The REFINEMENT Project

Research on Financing Systems' Effect on the Quality of Mental Health Care

REMAST

REfinement MApping Services Tool

A Tool for collecting detailed information, within a study area, of the structure of health and social care services

To be quoted as:

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SEVENTH FRAMEWORK PROGRAMME

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Introduction

The REFINEMENT MApping Services Tool (REMAST) is designed to allow a detailed description of:

1. the structure of health care (primary, general and specialist care) and social care services addressed to people with mental health disorders in a specific Study Area[1].
2. the characteristics of the Study Area in terms of socioeconomic environment.

This detailed description can be used to illustrate the spatial distribution of health and social services in selected Study Areas according to specific inclusion and exclusion criteria. The tool is intended for services of the working age population and it excludes those services targeting exclusively minors and/or elderly people.

This tool is based on previously developed and validated international instruments. It incorporates items from the WHO Assessment Instrument for Mental Health Systems (WHO-AIMS) (WHO, 2005; Saxena et al., 2007), the Verona SES Index (Tello et al, 2005) and the Description and Evaluation of Services and Directories in Europe (DESDE-LTC).

DESDE-LTC is an extension of the European Mapping Service Schedule (ESMS) for the classification and assessment of services for Long Term Care. WHO-AIMS and both ESMS and DESDE-LTC have been used extensively for comparing provision of services and for the assessment of health systems worldwide.

The European Psychiatric Care Assessment Team (EPCAT) developed the ESMS to describe mental health services for the population of a Study Area provided by public sector health and social service agencies, voluntary sector and private sector providers (Johnson et al., 2000). The instrument classified provision in a "service mapping tree" on the basis of operationalised definitions of mental health services. It also documented the associated levels of service provision and was used to compare services in Study Areas across countries e.g. comparing services in over 20 countries in Europe such as Germany, Italy and Spain (Becker et al., 2002, Salvador-Carulla et al., 2006; Ungewitter et al., 2013). It has also been used in Quebec (Canada), Chile and Brazil.

The extension of the coding system in DESDE-LTC improved the mapping of services from other sectors (general health care, social care, employment, education, etc) and its use in other population groups such as child and adolescent population or persons with disabilities.

The use of DESDE-LTC in REMAST allows for the description and comparison of primary care, general health and social care services

1 The definition of "Study Area" is given in the User Manual, page 8.

that may be used to support people with mental health needs. The majority of people with common mental health problems, such as depression for instance, in a number of countries will be treated almost exclusively by general practitioners whilst social care services can play a critical role in providing a route back to employment and/or in providing support to allow independent living.

Following the previous experience in the development of Mental Health Atlases using DESDE-LTC and Geographic Information Systems (e.g. in Catalonia and the Basque country) (Salinas et al 2012), the REMAST tool takes into consideration health geography and devotes considerable attention to the spatial distribution of health facilities as an important factor that influences overall population health (Guagliardo, 2004). The issue of spatial organisation and distribution of health care facilities is a key element of the spatial equity of public services. The REMAST tool can be used in combination with Geographical Information System (GIS) for analysing the spatial dimension of mental health care delivered by health and social services. The notion of spatial equity implies the use of accessibility as a tool for assessing whether or not equity has been achieved (Talen and Anselin, 1998). Accessibility measures can be viewed as a social indicator when they assess and show the availability of social opportunities for individuals.

Additionally, the changing balance between long stay institutional and community based care has led to an increasing reliance on a diverse range of community-based services funded and/or delivered by the public, voluntary or private sectors (Becker and Vázquez-Barquero, 2001; Thornicroft and Tansella, 1999). An increasing focus on comparative international analysis of mental health policy and practice is aided by a good-quality common description of mental health service provision. This is important to ensure that researchers, service planners and policy makers in different regions, countries and at the European level, compare 'like with like', and to allow adequate use of the data from different service systems.

User Manual

Guide to the use of REMAST tool.

This Tool is a folder that contains several instruments: a manual that guides the researchers in the use of the different parts of the tool, a glossary that explains and clarifies the terms used in each instrument, and a reference list.

The REMAST tool allows to:

1. describe all services (general health, mental health and social services) available for people with mental illness;
2. explain the complexity of the models adopted in each Study Area to deal with mental disorders;
3. compare the models used in each Study Area;
4. develop an Atlas of Mental Health Care that will give decision-makers within countries/regions more detailed accounts of services.

For the services description, the first step is to choose a defined, geographically limited and detectable "Study Area". Given the complexity of the data collection exercise, it is recommended to choose a Study Area with a population between 200,000 and 1,500,000 inhabitants. Preferably the Study Area should cover a health district or a municipality (or have other administrative boundaries) served by a defined range of health services.

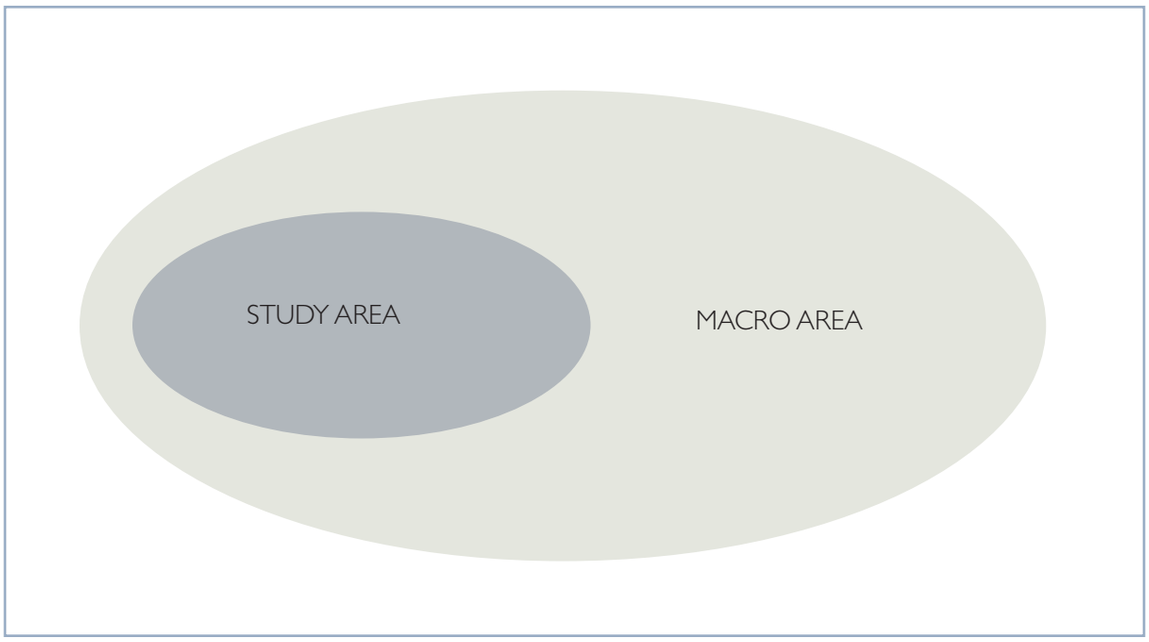
The second step is to choose a "Macro Area". The Macro Area must include the Study Area and it is recommended to choose a Macro Area with a population between 1,500.000 and 10,000,000 inhabitants, to be identified as a NUTS1 or NUTS2 (see the Nomenclature of Territorial Units for Statistics).

The data that will be required for the Macro Area are only general data (in most cases, mean values for the whole Macro Area). For the Study Area a detailed data collection is necessary. These data must be collected using the specific web application available at this address: **www.psychiatry.univr.it/refinement/downloadarea**

Users can be identified and registered by using their email as username and a password.

The reason to collect data in parallel for the Study Area and for the Macro Area (see Figure 1) is to statistically obtain information on how far the characteristics of the Study Area are from a Macro Area of reference. This will make understand whether the Study Area is representative of the macro level where it is included or not. If it is not, it will be feasible to know how different it is from the Macro Area and in which direction.

Figure 1. Macro Area and Study Area for REMAST



PRACTICAL REMARKS

Study Areas are to be analyzed according to the level of details available in each country (municipalities, health or administrative districts, census blocks, electoral blocks, postal codes, etc.).

For both the Mental Health Services Inventory and the Mental Health Systems Checklist sections, only the services which are located in the Study Area should be included, except services which are specifically dedicated to serve the population of the Study Area (perhaps among populations of other areas), but are located outside this area. In these exceptional cases only the part(s) of the service which is/are dedicated to serving the Study Area should be included.

According to the Macro and Study Areas division, the different sections of this tool are ordered from general to particular analyses.

THE SECTIONS OF THE REMAST TOOL

1. POPULATION DATA
2. VERONA SES INDEX
3. MENTAL HEALTH SYSTEMS CHECKLIST
4. MENTAL HEALTH SERVICES INVENTORY
5. GEOGRAPHICAL DATA

Population data

	Macro Area	Study Area
Name		
NUTS Code*		
Reference Year		

	Macro Area			Study Area		
	Males	Females	All	Males	Females	All
Total population						
0 – 17 years						
18 – 64 years						
65 and more						

* Indicate the NUTS Code for the Study-Area only when applicable.

Verona SES Index

Please attach to this tool one or more files with the detailed datasets

Name of the file

	Macro-Area		Study Area*	
	Result (%)	Year	Result (%)	Year
Single-parent families Number of single-parent families with children / number of families				
Workers employed in each working sector Number of economically active individuals employed in each working sector[2]/ economically active individuals (employed and unemployed)				
Rented accommodation Number of occupied rented accommodation / occupied accommodation[3]				
Individuals with Elementary School level Number of individuals with elementary school as maximum level of education / residents over 5 years old				
Individuals with Tertiary qualification Number of individuals with any tertiary qualification as their level of education / residents over 5 years old				
Individuals married Number of individuals by marital status: married / residents				
Individuals separated or divorced or widowed Number of individuals by marital status: (separated + divorced + widowed) / residents				
Unemployment rate Number of total economically active individuals unemployed or looking for occupation or first occupation / economically total active individuals (employed and unemployed)				

2. As defined by your National Institute of Statistics. Ideally, we would like to have the number of employed people for each NACE sector.

3. Excluding accommodation occupied by only non-residents and kinds of accommodation different from buildings.

Other Variables not Included in The Verona SES Index

	Macro-Area		Study Area*	
	Result (%)	Year	Result (%)	Year
Population density Number of individuals / squared kilometers				
Average number of people per household Number of individuals / number of households				
Ageing index Number of individuals over 64 / number of individuals below 15				
Dependency ratio Number of individuals either below 15 or over 64 /number of individuals between 15 and 64)				
Households made up by 1 person Number of households made up by 1 person / number of households				
Households made up by 5 or more people Number of households made up by 5 or more people / number of households				
Individuals below 5 years old Number of individuals below 5 / residents				
Immigrants Number of foreigners / residents				

Mental Health Systems Checklist

Items of this section are derived from WHO-AIMS (WHO, 2005)

Please compile this section with the most updated data you have at your disposal.

Available data refer to the year:

Please answer the following questions by checking:

- Yes (Y),
- No (N),
- Unknown (UN),
- or Not Applicable (NA).

Each category of items is provided with a box (called "Observations") where you can add your own comments. If you answer some questions by checking Not Applicable (NA), please use this box for explanations and clarifications. When requested, insert the number, percentage or fraction in the data slots. It is recommended to insert both raw data and ratios in the slots. Please fill in the boxes colored in green with the sum calculated from the Service Inventory data (see Mental Health Services Inventory section of this tool).

POLICY AND LEGISLATIVE FRAMEWORK

Mental Health Policy

Definition: Mental health policy refers to an organized set of values, principles, and objectives to improve mental health and reduce the burden of mental disorders in a population.

- **At which level is the mental health policy document established in your country? (E.g. national, local…)**
- **Which is the year of the last version of the mental health policy document in the areas you have selected for this study?**
- **Are the following components included in your mental health policy?**

		Y	N	UN	NA
1.	Organization of services: developing community mental health services				
2.	Organization of services: downsizing large mental hospitals				

3. Organization of services: developing a mental health component in primary health care	Y	N	UN	NA
4. Human resources	Y	N	UN	NA
5. Involvement of users and families	Y	N	UN	NA
6. Advocacy and promotion	Y	N	UN	NA
7. Human rights protection of users	Y	N	UN	NA
8. Equity of access to mental health services across different groups	Y	N	UN	NA
9. Financing	Y	N	UN	NA
10. Quality improvement	Y	N	UN	NA
11. Monitoring system	Y	N	UN	NA

Mental Health Plan

Definition: A mental health plan is a detailed scheme for action on mental health which usually includes setting priorities for strategies and establishing timelines and resource requirements. A mental health plan usually includes action for promoting mental health, preventing mental disorders and treating people with mental illnesses.

- **At which level is the mental health policy document established in your country? (E.g. national, local…)**

- **Which is the year of the last version of the mental health policy document in the areas you have selected for this study?**

- **Are the following components included in your mental health policy?**

1. Organization of services: developing community mental health services	Y	N	UN	NA
2. Organization of services: downsizing large mental hospitals	Y	N	UN	NA
3. Organization of services: reforming mental hospitals to provide more comprehensive care	Y	N	UN	NA

4. Organization of services: developing a mental health component in primary health care	Y	N	UN	NA
5. Human resources	Y	N	UN	NA
6. Involvement of users and families	Y	N	UN	NA
7. Advocacy and promotion	Y	N	UN	NA
8. Human rights protection of users	Y	N	UN	NA
9. Equity of access to mental health services across different groups	Y	N	UN	NA
10. Financing	Y	N	UN	NA
11. Quality improvement	Y	N	UN	NA
12. Monitoring system	Y	N	UN	NA

- **What are the strategies in the last mental health plan?**

1. Budget is mentioned in the last mental health plan	Y	N	UN	NA
2. A timeframe is mentioned in the last mental health plan	Y	N	UN	NA
3. Specific goals are mentioned in the last mental health plan	Y	N	UN	NA
4. Have any of the goals identified in the last mental health plan been reached within the last calendar year?	Y	N	UN	NA

Mental Health Policies and Plans

Write in the following box a list of two, three policies or plans (the most up-to-date ones) which have had important repercussions on the Study Area services.

Monitoring and Training on Human Rights

Definition: Monitoring and training on human rights protection in mental health services.

- **What are the functions of review bodies assessing the human rights protection of users in mental health services?**

	Macro Area			Study Area		
1. Oversee regular inspections in mental health facilities	Y	N	NA	Y	N	NA
2. Review involuntary admission and discharge procedures	Y	N	NA	Y	N	NA
3. Review complaints investigation processes	Y	N	NA	Y	N	NA
4. The review body has the authority to impose sanctions (e.g. withdraw accreditation, impose penalties, or close facilities that persistently violate human rights)	Y	N	NA	Y	N	NA

MENTAL HEALTH SERVICES

Organizational Integration of Mental Health Services

Definition: Organizational integration of mental health services across facilities.

- **Do functions of a "mental health authority" exist in your macro/Study Area? What are their roles?**

	Macro Area			Study Area		
1. A national or regional mental health authority exists	Y	N	NA	Y	N	NA
2. The mental health authority provides advice to the government on mental health policies and legislation	Y	N	NA	Y	N	NA
3. The mental health authority is involved in service planning	Y	N	NA	Y	N	NA
4. The mental health authority is involved in service management	Y	N	NA	Y	N	NA
5. The mental health authority is involved in monitoring and quality assessment of mental health services	Y	N	NA	Y	N	NA

- **Do catchment areas/ service areas exist as a way to organize mental health services to communities?**

1. Macro Area	Y	N	NA		Y	N	NA
2. Study Area	Y	N	NA		Y	N	NA

Mental Health Services Inventory

INTRODUCTION

The REMAST Mental Health Services Inventory section is aimed at mapping and providing specific information on all Mental Health Care services of the Study Area which meet the inclusion and exclusion criteria described in the following box.

Data and/or version of the document

SERVICES INCLUSION and EXCLUSION CRITERIA

Please note that these criteria concern exclusively the Mental Health Services Inventory. The other parts of the REMAST are not affected by these criteria. Analogously, the definition of the population included in this inventory is not intended to refer to all workpackages/tasks of the whole REFINEMENT project.

The inventory includes all those services providing Health and Social Care to people with a psychiatric disorder who are at least 18 years old (no upper age limit is applied).

The inventory excludes:

(a) all services especially dedicated to the treatment of individuals with F0- and/or F1- and/or F7-diagnoses (as per ICD-10), e.g. specific rehabilitation centers for alcohol and drug withdrawal, memory clinics, institutions for individuals with intellectual disabilities etc.

(b) all services especially dedicated to the treatment of the elderly (e.g. nursing homes, mobile home nursing services, etc.), unless they provide services especially for people with mental disorders (again, except services as per (a))

(c) forensic services

(d) services exclusively for child and adolescent disorders.

By the way, all services which treat individuals with F0- and/or F1- and/or F7-diagnosis or elderly people or forensic patients amongst others (F2–F6) will be included. Then all relevant non-specialist and general services in the health and social care system (including e.g. homeless shelters, non-psychiatric hospital wards, psychologists in private practice etc.) should be included in the mapping.

Finally, the inventory includes all those services which are located in the Study Area. When possible, as to get a complete overview of the services available for the residents, please include also those services which are located outside the Study Area but which serve the patients of the Study Area. For GPs and social care, include only those services which are located in the Study Area.

The Mental Health Services Inventory is composed of two parts:

1. the present REMAST tool section which describes and explains the items of the Mental Health Services Inventory (MHSI).
2. the Mental Health Services Inventory File itself.

The compilation of the file will provide information on the general context of each service, its ecological setting, distribution and utilization.

Five types of information are required for each service: Service basic information, Location and Geographical information about the service, Useful information and contacts, Service Data, and Evaluator information. Each of these five categories includes specific questions to answer with numbers, acronyms or short sentences.

When data are not available, please leave the box blank and write in the Observations box why you cannot provide any answer to those specific questions.

Hereunder you can find all the explanations of the data slots you have to compile in the SIF according to the five categories mentioned above.

Refer to the REFINEMENT Glossary for the definitions you have to choose for describing each service.

DESCRIPTION

1 Service basic information (derived from the ESMS/DESDE system)

(a) IDNUM

Associate each service (Basic Stable input of Care-BSIC or Main Type of Care-MTC, according to DESDE-LTC terminology, www.edesdeproject.eu) to an Identification Number (IDNUM) where the first two letters refer to the country and the figures are progressive numbers (ex: IT0001). Use the ISO country codes with two letters to identify your country (e.g. AT Austria, EN England, ES Spain, EE Estonia, FI Finland, FR France, IT Italy, NO Norway, RO Romania etc.)

(b) ADDID

The IDNUM and the ADDID are two compulsory variables needed to identify each service (BSIC or MTC, according to DESDE-LTC terminology, www.edesdeproject.eu).

Insert consecutive numbers (ADDID) starting from 1 for describing more than one MTC belonging to the same BSIC. If a BSIC has no MTC, please put the value 1 (see details in figures 2a and 2b).

(c) Local ID

Indicate the existing Identification numbers of the local country BSIC when available.

(d) Name of the service

Write the exact name of the service in your language.

Figure 2a. Example of BSIC with MTC

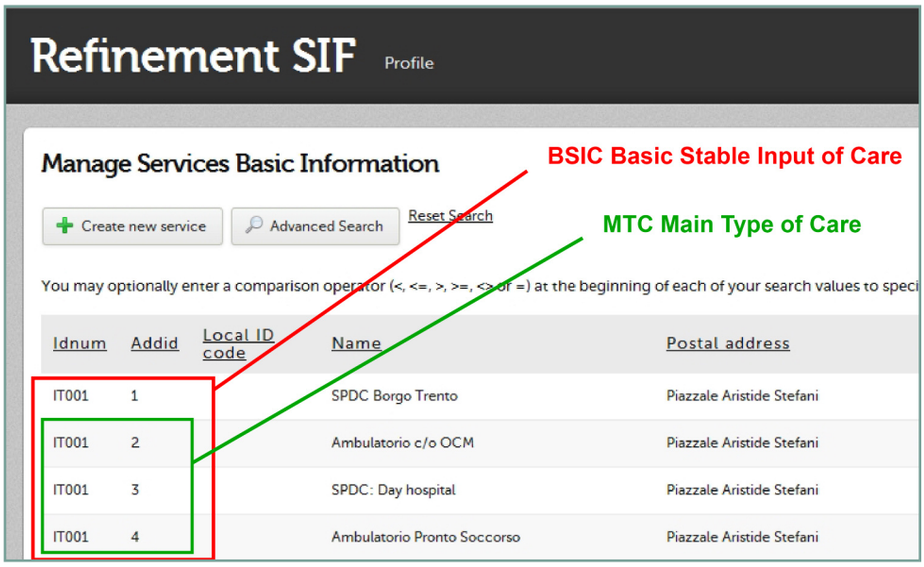
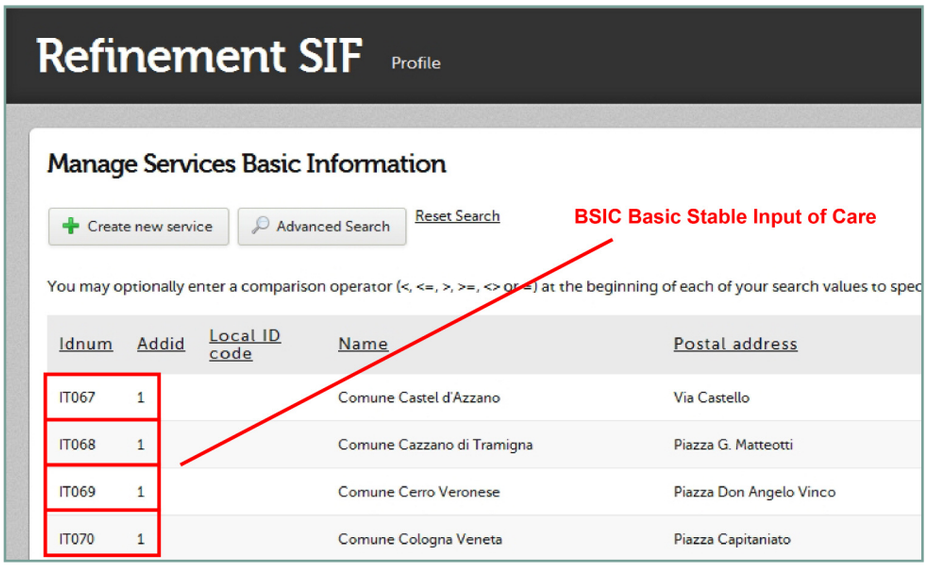


Figure 2b. Example of BSIC with one MTC



2 Location and Geographical information about the service

(a) Postal address, house number, post code, municipality, province, region

Provide the full postal address of the service.

(b) Catchment area

Indicate the served geographical area and list the different served neighborhoods and/or little towns. Specify the level of availability of the service:

- Whole country
- Macro Area
- Study Area
- Sub Area

(c) Real potential users

Provide the number of people the service addresses to. For example, for adult services the number would be the total population in the Study Area excluding those who are under 18 years old.

3 Useful info and contacts

(a) Telephone, fax, e-mail, website

Provide all useful contact information when available.

(b) Official starting year of the service

Insert the year when the service officially started.

(c) Local definition of the service

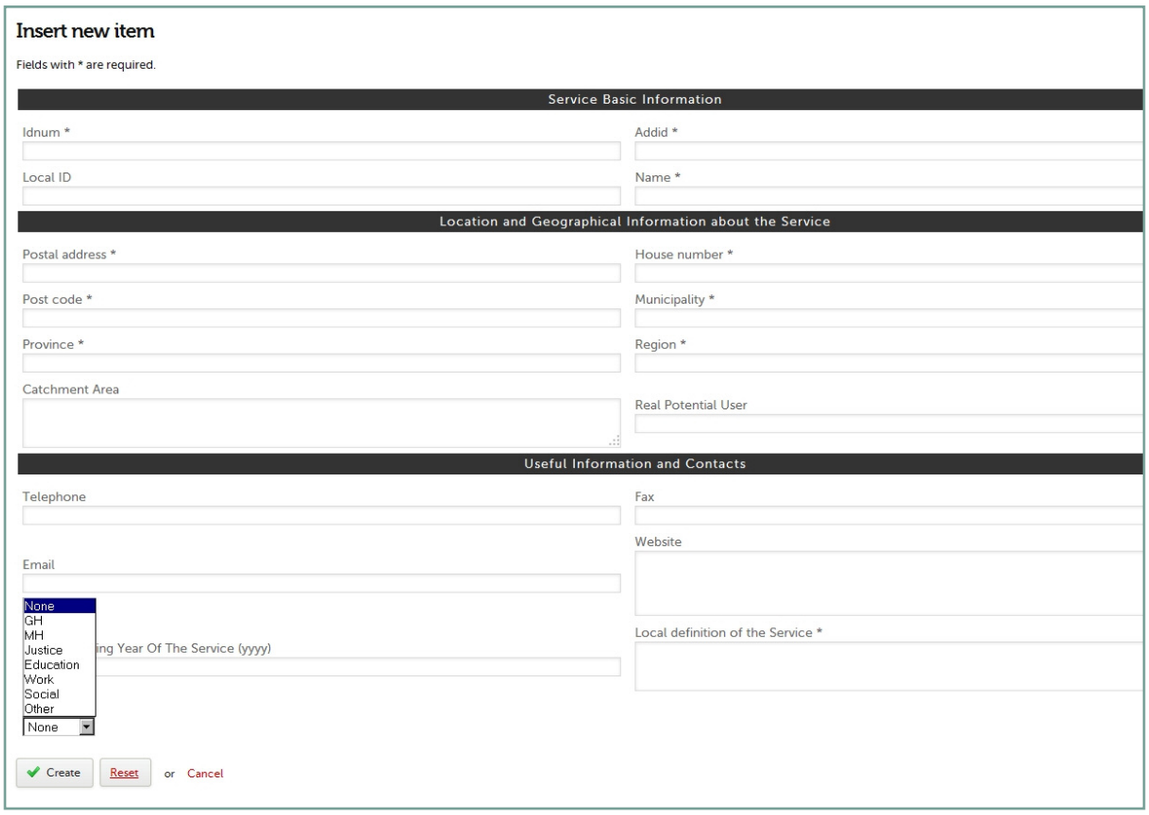
Write in both English and in your own language the name of the service.
E.g.: Centro Diurno/Community Mental Health Center

(d) Sector

Specify the sector to which the service belongs to among the followings:

- General health
- Mental health
- Justice
- Education
- Work
- Social
- Other

Figure 3. Example of the first section of the SIF



4 Service Data

(a) Number of opening days per week

Provide the number of opening days (from a minimum of 1 to a maximum of 7) of the service per week. When a service is open 24 hours a day all week long insert 7 for the days.

(b) Number of opening hours per week

Provide the number of opening hours per week. Minutes must be indicated by the apostrophe ('). When a service is open 24 hours a day all week long insert 168 for the hours. Add in the Observation Box (see point 5. c.) if it is possible to calculate the hours after special appointment.

(c) Staff

Provide the full-time equivalents (FTE)* of the staff members working in the service:

- Psychiatrist: a medical doctor who has had at least two years of post-graduate training in psychiatry at a recognized teaching institution. This period may include training in any sub-specialty of psychiatry.
- Psychiatrist in training: a medical doctor who is currently

*Full-time equivalent (FTE), is a unit to measure employed persons in a way that makes them comparable although they may work a different number of hours per week. FTE is often used to measure a worker's involvement in a project, or to track cost reductions in an organization. An FTE of 1.0 means that the person is equivalent to a full-time worker, while an FTE of 0.5 signals that the worker is only half-time.

attending at least two years of post-graduate training in psychiatry at a recognized teaching institution. This period may include training in any sub-specialty of psychiatry.

- General Practitioner (GP): a physician whose practice consists of providing ongoing care covering a variety of medical problems in patients of all ages, often including referral to appropriate specialists (synonyms: Family Doctor, Primary Health Care Doctor, Primary Care Practitioner or Primary Care Physician).
- Other medical doctor: a health professional with a degree in modern medicine who is authorized/licensed to practice medicine under the rules of the country.
- Nurse: a health professional having completed a formal training in nursing at a recognized, university-level school for a diploma or degree in nursing.
- Psychologist: a professional having completed a formal training in psychology at a recognized, university-level school for a diploma or degree in psychology.
- Social worker: a professional having completed a formal training in social work at a recognized, university-level school for a diploma or degree in social work.
- Occupational therapist: a health professional having completed a formal training in occupational therapy at a recognized, university-level school for a diploma or degree in occupational therapy.
- Other health or mental health workers: health or mental health worker that possesses some training in health care or mental health care but does not fit into any of the defined professional categories (e.g. medical doctors, nurses, psychologists, social workers, occupational therapists). Includes: Non-doctor/non-nurse primary care workers, professional and paraprofessional psychosocial counsellors, special mental health educators, and auxiliary staff. Excludes: This group does not include general staff for support services within health or mental health care settings (e.g. cooking, cleaning, security).

Put the value 0 when a specific staff role is not present in the service. When mapping a stand-alone service (for instance a single-handed GP or psychiatrist), please put the value 1 in the corresponding cell and 0 in all other cells. All cells should be completed for the reliability of the compilation.

(d) Management, legal system and economic information

- Management agency: provide the name of the agency responsible for the employment of staff and the management of the service.
- Owner of the service: specify if the legal owner of the service is:

1. Private for profit
2. Private not for profit
3. Public
4. Semi-public (e.g. "company" owned by government)
5. Other (please specify)

- Legal System: specify the legal status of the service by selecting one of the following definitions:
  1. Registered charity
  2. Foundation
  3. Cooperative
  4. Social Firm
  5. Public corporation
  6. Private company
  7. Other (please specify)

Distinguish services by adding the acronym Health (H) or Social (S) or Health/Social (HS) in the specific box. Use the Observation Box (see point 5. c.) to add any useful comments on the type of care.

- Type of care: all services can be divided into three categories which describe whether the service is financed through:
  1. Health
  2. Social
  3. Mix of health/social funds
  4. Other (please specify)

Please code as many of the following categories as apply. For instance, for single handed GPs it is often "capitation" and "fee-for-service", for hospitals "FLAT RATE" and "FEE-FOR-SERVICE", for primary care centers "capitation" for the service and "salary" for the employed doctors there.

- Payment mechanisms for service providers: how is the service paid?

  For each service mapped please check how the service is paid. Several of these mechanisms can apply to a specific institution. The following items are derived from FINCENTO (i.e. REFINEMENT WP4/WP5 tool).

1. GLOBAL BUDGET: The service provider receives a fixed lump sum for the whole service for a certain time period (usually one year). This may be based on past ("historical") budgets or it may be determined based on an assessment of community need. It might also include an element of case-mix adjustment to take account of differences in population and past activity in terms of severity of cases treated. There are usually limited or no restrictions on how this budget may be then allocated to different activities delivered by the service provider, unless this is specified in a contract.

2. LINE ITEM BUDGET: the service provider gets a fixed lump sum for the whole service for a certain time period, usually one year, without flexibility for the service to transfer money between cost groups.

3. CAPITATION: A method that can be used to determine the level of resources received by service purchasers as well as to pay service providers. For instance in the case of service providers payment is made per head of a defined population. The provider is paid a specified sum of money for the care of this population for a specified period of time. Payment is independent of services used. Ideally payments to purchasers and service providers are risk adjusted (weighted to take account of factors such as age and geographical location). Capitation systems are often linked to geographical location, for instance in the case of some primary

care systems which require registration with a particular practice (Unit of Payment: Persons Registered).

4. CAPITATION – RISK ADJUSTED: Risk adjusted capitation is a capitation payment method through which payment rates are adjusted for risk by taking into account factors like age, sex, health status and prior health care utilisation as well as socio-demographic factors such as residence, income etc.

5. FEE FOR SERVICE: In fee for service systems payment is made for units of service or specific procedure performed. In the case for health care services for instance, for a physician consultation or MRI scan. Fee for service systems are usually based on fee schedules which classify service provider activities with varying degrees of precision (Unit of payment: Specific fee per unit of service received/procedure performed or per contact).

6. FLAT RATE: A fixed monetary fee received per case treated regardless of diagnostic group or severity of need. Flat rate fees can be used in different ways , per a fixed time period, per service user contact, per stay in an inpatient facility.

7. ACTIVITY BASED FUNDING (ABF) SYSTEM: ABF is a financing mechanism that allocates funds to service providers (e.g. hospitals) according to the type and volume of activity they provide. Through ABF service providers are paid/reimbursed on the basis of the activity they undertake, i.e. payment varies according to the activity level. Usually ABF will make use of case-mix systems to adjust the level of funding provided relative to clinical need. In other words ABF systems usually fund homogenous patients in the same way, with different levels of payment for different patient groups. One example of an ABF system is the Diagnose Related Group (DRG) approach to funding.

8. DAILY RATE: the service provider gets a fixed sum – regardless of the diagnosis – for each day on which a patient is in an institution: hospital, social care home. This fixed sum may depend on patient characteristics, not necessarily diagnosis, and may be graded according to length of stay, e.g. reduced daily rate after a certain length of stay. Unit of payment: Days.

9. SALARY: Employees are paid a set wage for working for a set period of time. Remuneration is independent of volume of work done. Employees work within defined hours specified in contracts. Salaries may be negotiated at local level, but often are negotiated at a national level by budget holders. Overtime payments may also be made. In some cases contracts allow extra income to be earned through second jobs and private work after hours work.

10. PERFORMANCE RELATED PAYMENT: This term covers a number of different payment mechanisms that reward service providers for the achievement of specific goals. These tend to be related more to the level of throughput rather than to

achievement of specific clinical (or broader) quality related outcomes. It is rarely the dominant payment mechanism but a supplementary payment mechanism. Performance related payment mechanisms can include target payments; i.e. models where income is (partly) related to the provider reaching certain predefined targets and relative target payment; i.e. models where providers compete for a limited reward based on their internal rank. Some performance related payment schemes will also impose penalties for "underachievement"; i.e. models where payment is withheld or even deducted when providers do not meet specific performance targets.

11. OUT OF POCKET PAYMENT: A charge that individuals must pay personally for the use of a service sometimes at the point of service and sometimes at a later point in time. In some cases a proportion or all of the out of pocket payment can be reimbursed. Out of pocket payments can take different forms, they can be a fixed fee or proportional to the total costs of the service received. There may also be ceiling on the maximum level of out of pocket payments in a defined time period. In the case of long stay residential care, especially care provided outside of the health sector, there may be substantial regular out of pocket payments for care, often charged by the week or month.

12. INCOME FROM SALES: This source of funding describes the revenues raised from sales of good and services, for example in sheltered workshops and enterprises.

13. OTHER: If selecting Other, please specify the payment mechanism in the Comments Box. (E.g. known practice of unofficial co-payments; or for patients with mental disorders who are compulsorily admitted and/or treated - forensic patients – the ministry of justice may pay).

5 Classification Coding section

The classification codes are derived from DESDE-LTC 2.0. This is an updated version of DESDE-LTC (Description and Evaluation of Services for Long Term Care in Europe) (Salvador-Carulla et al., 2011) which is an adaptation of the 'European Service Mapping Schedule' (ESMS) (Johnson et al, 2000). These instruments have been developed by the EPCAT Group (European Psychiatric Care Assessment Team) coordinated by Centro Studi e Ricerche in Psichiatria (Torino, Italy), the PSICOST Association in Spain and the DESDE-LTC Group.

For details about DESDE-LTC see the website: www.edesdeproject.eu

Provide the Classification code following the instructions of the guide provided at the following link: www.refinementproject.eu

(a) Diagnostic group

- MD (Mental Disorders)
- MG (Generic Medical Users)

For a comprehensive details of all the DESDE-LTC codes available, please see the following pages of the guide: p.18 Information, p.20 Accessibility, p.22 Self-Help, p.26 Outpatient, p.31 Daycare, p.36 Residential.

(b) Mapcode (letter+number) according to the classification branches (see Figure 5)

- R Residential Care
- O Outpatient Care
- D Day Care
- I Information for Care
- A Accessibility to Care
- S Self-Help and voluntary care

(c) Code number

The second number of the service DESDE-LTC code when present: from 1 to 4.

(d) Additional nodes (letters) in the specific cases

- a (acute care – complementary)
- c (closed care)
- d (domiciliary care)
- e (eCare)
- h (care provided in a hospital setting)
- i (institutional care)
- j (justice care)
- l (liaison care)
- m (case management)
- n (new)
- o (physician 'on call')
- p (care provided in a primary care centre)
- r (reference main type of care in an area)
- s (specialized care)
- u (unique)

All instructions for the identification of the codes are explained in the guide.

(e) Subtypes of services

The following items are derived from FINCENTO (i.e. REFINEMENT WP4/WP5 tool).

- Physician-led primary care services subtypes:
  1. Self-employed PHC physician, single handed
  2. Private company or partnership owned by the practising physicians (group practice
  3. Physician-led public primary care organisations where physicians are employees
  4. Other, please describe

- Specialist mental health outpatient care subtypes:

1. Psychiatric ambulatory care services:
   - Self employed psychiatrist, single handed
   - Self employed psychologist/ psychotherapist, single handed
   - Self employed psychiatrists/ psychologists/ psychotherapist, in group practice or similar
   - Standalone outpatient service (e.g. "policlinic")
   - Outpatient service of a hospital
   - Outpatient service of a mental health/psychiatric centre" (with several other types of care provided), community mental health centre, community team
   - Other, please describe
2. Psychiatric day care services:
   - Integrated with inpatient section in a hospital
   - Separate organisational structure of a hospital and located in hospital
   - Separate organisational structure of a hospital but not located in a hospital
   - Part of a psychiatric centre / community mental health centre
   - Other, please describe
3. Psychiatric mobile services:
   - Organisationally part of a specialist psychiatric unit
   - Organisationally part of a community mental health team
   - Organisationally part of a stand alone community mobile mental health team
   - Organisationally part of local/regional government social care services
   - Other, please describe
4. Consultation/ liaison psychiatric services:
   - Consultation service provided by psychiatric services based in the same hospital
   - Consultation service provided in a hospital by psychiatrists who are not based at the same hospital: e.g. working in a community mental health service or another hospital with psychiatric services or based in an independent practice
   - Other, please describe
5. Telephone, internet and computer based services:
   - Organisationally part of a specialist psychiatric unit
   - Organisationally part of a community mental health team
   - Organisationally a stand alone specialist service
   - Organisationally part of local/regional/national government services
   - Other, please describe

- Inpatient mental health care suntypes:

  1. Psychiatric inpatient care services:
  – Stand-alone psychiatric facility – acute care
  – Stand-alone psychiatric facility – long-term care
  – Stand-alone psychiatric facility – long-term and acute care
  – Part of a psychiatric centre/community mental health centre
  – Psychiatric departments in general hospitals (non-university)
  – Psychiatric departments in general hospitals (university)
  – Psychiatric beds in long-stay residential care homes (non-organic conditions)
  – Psychiatric beds in long-stay residential care homes (organic conditions)
  – Other, please describe

  2. Non-psychiatric beds in acute general hospitals used for patients with mental health needs

- Selected additional services for housing, employment and vocational rehabilitation subtypes:

  1. Housing support:
  – Time-limited provision of housing for independent living for a single person/family without onsite support
  – Non time-limited provision of housing for independent living single person/family without onsite support
  – Time-limited provision of block of housing for independent living for a single person/family with onsite support
  – Non time-limited provision of block of housing for independent living single person/family with onsite support
  – Independent group living housing without onsite support
  – Independent group living housing with onsite support
  – Financial benefits to help support rent/mortgage payments.
  – Other, please describe

  2. Employment intermediation services:
  – Provided by public employment services (mainstreamed)
  – Provided by specialist public employment service
  – Provided by private sector employment services under contract (mainstreamed)
  – Provided by private sector specialist mental health employment services under contract
  – Other, please describe

  3. Vocational rehabilitation services:
  – Provided by specialist public employment services
  – Provided by specialist rehabilitation service
  – Services provided by a clubhouse or similar organisation

Figure 4. Example of DESDE-LTC section of the SIF

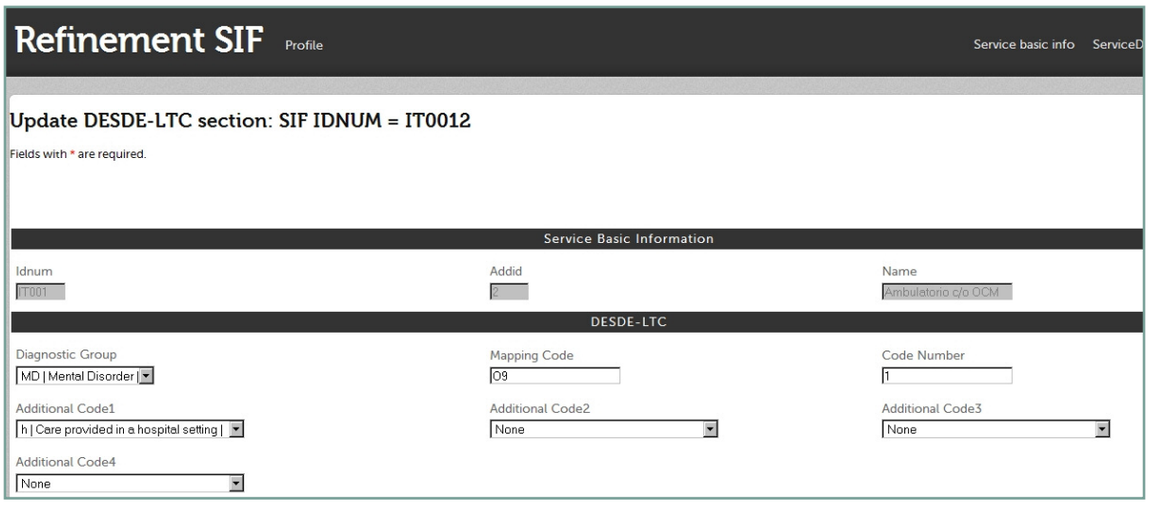
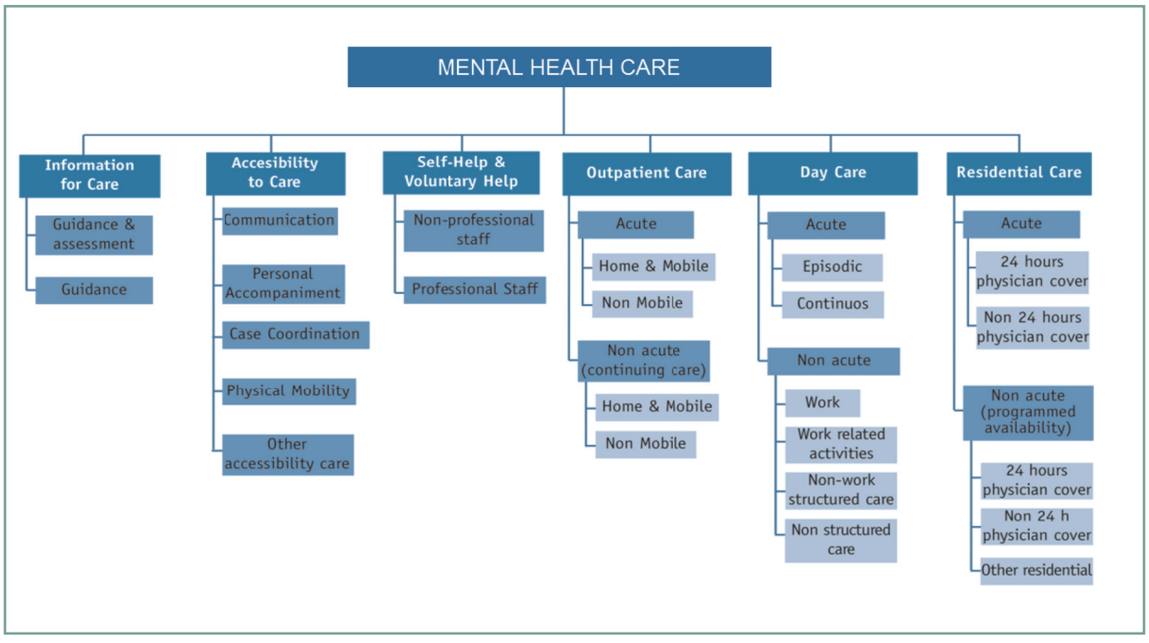


Figure 5. Classification mapping tree: main branches



(f) ICHA-HP Code

Provide the ICHA-HP code following the classification of providers in SHA 2.0 available at the following link: http://who.int/entity/nha/sha_revision/sha_2011_final1.pdf?ua=1

According to the table provided in the guide, choose among HP.1 (Hospitals), HP.2 (Residential long-term care facilities), HP.3 (Providers of ambulatory health care), HP.4 (Providers of ancillary services), HP.5 (Retailers and other providers of medical goods), HP.6 (Providers of preventive care), HP.7 (Providers of health care system administration and financing), HP.8 (Rest of economy) and HP.9 (Rest of the world). Please select the specific category and establishment.

(g) User profile

- Age (lower and upper limits): indicate the minimum age of users to benefit from the service. Indicate the upper age limit, too. If there is no upper age limit, insert the value 0.
- Gender: specify if the service is addressed exclusively to males (M) or females (F) or to both genders (MF).

(h) Number of users

Indicate the total number of users referring to a precise year (previously selected for the entire compilation of this tool).

(i) Number of contacts or admissions

For further information, check the definition of "Contact" in the REFINEMENT Glossary.

Indicate the total number of contacts referring to a precise year (previously selected for the entire compilation of this tool). If you are referring to a Hospital or Residential Structure (DESDE-LTC code: R), consider the Admissions and not the Contacts.

(j) Number of days in hospital or residential structure

Indicate the total number of days ONLY if you are referring to a Hospital or Residential Structure (DESDE-LTC code: R). If not so, leave the box blank.

(k) Number of available beds or places.

Provide the number of available beds (for R codes) or places (for D codes) for those services which own them.

(l) Links with other services

Insert the SIF IDNUM of correlated services or write a short sentence summarizing the type of correlated services. By definition, correlated services are services which cooperate with one other through protocol agreements, conventions etc.

6 Evaluator information

(a) Name and phone number of the source reference

Name the source of information used to complete the schedule. Provide their phone number as well.

(b) Name and e-mail of the evaluator

Provide the name and the e-mail address of the evaluator of this specific service.

(c) Observations

Write any comments or additional information in this section. Insert here all specifications and definitions of the items where you answered "Other".

Geographical Data

Available data refer to the year:

Dataset	Macro Area	Study Area	Notes
Land cover	Corine Land Cover (1)	Gmes Urban Atlas (2)	Land cover classification is grouped into 3 broad classes : Urban fabric, Industrial, Other (for further details, see http://sia.eionet.europa.eu/clc2000/classes)
Degree of urbanization 2011	×	×	Degree of urbanisation at LAU2 (local administrative units level 2) level, a LAU2 consists of municipalities or equivalent units in the 27 EU Member States (for further details, see http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Glossary:Revision_of_the_degree_of_urbanisation)
GEOSTAT population grid 2006	×	×	The GEOSTAT 2006 dataset contains the total population of all EU countries, with the exception of Cyprus (for further details, see: http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Population_grids)
Detail of the road network		×	http://planet.openstreetmap.org/

(1) Corine Land Cover Dataset :

The land cover project is part of the CORINE programme and is intended to provide consistent localized geographical information on the land cover of the Member States of the European Community.

Temporal coverage: 2006

Geographic coverage: complete REFINEMENT coverage

Scale of the data set: 1:100,000.

(2) GMES:*

The Urban Atlas is providing pan-European comparable land use and land cover data for Large Urban Zones with more than 100,000 inhabitants as defined by the Urban Audit. The GIS data can be downloaded together with a map for each urban area covered and a report with the metadata.

Temporal coverage: 2005–2007

Geographic coverage: (Norway dataset not available)

Scale of the data set: 1:10,000.

*If GMES data are not available at the Study Area level, the data from the Corine Land Cover Dataset will be used.

References

General Context

Becker I, Vázquez-Barquero JL (2001). The European perspective of psychiatric reform. *Acta Psychiatr Scand* Suppl. (410):8–14.

Becker T, Hülsmann S, Knudsen HC, Martiny K, Amaddeo F, Herran A, Knapp M, Schene AH, Tansella M, Thornicroft G, Vázquez-Barquero JL and the EPSILON Study Group. Provision of services for people with schizophrenia in five European regions. *Soc Psychiatry Psychiatr Epidemiol* (2002) 37: 465–474.

Chisholm D, Lund C and Saxena S (2007). Cost of scaling up mental healthcare in low- and middle-income countries. *The British Journal of Psychiatry* 191, 528–535.

Saxena S, Lora A, van Ommeren M, Barrett T, Morris J and Saraceno B (2007). WHO's Assessment Instrument for Mental Health Systems: collecting essential information for policy and service delivery. *Psychiatric Services* 58, 816–21.

Ecological Setting

Tello JE, Jones J, Bonizzato P, Mazzi M, Amaddeo F and Tansella M (2005). A census-based socio-economic status (SES) index as a tool to examine the relationship between mental health services use and deprivation. *Social Science & Medicine* 61, 2096–2105.

Service Distribution and Utilization

Guagliardo M (2004). Spatial accessibility of primary care: concepts, methods and challenges. *International Journal of Health Geography* 2004;3(1):3.

Johnson S, Kuhlmann R and the EPCAT Group (2000). The European Service Mapping Schedule (ESMS): development of an instrument for the description and classification of mental health services. *Acta Psychiatrica Scandinava* Suppl. 405: 14–23.

Salinas-Pérez JA, García-Alonso CR, Molina-Parrilla C, Jordà-Sampietro E, Carulla LS and for the GEOSCAT Group (2012). Identification and location of hot and cold spots of treated prevalence of depression in Catalonia (Spain). *International Journal of Health Geographics* 11:36

OECD (2005). *The OECD Health Project: Long Term Care for Older People*. Paris: OECD Publishing.

Salvador-Carulla L, Poole M, González-Caballero JL, Romero C. Salinas JA and Lagares-Franco CM, RIRAG/PSICOST Group and DESDE Consensus Panel (2006). Development and usefulness of an instrument for the standard description and comparison of services for disabilities (DESDE). *Acta Psychiatrica Scandinavica* Suppl. 432, 19–28.

Salvador-Carulla L, Alvarez-Galvez J, Romero C, Gutierrez-Colosía MR, Weber G, McDaid D, Dimitrov H, Sprah L, Kalseth B, Tibaldi G, Salinas-Perez JA, Lagares-Franco C, Roma-Ferrí MT, Johnson S (2013). Evaluation of an integrated system for classification, assessment and comparison of services for Long-Term Care in Europe: The eDESDE-LTC Study. *BMC Health Services Research* 2013, 13: 218.

Talen E, Anselin L (1998). Assessing spatial equity: an evaluation of measures of accessibility to public playgrounds. *Environment and Planning* A 30(4) 595–613.

Tansella M and Thornicroft G (1999). A conceptual framework for mental health services: the matrix model. *Psychol Med* 28, 503–508.

Ungewitter C, Böttger D, El-Jurdi J et al. Service structure and cooperation in mental health care. *Nervenarzt* 2013;84:307–314.

World Health Organization (2004). ICD-10: International Statistical Classification of Diseases and Related Health Problems: tenth revision – 2nd edition WHO Library Cataloging-in-Publication Data. Geneva.

World Health Organization (2005). *World Health Organization Assessment Instrument for Mental Health Systems*. Geneva: World Health Organization.

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REFINEMENT

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Research on Financing Systems' Effect on the Quality of Mental Health Care

REMAST

REfinement MApping Services Tool

A tool for collecting detailed information, within a study area, of the structure of health and social care services