

Organization of mental health care for persons with severe and persistent mental illness. What is the evidence? supplement

KCE reports 144S

The Belgian Health Care Knowledge Centre

Introduction: The Belgian Health Care Knowledge Centre (KCE) is an organization of public interest, created on the 24th of December 2002 under the supervision of the Minister of Public Health and Social Affairs. KCE is in charge of conducting studies that support the political decision making on health care and health insurance.

Executive Board

Actual Members: Pierre Gillet (President), Dirk Cuypers (Vice-president), Jo De Cock (Vice-president), Frank Van Massenhove (Vice-president), Yolande Avondtroodt, Jean-Pierre Baeyens, Ri de Ridder, Olivier De Stexhe, Johan Pauwels, Daniel Devos, Jean-Noël Godin, Floris Goyens, Jef Maes, Pascal Mertens, Marc Moens, Marco Schetgen, Patrick Verertbruggen, Michel Foulon, Myriam Hubinon, Michael Callens, Bernard Lange, Jean-Claude Praet.

Substitute Members: Rita Cuypers, Christiaan De Coster, Benoît Collin, Lambert Stamatakis, Karel Vermeyen, Katrien Kesteloot, Bart Ooghe, Frederic Lernoux, Anne Vanderstappen, Paul Palsterman, Geert Messiaen, Anne Remacle, Roland Lemeye, Annick Poncé, Pierre Smiets, Jan Bertels, Catherine Lucet, Ludo Meyers, Olivier Thonon, François Perl.

Government commissioner: Yves Roger

Management

Chief Executive Officer: Raf Mertens

Assistant Chief Executive Officer: Jean-Pierre Closon

Information

Federaal Kenniscentrum voor de gezondheidszorg - Centre fédéral d'expertise des soins de santé – Belgian Health Care Knowledge Centre.

Centre Administratif Botanique, Doorbuilding (10th floor)

Boulevard du Jardin Botanique 55

B-1000 Brussels

Belgium

Tel: +32 [0]2 287 33 88

Fax: +32 [0]2 287 33 85

Email : info@kce.fgov.be

Web : <http://www.kce.fgov.be>

Organization of mental health
care for persons with severe
and persistent mental illness.
What is the evidence?
Supplement

KCE reports 144S

MARIJKE EYSEN, MARK LEYS, ANJA DESOMER, ARNAUD SENN, CHRISTIAN LÉONARD

KCE reports 144S

Title:	Organization of mental health care for persons with severe and persistent mental illness. What is the evidence? Supplement
Authors:	Marijke Eyssen (KCE), Mark Leys (KCE), Anja Desomer (KCE), Arnaud Senn (KCE), Christian Léonard (KCE).
External experts:	Joël Boydens (Landsbond der Christelijke Mutualiteiten), Paul Cosyns (Universitair Ziekenhuis Antwerpen), Guido Pieters (Universitair Psychiatrisch Centrum K.U. Leuven Campus Kortenberg), Bart Van Daele (Algemeen Ziekenhuis Vesalius Tongeren), Kees Van Heeringen (Universiteit Gent), Walter Vandereyken (Psychiatrische Kliniek Broeders Alexianen Tienen).
External validators:	Piet Bracke (HeDeRa-Health & Demographic Research, Vakgroep Sociologie, Universiteit Gent), Viviane Kovess Masfety (Université Paris Descartes EA 4069, et Ecole des hautes études en santé publique Département d'Epidémiologie, Paris, France), Daniel Souery (Laboratoire de Psychologie Médicale Université Libre de Bruxelles, et Psy Pluriel, Centre Européen de Psychologie Médicale, Bruxelles)
Conflict of interest:	Guido Pieters received fees from the pharmaceutical industry for giving lectures on non-pharmaceutical topics. Kees Van Heeringen received fees from the pharmaceutical industry for giving scientific advice.
Disclaimer :	The external experts were consulted about a (preliminary) version of the scientific report. Subsequently, a (final) version was submitted to the validators.. The validation of the report results from a consensus or a voting process between the validators. This report has been approved by common assent by the Executive Board. Only the KCE is responsible for errors or omissions that could persist. The policy recommendations are also under the full responsibility of the KCE.
Layout:	Ine Verhulst
Brussels, November 18 th 2010	
Study nr 2007-04	
Domain: Health Services Research (HSR)	
MeSH: Mental health services ; Organization and administration ; Evidence-based practice , Health Services Research.	
NLM classification: WM 30	
Language: English	
Format: Adobe® PDF™ (A4)	
Legal depot: D/2010/10.273/81	

This document is available on the website of the Belgian Health Care Knowledge Centre

KCE reports are published under a “by/nc/nd” Creative Commons Licence (http://kce.fgov.be/index_en.aspx?SGREF=5212&CREF=16141).

How to refer to this document?

Eyssen M, Leys M, Desomer A, Senn A, Léonard C Organization of mental health care for persons with severe and persistent mental illness. What is the evidence? Supplement. Health Services Research (HSR). Brussels: Belgian Health Care Knowledge Centre (KCE). 2010. KCE Reports 144S. D/2010/10.273/81.



Appendices

Table of Content

APPENDICES	1
1 APPENDIX TO CHAPTER 2: GENERAL BACKGROUND OF LITERATURE REVIEW	2
1.1 ORGANISATIONAL FORMS OF PSYCHIATRIC CARE: SEARCH FOR TYPOLOGY	2
1.1.1 Websites	2
1.2 THE SERVICE TREE TYPOLOGY ACCORDING TO THE ESMS (EUROPEAN SERVICE MAPPING SCHEDULE)	2
2 APPENDIX TO CHAPTER 3: LITERATURE REVIEW METHODOLOGY	20
2.1 REFERENCE RETRIEVAL MEDLINE (OVID), PSYCINFO, EMBASE	20
2.2 REFERENCE EVALUATION	21
2.3 REFERENCE EVALUATION SHEET TEMPLATE	22
2.4 SEARCH STRATEGIES FOR MEDLINE (OVID), PSYCINFO, EMBASE	22
2.5 SEARCH BY INDEPENDENT RESEARCHER (MEDLINE SEARCH)	27
2.6 SEARCH STRATEGY CARE PROGRAM AND CARE PATHWAY	27
3 APPENDIX TO CHAPTER 4: LITERATURE REVIEW RESULTS	28
4 APPENDIX TO CHAPTER 7	112
5 APPENDIX TO CHAPTER 8	115

I APPENDIX TO CHAPTER 2: GENERAL BACKGROUND OF LITERATURE REVIEW

I.1 ORGANISATIONAL FORMS OF PSYCHIATRIC CARE: SEARCH FOR TYPOLOGY

I.1.1 Websites

Websites consulted to search for existent typologies for mental health services; search term used: Mental Health Services:

<http://www.oecd.org/dataoecd/28/32/33865630.pdf>

http://www.who.int/mental_health/resources/en/Organization.pdf

<http://www.euro.who.int/document/MNH/ebrief02.pdf>

<http://data.euro.who.int/hfadb/>

http://www.who.int/mental_health/evidence/en/

http://www.euro.who.int/observatory/Publications/20050126_1

http://www.euro.who.int/HEN/Syntheses/mentalhealth/20030822_1

<http://www.milbank.org/reports/2004lehman/2004lehman.html#methods>

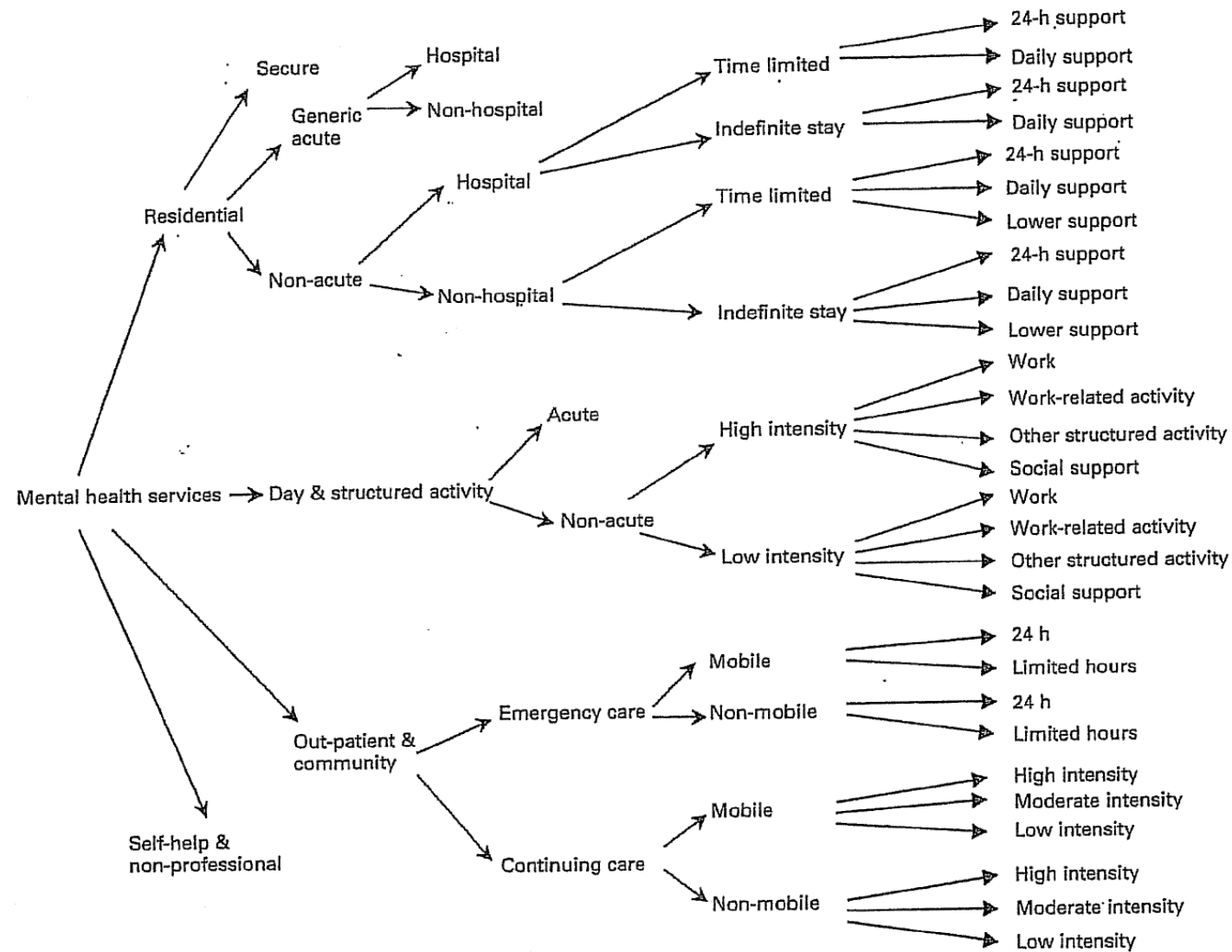
http://ec.europa.eu/health/ph_determinants/life_style/mental/green_paper/mental_gp_co_234.pdf

<http://www.euro.who.int/Document/E88699.pdf>

I.2 THE SERVICE TREE TYPOLOGY ACCORDING TO THE ESMS (EUROPEAN SERVICE MAPPING SCHEDULE)

As explained in chapter 2.2.3.3, the ESMS (Fig X) was selected as the most appropriate for this report (ref Johnson S 2000). Explanation of the ESMS is given in a Manual, which was obtained from the first author, S. Johnson. (see below: ESMS Manual)

Figure I-1: Service Tree of the European Service Mapping Schedule (ESMS) (Johnson S 2000)



The European Service Mapping Schedule

[ESMS]

Version 3 - February 1997

Authors:

Sonia Johnson, Robert Kuhlmann and the EPCAT group.

EPCAT (European Psychiatric Care Assessment Team) is co-ordinated from the Centro Studi e Ricerche in Psichiatria, Torino, Italy.

Membership of EPCAT: Project Co-ordinator: Carmine Munizza¹,
Scientific Co-ordinator: Jennifer Beecham².
Other participants: Luis Salvador-Carulla³, Peter de Jong⁴, Robert Kuhlmann⁵,
Michael von Cranach⁵, Sonia Johnson⁶, Anneka Stenman⁷, Giuseppe Tibaldi¹,
Maria Zuccolin¹, Elena Scala¹, Graham Thornicroft⁶, Carola Palazzi¹

1. Centro Studi e Ricerche in Psichiatria, Torino, Italy. 2. Centre for the Economics of Mental Health, London, UK. 3. University of Cadiz, Spain. 4. University of Groningen, the Netherlands. 5. Bezirkskrankenhaus, Kaufbeuren, Germany. 6. PRISM, Institute of Psychiatry, London, UK. 7. University of Umea, Sweden.

The ESMS has been developed with funding from EU Biomed Grant CT94-1304/4

Please send information about any planned use of the ESMS or write with any queries or comments to Sonia Johnson, Department of Psychiatry and Behavioural Sciences, University College London Medical School, 2nd Floor, Wolfson Building, 48, Riding House St., London W1N 8AA.

CONTENTS

Introduction & principles	2
The Service Tree	3
Schedule Part A: Introductory Questions	4
Schedule Part B: Service Mapping Tree - principles	4
Glossary	5
Examples & guidelines	6
Residential service maps	7
Day & structured activity service maps	8
Out-patient/community service maps	9
Self-help & non-professional services	10
Schedule Part C: Service Counting Tree - principles	11
Service counting rules	11
Service counts - rules for specific categories	12
Residential service counts	13
Day and structured activity service counts	14
Out-patient/community service counts	15
Schedule Part D: Service Inventory - principles	16
Service inventories	16 et seq.

Introduction

The European Service Mapping Schedule (ESMS) allows the following tasks to be carried out in a standardised way:

- ♦ Compiling an inventory of the mental health services serving the adult mentally ill population of a particular catchment area, with descriptions of their major characteristics. Provision by health service, social services, voluntary and private sectors are included.
- ♦ Recording changes through time in the services of a particular catchment area.
- ♦ Delineating and comparing between catchment areas the **structure** and **range** of mental health services.
- ♦ Measuring and comparing between catchment areas the **levels of provision** of the major types of mental health service.

The framework on which the Schedule is based is the **Service Tree**. The next page illustrates its overall structure.

The Schedule has four major sections to be completed, which are as follows: **A Introductory**

Questions: These relate to the catchment area and population for which the schedule is to be completed.

B Service Mapping Trees: These provide a standardised method of listing and categorising services for the population of a catchment area, based on major service functions. **Service Counting Trees:** These provide a standardised method of measuring levels of service use by the population of a catchment area within each of the major categories of service.

D Service Inventory: This allows for more detailed listing of the characteristics of particular services: it supplements the information in Section B and provides a structure for compiling a full inventory of local services.

The Service Mapping Schedule has been designed to allow **international comparisons** to be made, at least within Europe. It should be possible to assign most important hospital, day, out-patient or community services for the mentally ill to a category.

We intend that it should be possible to use the ESMS without specific training. However, its accurate use does require application of a substantial number of rules and operational definitions, listed over the pages which follow. Anyone planning to use the instrument is advised to spend some time becoming familiar with these in detail. Users of the instrument are also strongly encouraged to contact Sonia Johnson (address on page 1) to discuss any queries which arise and to inform us of any planned use of the instrument.

Principles

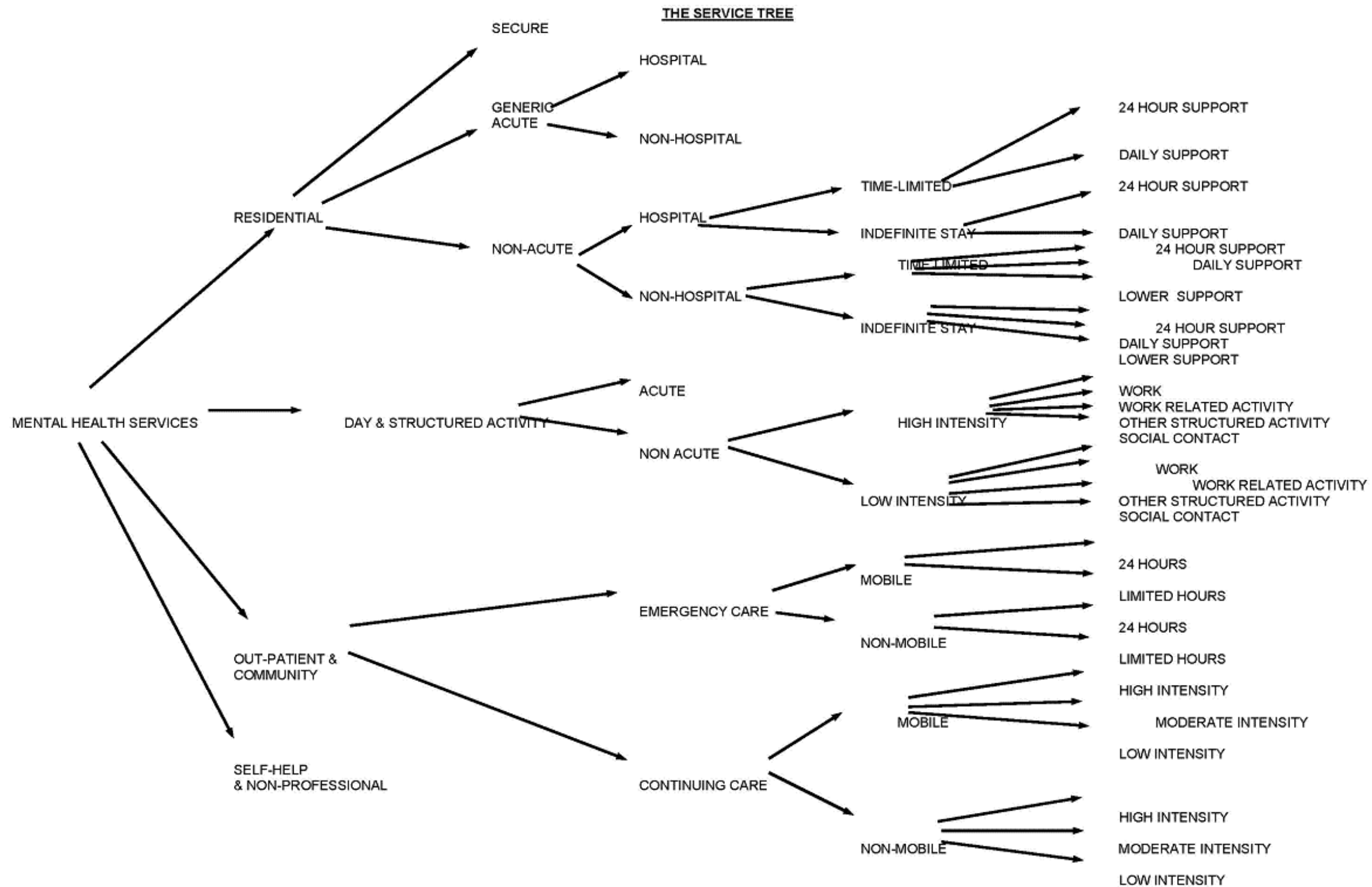
A. Services to be included: The basic unit to which the Service Mapping Schedules is to be applied is

the set of mental health services providing care for the population of a specific catchment area. As well as facilities situated within the catchment area, services which are outside the catchment area but have been used by at least five residents of the catchment area in the past year should be included. Services located within the catchment area but providing no services to any of its residents should be excluded.

B. Definition of mental health service: The range of services to be considered includes all facilities which have as a specific aim some aspect of the management of mental illness and of the clinical and social difficulties related to it. Facilities provided by health service, social services, voluntary sector and private sector providers should all be included. However, generic services which are important for many mentally ill people, but which are not planned with their specific needs in mind, should not be included, e. generic facilities for the homeless, social services offices dealing with welfare benefits. Services delivering primary health care, which may include some mental health care but do not specialise in it, should also be excluded. Facilities whose sole purpose is provision of counselling and/or psychotherapy should be excluded **except** where they specifically identify as major target groups individuals with severe mental illnesses such as schizophrenia or individuals who are in contact with other secondary mental health services.

Patient groups to be included: The 'default population' to which we intend the ESMS to be applied is the catchment area's population of adults who have mental and behavioural disorders and are aged between 18 and 65 years. It has not been designed to cover services for children and adolescents, for individuals whose only primary diagnosis is a substance misuse disorder or learning difficulties (mental handicap), or for the elderly. Services which target one or more of the latter groups but not mentally ill adults aged 18 to 65 years should not be included when this default population is the basis for completion of the schedule. For example, a generic alcohol detoxification centre or a day centre for mentally ill adults aged over 65 years should not be listed. However, a day centre which provides services both for the elderly and for younger people with mental illnesses should be included in the Service Mapping Trees, and its contacts with individuals under 65 should be included in the Service Counting Trees. Within a comparative study, centres may agree to depart from this default population and, for example, to include specific services for the elderly mentally ill or substance misusers - this is acceptable so long as all centres in a study are applying the same inclusion criteria. Clinical groups to be included are discussed further in the introductions to Sections B and C, where respondents must specify the clinical groups on which their answers are based.

Selecting parts of the ESMS: Completion of the whole Schedule will provide a comprehensive mapping of the structure and level of service provision in a catchment area. However, it will not always be possible or necessary to use the full schedule, and respondents may select the sections of the Service Tree and the parts of the Schedule which they require. For example, the residential sections may be used alone if this is the only aspect of service provision which is of interest, or Section B may be used without Section C if detailed information about numbers of places available is unavailable. For the purposes of comparative studies it is important that the same portions of the Schedule be used by each centre.



SECTION A INTRODUCTORY

QUESTIONS

1. Who has completed the schedule? (Give name(s) and profession)
2. On what date was it completed?
3. What sources of information have been used to complete the schedule?
4. What is the name & location of the catchment area?
5. In which city, town or region and which country is it?
6. What is the total size of its population?
7. How is the catchment area defined?
e.g. local government boundaries, health service sector etc.
8. The default population to which the ESMS should normally be applied is the catchment area population of mentally ill adults aged 18 to 65 years, excluding those with a sole diagnosis of substance misuse or learning disability (mental handicap). However, a decision may be made within a study to vary this criterion and include, for example, specific services providing only for substance misusers or the elderly mentally ill. Has a decision to vary inclusion criteria been made within your study?

If so, describe below:

(The introduction to Section C requires the clinical group to whom the Schedule is applied to be specified in detail).

SECTION B THE SERVICE

MAPPING TREES

Principles:

- ◆ The aim of Section B is to produce a comprehensive categorisation of the facilities providing mental health services for the local population, classified according to function, availability and setting.
- ◆ A glossary giving definitions of all terms used in the service mapping trees is on the next page (Page 5): this must be closely followed. Page 6 gives examples of services within each category and guidelines on which categories should be mutually exclusive.
- ◆ Services outside the catchment area should be included if they routinely deliver services to the population of the catchment area. The suggested criterion is that services be included if they have had contact with at least five mentally ill members of the catchment area population over the past year. Any services situated in the catchment area which do not routinely serve its population should be excluded.
- ◆ Separate trees are provided for residential, day and out-patient/community services. A tree is also provided in this section for listing self-help and non-professional services. The latter types of service are not, however, included in the Service Counting Trees as it is assumed that volumes of their activity will not often have been documented precisely.
- ◆ Services are here defined as the smallest units within the local mental health system which have their own managerial structure.
- ◆ In each tree, services meeting the criteria for each branch should be listed on the right hand side of the page.
- ◆ The location in the tree of each service is identified by a combination of two letters and a number: (i) a capital R, D, O or S indicates whether the service is part of the residential, day, out-patient or self help trees; (ii) within these trees, each final branch is given a number; and (iii) within each branch, each service has a letter. These letters and numbers are used in cross-referencing between Section B and Section D, which provides further details about the services.
- ◆ Some services may well meet criteria for more than one branch of the trees: these should simply be listed under each branch for which they meet the criteria. This will occur especially for areas with highly integrated community services in which, for example, the same team may provide emergency, continuing care and day services. However, there are branches which should be mutually exclusive - more details are given in the glossary.

GLOSSARY FOR SECTION B (SERVICE MAPPING TREES)

RESIDENTIAL SERVICE MAPPING TREE

Residential Services: Facilities which provide beds overnight for patients for a purpose related to the clinical and social management of their mental illnesses - patients are not intended to sleep there solely because they have no home or are unable to reach home.

Secure: Beds to which patients are admitted because they are considered by clinicians to be too dangerous to themselves or others to be managed adequately on the usual catchment area admission wards, or because of a specific legal judgement which states that for reasons of safety they must go to this particular facility rather than to the local generic facilities. NB Beds to which compulsory admissions can be made should not automatically be categorised as secure beds - it is possible for a patient to be compulsorily admitted to a generic acute facility. Only beds specifically intended to provide a greater level of security than those to which patients from the catchment area are routinely admitted should be classified as secure.

Generic Acute: Facilities where (i) patients are admitted because of a deterioration in their mental state, behaviour or social functioning which is related to psychiatric disorder; (ii) admission usually available within 24 hours; (iii) patients usually retain their own accommodation.

Non-acute: All residential facilities which do not satisfy the criteria for acute or secure facilities.

Hospital: Residential facilities which are located within the grounds of an institution classified under national or local laws as a hospital.

Non-hospital: All residential facilities located outside hospital grounds

Time-limited: These are facilities where a fixed maximum period of residence is routinely specified. A facility should be classified as time-limited if a maximum length of stay is fixed for at least 80% of those entering the facility.

Indefinite stay: Residential facilities which do not fulfil the above criteria for 'time-limited' services.

24 hour support: Facilities where there are staff present within the facility 24 hours a day, with responsibilities relating to the monitoring and clinical and social care of the patient (i.e. domestic or security staff are not included)

Day staffed facilities: Facilities where there are members of staff regularly on site at least five days a week for some part of the day, with responsibilities related to the monitoring and clinical and social care of the patient.

Lower support facilities: Facilities where the patient resides for some purpose related to the management of his/her mental illness and where there is a direct link between residing in the facility and some support from staff, but where staff are regularly present fewer than five days per week.

DAY AND/OR STRUCTURED ACTIVITY SERVICE MAPPING TREE

Day and structured activity services: These are facilities which (i) are normally available to several patients at a time (rather than delivering services to individuals one at a time); (ii) provide some combination of treatment for problems related to mental illness, structured activity, social contact and/or support; (iii) have regular opening hours during which they are normally available; and (iv) expect patients to stay at the facilities beyond the periods during which they have face-to-face contact with staff (i.e. the service is not simply based on patients coming for appointments with staff & then leaving immediately after their appointments).

Acute day services: Facilities where (i) patients are regularly admitted because of a deterioration in mental state, behaviour or social functioning which is related to psychiatric disorder; (ii) alleviating this deterioration is a purpose of the programme; (iii) admission to the programme is usually available within 72 hours.

High intensity: Facilities which are available for patients to attend for at least the equivalent of four half days per week. Not all the patients need attend as frequently as this for the service to be classified as 'high intensity', but it should at least be possible for them to do so.

Low intensity: Facilities at which patients usually attend for less than the equivalent of four half days per week.

Work: Services which provide patients with the opportunity to work, with pay at least 50% of the usual local minimum expected wage for this form of work. Where there is no minimum wage, we suggest calculating an expected level based on starting salaries for similar jobs advertised in the local press over the past month. The work may be in a sheltered setting or in a setting where some workers are not mentally ill. However, patients have not obtained this work through fully open competition - their jobs are in some way specifically reserved for people with particular needs including those arising from mental illness.

Work related activity: Services where patients carry out an activity which closely resembles work for which payment would be expected in the open market, but where patients are not paid or are paid less than 50% of the usual local expected wage for this form of work.

Other structured activity: Services which provide structured activities apart from work and work-related activity. Such activities may include skills training, creative activities such as art or music, and group work. These activities should be available during at least 25% of the service's opening hours.

Social contact: Services which fulfil the criteria for non-acute day services, but where work or other structured activities are not available, or available only during less than 25% of opening hours, so that the main functions of the service are the provision of social contact, practical help and/or support.

OUT-PATIENT AND COMMUNITY SERVICE MAPPING TREE **Out-patient and community:** These are services which (i) involve contact between mental health staff and patients for some purpose related to management of mental illness and its associated clinical and social difficulties and (ii) are not provided as a part of delivery of residential or day and structured activity services, as defined above.

Emergency care: Services which (i) provide assessment and initial treatment in response to a deterioration in mental state, behaviour or social functioning which is related to psychiatric disorder; and (ii) can usually provide a same day response during working hours.

24 hours: Services which are available 24 hours a day, 7 days per week

Limited hours: Services which are not always available (opening hours less than 24 hours, 7 days per week)

Continuing care: Services which provide patients with regular contact with a mental health professional, which may be long term if required.

Mobile services: Services where contact with patients occurs in a range of settings including patients' homes, as judged most appropriate by professionals and patients. For a service to be classified as 'mobile', at least 20% of contacts should take place away from the premises at which the service is based. For some services, the main site of service provision may vary from day to day (e.g. services in rural areas which move from village to village) - this does not mean they should be classified as 'mobile' unless staff go and do work at locations away from that day's main site.

Non-mobile service: Services which do not meet the criteria for 'mobile'.

High intensity: Services which have the capacity to make face to face contact with patients at least three times per week when clinically indicated.

Medium intensity: Services which do not have the capacity to supply three times weekly contact to patients, but which can provide contacts at least once a fortnight when indicated.

Low intensity: Services which provide regular contacts with mental health professionals for patients, but which do not have the capacity to see patients as often as once a fortnight.

Self-help & non-professional services: Services which specifically target adults with mental illnesses, but which do not employ any specialist staff whose work is to assess, support or treat people with mental illnesses

SERVICE MAPPING TREES: EXAMPLES AND GUIDELINES

This should be read in conjunction with the glossary on the previous page, and gives examples of the types of services which might be classified under each branch of the service mapping trees. This list of examples is not intended to be exhaustive. Guidelines are also provided here about branches which should be mutually exclusive i. e. pairs of branches where a single facility should not be classified as belonging to both branches.

Residential facilities Branch R1 - Examples include secure hospitals, psychiatric units based in prisons, and regional secure units. Intensive care wards designed to offer a higher level of security than other acute psychiatric wards in the same hospital should also be classified here. Accepting compulsory admissions or having a locked door are not sufficient grounds for classifying a ward as secure wards - this category should be reserved for facilities to which patients go because they are perceived as too dangerous to themselves or others to go to the usual catchment area admission facilities, or because a court has ordered that they must not go to the usual catchment area admission wards. Secure services may be acute or non-acute, and may be in hospital or elsewhere.

Branch R2 - The hospital wards to which acute admissions from a catchment area are routinely made will be placed on this branch. Psychiatric and general hospital acute wards should be included.

Branch R3 - This will include a range of non-hospital beds which may be used as alternatives to hospital admission. Innovative facilities such as crisis houses, crisis hostels or emergency beds in community mental health centres should be placed here.

Branch R4 - Examples of facilities which should be classified here are in-patient wards which admit patients for rehabilitation or therapeutic community programmes, and which specify at the outset that the programme is intended to finish within a fixed number of months or years.

Branch R5 - Services listed here will be facilities similar to those placed on branch R4, but without a 24 hour staff presence within the ward.

Branch R6 - Long-stay psychiatric in-patient wards to which patients are admitted for indefinite periods and which have 24 hour staffing will usually be classified on this branch.

Branch R7 - Long-stay in-patient wards which do not have a 24 hour staff presence within the ward will be classified here.

Branches R8 to R10 - Hostels, group homes, therapeutic communities and other accommodation specifically designated for people with mental illnesses will be classified on this branches if they specify a maximum period for which residents are intended to remain. Examples include services providing rehabilitation programmes of fixed lengths, or those providing transitional accommodation. Services should be classified here even if difficulties arise in practice in rehousing residents after the intended maximum stay. Branch R8 will contain services where there is generally a 24 hour staff presence on the premises, including those where staff sleep on site and those where they are permitted to briefly leave the premises for breaks or to carry out practical tasks. R9 will contain services routinely visited by staff at least five days a week but without a 24 hour staff presence on site, and R10 services with a lower level of support than these.

Branch R11 to R13 - Residential facilities which do not specify an intended maximum length of stay, but which aim to provide a permanent home if required should be placed on these branches.

Most residential facilities should be classifiable as belonging to only one of these branches, although occasionally it may be necessary to place a facility on multiple branches - e.g. a hostel which has a mixture of beds clearly designated for crisis admission and beds to which patients are admitted in a planned way for an indefinite period. Facilities should not be classified as both time-limited and indefinite stay, or as both hospital and non-hospital. 24 hour supported, daily supported and lower support are also intended to be mutually exclusive categories.

Day and structured activity services

Branch D1 - Examples of services classified here are acute day hospitals providing emergency interventions intended as an alternative to in-patient admission.

Branch D2 to D9: Sheltered workshops, social firms, clubhouses, and day and drop in centres are examples of which will be placed on these branches, according to hours of service provision and to activities offered.

Services should not generally be classified as both high intensity and low intensity: if it is possible for patients to attend at least four half days a week, the service should be classified as high intensity, even if some attend less frequently than this.

Services should not generally be classified as ‘social contact’ as well as ‘work’, work related activity’ or ‘other structured activity’: They should only be classified as ‘social contact’ if they do not provide work or other structured activity for at least 25% of their opening hours.

Out-patient and community services; Branches O1 and O2: will include crisis intervention teams, and acute home treatment teams. Some generic community mental health teams may also provide services meeting these criteria, and may be placed on one of these branches as well as on a ‘continuing care’ branch.

Branches O3 and O4: Examples of services which may be placed here include psychiatric emergency clinics and general hospital casualty departments which provide a psychiatric assessment service.

Branches O5 to O7: Examples of services which may be classified on these branches are community mental health teams, community psychiatric nurse services, and assertive outreach and support teams.

Branches O8 to O10: Examples of services which may be classified on these branches are out-patient clinics and community mental health centres, where the service makes fewer than 20% of contacts with patients outside the main service site.

Services should not be classified as both mobile and non-mobile: If at least 20% of visits take place away from the main service site, they should be classified only as mobile.

Services should not be classified as both 24 hours and limited hours: If there are any periods during the week when the service is closed and carries out no visits, it should be classified as ‘limited hours’.

High intensity, medium intensity and low intensity are intended to be mutually exclusive: If a service can provide visits three times per week, it is high intensity, even if many of its patients are seen less frequently than this. If a service can provide visits at least once a fortnight, but not as often as three times per week, it is medium intensity, even if some patients are seen less frequently than once a fortnight. Only services which cannot generally provide contacts at least once a fortnight should be classified as low intensity.

Branch S1: Services should be listed here if their main role is to provide some form of support, help or contact for people with mental illnesses or for their carers, but if they do not employ staff whose role it is to provide the residential, day, out-patient and community services described on the other branches. User-led self help groups or drop in centres, consortiums of informal carers providing mutual support and services provided entirely by volunteers should be listed on this branch.

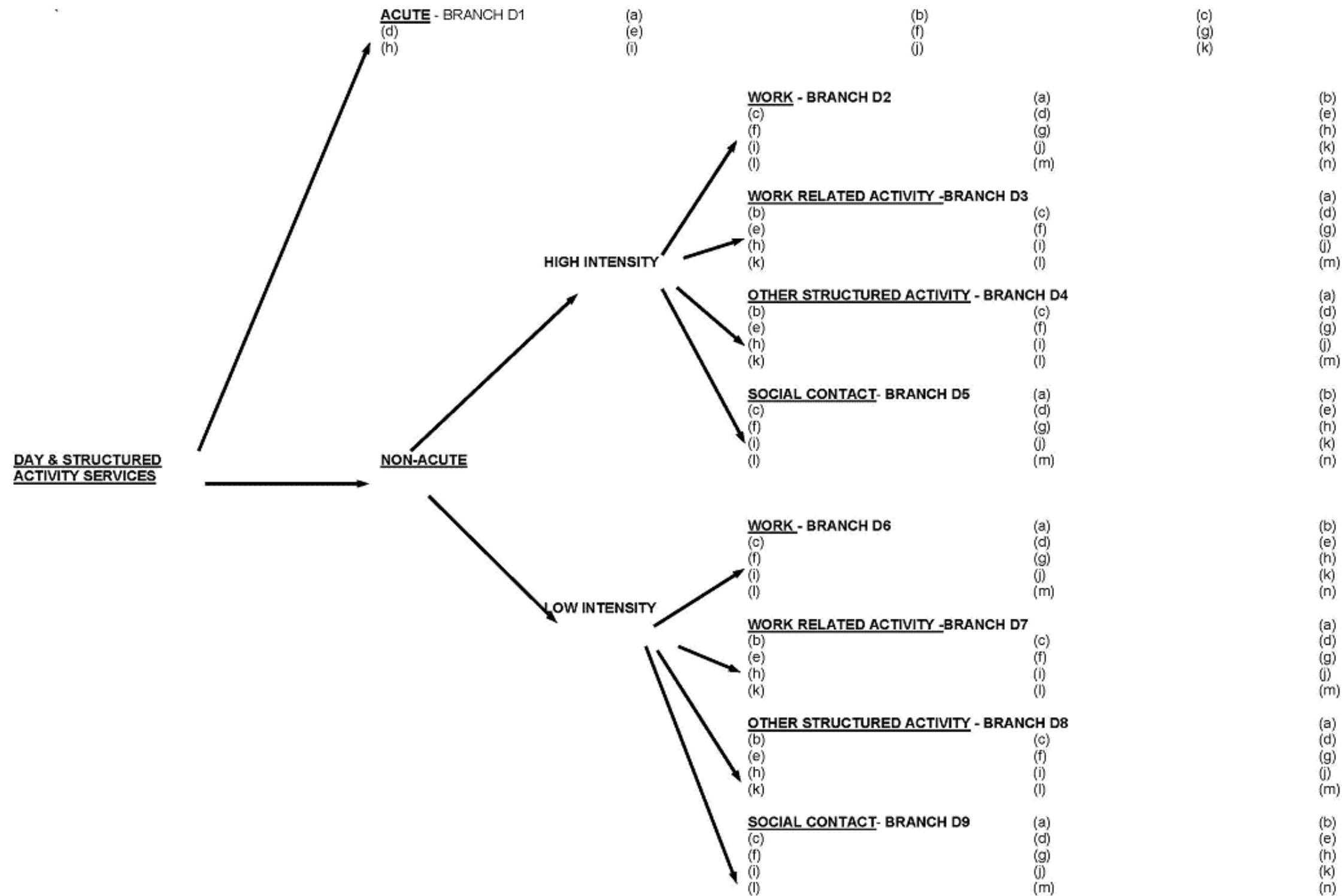
```

graph LR
    RS[RESIDENTIAL SERVICES] --> SBR1[SECURE- BRANCH R1  
(d)]
    RS --> AC[ACUTE]
    RS --> NAC[NON-ACUTE]
    AC --> H[HOSPITAL- BRANCH R2  
(c)  
(f)]
    AC --> NHR3[NON-HOSPITAL- BRANCH R3  
(c)]
    NAC --> HOS[HOSPITAL]
    NAC --> NH[NON-HOSPITAL]
    HOS --> TL1[TIME LIMITED]
    HOS --> IS1[INDEFINITE STAY]
    TL1 --> T4[24 HOUR SUPPORT- BRANCH R4  
(c)  
(f)]
    TL1 --> T5[DAILY SUPPORT - BRANCH R5  
(c)]
    IS1 --> T6[24 HOUR SUPPORT - BRANCH R6  
(c)  
(f)]
    IS1 --> T7[DAILY SUPPORT- BRANCH R7  
(c)  
(f)]
    NH --> TL2[TIME LIMITED]
    NH --> IS2[INDEFINITE STAY]
    TL2 --> T8[24 HOUR SUPPORT - BRANCH R8  
(c)  
(f)]
    TL2 --> T9[DAILY SUPPORT -BRANCH R9  
(c)  
(f)]
    TL2 --> T10[LOWER SUPPORT - BRANCH R10  
(c)  
(f)]
    TL2 --> T11[24 HOUR SUPPORT- BRANCH R11  
(c)  
(f)]
    IS2 --> T12[DAILY SUPPORT - BRANCH R12  
(c)  
(f)]
    IS2 --> T13[LOWER SUPPORT - BRANCH R13  
(c)  
(f)]
  
```

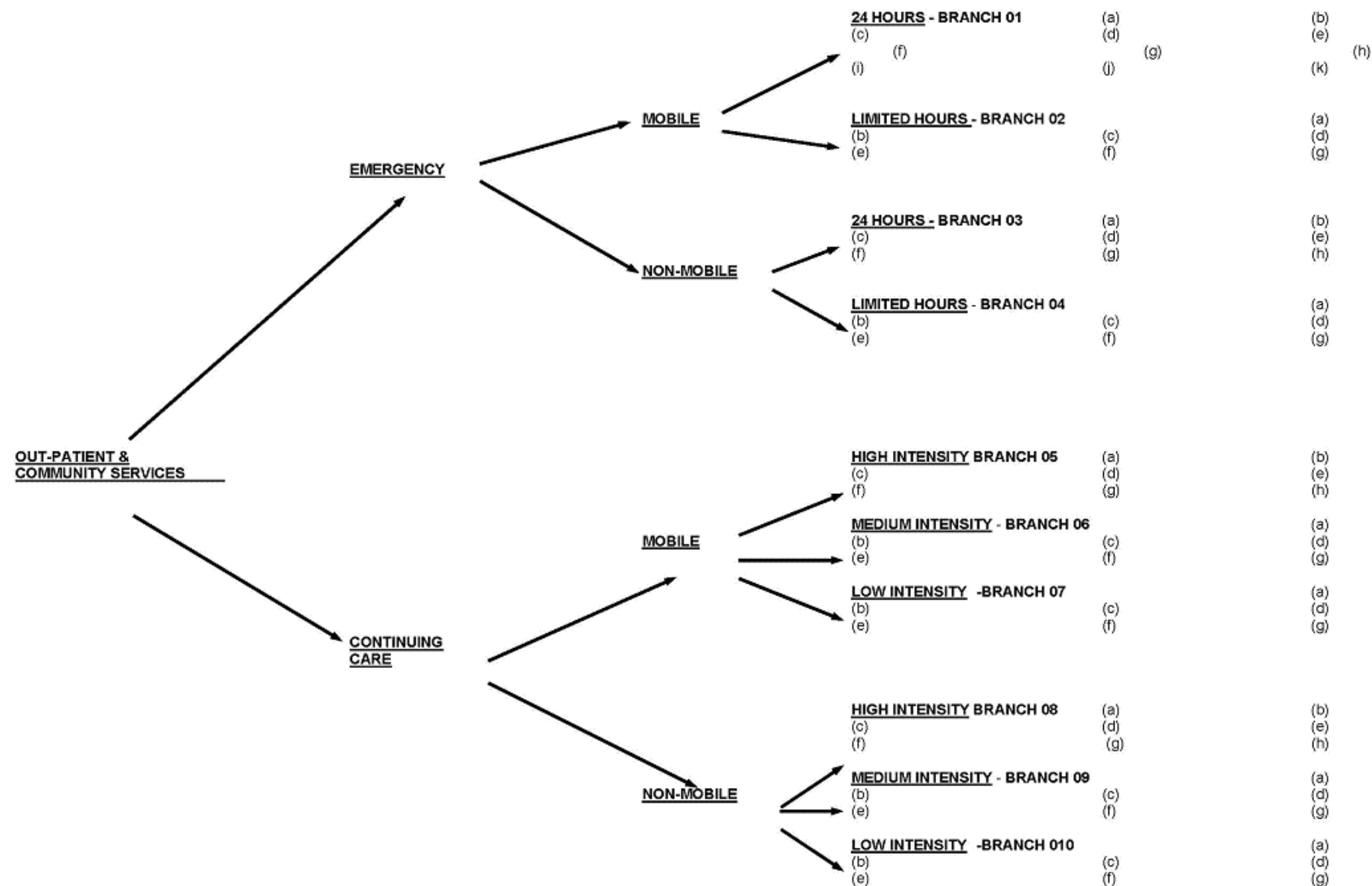
The flowchart illustrates the structure of Residential Services, starting from a central point and branching into various levels of care and support. The main branches are ACUTE and NON-ACUTE. ACUTE further branches into HOSPITAL and NON-HOSPITAL. NON-ACUTE branches into HOSPITAL and NON-HOSPITAL. Each of these branches leads to specific support services, categorized by TIME LIMITED or INDEFINITE STAY. The final branches are labeled R1 through R13, each with associated codes (a) through (h).

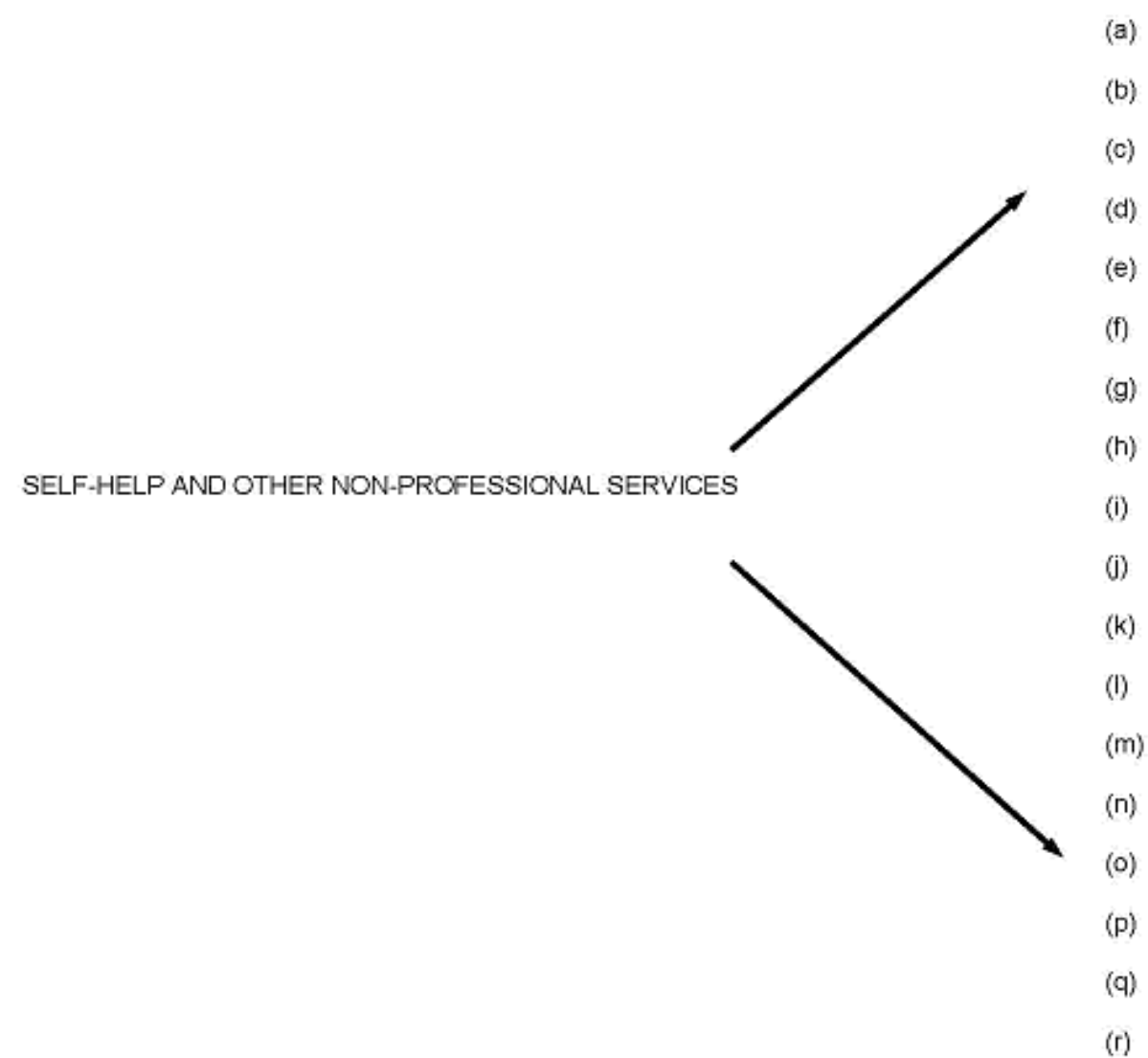
- RESIDENTIAL SERVICES**
 - SECURE- BRANCH R1** (d)
 - ACUTE**
 - HOSPITAL- BRANCH R2** (a), (c), (d), (e), (f), (g), (h)
 - NON-HOSPITAL- BRANCH R3** (a), (b), (c), (d), (e)
 - NON-ACUTE**
 - HOSPITAL**
 - TIME LIMITED**
 - 24 HOUR SUPPORT- BRANCH R4** (a), (b), (c), (d), (e), (f), (g), (h)
 - DAILY SUPPORT - BRANCH R5** (a), (b), (c), (d), (e)
 - INDEFINITE STAY**
 - 24 HOUR SUPPORT - BRANCH R6** (a), (b), (c), (d), (e), (f), (g), (h)
 - DAILY SUPPORT- BRANCH R7** (a), (b), (c), (d), (e), (f), (g), (h)
 - NON-HOSPITAL**
 - TIME LIMITED**
 - 24 HOUR SUPPORT - BRANCH R8** (a), (b), (c), (d), (e), (f), (g), (h)
 - DAILY SUPPORT -BRANCH R9** (a), (b), (c), (d), (e), (f), (g), (h)
 - LOWER SUPPORT - BRANCH R10** (a), (b), (c), (d), (e), (f), (g), (h)
 - 24 HOUR SUPPORT- BRANCH R11** (a), (b), (c), (d), (e), (f), (g), (h)
 - INDEFINITE STAY**
 - DAILY SUPPORT - BRANCH R12** (a), (b), (c), (d), (e), (f), (g), (h)
 - LOWER SUPPORT - BRANCH R13** (a), (b), (c), (d), (e), (f), (g), (h)

SERVICE MAPPING TREES (2) - DAY AND STRUCTURED ACTIVITY SERVICES



SERVICE MAPPING TREES - (3) OUT-PATIENT AND COMMUNITY SERVICES



SERVICE MAPPING TREES - (4) SELF HELP AND OTHER NON-PROFESSIONAL SERVICES

A. Principles

The versions of the service trees in this section allow the counting of levels of provision of the major forms of service within a catchment area. The following general principles should be noted:

Population

- Catchment area population:** The basic unit is again the population of the catchment area. Counts should therefore include all use of mental health facilities by members of this population, defined as all those whose permanent address is in the catchment area, and those whose last non-institutional permanent address prior to admission to a residential facility was within the catchment area.
- Clinical group:** In order to count service contacts, the clinical groups whose contacts will be counted need to be identified. The age and diagnostic groups whose contacts with services are to be included in the counts need to be clearly specified. The default clinical group for application of the schedules is adults aged 18 to 65 years with mental or behavioural disorders, not including people whose only diagnosis is a substance misuse disorder or learning difficulties (mental handicap). However, the needs of particular studies or the structure of individual services may lead to a decision being made to vary these criteria.

Will you base your use of the service counting trees on the ‘default population’, i.e. include only service contacts by adults aged 18 to 65 years with mental or behavioural disorders, excluding those whose only diagnosis is a substance misuse disorder or learning difficulties?

Yes / No
(delete as appropriate)

If no, please use the following table to indicate which groups you will include:

What is your upper age limit for inclusion in service counts? years
What is your lower age limit for inclusion in service counts? years
Which of the following diagnostic groups will you include in your service counts?
Diagnostic group Tick if this diagnostic group’s service contacts will be included in counts:
People with schizophrenia or schizoaffective disorder
People with other functional psychosis
People with neurotic disorders, affective disorders, personality disorder, eating disorders.
People with learning difficulties (mental handicap)
People with a primary diagnosis of substance misuse only
People with organic mental disorders
All users of specialist mental health services, regardless of diagnosis
Other diagnostic category: Please specify:

B. Principles of service counting:

- To allow comparisons to be made between areas, **service use per 100,000 local population** should be calculated for each count for each catchment area. This can be done by dividing raw totals by the total number of inhabitants of the catchment area and then multiplying by 100,000.
- Double counting may occur when this method is used, e.g. patients living in a residential facility and attending a day facility will be counted in two categories. This is not therefore a valid method of ascertaining an overall total for users of mental health services across the catchment area.
- However, whilst a patient may attend several facilities and thus be counted in several different parts of the schedule, **no service contact** should be counted in more than one branch. The rules set out below should allow each contact between an individual and a particular mental health facility to be counted only once.
- The counts should be based on the clinical population opposite: if the ‘default’ population is used, only service contacts by adults aged between 18 and 65 with mental and behavioural disorders should contribute to totals, with contacts by individuals with only a diagnosis of substance misuse or learning difficulties excluded. In comparative studies, it is essential that the same clinical group be used in each centre.
- Boxes at each final branch should be used to indicate the count for level of provision for each end-branch. Counts for adjacent branches may be added together to derive overall numbers for larger categories of provision - e.g. counts for high, moderate and low intensity continuing care may be added together to give an overall continuing care count, for which a box is provided. Where information is limited it may only be possible to calculate counts for larger categories.
- Where information is limited, certain portions only of the trees may be selected and used alone - again it is essential that comparative studies agree to complete the same portions of the trees on the basis of the same target population.
- The Service Counting Trees have been designed so that where data are not already available, it should be possible to gather the information required by conducting a one month long census of service use by the catchment area population.
- Self help services are not included in the service counting schedules, as it is likely to be difficult to assess their volumes of activity precisely.

SECTION C - SERVICE COUNTING RULES - continued

C. Rules for specific categories of service

Residential service counting trees

Each type of residential service is defined as in the glossary for Section B, the Service Mapping Trees. The count for each residential service type is obtained by calculating the mean number of people from the catchment area resident in each type of facility at any one time in the last month.

Patients should not be counted as occupying two beds on the same night - if they have a long-term residential place, but have in fact been admitted to an acute bed during the census period, only the acute bed should be counted.

(If the number of people from the catchment area using a particular type of residential service has fluctuated over the last month, the mean should be calculated by counting the total number of nights of bed occupancy by members of the catchment area population in the month, and then dividing this by the number of days in the last month.)

Day and structured service counting trees

Definitions of day and structured activity services and of work, work related activity, and other structured activity are in the glossary for Section B, the Service Mapping Trees.

Acute day services: The count should be obtained by calculating the mean number of people from the catchment area attending this service on any given working day in the past month. (Count the total number of attendances on working days by members of the catchment area population in the past month & divide this by the number of working days in the past month. Do not count more than one attendance per day for any one individual.)

Non-acute day services: For these services the numbers of individuals who have made use of each type of service in the past month should be counted, with individuals divided into two categories:

High intensity users - people who have attended the day or structured facility for at least the equivalent of four half days per week during at least three of the past four weeks.

Low intensity users - individuals who have attended the non-acute day and structured activity service during the past month, but whose pattern of attendance does not meet criteria for high intensity users.

N.B. Using this method of counting, some of the users of services classified in the Service Mapping Trees as ‘high intensity services’ will be classified here as ‘low intensity users’.

Work service users - individuals whose structured activity is work and who are paid at least 50% of the usual local wage for this work should be counted as work service users.

Work-related activity service users - individuals whose structured activity is work but who are not paid at least 50% of the expected local wage should be counted as work-related activity service users.

Other structured activity - individuals who attend services and carry out structured activities other than work (as defined in Section B) should be defined as ‘other structured activity’ service users.

Social contact - individuals who attend services but do not participate in any programme of work or other structured activity - during their attendance they receive social contact, support and/or practical advice.

Some individuals may have mixed programmes of activities, involving work, other structured activities and social contact. If they participate in different types of activity and contact within a single service, they should be classified as users of whichever type of activity takes up the largest share of their time at the service. However, if they attend different services for different activities, the contacts with each service should be counted separately. For example, if a patient attends a day centre and spends one half day per week in a sheltered work programme and five half days at the same centre in a daily living skills training programme, he/she should be classified as a high intensity user of other structured activity services. On the other hand, if he/she spends five half days at the day centre in a skills training programme and one day as an employee on full wages in a local social firm at a different location, he/she is a high intensity user of other structured activity services and also as a low intensity user of work services.

Out-patient & community services

Emergency services - the count for use of emergency service use should be obtained by calculating the total number of emergency contacts in the past month. Emergency contacts should be defined as contacts which (i) take place in response to concerns about deterioration in the mental state and social functioning of the patient; (ii) take place within one working day of mental health professionals becoming aware of these concerns; and (iii) were not planned at the time of the patient's last contact with mental health staff.

Mobile emergency contacts - Emergency contacts which take place outside the setting where the staff involved are routinely based should be classified as mobile emergency contacts.

Non-mobile emergency contacts - Emergency contacts which take place on the site where the staff involved are routinely based on that day should be classified as non-mobile.

NB: Non-mobile contacts may take place with services which have been classified under Section B as mobile - e.g. if a patient is seen at the Community Mental Health Centre where a community mental health team is based, this particular contact should be classified as a non-mobile contact, even if many of the team's other contacts take place away from the Centre and are classified as mobile.

Out of hours contacts - emergency contacts taking place outside usual local working hours should be counted as out of hours contacts (e.g. emergency contacts at night or at the weekend).

Office hours contacts - emergency contacts taking place during usual local working hours

Continuing care services - Numbers of users of services should be counted. This should include all patients who have had any contact with mental health staff which (i) was not an emergency contact; and (ii) was not an integral part of the care delivered by residential or day services.

Mobile continuing care services - Patients should be counted as mobile service users if at least one of their contacts has taken place outside a designated mental health facility or a setting in which psychiatric clinics are routinely held.

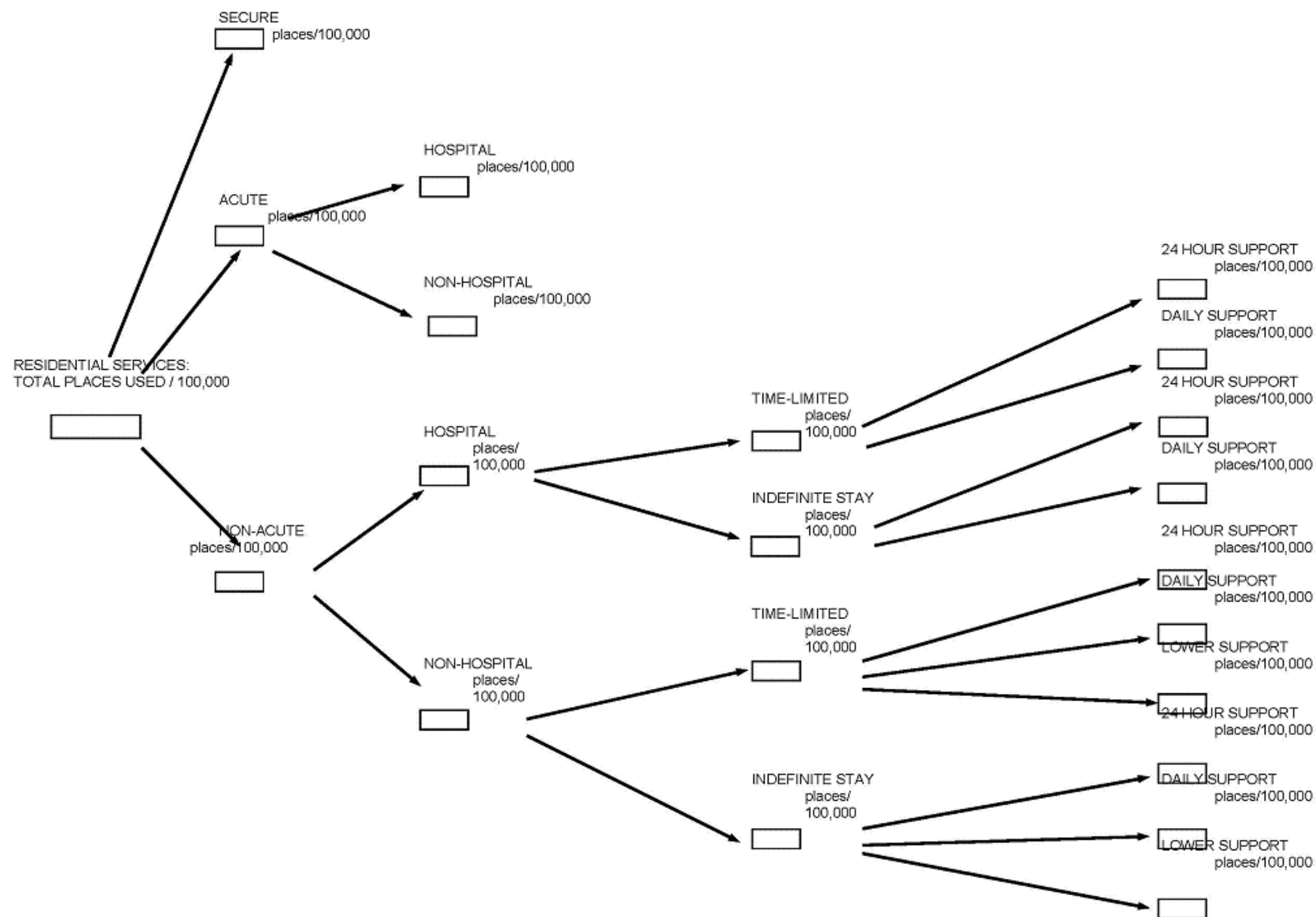
High intensity continuing care service users - Patients who during the past month have at some stage been seen three times or more in the space of a single week should be classified as high intensity service users. For example, if a patient has been seen on Monday, Wednesday and Friday during one of the weeks in the previous month, he/she should be classified as a high intensity user, even if there were no other contacts during the month.

Moderate intensity continuing care service users - Patients who have not been seen as often as three times in a week at any stage in the past month, but who have been seen at least twice during the month should be classified as moderate intensity service users.

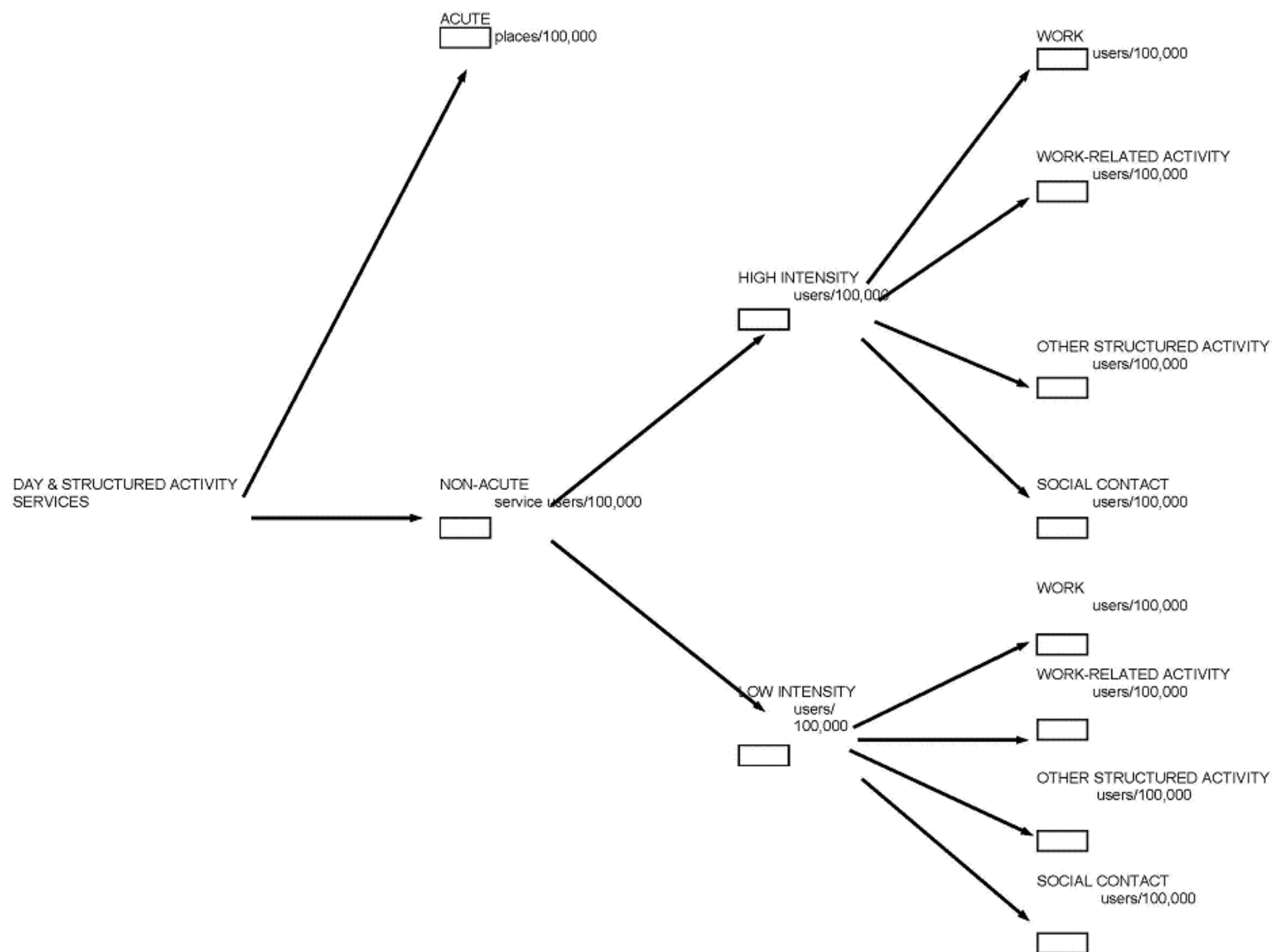
Low intensity continuing care service users - Patients who have been seen only once in the past month or who have not been seen in the past month, but have been seen in the past three months and with whom a further contact is definitely planned within the next three months should be classified as low intensity service users.

N.B. As with day care, some of those in contact with services classified in the service mapping trees in the previous section as high intensity services will be classified here as low intensity users. If a patient is seen once a month by members of a community mental health team, he/she is a low intensity service user, even if the team is in contact with some other patients several times per week.

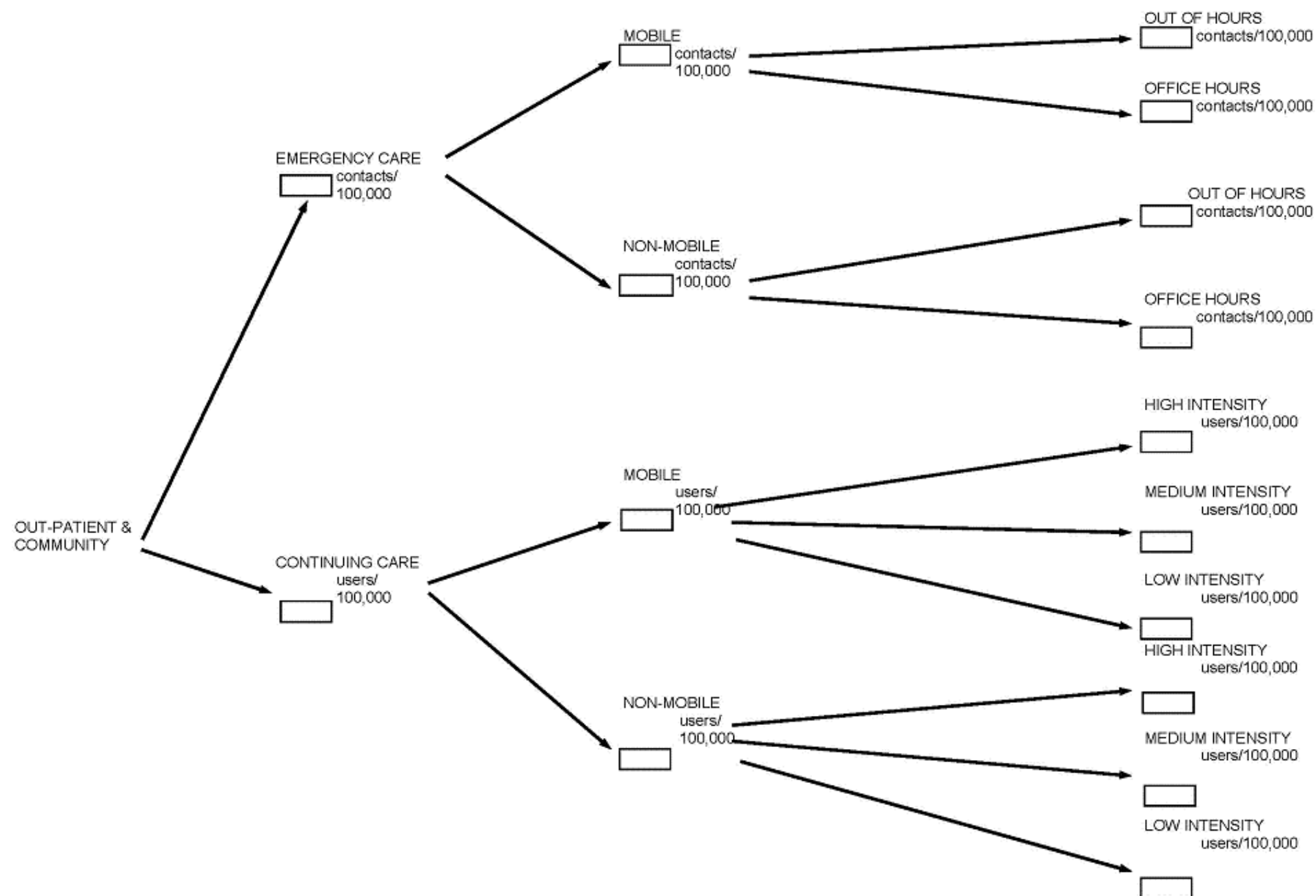
SERVICE COUNTING TREES - (1) RESIDENTIAL SERVICES



SERVICE COUNTING TREES - (2) DAY & STRUCTURED ACTIVITY SERVICES



SERVICE COUNTING TREES - (3) OUT-PATIENT & COMMUNITY SERVICES



SERVICE INVENTORY - PRINCIPLES

This section supplements Section B by allowing for a more detailed listing of local mental health services and description of their characteristics. The inventory sheet on the next page is to be copied as many times as is required to list all local services - the inventory sheets are not therefore numbered, but a box is provided in the top right hand corner for a page number to be added. Space is provided for the following information for each service:

Name: Give the name of the service

Branch number(s): This allows for cross referencing with the Service Mapping Trees in Section B. The location(s) of the service on the service mapping trees should be specified using the branch numbers and service numbers given in the tables on pages 6-8. For example, if a service is the first listed under Hospital Acute services on page 6, its number will be **R2.a**, where **R2** identifies the branch of the Mapping Trees on which it is located and **a** identifies its number within that branch. Services may be listed in one than one branch of the Service Mapping Trees and may therefore have more than one number: all numbers should be listed here.

Goals: The main functions which the service aims to fulfil should be described here - e.g. general hospital acute ward, sheltered workshop.

Location: Is the service freestanding or located within a larger institution (e.g. hospital/ community centre)? If in hospital, specify whether general or mental hospital.

Whether situated within the catchment area:

Main work sites: e.g. patients' homes, local primary care centres, on service's own premises.

Hours: Specify hours during which the service's staff are available for work with patients:

Maximum frequency of attendance/contact: Specify the maximum frequency of attendance or contact with staff usually possible for patients in this service.

Patient profile: The main target groups for whom the services is intended and the main entry criteria should be specified here.

Staff: The main types of staff available and the numbers of hours a week available from each should be listed here - e.g. 100 hours per week of nursing time.

Sector: This should be classified as **Public, For Profit, or Not for Profit**.

Management agency: The agency responsible for employing the staff and for overall management of the service should be identified.

Funding source: The agency or agencies which are paying for patients' care to be provided by the service should be identified.

Numbers of places/ service users/ contacts: Level of service use should be calculated using the same methods as in the Service Counting Trees in Section C.

Links with other services: Any major joint working or exchange of staff which takes place regularly with any other mental health services should be described - e.g. visits to a hostel by members of the local community mental health team.

Service inventory Name

Branch number (s)

Goals:

Location:

Whether situated in catchment area:

Main work sites:

Hours: Maximum frequency of attendance/contact:

Patient profile

Staff:

Sector (Public/For Profit/Not for profit)

Managing agency: Funding source:

Number of places/service users/contacts:

Links with other services:

2 APPENDIX TO CHAPTER 3: LITERATURE REVIEW METHODOLOGY

2.1 REFERENCE RETRIEVAL MEDLINE (OVID), PSYCINFO, EMBASE

The following time periods were searched: Medline (Ovid) (1950-Sept 2007); PsycInfo (1967-Oct 2007); Embase (up to Oct 2007)

As already pointed out previously (see chapter 2), the focus of this literature review is the “chronic” or “severe and persistent” mentally disordered patient. However, the use of terms like “severe”, “persistent” or “chronic” made the search too restrictive. As several important articles (already known by a first quick scan of the literature) could not be retrieved, these terms were abandoned and only terms pointing to mental disability were introduced.

The reference retrieval was guided by the ESMS classification; the structure of this tree was followed progressively, and the search for each separate subdivision of it is reported below.

For each ESMS subdivision, a separate search question was introduced by looking for appropriate thesaurus terms and supplementary free terms. Sometimes subdivisions not expected to yield many publications (e.g. residential- non acute- non hospital- time limited) or subdivisions that were not very likely to be separately dealt with in the literature (e.g. continuing care of high, moderate or low intensity) were taken together. Since the field of hospital care for chronic mental health disorders (including “secure” hospital services) is discussed in another KCE-report, these branches of the ESMS were not dealt with in this report.

As to the study type, meta-analyses, (systematic) reviews, randomized controlled trials, controlled clinical trials, cohort studies and case-control studies were included, since it was estimated that focussing on (systematic) reviews and RCTs only might be too restrictive for the subject under evaluation (organization of mental health care).

Although not specifically looked for, qualitative research was also taken into account when it resulted from the performed search strategy. Also, when qualitative studies were reported in other types of publications (e.g. in an RCT or observational study), it was taken into account.

Most search questions were limited to the years 1997-2007, because most of the important, already retrieved literature reviews or meta-analyses (Cochrane or CRD database) went back to 1997 (or 1998) for their literature review. If a high quality literature review or meta-analysis of a later date was available, only studies from that date on were included. When still too many search results for one search question were obtained, the search was further limited to studies concerning adults (18-65 years).

An example of one of the search strategies is presented below; the full search strategy can be obtained from the authors on request. Finally, the reference list of all included studies was looked through for additional publications relevant to the research question.

2.2 REFERENCE EVALUATION

In- and exclusion criteria

For the theoretical background, see chapter 2.

Further specification of inclusion criteria:

Studies on adults (18-65 years).

Some indication that it concerned “chronic” or “severe and persistent” mental disorders had to be present.

Only studies in peer-reviewed journals were taken into consideration.

In publications type EBM (Evidence Based Medicine), outcome had to be evaluated by quantifiable variables like days of hospitalisation etc., or by means of at least one validated, peer-reviewed outcome instrument (rating scale or questionnaire) on one of the 5 domains specified above (see chapter 2). It should also be noted that many scales or questionnaires contain items of several domains and not just of one single domain.

Further specification of exclusion criteria:

Studies concerning outcome effects/assessment of care for the chronically mentally ill, not including studies concerning medication trials or studies concerning content of specific forms of individual therapy (delivered from face to face).

Studies focussing on family interventions or patient/family education were not included, since this was considered to be a certain form of therapy.

Studies on alcohol or substance abuse were excluded, unless patients with dual diagnoses were considered (mental health disorder and alcohol/substance abuse) (see also 2.1.3).

Studies on aspects of forensic psychiatry and issues involving jurisdiction were excluded because of the overlap with service provision in the domain of justice (see also 2.1.3).

Studies on adults with intellectual disabilities and psychiatric disorders, as well as on post-partum mother-and-child services were excluded, because it was felt that a more specific search strategy might be necessary to retrieve all relevant publications. Studies on prevention, including prevention of suicide, were excluded.

All studies describing longitudinal assessment of SMI persons discharged because of asylum closure were excluded, since this topic has been dealt with in KCE report n°84, and by now the scientific literature considers these results to be well-established.

Studies dealing with issues on inpatient care are not included since they are subject of the KCE report 84 (see also 2.2.4).

Studies on self-help and non-professional services are excluded as well.

Studies conducted in developing countries were excluded.

Studies on cost or focussing on economic aspects were not included.

More specific exclusion criteria:

Psychiatric symptoms due to organic causes- dementia- chronic pain- insomnia- chronic fatigue syndrome- <18 years of age - >65 yrs of age- end-of-life or palliative care- studies concerning medication trials - topics other than mental care (e.g. dental care in psychiatric patients)- mere description of mental health care needs - description of treatment options without assessment of outcome or efficacy/effectiveness- qualitative research on the nature of certain psychiatric symptoms- effect of organisation of psychiatric care on HIV-prevention, Hepatitis B, C –epidemiologic studies - alcohol or substance abuse.

Also excluded were: suicide attempt (no specific search terms used, aspects of prevention), posttraumatic stress disorder (rather prevention), compulsory treatment (too specific and no specific search terms used so maybe results not complete).

2.3 REFERENCE EVALUATION SHEET TEMPLATE

See template of Appendix to chapter 4 (Literature review results)

2.4 SEARCH STRATEGIES FOR MEDLINE (OVID), PSYCINFO, EMBASE

An example of one of the search strategies is presented below; the full search strategy can be obtained from the authors on request.

MENTAL HEALTH SERVICES, OUT-PATIENT AND COMMUNITY, EMERGENCY CARE (MOBILE/ NON-MOBILE).

MEDLINE VIA OVID

Search strategy 11:

1. (psychiatric patient\$ or psychiatric diagnosis or psychiatric disorder\$).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
2. exp Psychiatry/
3. (mental illness or mentally ill).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
4. brief psychiatric rating scale.mp. or exp Brief Psychiatric Rating Scale/
5. schizophrenic psychology.mp. or exp Schizophrenic Psychology/
6. Mental Health Service\$.mp. or exp Mental Health Services/
7. mental disease\$.mp.
8. Mental Disorder\$.mp. or exp Mental Disorders/
9. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8
10. exp case-control studies/ or exp cohort studies/ or exp controlled clinical trials/ or exp randomized controlled trials/ or exp meta-analysis/
11. ("case-control studies" or "case-control study" or "cohort studies" or "cohort study" or "controlled clinical trial\$" or "randomized controlled trial\$" or meta-analysis).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
12. exp "Review Literature"/ or systematic review.mp.
13. 10 or 11 or 12
14. community mental health service\$.mp. or exp Community Mental Health Services/
15. community health service\$.mp. or exp Community Health Services/
16. community network\$.mp. or exp Community Networks/
17. ambulatory care.mp. or exp Ambulatory Care/
18. exp Ambulatory Care Facilities/
19. (Ambulatory Care Facilities or Ambulatory Care Facility).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
20. home care service\$.mp. or exp Home Care Services/
21. home nursing.mp. or exp Home Nursing/
22. rehabilitation center\$.mp. or exp Rehabilitation Centers/
23. treatment center\$.mp.

24. deinstitutionalization.mp. or exp Deinstitutionalization/
 25. (ambulatory treatment or ambulatory therapy).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
 26. outpatient\$.mp. or exp Outpatients/
 27. (outpatient therapy or outpatient care or outpatient treatment).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
 28. office visit\$.mp. or exp Office Visits/
 29. private practice\$.mp. or exp Private Practice/
 30. private therapy.mp.
 31. exp Outpatient Clinics, Hospital/ or ambulatory service\$.mp. or exp Rural Health Services/
 32. outpatient clinic\$.mp.
 33. (outpatient health service\$ or clinic visit\$ or community health care or community mental health care).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
 34. 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33
 35. exp Emergencies/
 36. (emergency or emergencies).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
 37. emergency treatment.mp. or exp Emergency Treatment/
 38. emergency care.mp.
 39. psychiatric emergency service\$.mp. or exp Emergency Services, Psychiatric/
 40. exp Crisis Intervention/
 41. (crisis or crisis intervention or crisis intervention team).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
 42. 35 or 36 or 37 or 38 or 39 or 40 or 41
 43. 9 and 13 and 34 and 42
 44. limit 43 to (("adult (19 to 44 years)" or "middle age (45 to 64 years)") and yr="1997 - 2007")
- Search results Medline (Ovid) 11: Retrieved: 281 articles; 61 articles retained based on title/abstract

PSYCINFO

Search strategy 11:

1. exp mental disorders/ or exp chronic mental illness/ or exp abnormal psychology/ or exp behavior disorders/ or psychiatric patients/ or psychiatric symptoms/ or exp psychodiagnosis/ or exp psychological assessment/ or exp psychopathology/ or thought disturbances/ or mental health/
2. ("mental disorder\$" or "chronic mental illness" or "abnormal psychology" or "behavior disorder\$" or "psychiatric patient\$" or "psychiatric symptom\$" or psychodiagnosis or "psychological assessment\$" or psychopathology or "thought disturbance\$" or "mental health").mp. [mp=title, abstract, heading word, table of contents, key concepts]
3. ("psychiatric disorders" or "nervous breakdown" or "mental illness" or insanity).mp. [mp=title, abstract, heading word, table of contents, key concepts]

4. exp mental health program evaluation/ or exp mental health programs/ or exp mental health services/
5. ("mental health program evaluation" or "mental health program\$or mental health service\$").mp. [mp=title, abstract, heading word, table of contents, key concepts]
6. exp Psychiatric Evaluation/ or psychiatric diagnosis.mp.
7. "psychiatric evaluation\$".mp.
8. exp Psychiatry/ or mental disease\$.mp.
9. mentally ill person\$.mp.
10. (psychiatric treatment or psychiatric disease or psychiatric disorder\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
11. exp BEHAVIOR PROBLEMS/ or exp BEHAVIOR THERAPY/ or exp BEHAVIOR DISORDERS/
12. ("BEHAVIOR PROBLEM\$" or "BEHAVIOR THERAPY" or "BEHAVIOR DISORDER\$").mp. [mp=title, abstract, heading word, table of contents, key concepts]
13. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
14. meta-analysis.mp. or exp Meta Analysis/
15. exp "Literature Review"/ or systematic review.mp.
16. exp COHORT ANALYSIS/ or cohort.mp.
17. exp LONGITUDINAL STUDIES/
18. ("randomized controlled trial\$" or "controlled trial\$" or "cohort study" or "cohort studies" or "case-control study" or "case-control studies" or "LONGITUDINAL STUDIES" or "LONGITUDINAL STUDY").mp. [mp=title, abstract, heading word, table of contents, key concepts]
19. 14 or 15 or 16 or 17 or 18
20. community mental health.mp. or exp Community Mental Health/
21. community psychiatry.mp. or exp Community Psychiatry/
22. community service\$.mp. or exp Community Services/
23. exp Community Facilities/ or community facilities.mp.
24. community facility.mp.
25. social service\$.mp. or exp Social Services/
26. community mental health service\$.mp. or exp Community Mental Health Services/
27. community mental health center\$.mp. or exp Community Mental Health Centers/
28. community mental health training.mp. or exp Community Mental Health Training/
29. home visiting program\$.mp. or exp Home Visiting Programs/
30. community health service\$.mp.
31. exp Social Networks/ or community networks.mp.
32. outpatient\$.mp. or exp OUTPATIENTS/
33. outpatient treatment.mp. or exp Outpatient Treatment/
34. (outpatient therapy or outpatient care or outpatient clinic\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
35. exp Psychiatric Clinics/ or psychiatric clinic\$.mp.
36. outpatient psychiatric clinic\$.mp.
37. outpatient health service\$.mp.

38. (ambulatory care facility or ambulatory care facilities or ambulatory care or ambulatory treatment or ambulatory therapy).mp. [mp=title, abstract, heading word, table of contents, key concepts]
39. treatment center\$.mp.
40. ambulatory service\$.mp.
41. home care.mp. or exp Home Care/
42. (home care service\$ or home nursing).mp. [mp=title, abstract, heading word, table of contents, key concepts]
43. exp REHABILITATION/ or rehabilitation.mp.
44. exp Rehabilitation Centers/ or rehabilitation center\$.mp.
45. deinstitutionalization.mp. or exp DEINSTITUTIONALIZATION/
46. (community mental health care or community health care).mp. [mp=title, abstract, heading word, table of contents, key concepts]
47. exp Private Practice/ or private practice\$.mp.
48. (private therapy or private therapies or office visit\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
49. outreach program\$.mp. or exp Outreach Programs/
50. suicide prevention center\$.mp. or exp Suicide Prevention Centers/
51. 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50
52. emergency service\$.mp. or exp Emergency Services/
53. (emergency or emergencies or emergency care or emergency treatment or psychiatric emergency service\$).mp. [mp=title, abstract, heading word, table of contents, key concepts]
54. crisis intervention.mp. or exp Crisis Intervention/
55. crisis intervention service\$.mp. or exp Crisis Intervention Services/
56. (crises or crisis).mp. [mp=title, abstract, heading word, table of contents, key concepts]
57. exp CRISES/
58. 52 or 53 or 54 or 55 or 56 or 57
59. 13 and 19 and 51 and 58
60. limit 59 to yr="1997 - 2007"

Search results Psycinfo 11: Retrieved: 97 articles (for all age groups); 27 articles retained based on title/abstract and excluding <18 years and elderly.

EMBASE

Search strategy I I:

#1 'psychiatry'/exp OR psychiatry AND [1997-2007]/py

#4 'mental disease'/exp OR 'mental disease' AND [1997-2007]/py

#7 'mental patient'/exp OR 'mental patient' AND [1997-2007]/py

#9 'mentally disabled persons'/exp OR 'mentally disabled persons' OR 'mentally disabled person' OR 'mentally ill persons'/exp OR 'mentally ill persons' OR 'mentally ill person' OR 'psychiatric patient'/exp OR 'psychiatric patient' OR 'psychiatric patients' AND [1997-2007]/py

#11 'mental health service'/exp OR 'mental health service' AND [1997-2007]/py

#12 'mental health services'/exp OR 'mental health services' OR 'psychiatric service'/exp OR 'psychiatric service' OR 'psychiatric services' AND [1997-2007]/py

#13 #1 OR #4 OR #6 OR #7 OR #9 OR #11 OR #12

#14 'meta analysis'/exp OR 'meta analysis' AND [1997-2007]/py

#16 'systematic review'/exp OR 'systematic review' OR 'randomised controlled trial'/exp OR 'randomised controlled trial' OR 'randomised controlled trials' OR 'controlled clinical trial'/exp OR 'controlled clinical trial' OR 'controlled clinical trials'/exp OR 'controlled clinical trials' OR 'clinical trial'/exp OR 'clinical trial' OR 'cohort analysis'/exp OR 'cohort analysis' OR 'cohort study'/exp OR 'cohort study' OR 'cohort studies'/exp OR 'cohort studies' OR 'case-control study'/exp OR 'case-control study' OR 'case-control studies'/exp OR 'case-control studies' OR 'case control study'/exp OR 'case control study' OR 'case control studies'/exp OR 'case control studies' AND [1997-2007]/py

#17 #14 OR #16

#18 'community mental health service' OR 'community mental health services'/exp OR 'community mental health services' OR 'community care'/exp OR 'community care' OR 'community health care'/exp OR 'community health care' OR 'community health service'/exp OR 'community health service' OR 'community health services'/exp OR 'community health services' OR 'community based rehabilitation'/exp OR 'community based rehabilitation' OR 'community program'/exp OR 'community program' OR 'ambulatory care'/exp OR 'ambulatory care' OR 'ambulatory care center'/exp OR 'ambulatory care center' OR 'ambulatory care centre' OR 'ambulatory care centers' OR 'ambulatory care centres' OR 'ambulatory service'/exp OR 'ambulatory service' OR 'extramural care'/exp OR 'extramural care' OR 'outpatient care'/exp OR 'outpatient care' OR 'outpatient department'/exp OR 'outpatient department' OR 'outpatient service'/exp OR 'outpatient service' OR 'outpatient therapy'/exp OR 'outpatient therapy' OR 'ambulatory treatment'/exp OR 'ambulatory treatment' OR 'ambulatory therapy' OR 'home mental health care'/exp OR 'home mental health care' OR 'home psychiatric care'/exp OR 'home psychiatric care' OR 'psychiatric home care'/exp OR 'psychiatric home care' OR 'home care'/exp OR 'home care' OR 'rehabilitation center'/exp OR 'rehabilitation center' OR 'rehabilitation centers'/exp OR 'rehabilitation centers' OR 'rehabilitation centre' OR 'rehabilitation centres' OR 'rehabilitation service'/exp OR 'rehabilitation service' OR 'private practice'/exp OR 'private practice' AND [1997-2007]/py

#19 'emergency'/exp OR 'emergency' OR 'emergencies'/exp OR 'emergencies' OR 'emergency health service'/exp OR 'emergency health service' OR 'emergency psychiatry'/exp OR 'emergency psychiatry' OR 'emergency treatment'/exp OR 'emergency treatment' OR 'emergency ward'/exp OR 'emergency ward' OR 'emergency care'/exp OR 'emergency care' OR 'crisis intervention'/exp OR 'crisis intervention' OR 'emergency intervention' AND [1997-2007]/py

#20 #13 AND #17 AND #18 AND #19

Search results Embase 11: Retrieved: 191 articles; 6 articles retained based on title/abstract

2.5 SEARCH BY INDEPENDENT RESEARCHER (MEDLINE SEARCH)

Selection of terms

MESHs relating to the description of psychiatric patients were combined using the boolean operator “AND” with the terms referring to the organisation of care.

The patients were defined using the following MESH terms: mental disorders/ or anxiety disorders/ or dissociative disorders/ or eating disorders or factitious disorders/ or impulse control disorders/ or mood disorders/ or personality disorders/ or "schizophrenia and disorders with psychotic features"/ or substance-related disorders/ OR Mentally Ill Persons/ OR psychiatry/ or community psychiatry/ or forensic psychiatry.

The MESH and free terms used for the organisation and evaluation of care were also combined with the Boolean operator “OR”: health services research/ health care surveys/ health services needs and demand/ needs assessment/ organizational case studies/ Program Evaluation/ Delivery of Health Care/ disease management / utilization review/ rehabilitation/ activities of daily living/ health care evaluation mechanisms/ evaluation studies/ organizational case studies/ outcome and process assessment (health care)/ program evaluation/ intervention studies/ Delivery of Health Care, Integrated/ ambulatory care / Outpatient Clinics, Hospital/ or outreach / transmural care.

Limits were applied to the results i.e., age (19-64 years), date (1996-2007) and language (French, English, Dutch, German). Only meta-analyses, practice guidelines, randomized controlled trials and reviews were considered.

Results

The search identified 475 references after eliminating duplicates.

All titles and abstracts were reviewed. Ninety-two papers (n=92) were selected using the following criteria: studies (RCTs or SR) concerning outcome effects/assessment of care for the chronically mentally ill (indication that it concerns “chronic” or “severe and persistent” psychiatric illness).

2.6 SEARCH STRATEGY CARE PROGRAM AND CARE PATHWAY

Search strategy Care program and Care pathway (Nov 2009, Medline)

#64 Search "care program" OR "care programs"

#65 Search ("care programs"[Title]) OR "care program"[Title]

#66 Search (mental health services[MeSH Terms]) OR mentally ill person[MeSH Terms]) OR psychiatry[MeSH Terms]

#68 Search #65 AND #66

Results: 74

#66 Search (mental health services[MeSH Terms]) OR mentally ill person[MeSH Terms]) OR psychiatry[MeSH Terms]

#82 Search critical pathways[MeSH Terms] AND #66

Results: 70

3 APPENDIX TO CHAPTER 4: LITERATURE REVIEW RESULTS

S8-- REFERENCE EVALUATION	REFERENCE ID	<i>Fenton WS 1998</i>	<i>Burns T 1999</i>	<i>Walsh E 2001</i>
CONCLUSION				
	MESSAGE	For severe and persistent mental illness, results for crisis treatment in a eight-bed community residency are comparable to hospitalisation in an acute psychiatric ward of a general hospital. Included patients did not require detoxification or acute general medical care. Results are true for outcomes at discharge and after 6 months in the domains of symptom improvement, psychosocial functioning, acute care service utilization, patient treatment satisfaction and patient satisfaction with life. Length of stay was significantly longer in the eight-bed community residency.	UK700 trial: no significant differences at 2 year follow-up between standard case management (SCM, case-load >30) and intensive case management (ICM, case-load 10-15) for rate or duration of hospital admission, clinical outcome, social functioning including living independently, days in jail, quality of life, number of unmet needs, or patient satisfaction with health services. At 1 year follow-up significantly less clinical symptoms and unmet needs in ICM group. Counter-intuitively, significantly more patients lost contact with case manager in ICM than in SCM	Part of the UK700 trial, see also Burns T 1999 At two year follow-up, no significant difference between standard case management (SCM, case-load >30) and intensive case management (ICM, case-load 10-15) for rate of suicide.
	Type of study	randomized controlled trial (USA)	randomized controlled trial (UK)	randomized controlled trial (UK)
	EVALUATION (Cochrane Library)	6/9 (blinding of patients and staff not possible)	6/9 (blinding of patients and staff not possible)	6/9 (blinding of patients and staff not possible)

Patient Characteristics				
	Age Range	average 37 yrs (SD 10)	average 38 yrs (SD 12) 52% white caucasians, 48% other.	see Burns T 1999
	Diagnosis	Severe and persistent mental illness in need of hospital-level care. Schizophrenia/schizoaffective 54%, bipolar 21%; other major mood disorder 20%; comorbid dependence 27%.	Psychotic symptoms hospitalized at least twice and the most recent admission within the past two years. (87% schizophrenia, 5% bipolar, 2% major depression, 6% other),	see Burns T 1999
	Functional status (severity)	Average lifetime hospitalisations 13 (SD 14); prior cumulative lifetime psychiatric hospitalisation: average 43 months. In the 6 months preceding admission: paid work 29%, homeless 21%, arrested 3%.	Mean hospital stay previous 2 years: 2 months. Comprehensive Psychiatric Rating Scale (CPRS) i.e. scoring of psychopathology: in moderate to severe range of illness. WHO Disability Assessment Schedule (DAS) i.e. scoring of social disability: in moderate to severe range of illness. 20% full- or part-time work	see Burns T 1999
	Duration of illness	Mean age illness onset 16 yrs (SD 9)	median history of illness 10 years	see Burns T 1999

Study Concept				
	Patients Included: N	Initial randomisation: N=185. N total (final inclusion)=119; N total (follow-up at 6 months)=113. After randomisation, allocation could be refused and the patient was not included in the study (14%). Drop-out for other reasons (administrative, no show-up): 22%. Total drop-outs: 36%; significant more drop-outs in hospital-group. Independent review of 27 clinical and demographic variables: not different across non-participants and participant.	Of initially approached patients 20% refused or dropped out; basic demographic and clinical variables not different from included patients. N (total included)=708 N (follow-up at 2 years): 610 (86%) Four centers, inner-city locations.	N (total included)=708 N (follow-up at 2 years): 663 (94%)
	Intervention	Final inclusion in crisis eight-bed residential community treatment: N=69 Crisis eight-bed residential community treatment: 24h per day supervision and support by 2 counsellors or social workers (non-medically trained staff) supervised by the crisis home psychiatrist; but further medical treatment by patient's usual outpatient psychiatrist and further participation in community based rehabilitation, work...	N (intensive CM)=353 Intensive case management (ICM): case-load 10-15 patients/ manager	see Burns T 1999
	N Control Group	Final inclusion in general hospital acute psychiatric ward: N=50	N (standard CM)=355	see Burns T 1999
	Intervention Controls	Acute psychiatric ward of general hospital; in-hospital medical treatment and rehabilitation	Standard case management (SCM): case-load of 30 or more patients/ manager	see Burns T 1999
	Medication-Comment	no information	no information	
	Duration Follow-up	scoring: at admission; at discharge; 6 mo after admission.	scoring: 0-12-24 months follow-up	at 2 year follow-up

Outcome Measures				
Service Utilisation				
	Admission to hospital	1.Treatment failure i.e. transfer to another inpatient facility: 13% in crisis 8-bed community residency; 4% in hospital, not significantly different. 2.Acute care use in 6 months before admission or in 6 months after admission: no significant difference between 2 groups.	No difference between groups	
	N° days hospital	N° of days in crisis 8-bed community residency: 18,7; in hospital: 11,7 (p<0,002; effect size 0,60)	No difference between groups	
	N° days in jail		No difference between groups	
	N° staff/user contacts		Lost contact with case manager: counterintuitively significantly more patients (p=0.02) lost contact in ICM (N=46) than in SCM (N=27)	
Clinical Outcome				
	Death/Suicide			At 2 year follow-up: 168 attempts of suicide by 73 (10,8%) subjects. Nine (1,3%) committed suicides. No significant difference between ICM and SCM group; odds 1,09 (95%CI 0,69-1,75)
	Improvement General/Specific	No serious adverse events. Positive and Negative Syndrome Scale (PANSS): improvement from admission to discharge and results after 6 months: no significant difference between 2 groups.	Comprehensive Psychiatric Rating Scale (CPRS): significantly less symptoms in ICM group at 1 year (p=0.01); no difference between groups at 2 years	
	Medication-Comment			
	Compliance Treatment			
	Relapses			

Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	Social functioning (interview patient, family, staff, medical and social records) i.e. paid work, social contacts (n° meetings with friends), homelessness, being arrested: no significant difference between groups in 6 months before admission or in 6 months after admission	Social functioning (interview patient): WHO Disability Assessment Schedule (DAS): no difference between groups at 1 and 2 years	
	Employment/Student			
	Able to live independently		No difference between groups	
	N° of carers involved			
Satisfaction/Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life	Patient treatment satisfaction (10-items, Quality of Life scale): no significant difference between groups Life satisfaction after discharge: no significant difference between groups	Lancaster quality of life Profile: no difference between groups at 1 and 2 years	
	Patient Satisfaction treatment		Questionnaire satisfaction health services: no difference between groups at 1 and 2 years	
	Patient met and unmet needs		Camberwell assessment of Need: significantly less needs in ICM group at 1 year (p=0.004); no difference between groups at 2 years	
	Staff satisfaction			
	Carer satisfaction			

Remarks				
			Many of the differences found in favour of intensive approaches in other studies show the importance of intensive care coordination; however this was not confirmed in this trial. Future investment should aim at the specific content of care rather than at its form and delivery.	

S9-- REFERENCE EVALUATION SHEET	REFERENCE ID	<i>Klinkenberg WD 1996 (ref)</i>	<i>Krupa T 2005</i>	<i>Tibbo P 1999</i>
	CONCLUSION			
	MESSAGE	<p>Receipt of aftercare after hospital discharge (i.e. at least one clinical or therapeutic contact within a specific time period after discharge) is determined by 1.client vulnerability (e.g. diagnosis), 2.level of community support (e.g. family involvement) and 3.system responsiveness (e.g. making appointment, outreach such as recall letters, length of waiting lists, provision of medication services). Of these three, variables related to system responsiveness are the most consistent predictors.</p> <p>Rehospitalisation is most determined by community support variables, but variables related to system responsiveness (e.g. receipt of aftercare or ACT) are also important. However, rehospitalisation can be determined by many other factors which were not under study (e.g. practices of local mental health workers)</p> <p>Results should be interpreted cautiously because of the methodological weaknesses in many of the underlying studies.</p>	<p>Six focus groups consisting of Assertive Community Treatment (ACT) service users, reflected on how ACT promotes community adjustment. According to them, the foundation of ACT is the one-to-one relationship which has a highly individualized nature, is flexible and provides continuity of services. ACT helps with meeting daily practical challenges, assists with management of illness and intervenes in crises. It assists with meeting goals and promoting self-development. ACT assists with becoming part of the community and eases problems associated with poverty. Overall the participants are pleased by the ACT services, however services promoting community participation are less well developed than clinical approaches, and staff requires more training in particular service areas's.</p> <p>Tensions inherent in receiving ACT are linked to the participants' negotiation of consequences of mental illness while striving for autonomy and participation. It encompasses that by receiving services the stigma continues; that ACT is colored by its association with hospital since it is the bridge to in-patient services if necessary; that ACT can be experienced as controlling and authoritative.</p>	<p>In a 1-year period after inclusion in an ACT program (Canada), frequency of hospitalization, length of stay and number of emergency room visits improved for a cohort of 295 persons with severe and persistent mental illness</p>
	Type of study	narrative review	qualitative research- focus groups (Canada)	retrospective pre-post design (Canada)
	EVALUATION (Cochrane Library)	1/8- incomplete search (only PsycLIT 1974-1994 and only English literature); no formal critical appraisal; poor reporting on basic data of included studies	participatory research team, detailed and transparent research process description	5/8; possible confounders not evaluated

Patient Characteristics				
	Age Range		average 47 yrs	
	Diagnosis	severe and persistent mental illness, not specified	severe mental disorder	severe and persistent mental disorder; psychotic illnesses 44%, bipolar 20%, major depression 10%
	Functional status (severity)		not specified	see indications ACT
	Duration of illness		illness duration: not specified; mean length of ACT service use: 61 months	
Study Concept				
	Patients Included: N		N=52; all persons served by four ACT teams (Canada, small cities in rural area) were invited and 15% participated	N=295
	Intervention		6 focusgroups based on a semi-structured interview guide with open-ended and focused questions	ACT indicated if: severe and persistent mental illness AND at least 3 of following: history multiple admissions-difficulty functioning in community-difficulty medication adherence-unwillingness to receive follow-up in office setting-high risk returning to hospital without outreach
	N Control Group			
	Intervention Controls			
	Medication-Comment			
	Duration Follow-up			data 1 year prior to and 1 year after start of ACT (1993-1995)

Outcome Measures				
Service Utilisation				
	Admission to hospital			emergency room (ER) visit for psychiatric indication: decrease of 32% for total number of visits (all clients); and 30% for number of clients that visited ER
	N° days hospital			psychiatric hospital admissions (all clients): reduction of 34% ; decrease of 28% for number of clients that had been hospitalized; decrease of 9% in average rate of hospitalization for those clients that had been hospitalized
	N° days in jail			length of inpatient stay (all hospitalizations): decrease of 56%; average decrease of number of days for each client: 39%
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement			
	General/Specific			
	Medication-Comment			
	Compliance			
	Treatment			
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills			

	Employment/Student			
	Able to live independently			
	N° of carers involved			
Satisfaction/Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life			
	Patient Satisfaction treatment			
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				
		Only PsycLIT (1974-1994) and only English literature included; no formal critical appraisal; poor reporting on basic data of included studies.	Qualitative research	

S11- REFERENCE EVALUATION	REFERENCE ID	<i>Lehman A 1997 and Lehman A 1999</i>	<i>Morse G 1997</i>	<i>Olfson M 1998 (included Syst Review 1.Adair C 2003 and 2.Crawford M 2004)</i>	<i>Weinmann S 2005</i>
CONCLUSION					
	MESSAGE	Relative to usual community care in the USA, ACT for homeless persons with severe and persistent mental illness produces a decline in psychiatric hospitalisation and use of emergency services. It increases outpatient visits. At the same time it produces better clinical and housing outcomes. Outcome on life satisfaction is less clear. Total costs do not differ significantly (USA context 1999).	Relative to broker case management, ACT for homeless persons with severe and persistent mental illness improves psychiatric symptomatology and increases time in stable housing. Clients in ACT treatment are more satisfied with treatment. No differences are found for severity of addiction, self-esteem or income (USA context 1997).	Inpatients that communicate with their new outpatient clinicians before they leave the hospital are significantly more likely to complete their short-term referrals for outpatient care. They have also less psychiatric symptoms at follow-up. However, the observational nature of the study does not exclude that inpatient communication with a new outpatient clinician is a proxy for treatment motivation. The problem of non-compliance remains a important problem. (USA)	<p>Evidence on psychiatric treatment that requires specific organisational configurations is discussed. Drugs or issues of therapeutic content in face-to-face treatment are excluded.</p> <p>Only systematic reviews and RCTs or controlled clinical trials are included: <i>1.Community Mental Health Teams</i>: Cochrane(1998), PRISM study London(1998): see results Cochrane; PRISM evaluates effects of CMHT in routine care. <i>2.Case management(CM)</i>: Cochrane(1998), review Ziguras(2000), UK700-study London(2002; see also S8): results of Cochrane review show an increase in SMI persons remaining in contact with services, but also an increase in hospitalization rate. Ziguras review, of lower quality, includes CM and ACT; no increase in hospital days and some effects on clinical and social functioning as well as patient satisfaction are found. <i>3.ACT</i>: Cochrane(1998), Harrison-Read(2002), Clarke(2000), Dekker(2002): results of the Cochrane (i.e. decrease in hospital admission and length of stay, more persons living independently or being employed) are less prominent in recent RCTs, maybe due to an overflow of ACT principles to routine care. <i>4.Day hospital</i>: 2 Cochrane(2001, 2002)- see results Cochrane. <i>5.Crisis intervention</i>: Cochrane(2000)- see results Cochrane. <i>6.Work rehabilitation</i>: Cochrane(2001), Lehman(2002): supported employment more effective than vocational rehabilitation</p> <p>No evidence could be found on Disease Management, Therapeutic day activities, assisted Living.</p>
	Type of study	RCT and cost-effectiveness study	RCT	prospective cohort study	Literature review (reviews and studies of several countries) Cochrane, DARE, HTA-databases, Medline, Embase up to June 2003.
	EVALUATION (Cochrane Library)			6 of 8	6 of 8

Patient Characteristics					
	Age Range	mean intervention group (ACT):39yrs- mean control group:36yrs	mean 34,8yrs (SD 10,4yrs)	mean 33,4yrs (SD 8,7yrs)	adults
	Diagnosis	1.Homeless persons:definition of National Institutes of Mental Health 2.severe and persistent mental illness: disability income for mental disorder or diagnosis schizophrenia DSM iii-R or diagnosis major affective disorder/anxiety disorder with extensive hospitalisation history last 3 years or mental disorder during last year making gainful activity impossible during 75% of time Included patients (N total: 152): 77% schizophrenic- 27% bipolar- 93% comorbid substance abuse	1.Homeless persons:criteria defined 2.severe and persistent mental illness: DSM iii-R axis I diagnosis and willing to recieve help Included patients (N total: 165): 81% psychotic disorder- 13% bipolar- 25% axis II personality disorder- 24% comorbid substance abuse	Included patients (N total: 104): Schizophrenia or schizoaffective disorder cfr. DSM-IV; Excluded: Stay longer than 120 days (Consecutive cohort of patients included; contact or no contact with new outpatient clinician during inpatient treatment as happening in or planned by the hospital; no randomisation)	"Severe mental illness": e.g. schizophrenia
	Functional status (severity)	definition SchinnarAP 1990- Included patients: no details	not defined	not defined	no information
	Duration of illness	see Diagnosis	not defined	13% never been hospitalized before; 62% three or more times hospitalized before	no information
Study Concept					
	Patients Included: N	77 (22 inpatients; 55 community-based)	N(broker) 55	N 53	
	Intervention	assertive community treatment; principles of model described-enhanced housing opportunities provided	broker case management with 85-1 client-staff ratio(assessment of client's need and purchase of services from multiple providers)	20% refused postdischarge outpatient contact- Others: first outpatient contact after discharge from hospital scheduled with clinician that had not previously treated them, but contact between patient and new clinician on site or by telephone before discharge.	
	N Control Group	75 (22 inpatients; 53 community-based)	N(ACT) 55 ; N(ACT-CommWork) 55	N 51	
	Intervention Controls	usual community services (USA)-enhanced housing opportunities provided	assertive community treatment only with 10-1 client-staff ratio (comprehensive services for unlimited time period); and assertive community treatment combined with community workers (assisting with activities of daily living and providing leisure activities)	25% refused postdischarge outpatient contact- Others: first outpatient contact after discharge from hospital scheduled with clinician that had not previously treated them, but no contact between patient and new clinician before discharge.	
	Medication-Comment	no information	no information	51% on antipsychotics during 3 months before admission	
	Duration Follow-up	T 0-2-6-12 months	T 0-18 months	3 months postdischarge	

Outcome Measures					
Service Utilisation					
	Admission to hospital			no significant difference between groups (emergency room visits and readmission)	
	N° days hospital	psychiatric hospital, emergency department: less in ACT group ($p=.009$)- outpatient mental care: ACT group more ($p<.001$)- general medical inpatient days: no difference-			
	N° days in jail	no difference between groups			
	N° staff/user contacts		Broker group less contacts with clients than both ACT groups ($p<.001$)	Significantly more outpatient psychiatric visits ($p=0,001$) at 3 months postdischarge for patients who communicated with their new outpatient clinicians before they left the hospital	
Clinical Outcome					
	Death/Suicide				
	Improvement General/Specific	Structured Clinical Interview for DSM-III-R (SCID) (T 0); Colorado Symptom Index (CSI): better at all time points in ACT group ($p=.03$ at T 12); Medical Outcomes Health Survey (SF-36): no clear differences.	Brief Psychiatric Rating Scale 24-item version (BPRS): better outcomes for thought disorder/unusual activity in both ACT groups ($p<.023$)	Brief Psychiatric Rating Scale (BPRS): significant better outcome for group who had contact with outpatient clinician while in the hospital, $p=0.02$ if controlled for baseline score - Center for Epidemiological studies-Depression scale: no significant difference between groups	
	Medication-Comment				
	Compliance Treatment		Addition severity index: no differences between groups	medication non-compliance 1 week or longer: no significant difference between groups	
	Relapses				

Disability and Handicap					
	ADL-activities				
	I-ADL-activities				
Social Outcome					
	Social Functioning, Life Skills			Global Assessment Scale (GAS): no significant difference between groups	
	Employment/Student		Income: no differences between groups	no significant difference between groups	
	Able to live independently	ACT group more days in stable housing(p=.006)	Days in stable housing: ACT groups more days than Broker group; ACT group only: significant difference(p<.032); ACT with community workers: trend only.	homelessness: no significant difference between groups	
	N° of carers involved				
Satisfaction/Quality of Life					
	N° people leaving study	83% at T12; no significant difference intervention/control	82% at T18 (N 135); no significant difference between groups	No significant difference in N patients who refused postdischarge outpatient contact (20 resp. 25%)	
	Patient Satisfaction life/Quality of Life	Lehman Quality of Life Interview: improvements for both groups- some differences on some subscales at certain time points but no overall differences between groups.	Self-esteem: Rosenberg scale:no differences between groups	Quality of Life interview: no significant difference between groups	
	Patient Satisfaction treatment		eight-item measure: Broker group less satisfied than both ACT groups (p<.001)		
	Patient met and unmet needs				
	Staff satisfaction				
	Carer satisfaction				
Remarks					
		Recruitment: 1991-1992; one city (Baltimore, USA)	Recruitment: 1990-1993; St Louis (Missouri, USA) No information on severity and on duration of mental disorder	Recruitment: 1991-1996; 4 general hospitals USA	

S12-- REFERENCE EVALUATION SHEET	REFERENCE ID	<i>Bauer MS 2006</i>	<i>Simon GE 2006 (ref)</i>	<i>Ludman EJ 2007 (ref)</i>
CONCLUSION				
	MESSAGE	<p>Collaborative Practice Model: joint (patient-doctor) problem definition, goal setting and planning; provision of support services to professionals; continuity and follow-up. Included: severely ill patients with bipolar disorder and many comorbidities. Intervention reduces patient time (per 3 years) in any episode with 6,2 weeks and in mania with 4.5 weeks. Small advantage for IG group on social functioning and QoL. Similar results on any episode or mania as Simon GE 2002, who evaluated collaborative care in an RCT for 441 bipolar patients but including less comorbidities.</p>	<p>A multicomponent intervention program for persons with bipolar disorders was provided by a nurse care manager (weekly supervision; average case-load 95 patients) in collaboration with the usual mental health care (MHC) providers. The program comprised 1. a collaborative treatment plan (joint patient-health care provider) 2. group psycho-education and follow-up on self-management skills (Life Goals Program) 3. monthly telephone call by nurse: structured clinical ratings of symptoms and medication, support to patient self-monitoring; written feed-back to usual MHC provider 4. as needed support, crisis intervention, care coordination by nurse. At 24 months, mean mania scores on Psychiatric rating scale (PRS) and number of weeks with mania symptoms significantly lower in IG; but no differences in depression scores. No difference in psychiatric hospitalization rate or medication use between groups. Systematic care-programs can reduce significantly the frequency and severity of mania in bipolar disorder.</p>	<p>Multicomponent intervention programs based on the chronic care model were pilot-tested for chronic or recurrent depression. The programs were provided by a counselor care manager (weekly supervision) in collaboration with the usual mental health care (MHC) providers. They comprised: 1. a collaborative treatment plan (joint patient-health care provider) 2. peer-led chronic disease self-management group program or professionally led depression psychotherapy group 3. monthly telephone call by counselor: structured clinical ratings of symptoms and medication, algorithm-based recommendations, support to patient self-monitoring; written feed-back to usual MHC provider 4. as needed support, crisis intervention, care coordination by counselor. Through the 12-month follow-up period, a significantly greater number of participants of the professionally led depression psychotherapy group completed participation. No significant differences between groups were noted for diagnosis of major depression, depressive symptoms scoring, patient rated global improvement, medication adherence or participant treatment satisfaction; however this pilot-study should be repeated including a larger number of participants.</p>
	Type of Study	Multi-center RCT (USA)	Multi-center RCT (USA)	Pilot RCT (USA)
	EVALUATION (Cochrane Library)	6 of 9	6 of 9	6 of 9

Patient Characteristics				
	Age Range	mean 46+- 10 yrs	mean 44+- 13 yrs	mean 50+-12 yrs
	Diagnosis	Bipolar DSM IV; comorbidities allowed	Bipolar DSM IV; comorbidities allowed Type 1 bipolar disorder: N=77%	At least 1 episode of major depression (DSM-IV)/ last 2 years, currently persistent residual symptoms of depression (SCL-90 Hopkins Symptoms Checklist) AND: at least 3 episodes of major depression/5 years, or dysthymia. Substance abuse no exclusion criterion
	Functional status (severity)	At least 2 hospitalisations over prior 5 years; 10% nonindependent living; 13% homeless; 54% unemployable; 28% disability pension; lifetime suicide attempt resp.substance disorder resp.anxiety disorder 65%- 72%-43%	Psychiatric Status Rating Scale: at baseline 22% in remission. Psychiatric hospitalisation past year N=10% Employed at baseline N=63% Alcohol abuse at baseline N=3% Drug abuse at baseline N=4%	61% employed at baseline
	Duration of illness	mean age at onset 21,0+- 9,0 yrs	no information	see diagnosis
Study Concept				
	Patients Included (Intervention Group, IG): N	N (total)= 330 Bipolar disorder (Veterans) Intervention Group (IG):N= 166	N (total)=441; at 24 months FU: N=335 (76%) Intervention Group (IG):N=212	N (total)=104 Intervention Group 1, 2, 3: N=26 (each group) Major depression at baseline: 55%; dysthymia at baseline: 79%

	Intervention	Collaborative Care Model: 1. group psycho-education (4-6 persons) on self-management skills (Life Goals Program) 2. simplified practice guidelines to support clinician decision 3. nurse care coordinators- 1 FTE nurse and 0.5 FTE psychiatrist/ 100 patients- 11 centers participating	Nurse care manager (weekly supervision, average case-load 95 patients) works in collaboration with the usual mental health care (MHC) providers. Components: 1. a collaborative treatment plan (joint patient-health care provider) 2. five sessions of group psycho-education on self-management skills (Life Goals Program) and twice-monthly follow-up sessions 3. monthly telephone call by nurse: structured clinical ratings of symptoms and medication, support to patient self-monitoring; written feed-back to usual MHC provider 4. as needed support, crisis intervention, care coordination by nurse. Four behavioral health clinics participating-	Intervention 1(IV1): telephone monitoring and care management by care manager (see below) Intervention 2(IV2): IV1+peer-led chronic disease self-management group program (evidence-based program of 6 weeks, and bimonthly follow-up groups) Intervention 3(IV3): IV1+professionally led depression psychotherapy group (10 week workshops and bimonthly follow-up groups) Care manager (CM) (counselor, weekly supervision) works in collaboration with the usual mental health care (MHC) providers. Three components: A. a collaborative treatment plan (joint patient-health care provider) -B. monthly telephone call by CM: structured clinical ratings of symptoms and medication, algorithm-based recommendations, support to patient self-monitoring; written feed-back to usual MHC provider -C. as needed support, crisis intervention, care coordination by CM. One behavioral health clinic (8500 patients/year) participating
	N Control Group (CG)	N=164	Control Group (CG): N=229	Control Group (CG): 26 participants
	Intervention Controls	usual care	usual care	usual care
	Medication-Comment	usual care by psychiatrist	no difference in medication use between groups	
	Duration Follow-up	Concept: 3 years or 156 weeks	2 years (104 weeks)	3-6-9-12 months

Outcome Measures				
Service Utilisation				
	Admission to hospital			
	N° days hospital		no difference in psychiatric hospitalization rate between groups	
	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide	5% deaths (20 persons, 1 suicide)		
	Improvement General/Specific	Longitudinal Interval Follow-up (semi-structured interview)/ 8 weeks providing weekly psychiatric symptom ratings for mania and depression i.e. number DSM-IV criteria. Outcome= n° of weeks in mania or depression episode; n° of symptoms per episode. Result: IG reduction in any episode 6,2 weeks (CI=0.3-12.5); IG reduction in mania 4.5 weeks(CI=0.8-8.0) - no difference in severity of symptom scoring per episode	Mean mania scores (Psychiatric rating scale PRS): significantly lower in IG (p=0.04). Number of weeks with mania symptoms significantly lower in IG (p=0.01). Mean depression scores or number of weeks with depression scores not significantly different. Baseline remission group: no statistical effect on mania or depression rates; baseline symptomatic group: program has effect on mean mania but not on mean depression scores.	SCID (interview of DSM-IV) diagnosis of major depression: no significant differences between groups at 12 months. SCL-20 depression scale (subscale of SCL-90 Hopkins Symptoms Checklist) as well as Patient Rated Global Improvement (PGI): no significant differences between groups at 6-9-12 months.

	Compliance Treatment			
	Medication-Comment	Intensity of bipolar-specific medication (National Institute of Mental Health Collaborative Study Instrument). Result: no difference between groups	at 24 months no statistical difference in medication use between groups	Antidepressant compliance: no significant differences between groups at 6-9-12 months.
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	Social Adjustment Scale II/8 weeks. Result: significant larger improvement for IG (p=0,003)		
	Employment/Student			
	Able to live independently			
	N° of carers involved			

Satisfaction/ Quality of Life				
	N° people leaving study	Results: 7% no data- 93% or 306 persons data available- mean FU 120+- 52 weeks; 5% deaths (20 persons, 1 suicide); no difference between groups	85% completed >=12 telephone contacts, 59% completed Life Goals Program	82% (IV1) to 94% (IV3) completed full follow-up (12 months) 71% completed telephone care management IV2: 58% attended at least one group session and 15% completed IV3: 58% attended at least one group session and 42% completed Significant difference between IV2 and IV3
	Patient Satisfaction life/Quality of Life(QoL)	Medical Outcomes Study 36-item Short form Health Survey (mental-physical)/ 6 months. Result: mental scale limited but significantly better QoL for IG		
	Patient Satisfaction treatment	Patient Satisfaction Index/ 6 months.Result: limited but significantly better for IG		Patient Satisfaction Index: no significant differences between groups at 6-9-12 months.
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				
		Direct all-treatment costs (USA): no difference between groups	Two-year mental health treatment costs in IG \$1251 (95%CI 55-2446) higher (USA)	

S12-- REFERENCE EVALUATION SHEET	REFERENCE ID	Nelson G 2007 (ref)	Coldwell CM 2007	Hwang SW 2005
CONCLUSION				
	MESSAGE	<p>Thirteen experimental and 3 quasi-experimental trials on interventions for people with severe and persistent mental illness who have been homeless revealed significant reductions in homelessness and hospitalization or imprisonment, resulting from programs that provided permanent housing and support (10 studies), Assertive community treatment (ACT, 4 studies) or Intensive case management (ICM, 4 studies). Effect size for housing stability was medium for programs combining housing and support (0.67), medium for ACT alone (0.47) and small for ICM alone (0.28).</p> <p>When added to case management, the housing component enhances the impact of CM on housing outcomes but only for the most severely impaired participants. No significant differences were found between independent and group housing. Short residential treatment compared to standard treatment (2 studies) revealed no effect on housing outcome. The permanent housing and support programs had no consistent effect on symptomatology, social functioning or quality of life compared to standard treatment. Some ACT and ICM studies showed positive effects on psychiatric symptomatology.</p>	<p>Six RCTs (five of which are also included in Nelson G 2007) and 4 observational pre-post studies including homeless people with severe and persistent mental illness were combined and a meta-analysis performed.</p> <p>ACT participants experienced significantly greater success in reducing homelessness (8/10 studies, 4/6 RCTs) but not in reducing hospitalization (2/5 studies, 1/4 RCTs). ACT participants experienced significantly larger reduction in psychiatric symptomatology (4/6 studies, 2/3 RCTs)</p> <p>The summary effect size (random effects method) for homelessness (RCTs) is 37% (95% CI=18-55; p=0.0001); the summary effect size (random effects method) for symptomatology (RCTs) is 26% (95% CI=7-44; p=0.006)</p>	<p>This systematic review comprises two parts relevant to our report.</p> <p>1.Homeless and severely mentally ill persons: the Hwang review describes the results of the ACCESS study (see separate analysis). Furthermore, 7/8 included studies are also included in the review by Nelson G 2007; the Hwang review focusses on health outcomes and has the same conclusions: Housing and support, ACT or intensive case management revealed significant reductions in hospitalization; some ACT and ICM studies showed positive effects on psychiatric symptomatology.</p> <p>2. Homeless people with concurrent mental illness and substance abuse: 2 studies evaluating a modified Therapeutic community approach could not find consistent effects on abstinence or psychiatric symptomatology. Furthermore, 2 other included studies on integrated treatment are both included in the Cochrane review on dual diagnoses (Cleary M 2008) and 1 of these two is also included in the Nelson review (Nelson G 2007). The Hwang review has the same conclusions: no significant effect from integrated programs on mental health or substance-abuse outcomes, as compared to separate treatment programs.</p>
	Type of Study	Literature review (all included studies USA). Medline, PsycInfo, Current contents up to Dec 2004.	Literature review and meta-analysis (9/10 included studies USA, 1 study Canada). Cochrane, Medline, PsycInfo up to Dec 2003.	Literature review (all included studies USA). Medline, PsycInfo, CINAHL, Healthstar, Sociological Abstracts and Social Services Abstracts up to July 2004.
	EVALUATION (Cochrane Library)	5 of 8	7 of 8	7 of 8

Patient Characteristics				
	Age Range	Housing and support Interventions: average across studies 35-42 yrs ACT and ICM: average across studies 32-42 yrs	average across studies 34-40 yrs	
	Diagnosis	Between 5 and 82% schizophrenia; between 0 and 100% substance abuse.	no information	
	Functional status (severity)	At baseline participants living on the street, in public places, shelters, transitional housing or psychiatric hospitals and often lengthy histories of homelessness	no information	
	Duration of illness	no information	no information	
Study Concept				
	Patients Included (Intervention Group, IG): N			
	Intervention	Permanent housing and support: providing permanent housing and single room occupancy although often some form of group living included; staff external to housing rather than onsite; independent living and support process controlled by tenant; support oriented towards recovery and empowerment by rehabilitation, ACT or ICM. ACT or ICM (less than 25 patients/case manager): without a housing intervention (Note: many not-included studies on ACT or ICM don't report on housing outcome)	Assertive community treatment (ACT), including treatments based on principles of ACT (i.e. intensive case management (1 study), Bridge model outreach (1 study), Choices outreach program (1 study))	

	N Control Group (CG)			
	Intervention Controls	<p>Permanent housing and support: compared to standard treatment (6 studies), to case management only (without housing, 3 studies); one study compared independent and group housing; 2 studies compared short residential treatment to standard treatment</p> <p>ACT or ICM: compared to standard treatment often including some kind of outreach or brokerage service. One type of ICM (1 study) was described as "Critical Time Intervention", strengthening an individual's ties to services, family and friends and providing emotional and practical support.</p>	<p>RCTs: standard case management (4 studies) or standard services (2 studies)</p> <p>Observational studies: pre-post design</p>	
	Medication-Comment	no information	no information	
	Duration Follow-up	more than 1 year in 14/16 studies	From 3 to 24 months	
Outcome Measures				
Service Utilisation				
	Admission to hospital		<p>ACT participants did not experience a significant reduction in hospitalization (favorable result in 2/5 studies, 1/4 RCTs). Summary effect size (random effects method; RCTs) is (10%) (95% CI= -7 to +27%; p=0.24)</p>	
	N° days hospital	<p>Permanent housing and support: less days in hospital</p> <p>ACT and ICM: less hospitalizations</p> <p>ACT: more contacts with outpatient health services (probably leading to less hospitalizations)</p>		

	N° days in jail	Permanent housing and support: less days in jail/prison		
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific	Permanent housing and support: no consistent effect on symptomatology or substance abuse Some studies on ACT (2 of four) and ICM (1 of 4): decrease in psychiatric symptomatology	ACT participants experienced significantly larger reduction in psychiatric symptomatology (4/6 studies, 2/3 RCTs) Summary effect size (random effects method; RCTs) is 26% (95% CI=7-44; p=0.006)	
	Compliance Treatment			
	Medication-Comment	no information		
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	Permanent housing and support: no consistent effect on social support ACT: more contacts with social services		
	Employment/Student			

	Able to live independently	Permanent housing and support: more stable housing compared to standard treatment in intervention group (effect size 0.67); more stable housing compared to case management alone for most severely impaired participants (3 studies, effect size 0.37) i.e. the housing component enhances the impact of CM on housing outcomes but only for the most severely impaired participants; no effect on housing outcome for short residential treatment compared to standard treatment (2 studies); no significant differences between independent and group housing. ACT: more stable housing compared to standard treatment in intervention group (effect size 0.47); ICM: more stable housing compared to standard treatment in intervention group (effect in 2 of 4 studies; effect size 0.28);	ACT participants experienced significantly greater success in reducing homelessness (8/10 studies, 4/6 RCTs). The summary effect size (random effects method; RCTs) is 37% (95% CI=18-55; p=0.0001).	
	N° of carers involved			
Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life(QoL)	Permanent housing and support: no clear effect on quality of life.		
	Patient Satisfaction treatment			
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S12-- REFERENCE EVALUATION SHEET	REFERENCE ID	Morrison JP 2002	Rosenheck RA 2002	Rothbard AB 2004
CONCLUSION				
	MESSAGE	<p>ACCESS (Access to Community Care and Effective Services and Supports) Program: 18 sites across the US each provided ACT services to 400 homeless severely mentally disordered persons (1994-1998); 9 of these sites received additional technical support and funding to implement strategies and to promote systems integration. The experimental sites demonstrated significantly better project-centered <i>integration</i>. This did not induce better overall systems integration (i.e. integration among agencies that were not directly connected to the project agency) at the experimental sites.</p>	<p>ACCESS Program: see also Morrison JP 2002: all sites implemented ACT; 9 experimental sites reimbursed to enhance system <i>integration</i> were compared to 9 control sites.</p> <p>Homeless persons with SMI (severe mental illness) at all sites demonstrated improvements on mental health measures, housing stability, employment and quality of life but no statistical significant difference was noticed between experimental sites and control sites. More extensive implementation of systems integration strategies was unrelated to these outcomes. However, sites that became more integrated, regardless of the degree of implementation or whether the sites were experimental or comparison sites, experienced progressively better housing outcomes.</p>	<p>Follow-up data of ACCESS Program: see also Morrison JP 2002 and Rosenheck RA 2002. Administrative (Medicaid) data learned that one year following termination of the ACCESS study, homeless persons with SMI (severe mental illness) who participated, still had a significantly larger use of ambulatory care and a better continuity of care (outpatient contact within 30 days of inpatient discharge).</p> <p>The percentage of persons with SMI in need of inpatient care or using emergency services was not different before, during and after the ACCESS program. Although there was no difference in the percentage of SMI persons in need of hospitalization pre-, during and post-intervention, hospitalizations became shorter during the interventions and tended to stay shorter afterwards.</p>
	Type of Study	Multicenter RCT (USA)	Multicenter RCT (USA)	Pre-post design (Based on ACCESS study: administrative data of subsample (one site) evaluated pre-, during and post-intervention)
	EVALUATION (Cochrane Library)	4 of 9	4 of 9	4 of 8 (cohort design)

Patient Characteristics				
	Age Range	see Rosenheck RA 2002	no information for total group; sample (one year): 38+-9 yrs	see Rosenheck RA 2002
	Diagnosis		no information for total group; defined by 30-item screening instrument validated against SCID	
	Functional status (severity)		self-reported rating of depression and psychosis (PERI, Psychiatric Epidemiology Research Interview-National Institute of Mental Health Diagnostic Interview Schedule- ASI, Addiction Severity Index)- number of interviewer observations of overtly disturbing behavior and number of days in the past 30 with intoxication	
	Duration of illness		no information	
Study Concept				
	Patients Included (Intervention Group, IG): N	Nine intervention sites	N (total): 7055 homeless SMI persons not yet involved in community treatment (intervention + control).	N=146; all participants from 1 state (1 experimental and 1 control site) who were Medicaid eligible during full evaluation period (pre-, during, post-ACCESS intervention)
	Intervention	<p>Besides funds to support ACT, technical support and additional funding (250 000\$/year) were provided to 9 sites to implement strategies and to promote systems integration, focussing on five service sectors (mental health, substance abuse, housing, primary care, social welfare). Examples of integration strategies: integration coordinator position, interagency coordinating body, cross-training, client tracking systems etc.</p> <p>Evaluation method: each site visited 3x, interviews and ratings by visitors.</p> <p>Ratings for strategy implementation: per site 12 integration strategies scored (5-point Likert scale).</p> <p>Ratings for integration outcome (project-centered integration and overall systems integration) based on the social network theory (enumerating the number of interagency linkages/ties on 3 domains: client referral, information exchange, funding flows)</p>	Homeless SMI persons at intervention sites at baseline different from control sites: more severe mental health problems and addiction; longer homelessness; less education, less social support. This has been controlled for in results.	Based on administrative data (Medicaid): inpatient, emergency department, ambulatory mental health and substance abuse service utilisation as well as continuity of care (outpatient care within 30 days of discharge) compared pre-, during and post-intervention

	N Control Group (CG)	Nine comparison sites		participants from ACCESS intervention and control group were pooled
	Intervention Controls	Nine comparison sites (each matched in baseline characteristics to 1 experimental site) received funds to support ACT; no special effort to promote systems integration. Evaluation: see "Intervention"		
	Medication-Comment		no information	no information
	Duration Follow-up	site visit: baseline- 2 years- 4 years	SMI persons: baseline- 3 months (82%)- 12 months (78% or 5471 persons); 4 cohorts of 1 year each.	pre-ACCESS: 1 year ACCESS: 1 year- FU 3 and 12 months; post-ACCESS: 1 year
Outcome Measures				
Service Utilisation				
	Admission to hospital			admission for inpatient care pre -during -post ACCESS: no significant difference-- emergency department use pre -during -post ACCESS: no significant difference
	N° days hospital			inpatient stay pre-during ACCESS: significantly shorter during ACCESS than before-- inpatient stay during -post ACCESS: no significant difference OUT PATIENT care: Percentage of patients using out-patient care and number of out-patient contacts per user pre-during ACCESS: significantly more during ACCESS than before-- during -post ACCESS: no significant difference

	N° days in jail			
	N° staff/user contacts		N° of involved service types reported by client and n° clients reporting involvement of case manager: significant improvement at follow-up for all clients and weak relationship with changes in system integration. N° of psychiatric services contacts: significant improvement at follow-up for all clients but no significant difference experimental sites/control sites	Continuity of care: Percentage of patients using out-patient care within 30 days of inpatient discharge: significantly more during ACCESS than before-- during -post ACCESS: no significant difference
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific		Significant improvement at follow-up for all clients but no significant difference experimental sites/control sites. Measured by: Self-reported rating of depression (Diagnostic Interview Schedule) and psychosis (Psychiatric Epidemiology Research Interview), number of interviewer observations of overtly disturbing behavior (validation of instruments reported). Number of days in the past 30 with intoxication and Addiction Severity Index (ADI).	
	Compliance Treatment			
	Medication-Comment			
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills			
	Employment/Student		Days employed in the past 30: Significant improvement at follow-up for all clients but no significant difference experimental sites/control sites	

	Able to live independently		Independent housing (alone or not) during 30 days: Significant improvement at follow-up for all clients but no significant difference experimental sites/control sites. Moreover, significant relationship between change in independent housing and change in project-related integration or overall systems integration (all sites)	
	N° of carers involved			
Satisfaction/ Quality of Life				
	N° people leaving study		no significant difference experimental sites/control sites	
	Patient Satisfaction life/Quality of Life(QoL)		Self-developed questionnaire: Significant improvement at follow-up for all clients but no significant difference experimental sites/control sites	
	Patient Satisfaction treatment			
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				
				Small number- Possible selection bias: only those that were continuously Medicaid-eligible were enrolled, this might be persons more able to obtain and keep services

S12- REFERENCE EVALUATION SHEET	REFERENCE ID	Lehman A 1994 (ref)(included Syst Review Adair C 2003)	Morrisey J 1994 (ref)(included Syst Review Adair C 2003)	Durbin J 2006
CONCLUSION				
	MESSAGE	<p>Robert Wood Johnson Foundation program on chronic mental illness (see also Morrisey J 1994) :</p> <p>nine medium-to-large US cities received subsidies to integrate care for individuals with chronic mental illness (CMI) through two levels of re-organization.</p> <p>At the services level, case management programs were implemented to provide clients with individualized assistance to obtain needed services.</p> <p>At the systems level, a local mental health authority (LMHA) was created to re-organize local provider agencies across a wide range of sectors (i.e., health, housing, social welfare and mental health) into a well-functioning network of coordinated services. LMHA had clinical, administrative and fiscal responsibility. One comparison city was included in the evaluations.</p> <p>Project part 1 compared continuity of care(CC) for 2 cohorts of patients with chronic mental illness. Level of CC was compared with evolution in patient outcomes. Patients were included at discharge from the hospital. Cohort 1: discharged during the early stages of the project. Cohort 2: discharged later, after the LMHA was expected to have moved the system to a higher level of integration. Structured interviews at discharge and at 2 and 12 months after discharge asked about symptoms, functioning, quality of life and about received mental health services. Indicators of CC were *1.case manager available or not *2.if case manager available, was there a change in manager *3.unmet service needs *4.how many needs met during period *5.were provided services helpful or not.</p> <p>Improvements of CC from cohort 1 to cohort 2 were modest (at 12 months significant better result for cohort 2 for CC indicator 2 and 3 (p<0.05, ANCOVA) but not for indicator 1, 4 and 5)</p> <p>Patient outcomes at 2 and at 12 months were not different between the two cohorts for days of hospitalisation, self-reported level of functioning or life satisfaction, and symptomatology was worse in cohort 2 (p<0.05).</p> <p>It is concluded that enhancement in service integration at a system levels does not clearly affect continuity of care at a patient level nor patient outcomes in the domains of symptoms, functioning, and quality of life.</p>	<p>Robert Wood Johnson Foundation program on chronic mental illness (see Lehman A 1994)</p> <p>Project part 2 included evaluation of performance of LMHA and associated community support system (CSS) 2 months and 24 months after start of the operational phase in the 9 demonstration sites and in 1 control site. Evaluation included 1.survey of key informant (all sites); 2.interorganisational network survey (5 most promising sites out of 9); 3. site visiting (all sites).</p> <p>All sites succeeded rather well in the creation of a LMHA but the scores for CSS were lower. Ratings of the network structure improved over time.</p>	<p>Non-systematic review (no systematic search, no quality appraisal) including 3 large studies on implementation of services integration for an <i>adult</i> SMI population: Robert Wood Johnson Foundation program (see separate discussion); ACCESS program (see separate discussion); Mental health reform Kansas. The Kansas program consists of a case report on the changes in one state after deferring responsibility from hospitals to CMHCs, implementation of centralized access and increase of case management and crisis intervention. This case report is not included here.</p>
	Type of Study	Pre-post design	Qualitative research	Non-systematic review
	EVALUATION (Cochrane Library)	3 of 8 (possible selection bias; evaluated as cohort design)	transparent and extensive reporting on surveys and site visiting; however possible selection bias for interorganisational network survey	2 of 6

Patient Characteristics				
	Age Range	mean 35.8 yrs		
	Diagnosis	included as criterium for CMI (details to be obtained from authors); 62% schizophrenia.		
	Functional status (severity)	included as criterium for CMI (details to be obtained from authors)		
	Duration of illness	included as criterium for CMI (details to be obtained from authors)		
Study Concept				
	Patients Included (Intervention Group, IG): N	Cohort 1: N= 359 (only 42% of eligible patients agreed to participate)		
	Intervention	<p>Cohort 1 selected and evaluated at the early phase of reorganisation (1988-1990). Cohort was chosen at the 4 most promising of the 9 sites.</p> <p>Two levels of re-organization:</p> <ol style="list-style-type: none"> 1. case management programs were implemented to provide clients with individualized assistance to obtain needed services. 2. a local mental health authority (LMHA) was created to re-organize local provider agencies across a wide range of sectors (i.e., health, housing, social welfare and mental health) into a well-functioning network of coordinated services. 		

	N Control Group (CG)	Cohort 2: N= 302 (only 31% of eligible patients agreed to participate)		
	Intervention Controls	<p>Cohort 2 selected and evaluated at the late phase of reorganisation (1990-1992), after the LMHA was expected to have moved the system to a higher level of integration.</p> <p>Cohort was chosen at the 4 most promising of the 9 sites.</p> <p>Two levels of re-organization:</p> <ol style="list-style-type: none"> 1. case management programs were implemented to provide clients with individualized assistance to obtain needed services. 2. a local mental health authority (LMHA) was created to re-organize local provider agencies across a wide range of sectors 		
	Medication-Comment	no information		
	Duration Follow-up	each cohort followed up for 2 years.		
Outcome Measures				
Service Utilisation				
	Admission to hospital			
	N° days hospital	no significant difference between cohort 1 and cohort 2 for average number of hospitalization nights		

	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific	significant worse symptomatology for cohort 2 at 12 months (SCL-90; t-test $p < 0.01$)		
	Compliance Treatment			
	Medication-Comment			
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	no significant difference between cohort 1 and cohort 2 for self-reported level of functioning (subscales of Uniform client data system (Goldstrom and Manderscheid))		
	Employment/Student			

	Able to live independently			
	N° of carers involved			
Satisfaction/ Quality of Life				
	N° people leaving study	high retention rates for both cohorts: between 86% and 97% at 2 and 12 months follow-up		
	Patient Satisfaction life/Quality of Life(QoL)	no significant difference between cohort 1 and cohort 2 for life satisfaction (Lehman Quality of Life interview)		
	Patient Satisfaction treatment	no significant difference between cohort 1 and cohort 2		
	Patient met and unmet needs	significantly lower number of unmet needs for cohort 2 at 12 months (p<0.05, ANCOVA)		
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S12-- REFERENCE EVALUATION SHEET	REFERENCE ID	Bindman J 2000 (included Syst Review 1.Adair C 2003 and 2.Crawford M 2004)	Saarento O 1998 (included Syst Review Adair C 2003)	Sytema S 1997 (included Syst Review 1.Adair C 2003 and 2.Crawford M 2004)
CONCLUSION				
	MESSAGE	<p>100 SMI persons were recruited from two adult psychiatric teams providing comprehensive mental health services for 2 London sectors (each 45 000 inhabitants); they were prospectively followed during 20 months. Four parameters of <i>continuity of care</i> (CC) were linked to clinical and functional outcome scores of these persons. No correlation could be found. These simple measures of CC (ease of contact between SMI person and professionals, extent of breaks in service delivery, continuity of contact with particular professionals) are useful in evaluating changes in the process of care, but they are not straightforwardly related to individual outcome, at least not in this group of patients.</p>	<p>350 patients with non-organic psychosis who were "newly" admitted to the hospital of 7 sectorized psychiatric services (catchment area's) in 4 North-European countries were followed-up during one year after discharge. "Newly" admitted: not in contact with the regional services during 18 months before admission. The probability of <i>continuity of care</i> i.e. of having an aftercare contact after hospital discharge differed significantly between the catchment areas. In most areas the probability of having an aftercare contact within one month after discharge was less than 50%. Aftercare following hospitalisation is more probable (Cox regression model) if outpatient services are located geographically close to the patients, if the hospitalisation lasted between 2 and 4 weeks, if there was community care contact shortly before hospital admission and if the patient is not retired and not divorced. In conclusion, continuity of care (aftercare contacts) was related to characteristics of the psychiatric services, previous events in a patient's pattern of care and patient characteristics. Staff resources were not related to continuity of care.</p>	<p>Two aspects of <i>continuity of care</i> (CC) are measured : time between hospital discharge and first out- or day-patient contact (FU contact); and flexibility of care (rapid transfer between care levels according to varying patient needs). Regional case-registers are used to identify persons with non-organic psychoses in two different areas (South Verona, Italy and Groningen, the Netherlands). During a 2 year follow-up period (1988-1989), 123 resp. 689 persons were identified. For those persons discharged from hospital during follow-up (47 resp. 49%), the median time from discharge to first FU contact was significantly shorter in Italy. In both areas, aftercare following hospitalisation tends to be more probable (Cox regression model) if hospital admission had been short; it is significantly more probable if there was community care contact shortly before hospital admission and if the patient is younger (comparable to Saarento O 1998). In Italy, significantly more included persons used two or more different services (in-, out-, and/or day-patient service) and more persons used the maximum of 3 different services; so service use is more flexible in the Italian region of South-Verona. The authors assume that these results might be due to the continuity of care <i>provider</i> which is available in South Verona but not in Groningen.</p>
	Type of Study	Prospective cohort study	Prospective cohort study (North-Europe)	Retrospective cohort study (the Netherlands, Italy)
	EVALUATION (Cochrane Library)	7 of 8 (cohort design)	7 of 8 (cohort design)	administrative data analysis; 4 of 8 (cohort design)

Patient Characteristics				
	Age Range	mean 41 years		
	Diagnosis	severe enduring mental illness: schizophrenia, bipolar disorder, recurrent depressive disorder	ICD-diagnosis of non-organic psychosis	ICD-diagnosis of non-organic psychosis
	Functional status (severity)			
	Duration of illness	at least 2 life time psychiatric admissions at baseline	1 year follow-up after first hospitalisation	
Study Concept				
	Patients Included (Intervention Group, IG): N	N=100 at baseline; N=74 at 20 months	N=371 patients	N= 123 (South Verona, 75 000 inhabitants, Italy) of which 47% had been discharged from hospital at least once;
	Intervention	<p>Four measures of continuity of care :</p> <p>Based on interview at baseline and after 20 months:</p> <ol style="list-style-type: none"> 1.perceived accessibility (score) 2.knowledge on accessibility (score) <p>Based on administrative data:</p> <ol style="list-style-type: none"> 3.number of different key-workers/20 months 4.time out of contact while in the community(%) 	<p>One measure of continuity of care :</p> <p>time from discharge to first day-patient or out-patient contact</p> <p>Evaluation of possible determinants of this measure (Cox regression model):</p> <p>geographical distances to services, rates of staff in outpatient and day-care facilities, previous events in a patient's pattern of care, social characteristics of patients</p>	<p>Regional case-register study:</p> <p>Two aspects of continuity of care (CC) are measured : time between hospital discharge and first out- or day-patient contact (FU contact); and flexibility of care (rapid transfer between care levels according to varying patient needs)</p>

	N Control Group (CG)			N=689 (Groningen, 450 000 inhabitants, the Netherlands) of which 49% had been discharged from hospital at least once.
	Intervention Controls			idem
	Medication-Comment	no information	no information	no information
	Duration Follow-up	20 months	one year	two years
Outcome Measures				
Service Utilisation				
	Admission to hospital			For those persons discharged from hospital during follow-up (47% Italy; resp. 49% the Netherlands), the median time from discharge to first FU contact was 6 resp. 9 days ($p=0.02$; significantly shorter in Italy). In both areas, aftercare following hospitalisation tends to be more probable if hospital admission had been short; it is significantly more probable if there was community care contact shortly before hospital admission and if the patient is younger
	N° days hospital	no significant correlation between number of days in hospital during follow-up (20 months) and continuity of care scores (linear and multivariate regression)		
	N° days in jail			
	N° staff/user contacts			In Italy, significantly more included persons (67% versus 47% in the Netherlands) used two or more different services (in-, out-, and/or day-patient service) and more persons used the maximum of 3 different services

Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific	GAF-symptom score and Total BPRS score (Brief Psychiatric Rating Scale): no significant correlation between GAF score change or Total BPRS change score and continuity of care scores (linear and multivariate regression)		
	Compliance Treatment			
	Medication-Comment			
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	GAF-function score and HoNOS score (Health of the Nation Outcome Scale): no significant correlation between GAF score change or HoNOS change score and continuity of care scores (linear and multivariate regression)		
	Employment/Student			
	Able to live independently			

	N° of carers involved			
Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life(QoL)			
	Patient Satisfaction treatment			
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S12-- REFERENCE EVALUATION SHEET	REFERENCE ID	Adair C 2005	Greenberg G 2005	Forchuk C 2005
CONCLUSION				
	MESSAGE	<p>The Alberta continuity of services scale for mental health (ACSS-MH) was used to measure continuity of care for 486 SMI persons with stabilised illness; measures were taken from SMI persons as well as from observers (health care professionals). The relationship between continuity scores and health outcomes (including community functioning, quality of life and service satisfaction) was examined.</p> <p>Lower observer continuity scores were found to be related to the following variables: older age, lower income, suicidality, comorbid substance abuse, no diagnosis of psychosis, lower problem severity scores on Colorado client assessment record.</p> <p>A significant association was found between between patient-rated continuity (ACSS-MH) and quality of life, functioning as well as service satisfaction; and between observer-rated continuity (ACSS-MH) and quality of life as well as service satisfaction (significant at 0.01 level). Even after correction for sociodemographic and clinical confounders, the relationship between quality of life and ACSS-MH remained significant. No association was found with severity of clinical symptoms.</p> <p>These results cannot support an unequivocal conclusion that better continuity leads to better outcomes, because the study is only observational. Also, only endpoint measures of outcome were included (and no baseline). It is possible that persons who have better functioning and quality of life were more capable of continuity-maintaining behaviors.</p>	<p>Three populations of Veteran patients were extracted from the USA database of Veterans Health Administration (year 2002): discharged inpatients (N=8350), new outpatients (N=50 032) and continuing outpatients (N=123 403). The relationship between 3 measures of Continuity of care (CC) and clinical outcome (GAF scores) was examined. CC was defined as CC across organisational boundaries (in- to outpatient care), absence of hiatus in care, and intensity of treatment.</p> <p>Multiple regression analysis to correct for differences in client characteristics revealed that:</p> <ol style="list-style-type: none"> 1. for discharged inpatients, for every additional month with an outpatient visit, GAF increased with 0.69 for a total increase of 4.1 points. 2. for new outpatients this was 0.3 and 1.8 points. 3. for continuing outpatients a negative correlation was found between CC and GAF score. <p>Only for "transitional" treatment situations a positive relationship could be found but the magnitude of these effects might not be clinically meaningful.</p> <p>Limitations: only clients with at least 2 GAF scores were included, and the psychometric properties of GAF have not been extensively established.</p>	<p>The effectiveness of a transitional discharge model of care (TDM) was evaluated for persons with CMI (chronic mental illness). This model includes 2 components: in-patient staff continues to care for discharged clients until therapeutic relationships are established with the community care providers; and a friendship model of peer support with volunteer ex-patients is introduced. Average duration in the trial of in-patient staff providing continuing care was 3 months.</p> <p>After one year, no significant difference in quality of life was found between intervention patients and control patients (usual care). However, after the intervention started, the length of stay before discharge was significantly less for CMI-persons discharged from intervention wards: CMI persons on intervention wards were discharged 116 days earlier than the control wards. Important confounders of the study were under-implementation of the intervention by intervention wards and contamination of control wards who started to implement the TDM as well.</p>
	Type of Study	Prospective cohort study (Canada)	Retrospective cohort study (USA)	RCT (Canada)
	EVALUATION (Cochrane Library)	5 of 8	administrative data analysis; 4 of 8 (cohort design)	3 of 8 (contamination of experimental intervention to treatment of controls)

Patient Characteristics				
	Age Range			mean 41 years (SD 11 yrs)
	Diagnosis	psychotic or bipolar or unipolar mood disorders; and no forensic care. Comorbidities no reason for exclusion		primary diagnosis: schizophrenia: 47%; mood disorder: 40%
	Functional status (severity)			
	Duration of illness	at least 24 months for inclusion; mean duration 22 years		total life-time psychiatric hospitalizations (years): 2.3 yrs
Study Concept				
	Patients Included (Intervention Group, IG): N	N= 486	Nationwide administrative database of Veterans Health Administration: 6% of all discharged inpatients with at least one outpatient contact had at least 2 GAF scores and 31 % of all patients with at least 2 outpatient contacts had 2 GAF scores. Outpatients were divided in: -outpatients without contacts during last four months (new outpatients); -outpatients with contacts during last four months (continuing outpatients). N (discharged inpatients)=8350; N (new outpatients)=50 032; N (continuing outpatients)=123 403.	26 wards from 4 psychiatric hospitals were paired and then randomized to either experimental group using the new TDM, or control group (usual care). N (patients in TDM)= 201
	Intervention		Continuity of care: CC across organisational boundaries (in- to outpatient care), absence of hiatus in care, and intensity of treatment.	TDM with 2 components: 1.in-patient staff continued to care for discharged clients until therapeutic relationships (evaluated using "Relationship Form") were established with the community care providers; median time was 3 months (range 0 to 12 months) 2.a friendship model of peer support with volunteer ex-patients

	N Control Group (CG)			N (patients in usual care)= 189
	Intervention Controls			usual care However, after 9 months control wards started to increasingly implement the intervention
	Medication-Comment			
	Duration Follow-up	18 months	180 days (6 months)	1 year
Outcome Measures				
Service Utilisation				
	Admission to hospital			
	N° days hospital			

	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific	BPRS (Brief psychiatric rating scale): no significant difference between baseline and endpoint of study (stable illness); no significant association (ANOVA) between endpoint BPRS and patient-rated ACSS-MH or observer-rated ACSS-MH	GAF (Global assessment of functioning) collected from inpatients at discharge, from outpatients at least every 90 days of treatment. Multiple regression analysis to correct for differences in client characteristics revealed that: 1. for discharged inpatients, for every additional month with an outpatient visit, GAF increased with 0.69 for a total increase of 4.1 points. 2. for new outpatients this was 0.3 and 1.8 points. 3. for continuing outpatients a negative correlation was found between CC and GAF score.	
	Compliance Treatment			
	Medication-Comment			
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	Multnomah Community Ability scale (MCAS): significant association ($p < 0.001$; ANOVA) between endpoint MCAS and patient-rated ACSS-MH but no significant association with observer-rated ACSS-MH.		
	Employment/Student			

	Able to live independently			
	N° of carers involved			
Satisfaction/ Quality of Life				
	N° people leaving study	N= 75 (15%); participants that completed study were more likely to be women and to be participants with less severe problems ($p<0,05$).		36% (no difference between groups)
	Patient Satisfaction life/Quality of Life(QoL)	significant association ($p<0.001$; ANOVA) between endpoint EQ-5D score (Euro-Quality of Life questionnaire) and patient-rated ACSS-MH as well as observer-rated ACSS-MH. Idem for Wisconsin Quality of Life Index (WQLI).		Lehman Quality of Life-Brief version (QOLI-Brief): no significant difference at 1 year after discharge ($p=0.27$)
	Patient Satisfaction treatment	SSS-10 (Service satisfaction scale-10): significant association ($p<0.001$; ANOVA) between endpoint SSS-10 and patient-rated ACSS-MH as well as observer-rated ACSS-MH.		
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S12- REFERENCE EVALUATION SHEET	REFERENCE ID	Adair C 2003	Crawford M 2004	PRiSM Psychosis study 1998
CONCLUSION				
	MESSAGE	<p>Systematic review of quasi-experimental, cohort and pre-post studies (literature up to June 2002): what are effects of continuity of care (CC) on <i>outcomes</i> for SMI persons?</p> <p>Included studies: Lehman A 1994, Olsson M 1998, Sytema S 1999, Bindman J 2000, Chien C 2000.</p> <p>Conclusion: evidence on effects of CC on symptom control, patient functioning and quality of life remains limited showing positive effects in 2 studies (Olsson M 1998; Chien C 2000) but not in 3 other (Lehman A 1994; Sytema S 1999; Bindman J 2000).</p> <p>Remarks: instruments to measure CC diverse and limited in all studies; studies show many heterogeneities.</p>	<p>Systematic review of meta-analytic, experimental, observational and qualitative research (literature up to Sept 2001): what are <i>factors</i> (patient related- service related i.e. intervention related or system related) that promote or hinder the delivery of continuity of care (CC) for SMI persons?</p> <p>Continuity of care defined as: loss-to-follow up, breaks in service delivery, CC from a particular professional, CC between service components, service users' perception of CC.</p> <p>Included studies: 60 (see paper)</p> <p><u>Results:</u></p> <p><u>Patient-related factors:</u></p> <p><i>Less loss-to-follow-up if:</i> female, older, higher socio-economic status, married, employed, no substance misuse, longer duration of illness, lower symptom scores (epidemiologic studies).</p> <p><i>Less breaks in service delivery if:</i> longer hospital admission, living in area covered by service provider (observational studies).</p> <p><u>Service related factors:</u></p> <p><i>Less loss-to-follow-up if:</i> ACT, case management, CMHTs, crisis intervention (Cochrane reviews); group-based training prior to discharge (RCT); visit from outpatient staff or referral coordinator before discharge (observational studies)</p> <p><i>Less breaks in service delivery if:</i> no concurrent demand for inpatient beds at time of discharge (qualitative study)</p> <p><i>More CC from particular professional if:</i> keyworkers are staff rather than training posts (observational studies); realistic expectations about the nature of work with SMI persons (qualitative study). No evidence available if ACT and case manag. lead to more CC from particular professional or not.</p> <p><i>Better CC between service components if:</i> community-based rather than hospital-based care (observational study); no differences in working practices and sufficient resources (qualitative study). CC between service components was also improved by information and training for general practitioners (RCT); however, the schedule trained at was found too time consuming by GPs and seldom used. No increase in contact with primary care (general practitioner) if case management or key worker (observational studies). No facilitation of communication by shared-care records (Cochrane review, RCT).</p> <p><i>Service users' perception of CC is better if:</i> having the opportunity to build a long-term therapeutic relationship with one professional, "contextualising" (professionals who have known the patient for a long time help other professionals to reframe the problems in the same way), willingness of key-worker to adopt a flexible approach to care (2 qualitative studies).</p>	<p>Patient outcomes at two sociodemographic matched South-London catchment areas were compared before and after implementation of a Community mental health service (CMHS). In area 1 the CMHS was an intensive service with two specialist teams, in area 2 it was a standard service with a generic team. A random sample of all psychotic persons, their carers and responsible staff were interviewed at baseline while psychiatric services were largely provided on a hospital-base, and after two years.</p> <p>1.Outcomes for both types of CMHS were better than for the hospital-oriented service. No evidence was found that community-oriented services (including in-patients beds) fail service users, their family or the wider public. This trial confirmed that the health and social gains reported in experimental trials of CMHS can be replicated in ordinary clinical settings.</p> <p>2.Some very limited extra advantages in terms of met needs, improved quality of life and social networks, were found in the intensive CMHS; but the general CMHS was almost as effective (and less expensive in the context of the UK service system).</p>
	Type of Study	Systematic review	Systematic review	1. Prospective pre-post-trial (for all included persons); 2. Prospective non-randomised controlled trial (quasi-experimental design) for persons at two different sites.
	EVALUATION (Cochrane Library)	5 of 6	3 of 6 (no quality appraisal)	4 of 8 (quasi-experimental trial)

Patient Characteristics				
	Age Range			
	Diagnosis	non-organic psychosis largest part of participants in all included studies	non-organic psychosis only	ICD-10 Psychotic disorders as proxy for Severe Mental Illness
	Functional status (severity)			
	Duration of illness			
Study Concept				
	Patients Included (Intervention Group, IG): N			N= 302 randomly selected persons from 514 persons with a psychotic disorder identified from catchment areas in records/notes from psychiatric services, primary care services, housing agencies, police... Catchment areas were two sociodemographic matched South-London areas, 40 000 inhabitants each. Number of T2 assesments from 125 (41%) to 190 (63%) for results reported below.
	Intervention			Implementation of a Community mental health service (CMHS). In area 1 the CMHS was an intensive service with two specialist teams, in area 2 it was a standard service with a generic team.

	N Control Group (CG)			
	Intervention Controls			
	Medication-Comment			no information
	Duration Follow-up			two years
Outcome Measures				
Service Utilisation				
	Admission to hospital			
	N° days hospital			

	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific			Total BPRS score (Brief Psychiatric Rating Scale): difference between mean of persons at intensive CMHS and mean of persons at general CMHS at T2 is 0.11 (possible score range: 24-168; pooled Stan.Dev. at T2 8.68); probably not clinically significant
	Compliance Treatment			
	Medication-Comment			
	Relapses			
Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills			Total SBS score (Social Behavior Scale): difference between mean of persons at intensive CMHS and mean of persons at general CMHS at T2 is 2.78 (possible score range: 0-77; pooled Stan.Dev. at T2 8.30); probably not clinically significant SNS total network size (number of contacts in social networks): difference between mean of persons at intensive CMHS and mean of persons at general CMHS at T2 is 3.52 (possible score range: unlimited; pooled Stan.Dev. at T2 8.64)
	Employment/Student			9% full time employed at the two sites

	Able to live independently			
	N° of carers involved			
Satisfaction/ Quality of Life				
	N° people leaving study			No difference between two sites (Thornicroft G, study report 10)
	Patient Satisfaction life/Quality of Life(QoL)			LQOLP (Lancashire Quality of Life Profile)(users): difference between mean of persons at intensive CMHS and mean of persons at general CMHS at T2 is 0.1 (possible score range: 1-7; pooled Stan.Dev. at T2 1.9); probably not clinically significant
	Patient Satisfaction treatment			VSSS average (Verona Satisfaction with Services, patients): difference between mean of persons at intensive CMHS and mean of persons at general CMHS at T2 is 0.01 (possible score range: 1-5; pooled Stan.Dev. at T2 0.56); probably not clinically significant
	Patient met and unmet needs			CAN (Camberwell Assessment of Need) unmet needs (user): difference between mean of persons at intensive CMHS and mean of persons at general CMHS at T2 is 0.05 (possible score range: 0-22; pooled Stan.Dev. at T2 1.83); probably not clinically significant Can met needs (user): difference between mean of persons at intensive CMHS and mean of persons at general CMHS at T2 is 0.72 (possible score range: 0- 22; pooled Stan.Dev. at T2 2.45)
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S-B-- REFERENCE EVALUATION	REFERENCE ID	Smith L 2007	Burns T 2007	Priebe S 2006
CONCLUSION				
	MESSAGE	39 papers were included on case management (CM), intensive case management (ICM) or ACT (1970s-2002). For the four most commonly described outcomes (hospital admissions, total days admitted, symptom reduction and quality of life), the direction of the results were not consistent, or at best positive in some and not different in other studies. The authors notice a decrease in effect of ICM or ACT over time. Experimental conditions vary between studies, and control conditions are often poorly described.	Meta-regression of 29 clinical trials on intensive case management (ICM) or ACT for SMI persons, exploring factors inducing decrease in days admitted to the hospital. Significantly contributing were mean days of hospital admission before the trial, and to a lesser degree fidelity to the ACT model. Not significant were levels of staffing; rating of CM involvement in the control condition, the study year (assuming that effects might be more prominent in older studies), the country (USA or non-USA), and the trial size.	In this RCT 206 acutely distressed psychiatric patients were randomized to in-patient care or care in one London day hospital. Day hospital patients had a significantly greater reduction in clinical symptomatology at discharge; this effect had disappeared 3 months after discharge. Their first admission period was significantly longer, but they were no more likely to be readmitted. They reported a significantly higher treatment satisfaction at discharge and 3 months later, but there was no difference in quality of life at discharge or during follow-up. A limitation is the low response rate at discharge (54%). Acute psychiatric day hospital may be an effective alternative to conventional in-patient care for patients in acute psychiatric distress (all diagnoses).
	Type of study	Systematic review; results qualitatively described	Systematic review and meta-regression	RCT
	EVALUATION (Cochrane Library)	4 of 8 (SR)	7 of 8 (SR)	5 of 9 (RCT)
Patient Characteristics				
	Age Range	adults (elderly excluded)	adults (18-65 yrs)	adults (18-65 yrs)
	Diagnosis	mental illness; substance abuse disorders excluded	schizophrenia, schizophrenia-like disorders, bipolar disorders, depression with psychotic features	all psychiatric diagnoses, excluding primary addiction problems, organic brain disorder, homelessness, compulsory admission
	Functional status (severity)			
	Duration of illness			

Study Concept				
	Patients Included: N			N=144 of which 78 assessed at discharge; total participants of study N=206 of which 111 or 54% assessed at discharge; 145 or 70% assessed at follow-up 3 months and 117 or 57% assessed at follow-up 12 months
	Intervention	Intensive case management (ICM) (15 papers); ACT (10 papers); other experimental conditions: standard CM or other variants of CM	Intensive case management (ICM); ACT (terms used interchangeably)	Acute psychiatric distress for which hospital admission would be required if day hospital had not been available- Intervention: Day hospital treatment in a day hospital in London (one center)
	N Control Group			N=65 of which 33 assessed at discharge
	Intervention Controls	standard CM, other variants of CM, hospital-based rehabilitation (one study) and standard care	standard care with or without low-level of case management	Control: In-patient treatment
	Medication-Comment			
	Duration Follow-up		2 years or nearest available follow-up	at discharge- at 3 and 12 months after discharge- at readmissions

Outcome Measures				
Service Utilisation				
	Admission to hospital	Results not consistent (decrease, no change, increase) (outcome of 8 studies)		No significant difference between number of patients at least once readmitted
	N° days hospital	Results not consistent (decrease, no change, increase) (outcome of 16 studies)	Meta-regression: see "message"	First admission significantly longer for Day hospital group (mean length 55,7 days range 0-198) versus In-patient group (30,5 days range 2-175)
	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific	Symptom control (10 studies): improved or no difference		BPRS: significantly better at discharge for Day hospital group ($p=0,025$ - 95%CI 0,03-0,45); length of admission did not have a significant effect. No significant difference at 3 and 12 months.
	Medication-Comment			
	Compliance Treatment	Engagement in treatment: improved (5 studies)		
	Relapses			

Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills			
	Employment/Student	Improvement (outcome only used in 2 studies)		
	Able to live independently	Improvement (outcome only used in 2 studies)		

	N° of carers involved			
Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life	QoL(7 studies): improved or no difference		MANSA (Manchester short assessment of quality of life): no significant differences at discharge, 3, or 12 months. However, there was a trend for the Day hospital group for a better score.
	Patient Satisfaction treatment			CAT (Client's assessment of treatment scale): significantly better for Day hospital group at discharge (p=0,004) and 3 months (p=0,004) but not at 12 months.
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S-B-- REFERENCE EVALUATION	REFERENCE ID	<i>Kallert T 2007- Schützwohl M 2005</i>	<i>McHugo G 2004</i>	<i>Craven MA 2006</i>
CONCLUSION				
	MESSAGE	A multicenter RCT (EDEN-study) was conducted in 5 centers in different countries: the UK, Germany, Poland, Slovak Republic, Czech Republic. Results show that acute psychiatric day hospital is as effective as in-patient care on clinical symptomatology, treatment satisfaction and quality of life. It is more effective on social disabilities at discharge and at 3- and 12-month follow-up. The first admission period was significantly longer for day hospital patients. A separate analysis of German data of burden on relatives did not reveal differences between intervention and control treatment.	Housing and support was provided to 125 SMI persons at risk for homelessness. Integrated housing services provided mental health services and housing services provided by a single agency, including intensive case management (ICM) and a housing services team. Parallel housing services provided mental health services by an ACT team, and housing services by community based landlords. At 18 months follow-up, both groups had spent significantly more days in stable housing. Participants in the integrated housing services (IHS) program spent less time homeless ($p<0,001$) than participants in the parallel housing services and experienced less severe psychiatric symptoms ($p<0,005$). The IHS group and the females of the PHS reported greater overall life satisfaction and satisfaction with housing($p<0,001$).	The term "collaborative care" used by the authors largely corresponds to the definition of "shared care" used in this report. Craven et al include 7 studies on persons with SMI: Warner 2000 (RCT, also included in the Cochrane review on shared care), Lester 2003 (RCT), Burns 1998 (RCT), Gater 1997 (RCT), Bindman 2001 (case-control), Cook 2003 (before-after design), Druss 2001 (RCT). Six studies were UK-based, one study USA-based (Druss 2001). Two studies report on patient-held clinical care records carried back and forth between providers, 3 studies imply a liaison model of intervention, 1 study evaluates staff training and 1 study describes a mixed intervention. From this review it is clear that more studies in the field of SMI persons are necessary before firm conclusions can be drawn on the role of shared care.
	Type of study	multi-center RCT	RCT	Systematic review
	EVALUATION (Cochrane Library)	5 of 9 (RCT)	4 of 9(RCT)	3 of 8 (SR) no quality appraisal of included articles
Patient Characteristics				
	Age Range	adults (18-65 yrs)	adults (21-60 yrs)	
	Diagnosis	all psychiatric diagnoses, excluding primary addiction problems, homelessness, compulsory admission, long distance between living place and hospital	persons with SMI at risk for homelessness	
	Functional status (severity)			
	Duration of illness			

Study Concept				
	Patients Included: N	N total=1117 patients, of which N=596 in intervention group Organizational features of the 5 services were sufficient comparable (qualitative evaluation). (Burden on relatives, German data: 95 participants)	N total=125; N=63 for integrated housing services	
	Intervention	Acute psychiatric distress for which hospital admission would be required if day hospital had not been available- Intervention: Day hospital treatment in 5 different centers/countries. Organizational features of the 5 services were sufficient comparable (qualitative evaluation).	Integrated housing services: mental health services and housing services were provided by a single agency, including intensive case management (ICM) and a housing services team. Fidelity to the DACTS-scale was assured throughout the program	Warner 2000 (90 patients) and Lester 2003 (203 patients) both report on patient-held clinical care records carried back and forth between providers. From these 2 studies it is concluded that this may have some positive effects on communication but that changes in clinical outcomes are unlikely. A liaison model of service provision is evaluated in the studies of Gater 1997 (89 patients), Druss 2001 (120 patients) and Bindman 2001; in the Gater study each patient additionally has a care coordinator. Gater and Druss reported more guideline-consistent care, and patients were more satisfied with care. Bindman found that admission rates to specialist care are not enhanced by the intervention. The study of Burns 1998 examines the impact of teaching UK nurses to carry out structured patient assessments; but this study is excluded by Craven et al because of major flaws. The study of Cook 2003 has a mixed intervention (liaison, patient held record, ACT, accommodation and therapy supply, staff training), so that it is difficult to disentangle the element responsible for the results.
	N Control Group	N=521	N=62 for parallel housing services	
	Intervention Controls	Control: In-patient treatment	Parallel housing services: mental health services were provided by an ACT team, and housing services by community based landlords. Fidelity to the DACTS-scale was assured throughout the program	
	Medication-Comment			
	Duration Follow-up	at discharge- at 3 and 12 months after discharge. Follow-up rate of the total population: 87% at discharge, 76% at 3 months, 68% at 12 months.	baseline- 6, 12 and 18 months follow-up	

Outcome Measures				
Service Utilisation				
	Admission to hospital			
	N° days hospital	First admission significantly longer for Day hospital group (mean length 78 days SD 73) versus In-patient group (46 days SD 46); $p<0,001$		
	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific	BPRS: no difference between intervention and controls over time	Participants in the integrated housing services (IHS) program experienced less severe psychiatric symptoms ($p<0,005$) (Colorado symptom index)	
	Medication-Comment			
	Compliance Treatment			
	Relapses			

Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	Groningen social disabilities schedule (GSDS-II): difference in favor of day hospital treatment at time of discharge, and at 3 and 12 months follow-up		
	Employment/Student			
	Able to live independently		Both groups spent significantly more days in stable housing. Participants in the integrated housing services (IHS) program spent less time homeless ($p<0,001$) than participants in the parallel housing services.	
	N° of carers involved			

Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life	MANSA (Manchester short assessment of quality of life): no difference between intervention and controls over time	Participants in the integrated housing services and the females of the PHS reported greater overall life satisfaction (QOLI, Lehman 1988) and satisfaction with housing($p<0,001$).	
	Patient Satisfaction treatment	CAT (Client's assessment of treatment scale): no difference between intervention and controls over time, but significant differences between centers		
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction	Involvement evaluation questionnaire (IEQ) and General health Questionnaire (GHQ-28): no difference between groups at admission and at after four weeks of treatment		
Remarks				

S-B-- REFERENCE EVALUATION	REFERENCE ID	Mitchell G 2002	Fitzpatrick NK 2004	Malm U 2001
CONCLUSION				
	MESSAGE	Two included studies concern persons with SMI: Gater 1997 (see Craven), Wood 1995 (see Cochrane Smith L 2007). The formal liaison between GPs and specialist services in outpatient care seems to have modest beneficial effects in chronically mentally ill patients, but results are only based on 2 controlled trials of 118 and 89 patients respectively.	SMI persons (N=349) from 50 GP practices in London were prospectively followed during one year. Level of shared care (SC) was scored by the GP on the SCAS (Shared care assessment schedule); low, medium and high level of SC was defined on the tertiles of all patient scores. High SC represents active involvement of primary and secondary services with good communication, low SC represents patient management almost entirely by general practitioner (GP) or within secondary care. At 12 months, there was no difference between participants receiving different levels of shared care for number of hospital admissions or length of stay. Also, there was no difference between participants receiving different levels of shared care for change in global clinical symptoms, social functioning or satisfaction with services.	SMI persons involved in shared decision making carried out in social network resource groups, including training in problem solving and communication, do significantly better at 2 years follow-up for social functioning and satisfaction with treatment, but not for clinical functioning.
	Type of study	Systematic review	Prospective observational study	RCT
	EVALUATION (Cochrane Library)	7 of 8 (SR)	5 of 8 (cohort)	6 of 9 (RCT)
Patient Characteristics				
	Age Range		adults (16-64 yrs); mean age 43 yrs (SD 10yrs)	18-55 years
	Diagnosis		persons with ICD-10 code of psychosis, affective disorder, personality disorder or severe neurosis	schizophrenia (DSM-IV), dual diagnoses not included
	Functional status (severity)			
	Duration of illness		>18 months of illness (SMI persons)	mean duration 13 years

Study Concept				
	Patients Included: N		N total=349	N total=84; N intervention=51
	Intervention		Level of shared care (SC) was scored by the GP for each patient on the SCAS (Shared care assessment schedule), consisting of 13 items in 3 sections: satisfaction with continuity and integration of services; communication with service partner, objective indication of sharing information between services. Low, medium and high level of SC was defined on the tertiles of all patient scores. At 12 months, differences between the patient groups low, medium and high SCAS score were evaluated.	Same as controls, plus: shared decision making carried out in social network resource groups, including training in problem solving and communication. Social network resource group: patient, family members, case manager, doctor
	N Control Group			N control=33
	Intervention Controls			Coordinated combinations of antipsychotics, psychoeducational family intervention, living-skills training; every patient had case manager; mobile crisis team available
	Medication-Comment			
	Duration Follow-up		baseline- 12 months (81% follow-up)	baseline- every 3 months, results at 24 months are reported

Outcome Measures				
Service Utilisation				
	Admission to hospital		no difference at baseline (for 12 months before) or at 12 months between participants receiving different levels of shared care	No significant difference between groups
	N° days hospital		no difference at baseline (for 12 months before) or at 12 months between participants receiving different levels of shared care	
	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			no suicides, one death
	Improvement General/Specific		CPRS (Comprehensive Psychopathological Rating Scale); GAF-score; SF-12 (general health functioning): no difference in change at baseline or 12 months between participants receiving different levels of shared care, after adjustment for confounders	CGI (clinical global impression scale), GAF (Global assessment of functioning DSM-IV), BPRS-24 (Brief psychiatric rating scale): no significant difference between groups
	Medication-Comment			UKU-side effect-rating scale: no significant difference between groups
	Compliance Treatment			
	Relapses			psychotic episodes: no significant difference between groups

Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills		Social Functioning Questionnaire: participants with higher level of shared care had better scores on SFQ at baseline ($p=0,001$)- no difference in change at 12 months between participants receiving different levels of shared care	WHO-DAS and GAF-disability subscale: significantly better in intervention group ($p=0,03$)
	Employment/Student			
	Able to live independently			No patients were homeless during FU
	N° of carers involved			

Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life			
	Patient Satisfaction treatment		Service User Questionnaire: participants with higher level of shared care were more satisfied at baseline ($p=0,004$)- no difference in change at 12 months between participants receiving different levels of shared care	UKU-consat rating scale: intervention group significantly more satisfied with ($p=0,02$)
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S-B-- REFERENCE EVALUATION	REFERENCE ID	Burns T 2002 (EQOLISE)	Latimer E 2006	Cook J 2005
CONCLUSION				
	MESSAGE	Unemployment in persons with SMI is very high, up to 95%. Most reviews on the effect of IPS (individual placement in a job and support on the spot) as compared to traditional rehabilitation (training in job skills to prepare for job return) comprise USA-based studies. In this trial, six European centres randomized 312 persons with severe mental illness to an IPS program or vocational rehabilitation services (usual care), to examine the effect of IPS in different labour markets and welfare systems. The positive results for IPS found in the USA were confirmed in Europe. The success of IPS as compared to vocational rehabilitation was shown to be dependent on local unemployment rates, whereas the global economic situation (growth, low national unemployment rate...) and a substantial benefit trap influenced both the experimental and the	The effect of IPS (individual placement and support) is compared to traditional rehabilitation (training in job skills to prepare for job return) in Canada (Montreal). In total, 150 SMI persons were included. Significantly more IPS persons as compared to VR persons could obtain at least some competitive employment over the first year of IPS services. Nevertheless, a large proportion (53%) of the IPS clients were unable to achieve any competitive employment over the first year. There is a significantly higher self-esteem in the IPS group, but there is no difference in clinical symptoms, social functioning or quality of life.	A multicentre RCT (7 sites) including 1273 SMI persons evaluated outcome of IPS (individual placement and support)(or an IPS-like support) and traditional rehabilitation (training in job skills to prepare for job return). Experimental and control conditions were rated for the degree of integration between vocational and psychiatric services; and for the total amount (hours) of vocational and psychiatric services delivered to each patient. All 7 experimental and 2 control conditions met the criteria for "high" integration; highly integrated services provided significantly more hours of vocational services (p<0,0001). 55% of the IPS group achieved competitive employment and 34% of the control group (p<0,001). A larger proportion (58%) of the participants in the high-integration service programs achieved competitive employment, as compared to the low-integration programs (21%)(p<0,001). Higher amounts of vocational services were associated with better vocational outcomes, whereas higher amounts of psychiatric services were associated with poorer vocational outcomes. This conclusion might have
	Type of study	Multi-center RCT (Europe)	RCT (Canada)	Multi-center RCT (USA)
	EVALUATION (Cochrane Library)	6 of 9 (RCT)	6 of 9 (RCT)	5 of 9 (RCT)
Patient Characteristics				
	Age Range	18 yrs-retirement age (60 or 65 yrs) (average 37,8)	18-64 years	>18 years (mean and median 38 years)
	Diagnosis	psychosis- bipolar disorder	psychosis- bipolar disorder- major depression	definition of by the federal Center for Mental Health Services of SMI (diagnosis, duration, disability)
	Functional status (severity)	major role dysfunction (not further specified)	patients with major depression had to be classified as "disabled" by the provincial welfare system	definition of by the federal Center for Mental Health Services of SMI (diagnosis, duration, disability)(no further information)
	Duration of illness	at least 2 years		definition of by the federal Center for Mental Health Services of SMI (diagnosis, duration, disability)(no further information)

Study Concept				
	Patients Included: N	N total=312 (not in competitive jobs for at least 1 year and living in the community and wishing to work); stratified to sex, work history and participating centre; N=156 for IPS	N total=150 (interested in competitive work); N=75 for IPS; stratified to previous work history	N total=1273 (interested in competitive work); N= 648 for IPS (or an IPS-like support)
	Intervention			
	N Control Group	N=156 for vocational rehabilitation (VR, usual care)	N=75 for vocational rehabilitation (VR, usual care)	N=628 for vocational rehabilitation (VR, usual care)
	Intervention Controls			
	Medication-Comment	no information		
	Duration Follow-up	baseline- 6, 12 and 18 months follow-up. 81% completed at 18 months (N=252)	baseline- 6 and 12 months follow-up.	baseline- 6, 12, 18 and 24 months follow-up. 65% of the participants completed 5 interviews; 14% completed 4 interviews and 9% completed 3 interviews.

Outcome Measures				
Service Utilisation				
	Admission to hospital	IPS persons were less likely to be hospitalized		
	N° days hospital	IPS persons spent less days in hospital		
	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific		Symptoms (BPRS): no difference Alcohol and Drugs (AUS and DUS): no difference	
	Medication-Comment			
	Compliance Treatment			
	Relapses			

Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills		GAF, MCAS (Multnomah community ability scale): no difference Social network (Social Provision scale): no difference	
	Employment/Student	Working at least 1 day: 55% in IPS, 28% in VR. Persons in IPS worked more hours and more days, and they could keep better their job. Fewer IPS persons dropped out from service. Results were significant in 4/6 centres. Local unemployment could explain the heterogeneity in effectiveness of IPS. GDP growth per head, long-term national unemployment rate, risk of benefit trap (assessed by IPS workers) could not explain the heterogeneity of the results but could explain the difference in overall chance to get a job for both groups.	Significantly more IPS persons as compared to VR persons could obtain at least some competitive employment over the first year of IPS services. Nevertheless, a large proportion (53%) of the IPS clients were unable to obtain achieve any competitive employment over the first year of IPS services.	55% of the IPS group achieved competitive employment and 34% of the control group ($p<0,001$). A larger proportion (58%) of the participants in the high-integration service programs achieved competitive employment, as compared to the low-integration programs (21%)($p<0,001$). Higher amounts of of vocational services were associated with better vocational outcomes, whereas higher amounts of psychiatric services were associated with poorer vocational outcomes. This conclusion might have been confounded by the fact that more integrated services provided more hours of vocational services; and less severely involved SMI persons received more vocational services.
	Able to live independently			
	N° of carers involved			

Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life		Wisconsin Quality of life scale: no difference Self-esteem (self-esteem rating scale): significantly better for IPS group ($p < 0,01$)	
	Patient Satisfaction treatment			
	Patient met and unmet needs			
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S-B-- REFERENCE EVALUATION	REFERENCE ID	<i>Ogilvie R 1997</i>	<i>Fakhoury W 2002</i>	<i>Killaspy H 2006</i>
CONCLUSION				
	MESSAGE	Narrative review on supported housing for persons with SMI, including other reviews and other study types without any restraint (up to case-series). Also including qualitative research. Low quality (no search strategy, no quality appraisal of included studies,...)	Systematic review, including all empirical studies (N=28) on supported housing in Medline up to 2002, completed by handsearching. Most studies are cross-sectional surveys, uncontrolled follow-up studies and non-randomized controlled trials, or direct observation methods; this makes comparative evaluation of effectiveness difficult. Small study samples and samples from small geographic areas or a single social agency, limit the generalizability of the results. However, given that this is the best available evidence, results are described. Models of supported housing are described, and patient characteristics of residents. The overall impression from the studies is that supported housing schemes can have beneficial effects with moderate to high satisfaction levels reported by most clients. Several studies underline the importance attached to independent living. However, problems of isolation and loneliness are reported by some residents.	This RCT compares CMHTs (community mental health teams) with ACT (assertive community treatment); 251 SMI persons were involved (London). After 18 months, no difference was found in inpatient bed use or in clinical or social outcomes for the 2 treatment groups. However, ACT seemed better to keep contact with difficult-to-engage persons, and client satisfaction with services was greater.
	Type of study	Narrative review	Systematic review	RCT (UK)
	EVALUATION (Cochrane Library)	low quality	4 of 7 (SR of observational studies)	5 of 9 (RCT)
Patient Characteristics				
	Age Range			mean 39 years
	Diagnosis			schizophrenia/psychosis, bipolar disorder, dual diagnosis
	Functional status (severity)			
	Duration of illness			median 10 years

Study Concept				
	Patients Included: N			N total=251 (inclusion criteria: in CMHT care for at least 1 year and difficult to engage, recent high use of inpatient care); N (ACT group)=127 of which 90 (71%) consented to be interviewed (73 or 57% consented for both interviews)- data on hospital use available for all participants
	Intervention			ACT (fidelity score: high)- Three times more face-to-face contacts with patients during study period than CMHT group
	N Control Group			N (CMHT)=124 of which 78 (63%) consented to be interviewed (56 or 45% consented for both interviews)
	Intervention Controls			continuing care from CMHT (community mental health team)
	Medication-Comment			
	Duration Follow-up			baseline and 18 months interview

Outcome Measures				
Service Utilisation				
	Admission to hospital			no difference between groups
	N° days hospital			no difference between groups
	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			no difference between groups
	Improvement General/Specific			E-BPRS:no difference between groups HoNOS:no difference between groups Clinical alcohol and drugs scale: no difference between groups
	Medication-Comment			Rating of medication influences scale (RoMI): no difference between groups
	Compliance Treatment			Adapted homeless engagement acceptance scale (HEAS): greater quality of engagement in ACT group (p=0,03; effect size 0,29 SD)
	Relapses			

Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills			Life skills profile (LSP): no difference between groups
	Employment/Student			
	Able to live independently			
	N° of carers involved			

Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life			Manchester short assessment of quality of life (MANSA): no difference between groups
	Patient Satisfaction treatment			Client satisfaction questionnaire (CSQ): higher in ACT group (p=0,03; effect size 0,35 SD)
	Patient met and unmet needs			Camberwell assessment of needs (CANSAS): no difference between groups
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S-B-- REFERENCE EVALUATION	REFERENCE ID	Bjorkman T 2002 (2007)	Ford R 2001	Wierdsma A 2007
CONCLUSION				
	MESSAGE	A less intensive case management (CM) model, the strengths model, was compared to standard care for 77 SMI persons. After 36 months, there were no differences in clinical or social outcome. However, CM was successful in reducing days spent in hospital, and the clients were also more satisfied with the service compared to standard care. (Bjorkman et al (2007) re-evaluated the initial cohort six years later, and found a decrease in use of psychiatric services and improvements in social functioning).	This study describes the follow-up at 5 years from a prospective cohort study of people with severe mental illness, at 3 sites. From 0 to 18 months all three sites had Intensive Case Management (ICM) teams practising assertive outreach. From 18 to 60 months one team sustained ICM, one team merged with other local services and another team was disbanded. All original ICM team clients still alive at 60 months FU were the study participants (N=120); no differences were found between the 3 sites in clinical or social outcome or in number of clients dropped out of contact with services. The authors conclude that ICM might not be necessary in the long term since the varied service models appeared to achieve similar outcomes. Procedures should be developed to transfer people after a certain time form ICM to lower intensity care	The use of hospital mental health services was monitored over 10 years for Dutch underprivileged neighbourhoods with established community care networks, and compared to neighbourhoods without such networks that were matched for socio-economic variables. Data were derived from existing databases (Rotterdam psychiatric case register). Standardized ratios for contact with psychiatric emergency services were higher in the experimental neighbourhoods. Number of admissions and standardized ratios for involuntary admissions were lower in the experimental neighbourhoods. Community care networks have a significant impact on the use of mental health services.
	Type of study	RCT (Sweden)	multi-site cohort study	case-control study (the Netherlands)
	EVALUATION (Cochrane Library)	5 of 9 (RCT)	3 of 8 (cohort)	3 of 6 (case-control)
Patient Characteristics				
	Age Range	18-55 years		20-64 years
	Diagnosis	All diagnoses except primary substance or alcohol abuse	90/131 initial participants: schizophrenia	no restriction
	Functional status (severity)	serious and continuous difficulties in functioning, social relationships, housing or work situation		
	Duration of illness	at least 2 years		

Study Concept				
	Patients Included: N	N total=77; at 18 months 66 (86%), at 36 months 64 (83%)- N (CM)=33	N (at baseline)= 131; N (at 5 years)= 120 (9 persons died)- N (ICM) initially= 131; N (ICM) at 5 years=36 (at 2 sites).	Patients residing in long-term care institutions were not included
	Intervention	Case management strengths model, provided by nurses and social workers (supervision by psychiatrist and psychologist); case load 9 SMI persons. Average n° of contacts with SMI persons: no difference between CM-group and standard care.		Neighbourhoods (N=7) in Rotterdam (the Netherlands) with Community care networks: partnership between mental health services, local police force, housing corporations, general social services and specialized home care.
	N Control Group	N (usual care)=44		
	Intervention Controls	usual care		Matched neighbourhoods (N=8) without community networks
	Medication-Comment			
	Duration Follow-up	baseline, 18 and 36 months interview and data collection	baseline, 18 and 60 months interview and data collection	

Outcome Measures				
Service Utilisation				
	Admission to hospital	no difference between groups	no difference between groups	Standardized ratios for contact with psychiatric emergency services were higher in the experimental neighbourhoods (SR 137 95%CI 121-145 vs SR 107 95%CI 96-119). Number of admissions and standardized ratios for involuntary admissions were lower in the experimental neighbourhoods (SR 123 95%CI 95-157 vs SR 152 95%CI 120-191).
	N° days hospital	significantly less days in hospital for CM-group ($p < 0.016$)		
	N° days in jail			
	N° staff/user contacts			
Clinical Outcome				
	Death/Suicide			
	Improvement General/Specific	Hopkins symptoms checklist: no difference between groups- GAF: no difference between groups	no difference between groups (BPRS and Life skills profile (LSP), results not shown)	
	Medication-Comment			
	Compliance Treatment		no difference between groups in contact with services	
	Relapses			

Disability and Handicap				
	ADL-activities			
	I-ADL-activities			
Social Outcome				
	Social Functioning, Life Skills	Strauss Carpenter scale: no difference between groups Social networks (ISSI, Interview schedule for social interaction): no difference between groups		
	Employment/Student			
	Able to live independently			
	N° of carers involved			

Satisfaction/ Quality of Life				
	N° people leaving study			
	Patient Satisfaction life/Quality of Life	Lancashire Quality of life profile (LQOLP): no difference between groups		
	Patient Satisfaction treatment	Client satisfaction questionnaire (Swedish questionnaire, adjusted): at 36 months, CM-group significantly greater satisfaction with keyworker and overall support		
	Patient met and unmet needs	Camberwell assessment of needs (CAN): at 36 months, significantly less needs in CM-group ($p < 0.047$)		
	Staff satisfaction			
	Carer satisfaction			
Remarks				

S-B-- REFERENCE EVALUATION	REFERENCE ID	<i>Sytema S 2007</i>	<i>Evans-Lacko S 2008</i>	<i>Udechuku A 2005</i>	<i>Cohen BZ 1999</i>
CONCLUSION					
	MESSAGE	This RCT compared ACT to standard care in the Netherlands and included 118 SMI persons. The use of in-patient care was not significantly reduced; neither were there important clinical or functional gains. However, maintaining contact with difficult to engage SMI persons was improved by ACT as compared to standard care.	An overview is presented of all research published on care pathways in mental health care up to 2008. Eight studies were included, six of these concerning SMI persons. However, several studies did not specify clear outcome criteria. One study included a control group but conclusions from this study are difficult to make because of a low completion rate. Overall, the study results were mixed and due to the low overall quality, no conclusions can be made.	Outcome of ACT treatment as routinely implemented (naturalistic clinical environment) was evaluated in Australia for 43 SMI persons. Hospital admission was evaluated for patients registered with the ACT team at a certain day (audit day) in the 12 months prior to ACT and for a period of 12 months in ACT ending the day of the audit. A reduction of readmission days was found in this methodologically weak study.	Schizophrenic patients discharged from hospital to medium-scale hostel do significantly better than those discharged to the community, for days without new hospitalisation, hours/week worked and independent daily functioning (ILSS).
	Type of study	RCT (the Netherlands)	systematic review	retrospective pre-post study	prospective cohort study (Israel)
	EVALUATION (Cochrane Library)	5 of 9 (RCT)	1 of 7 (SR observational studies)	2 of 8(cohort)	3/8 -very weak study due to lack of duration of follow-up and raw data, due to clear selection bias (clinical reasons for discharge to hostel), and due to the fact that only one hostel was included.
Patient Characteristics					
	Age Range			mean 38 years	average 42 yrs
	Diagnosis	SMI persons: schizophrenia, bipolar disorder, major depression		schizophrenia, bipolar disorder	schizophrenia
	Functional status (severity)	HoNOS total score >15		mean GAF score: 46	
	Duration of illness				3 to 4hospitalizations before

Study Concept					
	Patients Included: N	N total=118; N (ACT)=59		N=43 patients in ACT at a single day of audit	N=35 in hostel; consecutive inclusion
	Intervention	ACT			Post-hospitalisation: patients transferred to hostel (nearby hospital) if in need of professional help in daily activities, if refused by family or friends and not capable to live alone, or if no family or no home to live; other patients discharged to community (alone, family or friends). Hostel 30 persons, residential with staff (multidisciplinary); community: rehabilitation available.
	N Control Group				N=70 in community- 2 controls same week discharged as index patient included
	Intervention Controls	N (standard care)=59			cfr
	Medication-Comment				all on antipsychotic medication as necessary
	Duration Follow-up	up to 24 months			not mentioned

Outcome Measures					
Service Utilisation					
	Admission to hospital	no difference between groups		Mean number of readmission days reduced from 70,9 to 10,2 ($p<0,05$) following the institution of ACT.	number of days without hospitalisation: raw data not shown; significantly lower in hostel inhabitants (regression analysis, $p<0,001$)
	N° days hospital				
	N° days in jail				
	N° staff/user contacts				
Clinical Outcome					
	Death/Suicide				
	Improvement General/Specific	BPRS: no difference between groups no difference in use of drugs or alcohol (DALI)			
	Medication-Comment				
	Compliance Treatment	Loss of contact with services: significantly better in ACT group (OR: 0,24 95%CI 0,05-1,25)			
	Relapses				

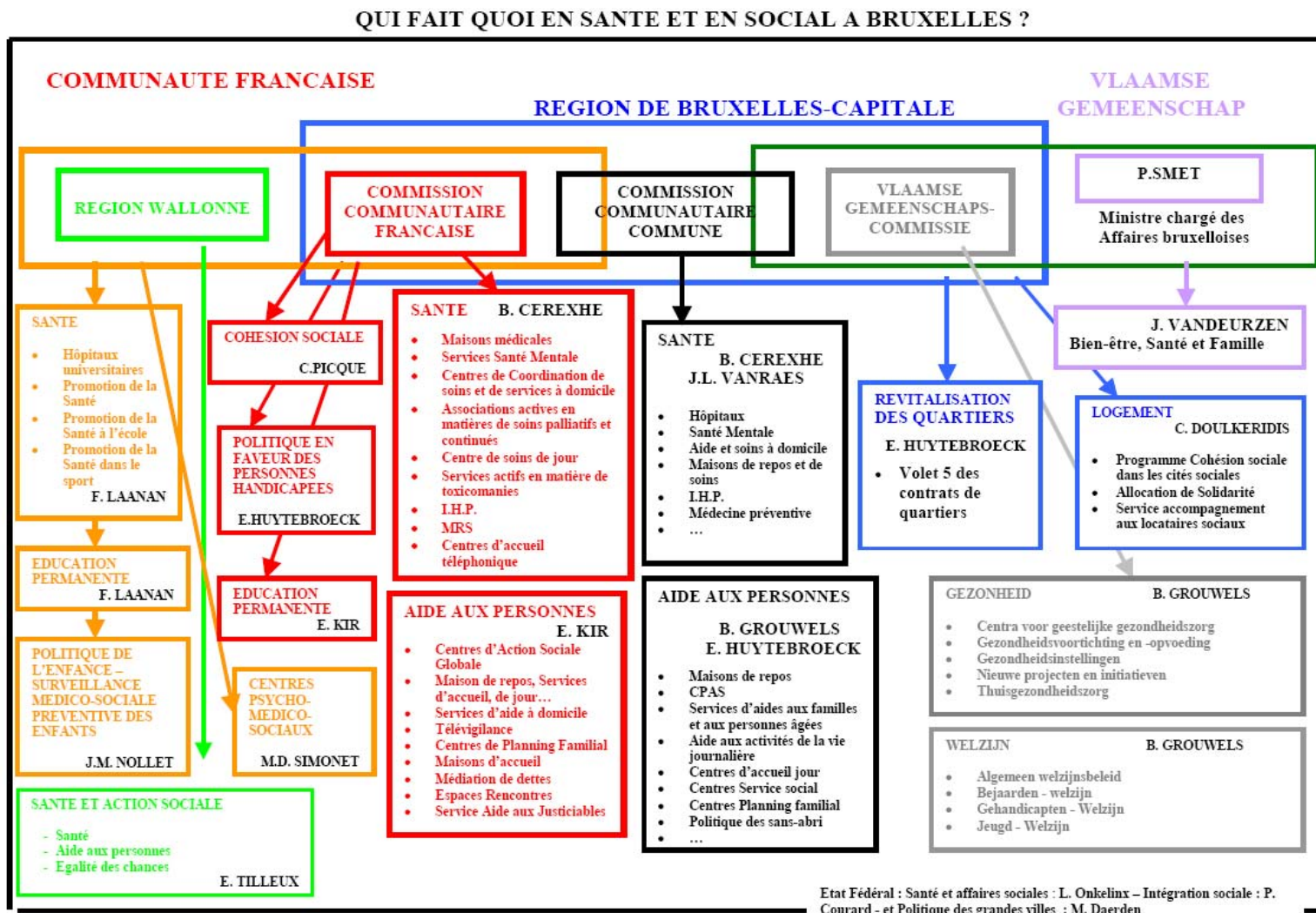
Disability and Handicap					
	ADL-activities				ILSS inventory, adapted version, validated in Hebrew: raw data not shown; significantly better in hostel inhabitants (regression analysis, $p<0,001$)
	I-ADL-activities				
Social Outcome					
	Social Functioning, Life Skills				
	Employment/Student				hours/week employed: raw data not shown; significantly better in hostel inhabitants (regression analysis, $p<0,001$)
	Able to live independently	no difference between groups (housing stability)			
	N° of carers involved				

Satisfaction/ Quality of Life					
	N° people leaving study				none reported
	Patient Satisfaction life/Quality of Life	Manchester assessment of quality of life (MANSA): no difference between groups			
	Patient Satisfaction treatment	Client satisfaction questionnaire (CSQ): no difference between groups (for 3 of 8 items, significant difference in favour of ACT group)			
	Patient met and unmet needs	Camberwell assessment of needs (CANSAS): no difference between groups			
	Staff satisfaction				
	Carer satisfaction				
Remarks					
					very weak study due to lack of duration of follow-up and raw data, due to clear selection bias (clinical reasons for discharge to hostel), and because of limited number of patients and only one hostel included

4 APPENDIX TO CHAPTER 7

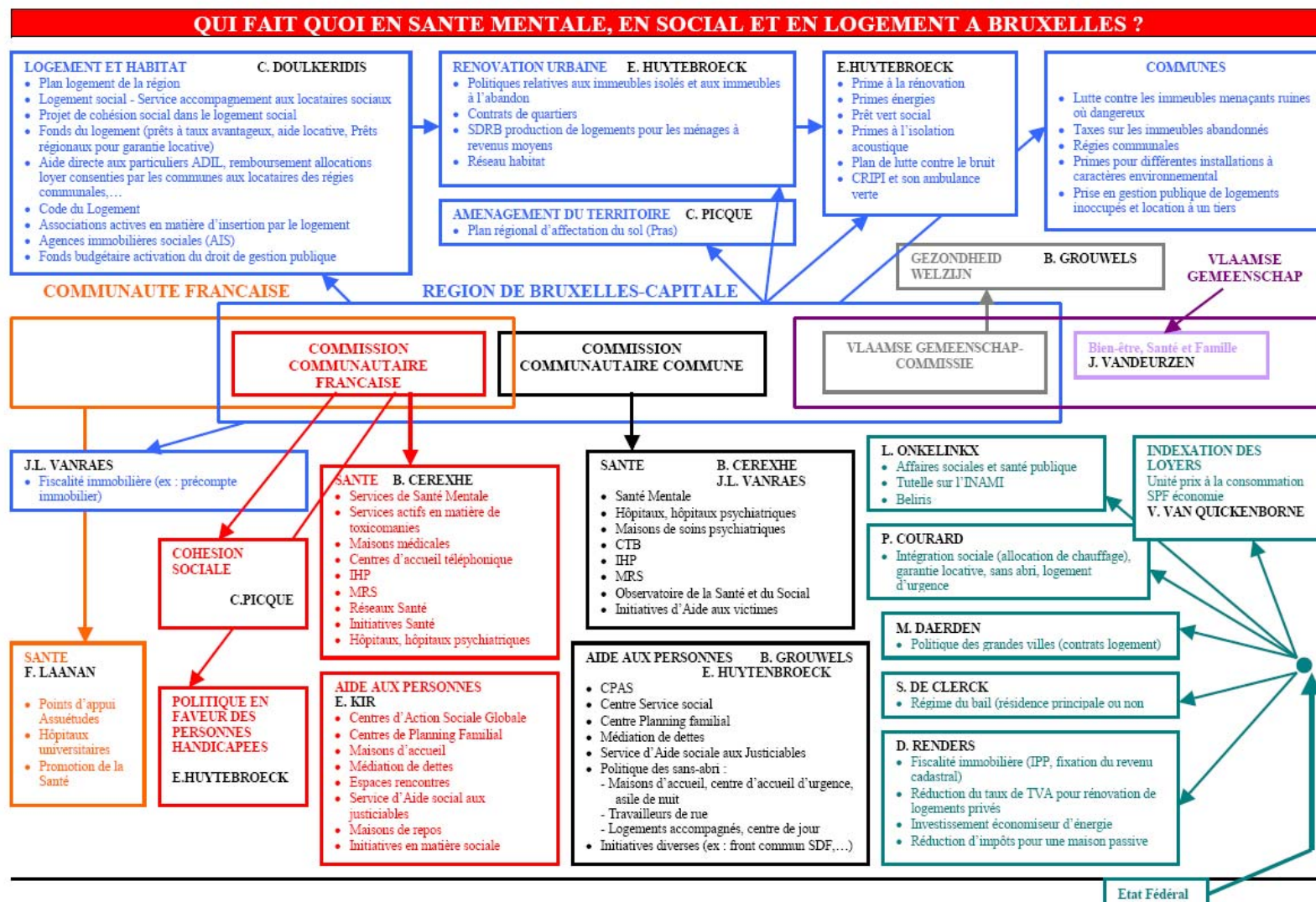
APPENDIX BELGIUM I

Figure A1



Source: http://www.cocof.irisnet.be/site/fr/sante/Files/TAB_SANTE_SOCIAL_BXL_09/; accessed nov. 2009

Figure A2



Source: http://www.cocof.irisnet.be/site/fr/sante/Files/TAB_SANTE_SOCIAL_BXL_09/; accessed nov. 2009

5 APPENDIX TO CHAPTER 8

APPENDIX FRANCE 1

Figure X: regional population and regional number of psychiatrists as % of total for France.

	Region: share (%) in total French Population	Regional number of Psychiatrists: share in total number of French Psychiatrists
Ile-de-France	18.2 %	31.1%
Rhône	2.7 %	4.2%
Gironde	2.2%	3.4%
Bouches-du-Rhône	3 %	3.1%
Alpes-Maritimes	1.7 %	2.5%
Haute-Garonne	1.9%	2.4%
Total French Population (2006)	29.7%	46.7%

APPENDIX FRANCE 2

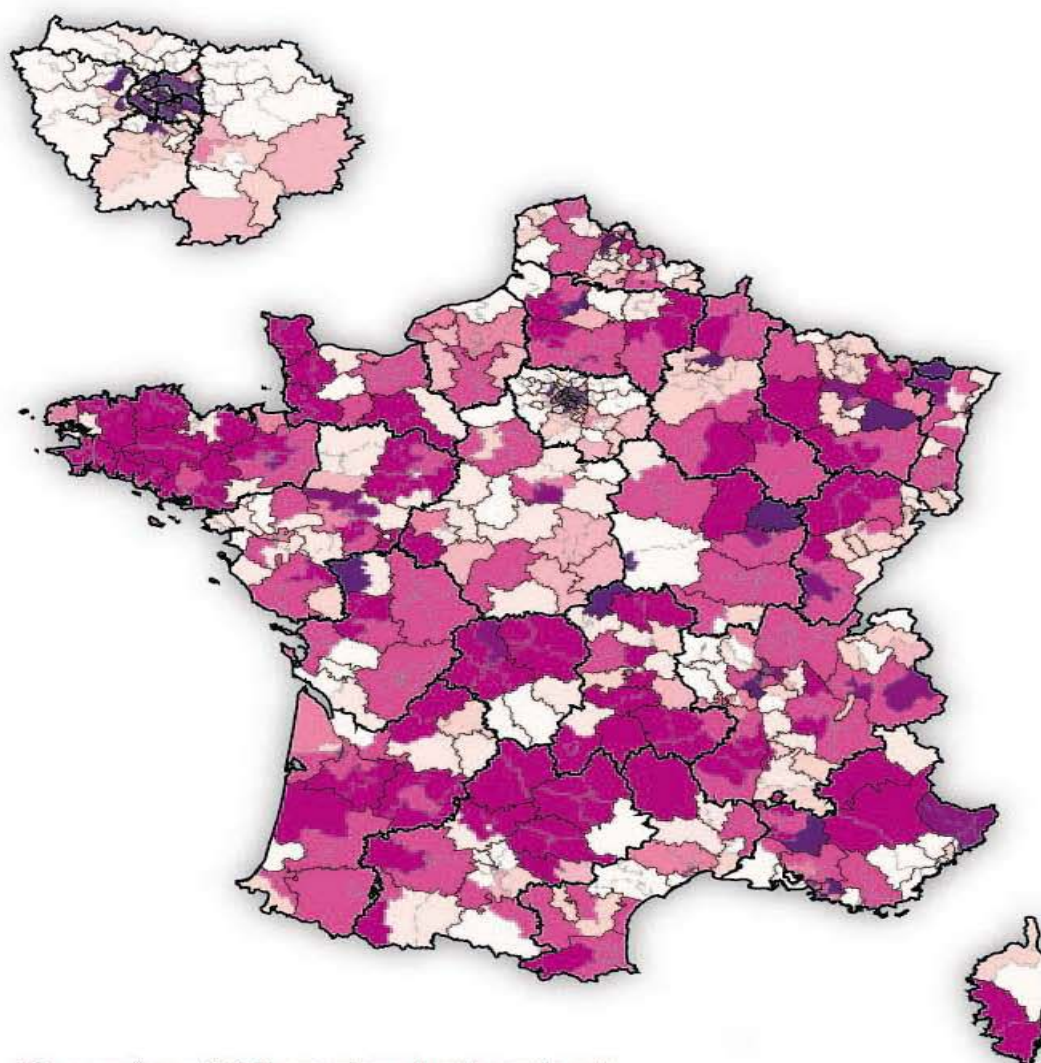
In August 2009, an in-depth and retrospective analysis of the 50-year sectorization policy has been carried out by the IRDES “Questions de Santé N. 145 – August 2009”. Based on a survey, psychiatric sectors have been sorted by “level of resources”; and geographical dimension, i.e. rural or urban environment has been taken into account. Resources must be understood as the wide range of criteria including: Full time and part-time beds, Full-time equivalent health professionals, timeslot and accessibility of psychiatric care. Nine “classes” have been defined, namely: Class 1: Rural areas / Privileged for non clinical workforce and equipments; 2: Urban Areas /Privileged – Wide range of equipments; 3: Fairly privileged – health professionals & Equipments; 4: Fairly privileged but partnership with regional hospital; 5: Major medical demographic problems; 6: Parisian Region / highly skilled health professional workforce; 7: Atypical sectors – No full-time defined; 8: Short-staffed and poor access to treatment options; 9: Underprivileged and strong somatic orientation.

Three categories of sectors have been defined:

- “*Privileged sectors*” [**Classes 6, 2, 1**] : 261 sectors have been identified, 93 being located in the Parisian region, and 132 being located in rural areas.
- “*Fairly privileged sectors*” [**Classes 3,4**] : 241 sectors have been identified.
- “*Underprivileged sectors*” [**Classes 7, 8, 5, 9**]: 292 sectors have been identified, 103 being considered as both poorly provided with resources and poorly connected with non clinical resources or services.

As clearly shown on the map below, discrepancies exist across regions but also within each region, often without clear explanation, other than historical ones. As mentioned above, patients in some rural areas enjoy rapid access to high-level psychiatric care, whereas others do not.

Figure XX: distribution of psychiatric resources per sector.

**Classes** (caractéristiques et nombre de secteurs)

- 6** Secteurs franciliens très bien dotés en personnel médical (93)
- 2** Secteurs urbains bien dotés en équipement varié (36)
- 1** Secteurs ruraux bien dotés en personnel non médical et équipement (132)
- 3** Secteurs moyennement dotés en personnel et équipement (CHS) (184)
- 4** Secteurs moyennement dotés rattachés à des centres hospitaliers régionaux (57)
- 7** Secteurs atypiques sans hospitalisation à temps plein (23)
- 8** Secteurs faiblement dotés en personnel et en alternatives (80)
- 5** Secteurs aux problèmes de démographie médicale importants (86)
- 9** Secteurs faiblement dotés avec forte orientation somatique (103)

Limites géographiques

-  Limites des secteurs
-  Limites des établissements de rattachement
-  Limites régionales

This page is left intentionally blank.

KCE reports

- 33 Effects and costs of pneumococcal conjugate vaccination of Belgian children. D/2006/10.273/54.
- 34 Trastuzumab in Early Stage Breast Cancer. D/2006/10.273/25.
- 36 Pharmacological and surgical treatment of obesity. Residential care for severely obese children in Belgium. D/2006/10.273/30.
- 37 Magnetic Resonance Imaging. D/2006/10.273/34.
- 38 Cervical Cancer Screening and Human Papillomavirus (HPV) Testing D/2006/10.273/37.
- 40 Functional status of the patient: a potential tool for the reimbursement of physiotherapy in Belgium? D/2006/10.273/53.
- 47 Medication use in rest and nursing homes in Belgium. D/2006/10.273/70.
- 48 Chronic low back pain. D/2006/10.273/71.
- 49 Antiviral agents in seasonal and pandemic influenza. Literature study and development of practice guidelines. D/2006/10.273/67.
- 54 Cost-effectiveness analysis of rotavirus vaccination of Belgian infants D/2007/10.273/11.
- 59 Laboratory tests in general practice D/2007/10.273/26.
- 60 Pulmonary Function Tests in Adults D/2007/10.273/29.
- 64 HPV Vaccination for the Prevention of Cervical Cancer in Belgium: Health Technology Assessment. D/2007/10.273/43.
- 65 Organisation and financing of genetic testing in Belgium. D/2007/10.273/46.
- 66 Health Technology Assessment: Drug-Eluting Stents in Belgium. D/2007/10.273/49.
- 70. Comparative study of hospital accreditation programs in Europe. D/2008/10.273/03
- 71. Guidance for the use of ophthalmic tests in clinical practice. D/2008/10.273/06.
- 72. Physician workforce supply in Belgium. Current situation and challenges. D/2008/10.273/09.
- 74 Hyperbaric Oxygen Therapy: a Rapid Assessment. D/2008/10.273/15.
- 76. Quality improvement in general practice in Belgium: status quo or quo vadis? D/2008/10.273/20
- 82. 64-Slice computed tomography imaging of coronary arteries in patients suspected for coronary artery disease. D/2008/10.273/42
- 83. International comparison of reimbursement principles and legal aspects of plastic surgery. D/2008/10.273/45
- 87. Consumption of physiotherapy and physical and rehabilitation medicine in Belgium. D/2008/10.273/56
- 90. Making general practice attractive: encouraging GP attraction and retention D/2008/10.273/66.
- 91 Hearing aids in Belgium: health technology assessment. D/2008/10.273/69.
- 92. Nosocomial Infections in Belgium, part I: national prevalence study. D/2008/10.273/72.
- 93. Detection of adverse events in administrative databases. D/2008/10.273/75.
- 95. Percutaneous heart valve implantation in congenital and degenerative valve disease. A rapid Health Technology Assessment. D/2008/10.273/81
- 100. Threshold values for cost-effectiveness in health care. D/2008/10.273/96
- 102. Nosocomial Infections in Belgium: Part II, Impact on Mortality and Costs. D/2009/10.273/03
- 103 Mental health care reforms: evaluation research of 'therapeutic projects' - first intermediate report. D/2009/10.273/06.
- 104. Robot-assisted surgery: health technology assessment. D/2009/10.273/09
- 108. Tiotropium in the Treatment of Chronic Obstructive Pulmonary Disease: Health Technology Assessment. D/2009/10.273/20
- 109. The value of EEG and evoked potentials in clinical practice. D/2009/10.273/23
- 111. Pharmaceutical and non-pharmaceutical interventions for Alzheimer's Disease, a rapid assessment. D/2009/10.273/29
- 112. Policies for Orphan Diseases and Orphan Drugs. D/2009/10.273/32.
- 113. The volume of surgical interventions and its impact on the outcome: feasibility study based on Belgian data
- 114. Endobronchial valves in the treatment of severe pulmonary emphysema. A rapid Health Technology Assessment. D/2009/10.273/39
- 115. Organisation of palliative care in Belgium. D/2009/10.273/42
- 116. Interspinous implants and pedicle screws for dynamic stabilization of lumbar spine: Rapid assessment. D/2009/10.273/46

117. Use of point-of care devices in patients with oral anticoagulation: a Health Technology Assessment. D/2009/10.273/49.
118. Advantages, disadvantages and feasibility of the introduction of 'Pay for Quality' programmes in Belgium. D/2009/10.273/52.
119. Non-specific neck pain: diagnosis and treatment. D/2009/10.273/56.
121. Feasibility study of the introduction of an all-inclusive case-based hospital financing system in Belgium. D/2010/10.273/03
122. Financing of home nursing in Belgium. D/2010/10.273/07
123. Mental health care reforms: evaluation research of 'therapeutic projects' - second intermediate report. D/2010/10.273/10
124. Organisation and financing of chronic dialysis in Belgium. D/2010/10.273/13
125. Impact of academic detailing on primary care physicians. D/2010/10.273/16
126. The reference price system and socioeconomic differences in the use of low cost drugs. D/2010/10.273/20.
127. Cost-effectiveness of antiviral treatment of chronic hepatitis B in Belgium. Part I: Literature review and results of a national study. D/2010/10.273/24.
128. A first step towards measuring the performance of the Belgian healthcare system. D/2010/10.273/27.
129. Breast cancer screening with mammography for women in the agegroup of 40-49 years. D/2010/10.273/30.
130. Quality criteria for training settings in postgraduate medical education. D/2010/10.273/35.
131. Seamless care with regard to medications between hospital and home. D/2010/10.273/39.
132. Is neonatal screening for cystic fibrosis recommended in Belgium? D/2010/10.273/43.
133. Optimisation of the operational processes of the Special Solidarity Fund. D/2010/10.273/46.
135. Emergency psychiatric care for children and adolescents. D/2010/10.273/51.
136. Remote monitoring for patients with implanted defibrillator. Technology evaluation and broader regulatory framework. D/2010/10.273/55.
137. Pacemaker therapy for bradycardia in Belgium. D/2010/10.273/58.
138. The Belgian health system in 2010. D/2010/10.273/61.
139. Guideline relative to low risk birth. D/2010/10.273/64.
140. Cardiac rehabilitation: clinical effectiveness and utilisation in Belgium. d/2010/10.273/67.
141. Statins in Belgium: utilization trends and impact of reimbursement policies. D/2010/10.273/71.
142. Quality of care in oncology: Testicular cancer guidelines. D/2010/10.273/74
143. Quality of care in oncology: Breast cancer guidelines. D/2010/10.273/77.
144. Organization of mental health care for persons with severe and persistent mental illness. What is the evidence? D/2010/10.273/80.

This list only includes those KCE reports for which a full English version is available. However, all KCE reports are available with a French or Dutch executive summary and often contain a scientific summary in English.

