensuring adequate and co-ordinated provision for this vulnerable group should be seen in this light.

Key public health contributions to this objective are:

a) Auditing the level of met and unmet need

Two approaches have been taken:

- community surveys of specific at risk groups particularly the homeless

The extent of mental health problems amongst homeless people is difficult to estimate. Surveys of homeless men in hostels have found high levels of psychotic disorders (Priest, Lodge). Others have targeted those living in DSS paid bed and breakfast facilities. The importance of health authorities being involved locally in assessing the needs of the homeless has been highlighted by the Chief Medical Officer. Most Boards have evolved approaches to this as part of the formulation of the Chief Medical Officers report on the subject. These should continue on a regular basis.

- case finding through hospital and primary care record reviews and follow up review of social and health care needs

A recent Scottish study reviewed the needs of a one in three sample (obtained from hospital and general practice records) of patients with a diagnosis of severe mental disorder in a local government district (Murray et al). Their main problems and needs were defined using an adaptation of the MRC Needs for Care Assessment (Brewin, Bebbington) - the Cardinal Needs Schedule (Marshall). The schedule which is easier to use than the fuller needs for care assessment highlights clinical and social needs which are defined as a problem for which a suitable intervention exists. The most frequent unmet clinical needs identified were related to anxiety and depression while social needs were for help with social life due to isolation.

A different approach was utilised by The Sainsbury Centre for Mental Health on behalf of Bexley and Greenwich Health Commission (Ford et al). A one day needs assessment was taken out on a list of all those using specialist mental health services, social services and appropriate voluntary sector services. The proportion meeting “most in need” criteria" was estimated. 3.2 per thousand population aged 15-64 years were found to meet the criteria. Again social isolation was a major problem. An important finding was that services were not targeted on those most in need. A shortcoming of this approach is that it is based on the unfounded assumption that those most in need are known to services.

b) Assessing the appropriate utilisation of services through defining and measuring case mix

Case mix measures are important to help assess how well admission criteria for services are being met or to gauge the proportion of severe mentally ill in the caseloads of community mental health teams. Local applications have included the employment of the Audit Commission’s ABC categorisation (Audit Commission) and the DSM GATT score (American Psychiatric Association).

EVALUATING OUTCOMES

There is a current imperative to develop indicators which attempt to measure the health gain resulting from health care interventions.

Broadly there are two different levels of health outcomes:

- clinical, i.e. those related to the impact of specific interventions or services on groups of patients
- population, i.e. those related to the broader impact of a range of social, health, economic, cultural and environmental factors on groups within the population.

These overlap and indeed assessing outcomes at one level can only be achieved through reference to the other. Assessing health outcomes is not simply a matter of defining measures or targets but a process involving several stages (see Tableon page 15). The feasibility of this process outside of a research environment has been queried. Attribution inevitably involves a degree of value judgement. There is conflict between containing health care transaction costs and establishing effective measurement systems.

On the other hand, for better decision making and more importantly as part of every health care professional's duty to their patients or public, establishing the outcome of care must be accorded the highest value at all levels of the NHS.

The public health role in this process is twofold :

- collaborating with clinicians and providers in developing clinical outcome measurement processes and ensuring their relevant inclusion as key elements in the Board's commissioning process;
- linking with other agencies in reviewing the impact of overall policy on target populations and acting as an advocate for change.

Development of Clinical Outcome Indicators

The development of clinical outcomes in mental health has been led nationally in Scotland by CRAG. The purpose of this section is to offer comments on how Health Board public health professionals can work with providers in ensuring their introduction and utilisation.

The key properties of any outcome measure must be its usefulness to the service and therefore its potential value to clients. Service standards and outcomes may be misleading if they do not take into account characteristics of a service (e.g. urban vs rural, ethnic mix), and of the clients served (Bachrach). This could include the production of different standards and outcome measures for people who have never had an acute hospital admission, from the outcomes expected for individuals who have been discharged after many years in a hospital.

Setting outcome measures is inevitably accompanied by value judgements. Even when results are interpreted in the light of local knowledge, there is a danger that providers and/or commissioners might assume that there is a “correct” result or an appropriate percentage which is sought by the service commissioner.

THE OUTCOME PROCESS

defining the ***target population*** or casemix of patients

defining the ***health related objectives*** to be sought

defining the ***service or intervention*** to be assessed

selecting an ***indicator which is relevant to the objective*** and related to the service involved and defining the constraints associated with the indicator

establishing a ***baseline measure and the expectation of change*** in its level resulting from the service or intervention to be assessed in the period between measurements

defining the ***contextual data*** required for interpretation especially that related to :

* the quality and volume of activity of the service involved

* demographic, social and other trends.

collecting and collating the relevant data

interpreting the outcome indicator through analysis of :

* expected versus actual change

* comparison with other areas

* changes in trends

* estimating the effect of other factors, e.g. changes in case mix

attributing whether in fact any change is due to the service or intervention.

The values underlying standards and outcome measures must be explicit: it is naive to imagine that process or outcome measures will be welcomed by all. For example, users, professionals and relatives or carers may have markedly different views of the value of medication, and therefore will attach different priorities and values to measures of compliance (Bachrach).

Measuring outcomes usually involves the use of rating scales. There are many different types of scales. When considering one or more for local use, a review (Ogles) has suggested that:

(i) Selection should be pragmatic in terms of time, expense and clinical value - easy to administer and score, inexpensive and easily understood by clients and staff

(ii) Multiple sources of data should be collected, e.g. views of clients, service providers etc.

(iii) Multiple content areas of outcome should be considered (see below) allowing for individualised treatment plans and consideration of both problem areas and functioning

(iv) Measurement tools should be psychometrically sound - i.e. valid, reliable, able to measure change. Where services choose to develop their own tools, they must demonstrate that the psychometric properties of the instrument have been reviewed.

As many authors have pointed out, statistical significance is usually based on the average measure for a group, and it may be impossible to interpret results for an individual client. In addition, clinical significance measures the magnitude of a change and not its clinical relevance - clearly large groups can show statistically significant changes without any useful clinical improvement. With small numbers and no control group, statistical significance becomes less relevant than clinical significance, defined *as "a means whereby individual outcome can be assessed in a manner sensitive to both the magnitude and the relevance of the changes made*" (Ogles et al). Ways of presenting this to clinicians include the development of graphs showing cut off levels calculated from the literature, and summary measures, such as percentage improvement.

Dimensions	*Components*
Area Measured	Cognition
	Affect
	Behaviour
Social Level	Intrapersonal
	Interpersonal
	Social Role
Source of Rating	Self
	Therapist
	Trained observer
	Relevant other
	Institutional
Technical Aspects	Global measurements/ Specific areas
	Descriptive measurements/evaluation
	Single measurements/repeated measurements
Time Orientation	Trait
	State

Source: Adapted from Ogles and Lunnen (1996)

Lastly, the time and effort expended in measuring outcomes will only be worthwhile if they demonstrate that the service is achieving its goals or that current interventions are effective and value for money and, if not, that they lead to appropriate changes. Some find this threatening particularly if they themselves are not involved in or indeed in control of decision making over what interventions are to be stopped because of their ineffectiveness. It will be impossible to gain complete consensus on this issue. Public health professionals can play a major part in ensuring clinical outcomes matter (Burns) by :

- ensuring that the commissioning process incorporates the means to measure and interpret outcome indicators and ensuring that sufficient incentives exist to reward those who change practice or service delivery as a result of them

- developing appropriate, comprehensible methods of feeding back information to clinicians, providers and interested groups.

Population Health Outcome Indicators

This section proposes a way forward for each of the target populations described previously. However, as indicated above, progress can only be made after reviewing the feasibility of each step in the process outlined and developing a project plan in accord with resource availability.

The Public at Higher Risk

The greatest impact on mental health comes not from health services but wider social, economic and cultural factors. The impact of specific or non-specific health promotion interventions or programmes are difficult to disentangle from the influence of these. Looking at population mental health gain should involve:

- reviewing trends in indicators of the levels of mental ill health and assessing the influence of social, economic and other factors

- developing specific measures to assess the effect of preventive measures on mental health related knowledge, attitudes and behaviours.

Attributing the contribution of the latter to the former will be extremely difficult.

With regard to monitoring the impact of broader social and economic factors on mental health Board should review two parameters :

- the suicide rate (including deaths of an undetermined cause) by age, sex and deprivation category- preferably the DEPCAT measure

- the number of people discharged from hospital with a diagnosis of attempted or para-suicide per thousand population by age sex and deprivation category preferably the DEPCAT measure

As mentioned previously interpreting changes in these requires contextual data. Much of this will come from the census. However, in inter-censal years the validity of this in interpreting trends in rates in small areas is diminished. Collaborating with primary care providers, social services and other agencies in obtaining softer yet more up to data information is one way of helping explain trends.

The Mentally Unwell

Most work on outcomes of primary mental health care concentrates on specific treatments. Little attempts to identify the contribution of primary care services to reducing overall levels of mental illness and disability in a given community. One problem alluded to already is the variation in doctors' diagnostic practice. A further difficulty is separating the effect of a range of primary care interventions from changes in social and economic circumstances.

One population based study took place in the Swedish island of Gotland (Rutz). It assessed at three year intervals the impact of an educational programme about the management of depression in primary care on the frequency of sickness absence, psychiatric hospitalisation and the frequency of suicide. It revealed that the programme was cost beneficial but of time limited effect, although the attribution of the effect on suicide rates has been a matter of debate.

The methodology of monitoring trends in defined local populations should be modifiable for Scottish purposes. Such studies could include immediate post treatment and six month follow up assessment of a sample of residents in a given locality receiving anti depressive therapy from primary care services utilising an appropriate measurement tool e.g. the Beck Depression Inventory.

Those with major disabilities as a result of chronic mental health disorders

The introduction of the care programme approach and a move towards standardised criteria for its application should provide an opportunity for data collection on the relative size of the most vulnerable group of those with mental health problems. The importance of auditing the representativeness of those in contact with services has been referred to previously. The significance of social services input on the outcome of mental health services has been highlighted by findings that improving mental state is of itself unlikely to be sufficient in impacting on social functioning and quality of life.

The introduction of standardised assessment tools for those receiving services through the care programme approach would aid greatly the evaluation of the impact of community support services, including specialist mental health services, on the target population. The development of the Health of the Nation Outcome Scale (HONUS) should facilitate this. Another possibility is the utilisation of one or more of the schedules developed by the Team for the Assessment of Psychiatric Measures (TAPS) (Leff et al).

A study should be carried out into the feasibility of an annual census using a standardised tool, of those receiving a formal care programme. This should permit linkage with an individual's previous years' assessments.

SUMMARY OF RECOMMENDATIONS

In accord with the Shields reports recommendations on the roles and responsibilities, Health Boards should, through public health professionals, work with others to:

- create a profile of the mental health status of their population
- assess the global needs for mental health promotion and treatment and care services
- evaluate population based and clinical outcomes.

Profiling Mental Health Status

Target populations for monitoring mental health are:

- the public at higher risk
- the mentally unwell
- those with major disabilities as a result of chronic mental health disorders.

Health Boards should continue to develop means of reviewing the mental health status of these populations which involve collating data from various sources.

The development of profiles would be aided through obtaining access to OPCS data-sets from the recent studies in the prevalence of psychiatric morbidity and disability.

The feasibility of establishing a network of mental health sentinel practices utilising the continuous morbidity recording scheme should be carried out. The need for specific validation studies with co-operating practices is essential.

Boards should review the possibilities of sampling community mental health team caseload data (based on the EPPIC system if pilot studies prove the current approach to be practicable) to derive indicative diagnostic information.

Linkage between community based and the SMR 4 hospital recording systems should be a priority. The SMR 4 hospital record should be enhanced with a “hook” for the link between hospital and community based records. Part of this should include the introduction of a category for better recording of discharge planning or whether the patient has been the subject of a care programme.

The feasibility of an annual or biennial census on those receiving NHS continuing care in psychiatric hospitals should be reviewed.

Assessing Needs

Boards should have a strategic view of the needs for the following groups of services:

- health promotion programmes
- primary care services
- community support networks

As identified in the recent CRAG report, Boards should work with identified partners in developing programmes which incorporate a range of effective health promotion interventions.

Board professionals should link with primary care practitioners in assessing the need for different primary care interventions, especially counselling.

Boards should, on a regular basis and as often as resources permit, carry out:

a) audits of the level of met and unmet need in those with severe chronic mental illness

b) assessments of the appropriate utilisation of services through defining and measuring case mix

Evaluating Outcomes

In addition to defining measures, Board should ensure that robust processes are in place to analyse and interpret outcome indicators.

Clinical Outcomes

Board should work with practitioners and providers in ensuring that the key properties of any outcome measure must be its usefulness to the service and therefore its potential value to clients.

Population Based Outcome Measures

With regard to monitoring the impact of social and economic factors influencing mental health, Boards should review two parameters:

- the suicide rate by age (five year bands from 15-19 y.o.), sex and deprivation category- preferably the bands 1 to 7 of the DEPCAT measure

- the number of people discharged from hospital with a diagnosis of attempted or para-suicide per thousand population by age (five year bands from 15-19 y.o.), sex and deprivation category preferably bands 1 to 7 of the DEPCAT measure

With regard to the relatively large proportion of the population who are mentally unwell and receive primary care, an appropriate methodology should be developed for assessing the impact of interventions to treat depression on overall levels of social functioning in defined local populations.

With regard to those with major disabilities as a result of chronic mental health disorders, a study should be carried out into the feasibility of an annual census, using a standardised tool, of those receiving a formal care programme. This should permit linkage with an individual’s previous years’ assessments.

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<table>
<tr><td colspan="5">Examples of mental health profiles: Wandsworth Health Authority*</td></tr>
<tr><td>Mortality
∗ suicides
∗ excess deaths in those with severe mental illness</td><td colspan="4">analysis by small area population</td></tr>
<tr><td>Service Use by Catchment Area
community teams
∗ day hospitals
∗ acute psychiatry</td><td colspan="4">rates per thousand population</td></tr>
<tr><td>Service Use</td><td colspan="4">Rates per thousand population</td></tr>
<tr><td></td><td colspan="2">Expected</td><td colspan="2">Actual</td></tr>
<tr><td>GP consultations for mental disorders</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Out-patient attendances</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Day Hospital Attendance</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Hospital Admissions</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Morbidity</td><td colspan="4">Numbers</td></tr>
<tr><td></td><td colspan="2">Expected</td><td colspan="2">Actual</td></tr>
<tr><td>In community</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Treated in General Practice</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Referred to Mental Health Service</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Admitted to hospital</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td>Specific Mental Disorders</td><td colspan="2">Expected</td><td colspan="2">Actual</td></tr>
<tr><td></td><td>Point Pre-valence</td><td>GP Consul-tations</td><td>In-patient Episodes</td><td>Long Term Case Register</td></tr>
<tr><td>Schizophrenia</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Affective Psychosis</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Depression</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Anxiety related</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Dementia</td><td></td><td></td><td></td><td></td></tr>
</table>

* (Jenkins et al)

Examples of mental health profiles: Derbyshire FHSA, South and North Derbyshire Health Authorities*		
General Practitioner Morbidity Survey	One practice as representative of each locality in area	One in ten sample of GP records
Prescribing data	Number of scripts for mental health drugs	English PACT data
Hospital admissions	Numbers by diagnosis by hospital	No rates provided
Out-patient clinic attendances	Numbers by clinic	No diagnoses provided
Community Mental Health Team Caseloads	Numbers by locality	No diagnoses provided

* (Jenkins et al)

PREVENTIVE INTERVENTION PROGRAMMES USING RANDOMISED CONTROLLED TRIAL DESIGN

	Targeted Population Group/Sample Size When Project Began	Risk Factors Addressed	Outcomes (for total int group or subgrou
Infants Prenatal/Early Infancy Project	Selective/ N=400	Economic deprivation, maternal prenatal health and damaging behaviours, poor family management practices	Improved maternal diet and r smoking during pregnancy, f term deliveries, higher-birth v babies, less child abuse
Early Intervention for Pre-term Infants	Selective/ N=60	Teenage parenthood, low socio-economic status, pre-term delivery	Better parenting behaviours a of mothers, better cognitive d better physical development, temperament of infants.
Infant Health and Development Program	Selective/ N=985	Low birth weight, poor family management practices, academic failure, early behaviour problems.	Better cognitive competence behaviour problems.
Young Children Houston Parent-Child Development Centre	Selective/ N=-700	Economic deprivation, academic failure, early behaviour problems, poor family management practices.	Better family management p fewer behaviour problems
Mother-Child Home Program of Verbal Interaction Project	Selective/ N=156	Academic failure, economic deprivation, poor family management practices, early behaviour problems	Better family management p better cognitive competence.
Parent-Child Interaction Training	Indicated/ N=105	Economic deprivation, early behaviour problems, poor family management practices, maternal depressive symptoms	Lower rates of attention deficits conduct problems

Appendix 2: contd

PREVENTIVE INTERVENTION PROGRAMMES USING RANDOMISED CONTROLLED TRIAL DESIGN

	Targeted Population Group/ Sample Size When Project Began	Risk Factors Addressed	Outcomes (for total interventi or subgroups)
Primary School Children Assertiveness Training Program (program 1)	Universal/ N=343	Early behaviour problems, academic failure	Improved social assertiveness, i academic performance.
Children of Divorce Intervention Program	Selective/ N=75	Marital conflict and separation, early conduct problems	Lower anxiety, fewer learning pr better adjustment
Family Bereavement Program	Selective/ N=72	Child bereavement, poor family management practices, early behaviour problems	Lower levels of symptoms of de and conduct disorder.
Adolescents			
Positive Youth Development Program	Universal/ N=282	Early drug use onset, favourable attitudes toward drugs, social influences to use.	Better coping skills, better stress management strategies, better c resolution and impulse control, l excessive alcohol use.
Adolescent Alcohol Prevention Trial	Universal/ N=3011	Attitudes favourable to the use of drugs, social influences to use, early onset of drug use.	Lower rates of tobacco, alcohol, marijuana use, lower prevalence problem alcohol use and drunke