



What are the arguments for community-based mental health care?

August 2003

**By: Graham Thornicroft, Institute of Psychiatry,
Kings College London
Michele Tansella, Section of Psychiatry, University of Verona**

ABSTRACT

Health Evidence Network (HEN) synthesis report on community based mental health

Mental disorders are responsible for about 12 - 15 % of the world's total disability – more than cardiovascular diseases, and twice as much as cancer. Their impact on daily life is even more extensive, accounting for more than 30% of all years lived with disability

This report is HEN's response to a question from a decision-maker. It provides a synthesis of the best available evidence, including a summary of the main findings and policy options related to the issue.

HEN, initiated and coordinated by the WHO Regional Office for Europe, is an information service for public health and health care decision-makers in the WHO European Region. Other interested parties might also benefit from HEN.

Keywords

COMMUNITY MENTAL HEALTH SERVICES
QUALITY OF CARE
COMPARATIVE ANALYSIS
DECISION SUPPORT TECHNIQUES
EUROPE

Address requests about publications of the WHO Regional Office to:

- *by e-mail*
publicationrequests@euro.who.int (for copies of publications)
permissions@euro.who.int (for permission to reproduce them)
pubrights@euro.who.int (for permission to translate them)
- *by post*
Publications
WHO Regional Office for Europe
Scherfigsvej 8
DK-2100 Copenhagen Ø, Denmark

© World Health Organization 2003

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

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

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The World Health Organization does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use. The views expressed by authors or editors do not necessarily represent the decisions or the stated policy of the World Health Organization.

Summary	4
The issue	4
Findings.....	4
Policy considerations	4
Introduction.....	6
Sources for this review.....	6
Historical background.....	6
Integrated service components.....	7
The components of a balanced care mental health service	9
Primary care mental health with specialist backup.....	9
Mainstream mental health care	10
Specialized and differentiated mental health services	13
Conclusions.....	16
Annex 1. Key characteristics of the major periods in the historical development of mental health care systems (4).....	17
Annex 2. Key principles for balanced community-based mental health services	18
References.....	19

Summary

The issue

Mental disorders are responsible for about 12 - 15 % of the world's total disability – more than cardiovascular diseases, and twice as much as cancer. Their impact on daily life is even more extensive, accounting for more than 30% of all years lived with disability

Findings

There are no persuasive arguments or data to support a hospital-only approach. Nor is there any scientific evidence that community services alone can provide satisfactory comprehensive care. Instead, the weight of professional opinion and results from available studies support balanced care.

Balanced care is essentially community-based, but hospitals play an important backup role. This means that mental health services are provided in normal community settings close to the population served, and hospital stays are as brief as possible, arranged promptly and employed only when necessary.

It is important to coordinate the efforts of various mental health services, whether governmental, nongovernmental or private, and to ensure that the interfaces between them function properly.

Cost-effectiveness studies on deinstitutionalization and of community mental health care teams have demonstrated that quality of care is closely related to expenditure. Community-based mental health services generally cost the same as the hospital-based services they replace.

Policy considerations

The priorities and policy goals for a particular country depend largely on the financial resources available.

- *Low-resource countries* should focus on establishing and improving mental health services within primary care settings, using specialist services as a backup.
- *Medium-resource countries* should also seek to provide related components such as outpatient clinics, community mental health care teams, acute inpatient care, long-term community-based residential care and occupational care.
- In addition to such measures, *high-resource countries* should provide forms of more differentiated care such as specialized ambulatory clinics and community mental health care teams, assertive community treatment, and alternatives to acute inpatient care, long-term community residential care and vocational rehabilitation.

The authors of this HEN synthesis report is:

Graham Thornicroft,
Professor of Community Psychiatry,
Section of Community Psychiatry (PRiSM),
Health Service Research Department,
Institute of Psychiatry, Kings College London,
De Crespigny Park,
London SE5 8AF, England.

Tel 00 44 207 848 0735
Fax 00 44 207 277 1462
Email g.thornicroft@iop.kcl.ac.uk

Michele Tansella
Professor of Psychiatry,
Department of Medicine and Public Health,
Section of Psychiatry, University of Verona,
Verona, Italy

Tel 00 39 045 50 88 60
Fax 00 39 045 50 08 73
Email michele.tansella@univr.it

Acknowledgements We are pleased to acknowledge the constructive contributions of Professor Sir David Goldberg and the anonymous WHO HEN reviewers to this paper.

Introduction

Mental disorders have a profound effect on public health. While there are different ways to express the consequences of a given medical condition, the traditional way of assessing health burden – in terms of incidence, prevalence and mortality – is not adequate for chronic and disabling conditions. The best way to measure the global burden of mental diseases may be disability-adjusted life years (DALYs)¹. (1, 2). According to this measure, it is estimated that mental health disorders accounted for about 12 - 15 % of total disability in the world in 2000. This figure is twice the level of disability caused by all forms of cancer, and higher than that caused by cardiovascular diseases. Considering the disability component alone, without mortality, neuropsychiatric disorders account for more than 30 % of all years lived with disability worldwide.

In the last two decades, there has been a debate between those who favour providing mental health treatment and care in hospitals, and those who prefer providing it in community settings, primarily or even exclusively. A third alternative is to utilize both community services and hospital care. In this *balanced care model*, the focus is on providing services in normal community settings close to the population served, while hospital stays are as brief as possible, promptly arranged and used only when necessary. This balanced interpretation of community-based services goes beyond the rhetoric about whether hospital care or community care is better, and instead encourages consideration of what *blend* of approaches is best suited to a particular area at a particular time.

This report addresses several key policy-making questions, including the following.

- To what degree should mental health services be provided in community settings or in hospital settings?
- Which mental health services are considered essential?
- What should the mental health care priorities be in, respectively, low-, medium- and high-resource countries?
- What are the arguments and the evidence in the field?

The aim of this document is to provide policy-makers with a synthesis of the research evidence and other information available on these topics. It discusses services intended mainly for adults and does not directly address the mental health care of children, older people or those suffering primarily from the misuse of alcohol or other drugs.

Sources for this review

In preparing this report, articles from two sources were used. First, MEDLINE was searched, from 1980 through April 2003, with the search string “mental and community and hospital”, initially identifying more than 3000 articles. After the search was restricted to English-language review articles, 141 remained. Second, Cochrane Library was searched for any other systematic reviews on the topic.

Historical background

The recent history of mental health services can be divided into three periods, covering the rise of the asylum and traditional hospital care; the decline of the asylum; and the appearance of balanced care (4). Annex 1 summarizes the key characteristics of each period.

¹ DALYs take into account years of life lost due to premature death, together with years of life lost due to disability.

Period 1. The rise of the asylum occurred between approximately 1880 and 1950 in many more economically developed countries (5). It was marked by the construction and enlargement of asylums, remote from the populations they served, offering mainly custodial containment and the bare necessities of survival to patients with a wide range of clinical disorders and social abnormalities. There is now evidence that the asylum model provides very poor levels of treatment and care (6). Nevertheless, in some countries, especially those that are less developed economically, almost all mental health services are provided through asylum care.

Period 2. The decline of the asylum occurred in many economically developed countries after about 1950, when the model's shortcomings were demonstrated (7). Perhaps the most profound of its failures were the effects it had on patients, including the progressive loss of life skills and the accumulation of "deficit symptoms" or "institutionalism" (7). Other concerns included repeated cases of ill-treatment to patients, the geographical and professional isolation of institutions and their staffs, poor reporting and accounting procedures, failures of management, leadership and administration, insufficient finances, ineffective staff training, and inadequate inspection and quality assurance measures. The resulting response was deinstitutionalization, which was characterized by three essential components:

- preventing inappropriate mental hospital admissions by providing community facilities;
- discharging long-term institutional patients who have received adequate preparation into the community; and
- establishing and maintaining community support systems for patients who are not institutionalized.

Period 3. Balanced care incorporates a range of community-based services within local settings. In developing these services, which have yet to begin in some places, it is important to continue providing all the benefits of hospital care while avoiding its negative aspects. The balanced care approach seeks to provide services that:

- are close to home, including modern hospitals for acute admissions and long-term residential facilities in the community;
- are mobile, including services that provide home treatment;
- address disabilities as well as symptoms;
- provide treatment and care specific to the diagnosis and needs of each individual;
- adhere to international conventions on human rights;
- reflect the priorities of the service users themselves; and
- are coordinated among mental health care providers and agencies.

Integrated service components

The various elements of balanced care need to be well integrated. The *segmental approach*, in which programmes such as day care centres or ambulatory clinics operate largely independently of other elements, outside of a coherently organized system, should be avoided. Much more effective is the *integrated approach* to services, in which service components are interrelated parts of a whole system of care.(4) Operational details, such as the degree to which individual elements should be linked to each other, depend upon the choice of guiding principles. Balanced community-based mental health services reflect several key principles: autonomy, continuity, effectiveness, accessibility, comprehensiveness, equity, accountability, coordination and efficiency (8) (see Annex 2 for definitions).

Table 1 presents a scheme to assist decision-making about balanced mental health services. The table is organized along the lines proposed by WHO's *World health report* on mental health (2). There are

no agreed-upon socioeconomic criteria (such as gross national product per person) to determine which countries fall within each of these resource groupings.

Table 1. Mental health service components for low-, medium- and high-resource countries

Low-resource countries	Medium-resource countries	High-resource countries
(a) Primary care mental health with specialist backup	(a) Primary care mental health with specialist backup and (b) Mainstream mental health care	(a) Primary care mental health with specialist backup and (b) Mainstream mental health care and (c) Specialized/differentiated mental health services
Screening and assessment by primary care staff	Outpatient/ambulatory clinics	Specialized clinics addressing specific disorders or patient groups, including: • eating disorders • dual diagnoses • treatment-resistant affective disorders • adolescent services
Talking treatments, including counselling and advice		
Pharmacological treatment	Community mental health teams (CMHTs)	Specialized CMHTs, including: • early intervention teams • assertive community treatment (ACT) teams
Liaison and training with mental health specialist staff, when available	Acute inpatient care	Alternatives to acute hospital admission, including: • home treatment/crisis resolution teams • crisis/respite houses • acute day hospitals
Limited specialist backup for: • training • consultation in complex cases • inpatient assessment and treatment in cases which cannot be managed in primary care	Long-term community-based residential care	Alternative types of long-stay community residential care, including: • intensive 24-hour staffed residential facilities • less intensively staffed accommodation • independent accommodation
	Occupational/day care	Alternative forms of occupational and vocational rehabilitation: • sheltered workshops • supervised work placements • cooperative work schemes • self-help and user groups • clubhouses/transitional employment programmes • vocational rehabilitation • individual placement and support services

The table indicates that in countries with few resources, primary care staff will probably need to provide most if not all of the mental health services in primary health care settings, with specialist backup to provide training, consultation, inpatient assessment and treatment that cannot be provided in primary care.⁽⁹⁾ Some low-resource countries may in fact be in a pre-asylum stage,⁽¹⁰⁾ in which apparent community care in fact represents widespread neglect of the mentally ill. Where asylums do exist, policy-makers must choose whether to upgrade the quality of care offered ⁽¹⁰⁾ or to use the

resources of larger hospitals to set up decentralized services instead (11). The care gap between low- and high-resource countries is vast, as seen in Table 2 (11, 12, 13, 14).

Table 2. Basic mental health care programme indicators in Europe and Africa

Indicator	Europe	Africa
Psychiatrists per 100 000 population	5.5–20.0	0.05
Psychiatric beds per 100 000 population	8.7	0.34
Spending on mental health care as % of total health budget	5–10%	less than 1% in 80% of countries

Countries with a medium level of resources can first establish the service components shown in the second column of Table 1, and later, as resources allow, choose to develop some of the more differentiated services indicated in the third column.

The choice of which services to develop first depends upon local factors, including traditions and specific circumstances of particular services, consumer, care giver and professional staff preferences, existing service strengths and weaknesses, and the interpretation of findings in the field. The scheme also indicates that the models of care relevant and affordable for high-resource countries may be entirely different than low-resource countries.

Available evidence should be used with other available information, including local knowledge and experience (3). Of course, the absence of scientifically derived evidence on a particular service or treatment does not necessarily mean it is ineffective, but simply that it has not yet been evaluated using rigorous scientific methodology. Various agencies and stakeholders, including patients, patients' families and other care givers, are another important source of information relevant to local decisions (15).

The components of a balanced care mental health service

Primary care mental health with specialist backup

Well-defined psychological problems are common in the general and primary health care settings of every country, with an average prevalence of 24% in these settings. Marked disability is often associated with such disorders, usually in proportion to the number of symptoms present (16). Studies conducted so far (17, 18) have led to several significant findings.

- In essentially every country, most people with mental disorders are not seen in specialist services.
- Psychological disorders can affect patients' perceptions of their physical health.
- Most primary care professionals are aware of psychological disorders, but the correspondence between clinician recognition and the actual incidence of these problems is only weak to moderately strong.
- The mental disorders seen in primary care settings are a major public health problem and create a substantial burden for society.
- Mental health treatment should be an integral part of primary care.
- Primary care training to recognize and treat mental disorders should be given high priority, so that such skills form part of primary care givers' core expertise.

In low-resource countries with specialist backup (see Table 1), most cases of mental disorder should be diagnosed and treated in a primary health care setting (2, 5). The WHO report maintains that it is

feasible to integrate essential mental health treatments in these countries' primary health care systems (2).

Mainstream mental health care

Mainstream mental health care refers to a range of services used in countries that can afford more than just a primary care system with specialist backup. However, the task of identifying and treating mental illnesses, especially depression and anxiety-related disorders, still falls mostly to primary care givers. Von Korff and Goldberg (19) reviewed 12 different randomized controlled trials of enhanced care for major depression in primary care settings, showing that, without intervention, such disorders often remit in time, and that interventions should focus on low-cost case management, coupled with fluid and accessible working relationships between the case manager, the primary care doctor and the mental health specialist. Care should be enhanced with active follow-up by the case manager (often a primary care nurse), monitoring treatment and adjusting it if the patient does not improve, and referral to a specialist if necessary (19, 20). Available evidence supports a multimodal approach -interventions directed solely towards training and supporting GPs have not been shown to be effective (21).

As specialist services are scarce and expensive, they should focus on:

- assessing and diagnosing complex cases and those requiring an expert second opinion;
- treating patients with the severest symptoms;
- caring for those with the greatest disability from mental illness; and
- making treatment recommendations for conditions that have proved nonresponsive to initial treatment.

To achieve this focus consistently, services need to establish priorities for recipients of specialist care. Effective specialist services concentrate on providing direct services to people with severe mental illness. This means treating severe disorders – regardless of whether they are psychotic or non-psychotic, acute or post-acute – to a high clinical standard of evidence-based care. Specialists should also offer consultation and support to primary care providers and other services treating common mental disorders, paying special attention to treatment-resistant and chronically disabling disorders seen in those settings. Sufficient services need to be provided in all five categories in the second column of Table 1, which means determining the capacity required for each category and taking into account the services available in other categories. This approach is sometimes called *whole system planning* (4).

Outpatient/ambulatory clinics

These clinics can be seen as clinical services, in settings such as primary care health centres, general hospitals and community mental health centres, where a trained mental health staff offers assessment and treatment, including pharmacological, psychological and social interventions. Such services embrace huge variations in practice, for example, as to whether:

- patients can self-refer, or need to be referred by other entities such as primary care facilities;
- there are walk-in consultations or only fixed appointments;
- clinical contact is provided by doctors alone or by other professionals as well;
- payment is direct or indirect;
- there do or do not exist measures to encourage patient attendance and respond to no-shows; and
- there is or is not a system for regulating the frequency and duration of clinical contacts.

There has been surprisingly little research on the effectiveness of these basic variations in outpatient care (22). Even so, there is a strong clinical consensus in many countries that such facilities offer a relatively efficient way to assess and treat mental health conditions, providing that the sites are accessible to local populations. Since these clinics are simply ways to arrange contact between staff

and patients, the key issue is the content of the clinical interventions, namely, whether or not research has demonstrated their effectiveness.(10)

Community mental health care teams (CMHTs)

CMHTs are the basic building block of community mental health services. The simplest model for providing community care is generic, i.e. nonspecialized. Within a defined local catchment area, CMHTs provide the full range of interventions, where adults with severe mental illness are assigned the highest priority. Evidence from the United Kingdom (23, 24, 25, 26, 27) suggests that there are clear benefits to these nonspecialized, community-based multidisciplinary teams. CMHTs can promote engagement with mental health services, create greater user satisfaction and increase met needs, although they do not produce significant symptomatic or social improvement. Their main advantages are increased continuity of care and flexibility(28). Patients can benefit from seeing the same staff members over the long term, and in crisis situations, such relationships may prove invaluable. The ability of mobile CMHTs to contact patients at home, at work and in neutral locations such as local cafes means that early relapses are identified and treated more often, and that treatment may be better adhered to (29).

The generic CMHT is flexible, permitting the intensity of input to be varied according to a patient's needs without necessitating transfer to another team. Some patients who benefit from frequent contact and outreach during a particular period, for example during a relapse, may require relatively low levels of attention during other periods. Specialized teams that have a remit to provide only intensive support have less scope for such flexibility (30).

Case management

Case management has been described (31) as the "co-ordination, integration and allocation of individualized care within limited resources". It is more a method of delivering care than a clinical intervention in its own right. There is now a considerable literature (32, 33, 34, 35, 36) showing that case management can be moderately effective in improving continuity of care, quality of life and patient satisfaction, but there is conflicting evidence about whether it has any impact on the use of inpatient services. Case management needs to be carefully distinguished from the more specific and intensive method of *assertive community treatment* (see below). Current evidence (37) suggests that it is most useful to implement case management with CMHTs.

Acute inpatient care

There is no evidence, at least for medium- or high-resource countries, that balanced care can be provided without some acute psychiatric inpatient care. Some services (such as home treatment teams, crisis houses and acute day hospital care) may be able to offer a realistic alternative to some voluntary patients. Nevertheless, certain classes of patients – those who need urgent medical assessment, and those who suffer from severe and co-morbid medical and psychiatric conditions, severe psychiatric relapses and behavioural disturbances, strong violent or suicidal tendencies, acute neuropsychiatric conditions, or old age and severe concomitant physical disorders – usually require high-intensity immediate support in acute inpatient hospital units, sometimes on a compulsory basis.

There have been relatively few findings on many aspects of inpatient care, and most studies in this area have been descriptive accounts (38). Of the few systematic reviews, one (39) found that there was no difference in outcomes between routine admissions and planned short hospital stays. More generally, while there is a consensus that acute inpatient services are necessary, the number of beds required is highly contingent upon other available services and local social and cultural characteristics, such as the tolerance of disturbed behaviour (4). Acute inpatient care commonly absorbs most of the mental health care budget (40). Minimizing the use of bed-days, for example by reducing the average length of stay, can therefore be an important policy goal *if* the resources released can be used for other mental health services. Given that medium- and high-resource countries need to

provide some inpatient services, a second pressing policy question is how to provide these in a humane way that is acceptable to patients, for example in general hospital units (41, 42).

Long-term community-based residential care

Larger psychiatric hospitals, where they exist, usually provide more long-term than acute care. From a policy perspective, it is important to know whether long-term patients should continue to be cared for in such institutions, or whether they should be transferred to long-term community-based residential care. The evidence here, for medium- and high-resource countries, is clear. When deinstitutionalization is carefully planned and managed, then the outcomes will be more favourable for most patients who are discharged to community care (43, 44, 45). The London TAPS Study,(6) a five-year follow-up on more than 95% of 670 long-stay nondemented patients who had been discharged, produced several encouraging results.

- At the end of five years, two thirds of the patients were still living in their original residences.
- Moving patients to the community did not increase the patient death rate or suicide rate.
- Fewer than 1 in 100 patients became homeless, and no patient from a staffed home was lost to follow-up.
- Over one third of the patients were readmitted during the follow-up period, and at the end of which 10% were in hospital. (A Scandinavian multicentre study discovered similar readmission rates(46)).
- Overall, patients' quality of life was greatly improved by the move to the community, but disabilities remained due to the nature of severe psychotic illness (6).
- There was little difference overall between hospital and community costs, but economic evaluation suggests that community care is more cost-effective than long-stay hospital care because effectiveness had improved.

As with acute inpatient care, the range and capacity of community residential care needed in a particular area is highly dependent upon the availability of other mental health services, and local social and cultural factors (47).

Occupational and day care

Unemployment among people with mental disorders is usually much higher than in the general population (48, 49). Traditional methods to offer occupation especially those with longer term and more disabling mental disorders, have included day centres and a variety of nonstandardized psychiatric rehabilitation centres (50, 51). There is little scientific research on these traditional forms of day care, and a recent review of over 300 papers found no relevant randomized controlled trials, while the nonrandomized studies have given conflicting results. Until better evidence is available, it therefore makes sense for medium-resource countries to make decisions about rehabilitation and day care services, assuming the specialized options are not affordable, on pragmatic grounds (52).

Coordination

It is important that the interfaces among these offerings function properly, in order to successfully implement mental health service as a whole. Such interfaces should exist among the whole range of statutory, voluntary and community organizations. The need to communicate or transfer patients may arise between any of these bodies, including:

- health services (including those dedicated to general physical health, dental health, primary care, forensics, old age, learning disabilities, mental handicaps, mental retardation and psychotherapeutic needs);
- social services and welfare agencies (providing income assistance, domiciliary care, respite care etc.);

- housing agencies (providing staffed and unstaffed accommodation and residential care);
- other governmental entities (including police forces and prisons); and
- nongovernmental organizations, or NGOs (including religious organizations, volunteer groups and for-profit private organizations).

Such harmonization implies the existence of a local planning entity to coordinate the various service components effectively, although the degree of service integration has not itself been formally examined in systematic reviews of randomised controlled trials (53).

Specialized and differentiated mental health services

A balanced approach to community-based mental health services requires a mixed portfolio of services, and the blend depends largely upon the resources available. In high-resource countries it may be possible to develop, in addition to the services mentioned above, specialized and differentiated services dedicated to particular goals and patient subgroups. When well implemented, they can reduce the demand for mainstream services; for instance, home treatment teams can take the place of some acute inpatient care. Interestingly, studies of these more recent and innovative forms of care are much more common and scientifically rigorous than studies of any of the service components described above, and indeed, very few high-quality scientific studies have been carried out in low-income countries in any health field (54, 55).

Specialized outpatient/ambulatory clinics

Specialized outpatient facilities for specific disorders or patient groups are common in many high-resource countries and include services dedicated to:

- eating disorders
- patients with dual diagnoses (e.g. psychotic disorders and substance abuse)
- treatment-resistant affective and psychotic disorders
- other specific disorders (such as post-traumatic stress disorder)
- specialized forms of psychotherapy
- incarcerated persons who suffer from mental disorders
- mentally ill mothers and their babies.

Local decisions about whether to establish such specialist clinics depends upon several factors, including the priority of the service in relation to the other specialist offerings described below, identified gaps in mental health services and available financing.

Specialized community mental health care teams (CMHTs)

Specialized CMHTs are by far the most researched component of balanced care, and most recent randomized controlled trials and systematic reviews in this field refer to such teams (33). Two types have been particularly well developed as adjuncts to generic CMHTs: assertive community treatment (ACT) teams and early intervention teams.

Assertive community treatment (ACT) teams

ACT teams provide a form of specialized mobile outreach treatment for people with more disabling mental disorders. They have been characterized (56, 57, 58) with several defining features:

- small caseloads (a team of about 10 core staff members assigned to about 100 patients)
- continuous services (operating 24 hours a day, 7 days a week)

- medication delivered by team members daily if necessary
- potential for patients to graduate to less intensive interventions
- a team approach, drawing on the contributions of psychiatrists, nurses and other professionals
- patient finances arranged or directly managed by the team
- a target for 80% of team activity to take place in the community.

There is now strong evidence that ACT, when provided to people with severely disabling psychotic disorders in high-resource countries, can produce several advantages:

- reductions in hospital admissions and acute inpatient bed-days
- improvements in accommodation and occupation
- increases in patient satisfaction.

ACT has not been shown to produce improvements in mental states or social behaviour. Compared to usual services, ACT reduces inpatient costs but does not change the overall costs of care (59, 60, 61). Nevertheless, the extent to which ACT is relevant and appropriate to use in low- and medium-resource countries has yet to be established, and there is evidence (62, 63, 64) that ACT may offer fewer advantages where usual services already offer high quality continuity of care.

Early intervention teams

There has been considerable interest in recent years in the prompt identification and treatment of initial or early psychotic episodes. Much of the research in this field has focused upon the time between the first clear onset of symptoms and the beginning of contact with treatment services, referred to as the “duration of untreated psychosis” (DUP). There is now emerging evidence that longer DUPs are a strong predictor of worse outcomes for psychosis. To date, few controlled trials have been published on interventions in this field, and no Cochrane systematic review has been completed, so it is premature to judge whether specialized early intervention teams should be a high priority.(65, 66, 67, 68, 69, 70)

Alternatives to acute inpatient care

In recent years, three main alternatives to acute inpatient care have been developed: acute day hospitals, crisis houses and home treatment/crisis resolution teams.

Acute day hospitals are facilities which offer programmes of day treatment for those with acute and severe psychiatric problems, as an alternative to inpatient admission. A recent systematic review of nine randomized controlled trials established that acute day hospital care is suitable for a quarter to a third of those who would otherwise be admitted to hospital. Day hospital care results in faster improvement and less expense. It is reasonable to conclude that acute day hospital care is an effective option when demand for inpatient beds is high (71, 72).

Crisis houses are houses in community settings that are staffed by mental health care professionals and offer admission to some patients who would otherwise need inpatient care because of acute and severe mental health conditions.² The relatively little research that exists on such houses has not only found (38, 73, 74) that they are very acceptable to their residents, but also suggests (74) that they may be able to offer an alternative to inpatient care for about a quarter of the patients admitted to hospital, and that they may be more cost-effective than inpatient care. A special type of crisis house for psychotic patients is the Soteria model from the United States, which has been shown (75) to have advantages over usual hospital treatment.

² Although a wide variety of respite houses, havens and refuges have been developed, for example for women escaping domestic violence, the term crisis house refers here to mental health facilities which offer alternatives to noncompulsory hospital admission.

Home treatment/crisis resolution teams are mobile CMHTs that assess patients during psychiatric crises and then provide intensive treatment and care at home to avoid or minimize the use of acute hospital admission. Two recent Cochrane systematic reviews (76, 77) found that most research on such teams is from the United States and the United Kingdom, and it concluded that home treatment teams reduce the number of days that people in mental health crises spend in hospital, especially if the teams make regular home visits and have responsibility for both health and social care.

Alternative types of long-stay community residential care

Mental health programmes that are reducing the size of large psychiatric institutions commonly provide long-stay residential care in the community for transferred patients (43, 78, 79). Such residential care is usually a direct substitute for long-term hospitalization, and it includes both nursing homes and residential care homes with trained nurses, nursing assistants and care assistants present 24 hours a day. More specialized forms of residential care are often developed later, to provide graded levels of support for mentally ill people unable to handle independent accommodation without assistance. These differentiated forms of residential care fall into three main categories:

1. *24-hour staffed residential care* – well-staffed hostels, residential care homes or nursing homes (the difference being the staff's professional qualifications);
2. *day-staffed residential places* – hostels or residential homes served by a staff that works fixed hours, several days a week; and
3. *accommodation with lower levels of staff support* – minimally supported hostels or residential homes with visiting staff, including self-contained flats with at least one staff member on call in separate accommodations.

The findings on the cost-effectiveness of these various levels of residential care (80) are somewhat limited, and there have been no completed systematic reviews, so policy-makers deciding on the need for such services should consult with local stakeholders (50, 81, 82, 83).

Alternative forms of occupational rehabilitation

Work represents an important goal for many people with severe mental illnesses. Gainful employment addresses both practical needs, by improving economic independence, and therapeutic needs, by enhancing self-esteem and overall functioning (84, 85). Although vocational rehabilitation has been offered in various forms to people with severe mental illnesses for over a century, its role diminished due to discouraging results from past efforts, financial disincentives to work and general pessimism about rehabilitating such patients (86). However, several recent developments have again made employment a rehabilitative priority. The advent of new pharmacological agents has raised hopes (87) that overall outcomes will improve and that patients will be better able to benefit from rehabilitation efforts. Patient and carer advocacy groups have made work and occupational therapy one of their highest priorities in order to improve patient functioning and quality of life (88, 89).

There are recent indications from the United States that it is possible to improve vocational and psychosocial outcomes greatly by following supported employment models. These models centre on rapid placement in competitive jobs and support from employment specialists on mental health treatment teams (90). The *individual placement and support* (IPS) model emphasizes competitive employment in integrated work settings with follow-up support, bypassing the traditional stepwise approaches to vocational rehabilitation (91). Studies of IPS programmes (71, 92) have shown increased rates of competitive employment. The traditional model uses a "train and place" approach, offering individuals training in sheltered workshops and later placing them in real-life work settings. The IPS programme uses the reverse approach of "place and train", so that patients are placed in real jobs first and then offered direct personal support to help them succeed in their work.

Conclusions

There is no compelling argument or scientific evidence that favours a mental health care model based on hospital care alone. On the other hand, there is also no scientific evidence that community services alone can provide satisfactory comprehensive care. Available evidence and accumulated clinical experience in many countries support a balanced care model that includes elements of both hospital and community care. Nevertheless local communities may have strong views on developing such mental health services in their midst. Quality of life for people suffering from mental health problems can be adversely affected by discriminatory and stigmatizing attitudes and behaviour, including those of health professionals – an area that remains underdeveloped in terms of evidence-based interventions (93).

Cost-effectiveness studies on deinstitutionalization and community mental health care teams have found that quality of care is closely related to expenditure on services. Community-based models of care have been shown to be largely equivalent in cost to the services they replace, so they cannot be considered primarily cost-saving or cost-containing measures. Nevertheless, resource availability can severely constrain implementation of balanced care. In low-resource countries, it may be unrealistic to invest in any of the components of “mainstream” mental health care, and better to focus instead on primary care identification and treatment of mental illness, with specialists for backup support. Countries able to afford a more differentiated model of care can offer some mainstream mental health services, balancing the investment in each component among known needs (83), available resources and local stakeholder priorities. In general, as mental health systems develop from asylum-based models, the proportion of the budget spent on large asylums gradually decreases. While new resources may occasionally fund new services outside hospital care, it is more common to transfer funds from existing hospital sites and staff. In time, and as resources allow, the mainstream components can be complemented by other more differentiated options, many of which offer more choice to patients and are based upon stronger evidence of cost-effectiveness.

Annex 1. Key characteristics of the major periods in the historical development of mental health care systems (4)

Period 1: The rise of the asylum	Period 2: The decline of the asylum	Period 2: The decline of the asylum
Asylums built	Asylums neglected	Asylums replaced by smaller facilities
Increasing number of hospital beds	Decreasing number of hospital beds	Decrease in hospital beds slows down
Reduced role of the family	Increased but not fully recognized role of the family	Importance of families increasingly recognized in terms of care given, therapeutic potential, burden carried and lobbying potential
Public investment in institutions	Public disinvestment in mental health services	Increasing private investment in treatment and care, and focus in public sector on cost-effectiveness and cost-containment.
Doctors and nurses the only professional staff members	Clinical psychologists, occupational therapists and social workers develop occupationally	More community-based staff members New emphasis on multidisciplinary teamwork
	Effective treatments emerge Beginning of treatment evaluation and standardized diagnostic systems Growing influence of individual and group psychotherapy	Emergence of evidence-based psychiatry in pharmacological, social and psychological treatment
Primacy of containment over treatment	Focus on pharmacological control and social rehabilitation Less-disabled patients discharged from asylums	Emergence of concern about balance between control of patients and patient independence

Annex 2. Key principles for balanced community-based mental health services

The following nine principles are especially important in guiding the development of community-orientated mental health services. A full discussion of the choice and elaboration of these principles can be found in a paper by Thornicroft and Tansella.(8)

Autonomy: a patient's ability to make independent decisions and choices, despite the presence of symptoms or disabilities. Autonomy should be promoted by effective treatment and care.

Continuity: the ability of relevant services to offer interventions that are either coherent over the short term both within and among teams (*cross-sectional continuity*), or are an uninterrupted series of contacts over the long term (*longitudinal continuity*).

Effectiveness: the ability to provide the proven, intended benefits of treatments and services in real-life situations.

Accessibility: patients' ability to receive care where and when it is needed.

Comprehensiveness: a service characteristic with two dimensions. *Horizontal comprehensiveness* means the extent to which a service is provided across the entire range of mental illness severity, and the wide range of patient characteristics. *Vertical comprehensiveness* means the availability of the basic components of care, and their use by prioritized groups of patients.

Equity: the fair distribution of resources. Both the rationale used to prioritize competing needs and the methods used to allocate resources should be explicit.

Accountability: the answerability of a mental health service to patients, their families and the wider public, all of whom have legitimate expectations of how such a service should carry out its responsibilities.

Coordination: a service characteristic resulting in coherent treatment plans for individual patients. Each plan should have clear goals and necessary and effective interventions, no more and no less. *Cross-sectional coordination* means the coordination of information and services within an episode of care. *Longitudinal coordination* means the interlinkages among staff members and agencies over a longer period of treatment.

Efficiency: minimizing the inputs needed to achieve a given level of outcomes, or maximizing the outcomes for a given level of inputs.

References

1. Murray CJL, Lopez AD. *The global burden of disease. Vol. 1. A comprehensive assessment of mortality and disability from diseases, injuries and risk factors in 1990, and projected to 2020*. Cambridge, MA, Harvard University Press, 1996.
2. *World health report 2001: mental health: new understanding, new hope*. (<http://www.who.int/whr2001/2001/main/en>). Geneva, World Health Organization, 2001 (accessed 13 July 2003).
3. Geddes JR, Harrison PJ. Closing the gap between research and practice. *British Journal of Psychiatry*, 1997, 171:220–225.
4. Thornicroft G, Tansella M, eds. *The mental health matrix: a manual to improve services*. Cambridge, Cambridge University Press, 1999.
5. Desjarlais R et al. *World mental health: problems and priorities in low income countries*. Oxford, Oxford University Press, 1995.
6. Leff J. *Care in the community: illusion or reality?* London, Wiley, 1997.
7. Wing JK, Brown G. *Institutionalism and schizophrenia*. Cambridge, Cambridge University Press, 1970.
8. Thornicroft G, Tansella M. Translating ethical principles into outcome measures for mental health service research. *Psychological Medicine*, 1999, 29:761–767.
9. Mubbashar M. Mental health services in rural Pakistan. In: Tansella M, Thornicroft G, eds. *Common mental disorders in primary care*. London, Routledge, 1999.
10. Nathan P, Gorman J. *A guide to treatments that work*, 2nd ed. Oxford, Oxford University Press, 2002.
11. Alem A. Community-based vs. hospital-based mental health care: the case of Africa. *World Psychiatry*, 2002, 1:99–100.
12. Becker T, Vazquez-Barquero JL. The European perspective of psychiatric reform. *Acta Psychiatrica Scandinavica Supplementum*, 2001, 8–14.
13. Njenga F. Challenges of balanced care in Africa. *World Psychiatry*, 2002, 1:96–98.
14. *World development report 2002: building institutions for markets*. Washington, DC, World Bank, 2002.
15. Reynolds A, Thornicroft G. *Managing mental health services*. Buckingham, Open University Press, 1999.
16. Ormel J et al. Common mental disorders and disability across cultures: results from the WHO Collaborative Study on Psychological Problems in General Health Care. *Journal of the American Medical Association*, 1994, 272:1741–1748.
17. Tansella M, Thornicroft G. *Common mental disorders in primary care*. London, Routledge, 1999.
18. Ustun TB, Sartorius N. *Mental illness in general health care: an international study*. Chichester, Wiley, 1995.

19. Von Korff M, Goldberg D. Improving outcomes in depression: the whole process of care needs to be enhanced. *British Medical Journal*, 2001, 323:948–949.
20. Gask L, Sibbald B, Creed F. Evaluating models of working at the interface between mental health services and primary care. *British Journal of Psychiatry*, 1997, 170:6–11.
21. Simon GE. Evidence review: efficacy and effectiveness of anti-depressant treatment in primary care. *General Hospital Psychiatry*, 2002, 24:213–224.
22. Becker T. Out-patient psychiatric services. In: Thornicroft G, Szmukler G, eds. *Textbook of community psychiatry*. Oxford, Oxford University Press, 2001.pp 277 - 282
23. Simmonds S et al. Community mental health team management in severe mental illness: a systematic review. *British Journal of Psychiatry*, 2001, 178:497–502.
24. Thornicroft G et al. From efficacy to effectiveness in community mental health services: PRiSM Psychosis Study 10. *British Journal of Psychiatry*, 1998, 173:423–427.
25. Tyrer P et al. Randomised controlled trial of two models of care for discharged psychiatric patients. *British Medical Journal*, 1998, 316:106–109.
26. Tyrer P et al. A randomised controlled study of close monitoring of vulnerable psychiatric patients. *Lancet*, 1995, 345:756–759.
27. Tyrer P et al. Community mental health teams (CMHTs) for people with severe mental illnesses and disordered personality (Cochrane Review). *The Cochrane Library*, 2003.
28. Sytema S, Micciolo R, Tansella M. Continuity of care for patients with schizophrenia and related disorders: a comparative south-Verona and Groningen case-register study. *Psychological Medicine*, 1997, 27:1355–1362.
29. McDonald HP, Garg AX, Haynes RB. Interventions to enhance patient adherence to medication prescriptions: scientific review. *Journal of the American Medical Association*, 2002, 288:2868–2879.
30. Burns T. Generic versus specialist mental health teams. In: Thornicroft G, Szmukler G, eds. *Textbook of community psychiatry*. Oxford, Oxford University Press, 2001. pp 321 - 338
31. Thornicroft G. The concept of case management for long-term mental illness. *International Review of Psychiatry*, 1991, 3:125–132.
32. Hansson L et al. The Nordic Comparative Study on Sectorized Psychiatry: contact rates and use of services for patients with a functional psychosis. *Acta Psychiatrica Scandinavica*, 1998, 97:315–320.
33. Mueser KT et al. Models of community care for severe mental illness: a review of research on case management. *Schizophrenia Bulletin*, 1998, 24:37–74.
34. Saarento O et al. The Nordic Comparative Study on Sectorized Psychiatry: utilization of psychiatric hospital care related to amount and allocation of resources to psychiatric services. *Social Psychiatry and Psychiatric Epidemiology*, 1996, 31:327–335.
35. Ziguras SJ, Stuart GW. A meta-analysis of the effectiveness of mental health case management over 20 years. *Psychiatric Services*, 2000, 51:1410–1421.
36. Ziguras SJ, Stuart GW, Jackson AC. Assessing the evidence on case management. *British Journal of Psychiatry*, 2002, 181:17–21.

37. Holloway F, Carson J. Case management: an update. *International Journal of Social Psychiatry*, 2001, 47:21–31.
38. Szmukler G, Holloway F. In-patient treatment. In: Thornicroft G, Szmukler G, eds. *Textbook of community psychiatry*. Oxford, Oxford University Press, 2001. pp 321 - 338
39. Johnstone P, Zolese G. Systematic review of the effectiveness of planned short hospital stays for mental health care. *British Medical Journal*, 1999, 318:1387–1390.
40. Knapp M et al. The cost consequences of changing the hospital-community balance: the mental health residential care study. *Psychological Medicine*, 1997, 27:681–692.
41. Quirk A, Lelliott P. What do we know about life on acute psychiatric wards in the UK? A review of the research evidence. *Social Science and Medicine*, 2001, 53:1565–1574.
42. Tomov T. Central and eastern European countries. In: Thornicroft G, Tansella M, eds. *The mental health matrix: a manual to improve services*. Cambridge, Cambridge University Press, 2001. pp 216 - 227
43. Shepherd G, Murray A. Residential care. In: Thornicroft G, Szmukler G, eds. *Textbook of community psychiatry*. Oxford, Oxford University Press, 2001. pp 309 – 320.
44. Tansella M. Community psychiatry without mental hospitals – the Italian experience: a review. *Journal of the Royal Society of Medicine*, 1986, 79:664–669.
45. Thornicroft G, Bebbington P. Deinstitutionalisation: from hospital closure to service development. *British Journal of Psychiatry*, 1989, 155:739–753.
46. Oiesvold T et al. Predictors for readmission risk of new patients: the Nordic Comparative Study on Sectorized Psychiatry. *Acta Psychiatrica Scandinavica*, 2000, 101:367–373.
47. Van Wijngaarden GK et al. People with schizophrenia in five European countries: conceptual similarities and intercultural differences in family caregiving. *Schizophrenia Bulletin*, in press.
48. Warner R. *Recovery from schizophrenia*, 2nd ed. London, Routledge, 1994.
49. Warr P. *Work, unemployment and mental health*. Oxford, Oxford University Press, 1987.
50. Rosen A, Barfoot K. Day care and occupation: structured rehabilitation and recovery programmes and work. In: Thornicroft G, Szmukler G, eds. *Textbook of community psychiatry*. Oxford, Oxford University Press, 2001. pp 295 - 308
51. Shepherd G. *Theory and practice of psychiatric rehabilitation*. Chichester, Wiley, 1990.
52. Catty J, Burns T, Comas A. Day centres for severe mental illness (Cochrane Review). *The Cochrane Library*, 2003:(Issue 1).
53. Tyrer P, Turner R, Johnson AL. Integrated hospital and community psychiatric services and use of inpatient beds. *British Medical Journal*, 1989, 299:298–300.
54. Isaakidis P et al. Relation between burden of disease and randomised evidence in sub-Saharan Africa: survey of research. *British Medical Journal*, 2002, 324:702.
55. Patel V, Sumathipala A. International representation in psychiatric literature: survey of six leading journals. *British Journal of Psychiatry*, 2001, 178:406–409.

56. Deci PA et al. Dissemination of assertive community treatment programs. *Psychiatric Services*, 1995, 46:676–678.
57. Scott J, Lehman A. Case management and assertive community treatment. In: Thornicroft G, Szmukler G, eds. *Textbook of community psychiatry*. Oxford, Oxford University Press, 2001.pp 253 - 264
58. Teague GB, Bond GR, Drake RE. Program fidelity in assertive community treatment: development and use of a measure. *American Journal of Orthopsychiatry*, 1998, 68:216–232.
59. Latimer EA. Economic impacts of assertive community treatment: a review of the literature. *Canadian Journal of Psychiatry*, 1999, 44:443–454.
60. Marshall M, Lockwood A. Assertive community treatment for people with severe mental disorders (Cochrane Review). *The Cochrane Library*, 2003:(Issue 1).
61. Phillips SD et al. Moving assertive community treatment into standard practice. *Psychiatric Services*, 2001, 52:771–779.
62. Burns T et al. Intensive versus standard case management for severe psychotic illness: a randomised trial. *Lancet*, 1999, 353:2185–2189.
63. Burns T et al. Case management and assertive community treatment in Europe. *Psychiatric Services*, 2001, 52:631–636.
64. Fiander M et al. Assertive community treatment across the Atlantic: comparison of model fidelity in the UK and USA. *British Journal of Psychiatry*, 2003, 182:248–254.
65. Friis S et al. Methodological pitfalls in early detection studies: the NAPE Lecture 2002. Nordic Association for Psychiatric Epidemiology. *Acta Psychiatrica Scandinavica*, 2003, 107:3–9.
66. Harrigan SM, McGorry PD, Krstev H. Does treatment delay in first-episode psychosis really matter? *Psychological Medicine*, 2003, 33:97–110.
67. Larsen TK et al. Early detection and intervention in first-episode schizophrenia: a critical review. *Acta Psychiatrica Scandinavica*, 2001, 103:323–334.
68. McGorry PD, Killackey EJ. Early intervention in psychosis: a new evidence based paradigm. *Epidemiologia e Psichiatria Sociale*, 2002, 11:237–247.
69. McGorry PD et al. Randomized controlled trial of interventions designed to reduce the risk of progression to first-episode psychosis in a clinical sample with subthreshold symptoms. *Archives of General Psychiatry*, 2002, 59:921–928.
70. Warner R, McGorry PD. Early intervention in schizophrenia: points of agreement. *Epidemiologia e Psichiatria Sociale*, 2002, 11:256–257.
71. Marshall M et al. Systematic reviews of the effectiveness of day care for people with severe mental disorders: (1) acute day hospital versus admission; (2) vocational rehabilitation; (3) day hospital versus outpatient care. *Health Technology Assessment*, 2001, 5:1–75.
72. Wiersma D et al. Costs and benefits of hospital and day treatment with community care of affective and schizophrenic disorders. *British Journal of Psychiatry*, Suppl 27., 1995, s52–s59.
73. Davies S et al. Community beds: the future for mental health care? *Social Psychiatry and Psychiatric Epidemiology*, 1994, 29:241–243.

74. Sledge WH et al. Day hospital/crisis respite care versus inpatient care, part I: clinical outcomes. *American Journal of Psychiatry*, 1996, 153:1065–1073.
75. Mosher LR. Soteria and other alternatives to acute psychiatric hospitalization: a personal and professional review. *Journal of Nervous and Mental Disease*, 1999, 187:142–149.
76. Catty J et al. Home treatment for mental health problems: a systematic review. *Psychological Medicine*, 2002, 32:383–401.
77. Joy C, Adams C, Rice K. Crisis intervention for people with severe mental illness (Cochrane Review). *The Cochrane Library*, 2003
78. Shepherd G et al. Residential care in hospital and in the community: quality of care and quality of life. *British Journal of Psychiatry*, 1996, 168:448–456.
79. Trieman N et al. The TAPS Project 41: homes for life? Residential stability five years after hospital discharge. Team for the Assessment of Psychiatric Services. *Community Mental Health Journal*, 1998, 34:407–417.
80. Chilvers R, Macdonald G, Hayes A. Supported housing for people with severe mental disorders (Cochrane Review). *The Cochrane Library*, 2003:(Issue 1).
81. Hafner H. Do we still need beds for psychiatric patients? An analysis of changing patterns of mental health care. *Acta Psychiatrica Scandinavica*, 1987, 75:113–126.
82. Nordentoft M, Knudsen HC, Schulsinger F. Housing conditions and residential needs of psychiatric patients in Copenhagen. *Acta Psychiatrica Scandinavica*, 1992, 85:385–389.
83. Thornicroft G. *Measuring mental health needs*, 2nd ed. London, Royal College of Psychiatrists, Gaskell, 2001.
84. Lehman AF. Vocational rehabilitation in schizophrenia. *Schizophrenia Bulletin*, 1995, 21:645–656.
85. Wiersma D et al. Assessment of needs for care among patients with schizophrenic disorders 15 and 17 years after first onset of psychosis. *Epidemiologia e Psichiatria Sociale*, 1997, 6:21–28.
86. Polak P, Warner R. The economic life of seriously mentally ill people in the community. *Psychiatric Services*, 1996, 47:270–274.
87. Lehman AF. Quality of care in mental health: the case of schizophrenia. *Health Affairs*, 1999, 18:52–65.
88. Becker DR et al. Job preferences of clients with severe psychiatric disorders participating in supported employment programs. *Psychiatric Services*, 1996, 47:1223–1226.
89. Thornicroft G et al. What are the research priorities of mental health service users? *Journal of Mental Health*, 2002, 11:1–5.
90. Drake RE et al. A randomized clinical trial of supported employment for inner-city patients with severe mental disorders. *Archives of General Psychiatry*, 1999, 56:627–633.
91. Priebe S et al. Employment, attitudes toward work, and quality of life among people with schizophrenia in three countries. *Schizophrenia Bulletin*, 1998, 24:469–477.
92. Lehman AF et al. Improving employment outcomes for persons with severe mental illnesses. *Archives of General Psychiatry*, 2002, 59:165–172.

93. Pinfold V et al. Reducing psychiatric stigma and discrimination: evaluation of educational interventions in UK secondary schools. *British Journal of Psychiatry*, 2003, 182:342–346.

World Health Organization
Regional Office for Europe
Scherfigsvej 8
DK-2100 Copenhagen Ø
Denmark
Tel.: +45 39 17 17 17. Fax: +45 39 17 18 18. E-mail: postmaster@who.dk
Web site: www.euro.who.int