The REFINEMENT Project

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

What do we need to know and how can we collect data to inform the analysis of the financing, structure and quality of mental health systems?

POLICY BRIEF

REFINEMENT Work Package 9:
Building optimal models of mental health care financing

SEVENTH FRAMEWORK PROGRAMME

Contents

Executive Summary

This policy brief seeks to help policy makers and health system planners systematically collect information to help better analyse the strengths and weakness of their mental health systems.

Within any country collecting trend data over time on the mental health system in a standardised way can be helpful in ascertaining whether reforms to the system can be associated with improved performance and outcomes. Data can also be collected at regional and local level; this can be particularly useful in comparing the structures and outcomes of mental health systems in different localities within a country. Do some areas perform better than others and if so why? When comparable data can be collected from other parts of the world, it is also possible to have an international comparison of the strengths and weakness of different mental health systems. Can we identify more efficient and equitable ways of paying for services?

We focus on the role of a decision support tool (DST) developed as part of the EU-funded REFINEMENT (REsearch on FINancing systems' Effect on the quality of MENT-al health care) project as a way of collecting this information. It identifies some of the key questions that need to be asked in order to assess performance, and in particular how the financing and funding of a mental health system may be correlated with its organisational structure, pathways of care and quality. The DST also provides a step by step guide to developing questions, collecting information and then interpreting findings.

What do we need to know and how can we collect data to inform analysis of the financing, structure and quality of mental health systems?

1. Why should we be interested in analysing the performance of mental health systems?

In order to better deliver health services it is important to know how to assess the extent to which the existing mix of services in any region or country is performing in achieving different goals, for instance including the impact on health status, the efficiency and fairness in services delivered, the responsiveness of services to the needs of their users, as well as in protecting their dignity and human rights.

Much has been written about the performance of health systems in general, but attempts to analyse the performance of mental health systems have been limited, often to analysis solely of inpatient services (Moran & Jacobs 2013), reflecting the complexity of many mental health systems which often include many different services funded and delivered both within the health care system and in other sectors (Jacobs & McDaid 2009).

Potentially, there are many outcomes of interest that go beyond the management of inpatient mental health services. In addition to general and specialist mental health care services, other parts of the mental health system may include help with social functioning, such as obtaining and maintaining independent living arrangements or competitive employment. Ongoing support and assistance may be provided by professionals such as social workers, who may, for instance, be employed by local government rather than by health care organisations. They may be focused on facilitating social inclusion just as much as they may be interested in preventing any relapse in mental health status.

Despite these complexities, understanding how mental health systems can best function is vitally important given the impact of poor mental health on the burden of disease. Poor mental health and substance disorders have been shown to be the leading cause of years of life lived with disability (YLD) worldwide, accounting for almost 23% of YLDs (Whiteford et al 2013). The 2010 Global Burden of Disease study also indicates that Depression (ranked 2), Anxiety Disorders (6), Schizophrenia (18) and Bipolar Disorder (19) all feature in the top 20 contributors to years lived with disability in the European Union/ European Free Trade Area (EU/EFTA). Self harm, much of which will be suicide, is also the 6th largest contributor to potential years of life lost in the EU/EFTA (Institute for Health Metrics and Evaluation, 2013). Moreover, mental health remains a key health policy area for the European Union, as evidenced by the publication by the European

Commission in June 2008 of its European Pact on Mental Health and Wellbeing (European Commission 2008) and by the recent endorsement by the WHO European Region member states of The European Mental Health Action Plan (WHO, 2013).

This policy brief therefore seeks to help policy makers and health system planners systematically collect information to help better analyse the strengths and weakness of their mental health systems. Within any country collecting trend data over time on the mental health system in a standardised way can be helpful in ascertaining whether reforms to the system can be associated with improved performance and outcomes. Data can also be collected at regional and local level; this can be particularly useful in comparing the structures and outcomes of mental health systems in different localities within a country. Do some areas perform better than others and if so why? Are some financing mechanisms better than others, and if so in what context? It can also help to identify innovative practice and look at the interface between health and other sectors such as social welfare and housing services. When comparable data can be collected from other parts of the world, it is also possible to have an international comparison of the strengths and weakness of different mental health systems.

REFINEMENT

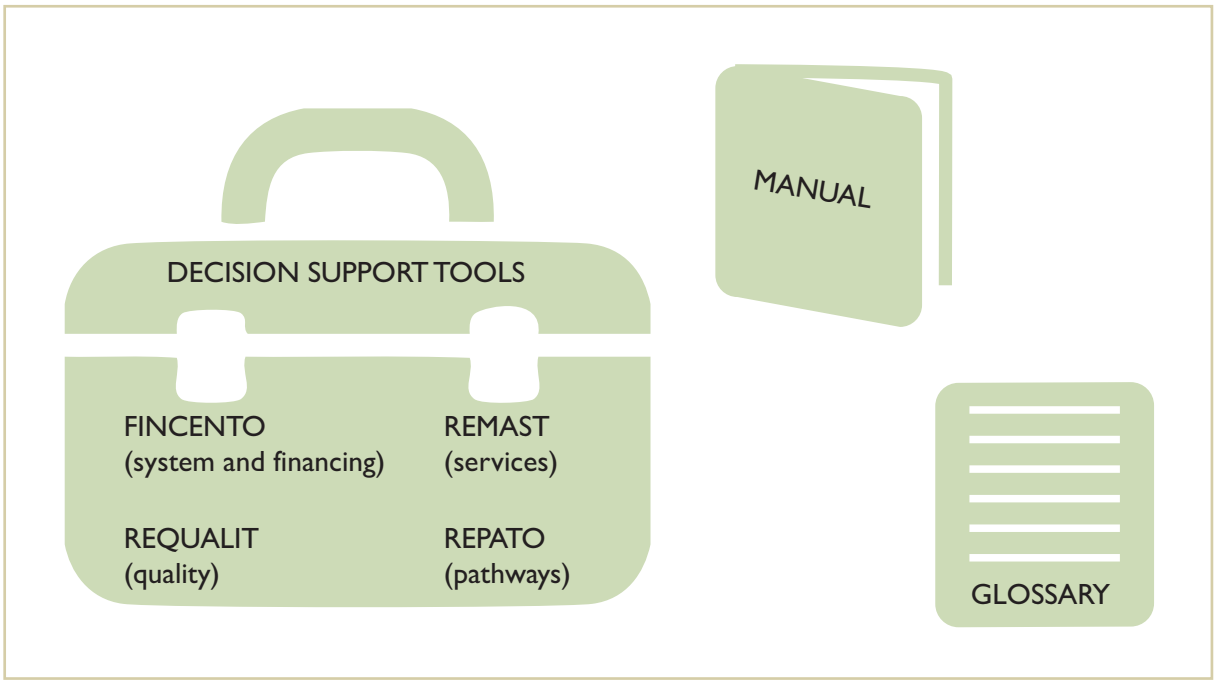
We highlight that a way that data can be collected systematically, making use of a decision support tool (DST) developed as part of the EU-funded REFINEMENT (REsearch on FINancing systems' Effect on the quality of MENT-al health care) project. It identifies some of the key questions that need to be asked in order to assess performance, and in particular how the financing and funding of a mental health system may be correlated with its organisational structure, pathways of care and quality. The DST also provides a step by step guide to developing questions, collecting information and then interpreting findings. While the information, if collected comprehensively, may seem daunting, advances in information communication technology and data processing systems will allow for more sophisticated approaches to performance assessment to be undertaken even when time and human resource availability may be tight.

While we focus on performance assessment of mental health systems for adults of working age, the principles outlined here will generally be applicable for policy makers wishing to assess the performance of other types of mental health system, for instance child and adolescent mental health services. The principles and approach to data collection and analysis can also apply to other complex elements of health and social care systems, for instance looking at approaches to manage chronic physical health problems such as diabetes, poor musculoskeletal health and cardiovascular disease.

2. What are the key areas to examine to better analyse the performance of a mental health system?

To be able to analyse the performance of a mental health system requires the collection of information across a number of domains. The REFINEMENT Decision Support Toolkit focuses on four areas for investigation (Figure 1).

Figure 1. The REFINEMENT Decision Support Toolkit



Four bespoke, interlocking tools have been designed to provide advice on what information to collect and which questions to ask. Any mental health system will in part be influenced by the way in which it is financed, as well as the way in which service providers are paid. These issues are dealt with by the FINCENTO tool, while the REMAST tool is used to map out the organisational structure of mental health services, both at a national and regional level and then in great detail for a smaller geographical area.

Understanding the pathways of care that individuals follow within a mental health system can also help in understanding the impacts of different financial incentives, as well as better understanding issues around continuity of care. The REPATO tool looks at these issues. It may be a way, for instance, of identifying the extent of use of inpatient services. The level of focus on inpatient specialist care in terms of its quality and appropriateness can then be considered.

A fourth tool, REQUALIT focuses specifically on quality issues. It consists of a detailed list of quality indicators against which the quality

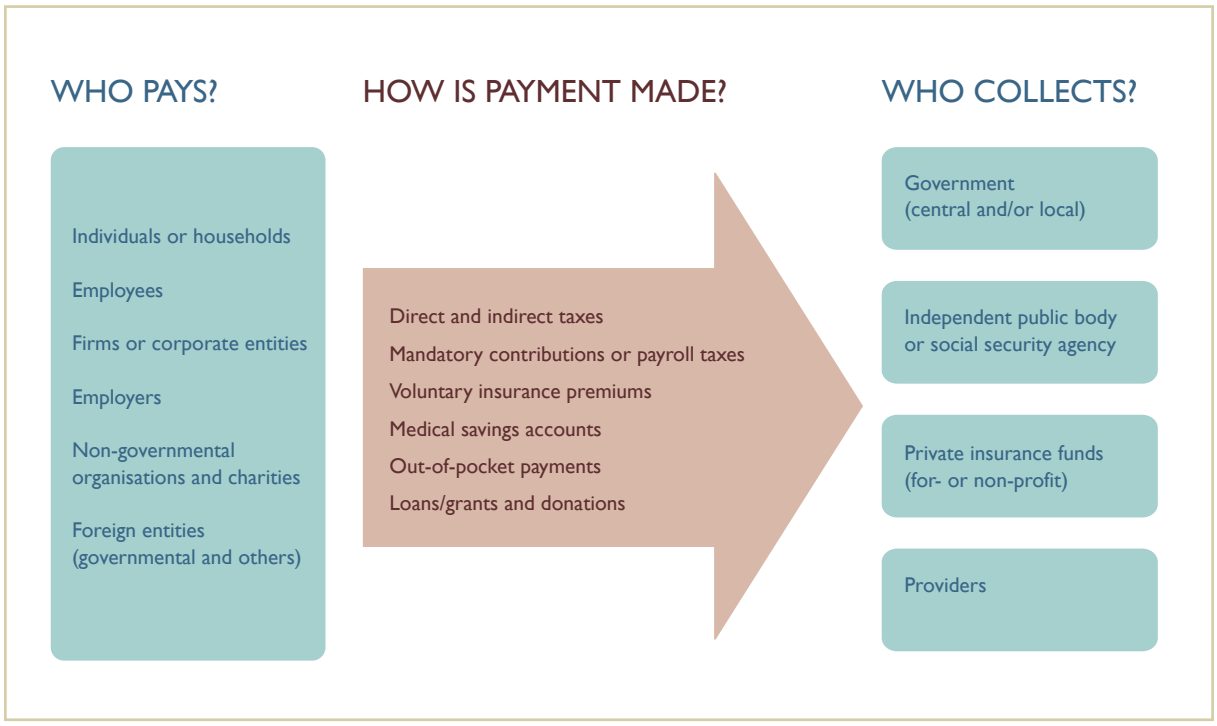
of care provided by a mental health system can be judged. The ability of the system to safeguard human rights and to fully engage mental health service users in decisions on care to be received can, for instance, be considered. Broader issues concerning the way in which issues such as discrimination and social exclusion are dealt with by a country can also be examined with this tool. We now look in more detail at each of the four tools and the types of questions they can be used to address.

The entire Decision Support Toolkit including manual and glossary is freely available at www.psychiatry.univr.it/refinement/DST

3. What key questions can be asked about how mental health services are funded, resources allocated and providers paid?

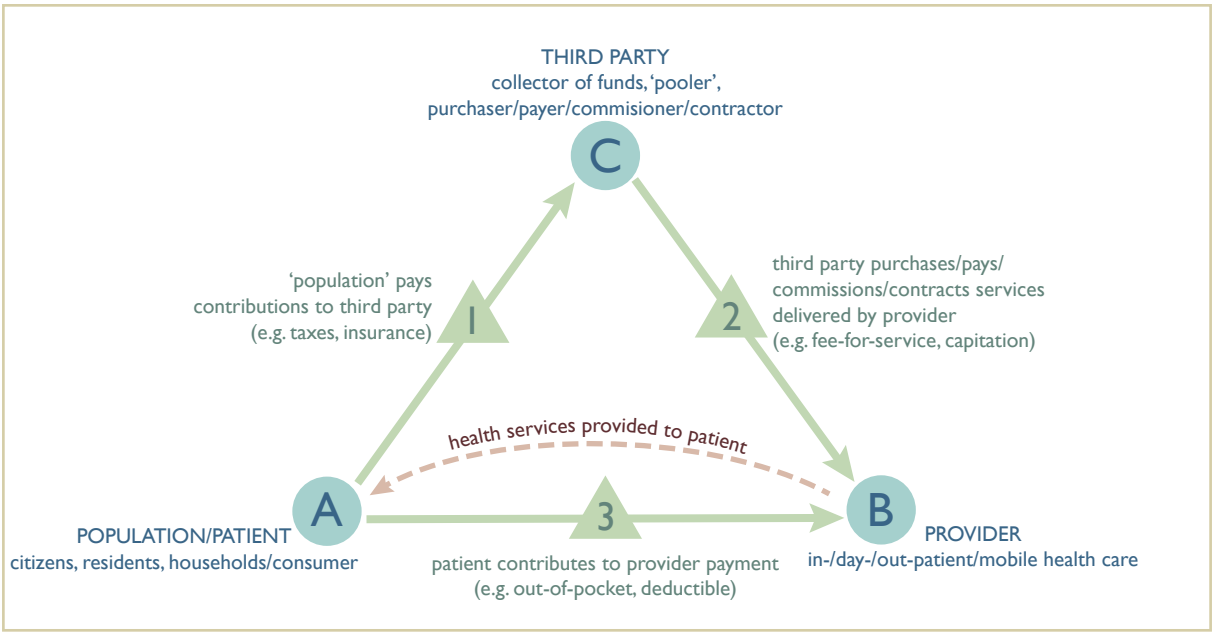
Across Europe we see large variations in the way that mental health services are funded, resources allocated and providers paid, with new approaches and mechanisms continuing to be developed (Mason et al 2011, McDaid 2011). These variations reflect the fact that countries operate their health care systems in different historical, political and cultural contexts, as well because of an underlying uncertainty as to "what works". In some countries, largely outside Europe, mental health services have sometimes been funded through different mechanisms to physical health, most notably in the United States (McDaid et al 2014). As Figure 2 shows funds can be collected from different groups, using different collection mechanisms and then be managed by different groups including central government and insurance agencies.

Figure 2. Funding – the collection of revenues



The way in which services are then ultimately paid for can also make a substantial difference to the way in which they operate. Figure 3 shows a stylised flow of funds in a health care system (Straßmayr et al. 2013). Typically a "third party" (C) collects funds (1) from the general population (A), allocates resources to and pays (2) the providers of health care (B), who then operate a service for the covered population (A). In addition to this flow of funds, service users may contribute to provider payments through their own out of pocket payments (3). The "third party" may encompass separate authorities responsible for the collection and allocation of funds on the one side and the purchasing/commissioning/contracting of services on the other, although in some settings purchasers of services may also directly provide services. These relationships create opportunities for an inefficient and inequitable allocation of resources and provision of services unless payment and regulation mechanisms work appropriately. It is important to fully understand how these factors interact in order to better appreciate their impact on the performance and quality of mental health systems.

Figure 3. Stylised flow of funds in a health care system



Adapted by Straßmayr et al. (2013) from Reinhardt (1990)

FINCENTO To better understand these issues the REFINEMENT project has developed FINCENTO: a Financing & INCENtive TOol. It provides a structured catalogue of questions and guidance that can be used to collect information on key features of the health system in general, in terms of regulations and funding, and on key aspects of health and some social services providing care for adults with mental health needs in terms of their organisation, regulation, and payment mechanisms. It covers the regulations on how revenue for third party payers is generated and pooled, as well as how provider payments and

user charges are regulated, including critically a description of financial and non-financial incentives and disincentives associated with these mechanisms. Table 1 provides an overview of the contents of the tool. For each category in Part B the tool covers many different models of payment mechanism to different specific types of service providers, giving the end user flexibility to systematically collect data on those mechanisms that operate in their geographical context.

Table 1: Overview of the contents of the FINCENTO tool

Content
Part A: Regulations, collection and pooling of funds
• Overview of the key features of the health and social care system
• Overview of coverage and entitlements to health and social care/welfare services
• Financing health care: overview of overall sources of revenue for the health care system, including consumer directed payments
• Pooling and resource allocation of publicly-collected funds for health
• Health care system capital infrastructure funding
Part B: Organisation, structure, payment mechanisms, regulations, incentives and disincentives for health and non-health system services
• Physician-led primary care
• Specialist mental health outpatient care (psychiatric ambulatory care services, psychiatric day care services, psychiatric mobile services, consultation/ liaison psychiatric services, telephone, internet and computer based services)
• Inpatient mental health care (psychiatric and non-psychiatric beds)
• Services for housing, employment and vocational rehabilitation
• Prescription medications
• Coordination of care

4. How can we map the organisation and structures of mental health systems?

Across countries 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 (Knapp et al 2007, Becker and Vázquez-Barquero, 2001). Mapping the organisation and structure of services in a country or region is vital to any analysis of the performance of a mental health system. An increasing focus on comparative international analysis of mental health policy and practice is also aided by a good-quality common description of mental health service provision.

Mapping studies have been conducted in over 20 countries in Europe, including Germany, Italy and Spain (Becker et al., 2002, Salvador-Carulla et al., 2006; Ungewitter et al., 2013). They can be used to identify anomalies in service provision within one country or compare the provision of services across countries (Salvador-Carulla et al 2005). With a detailed description of services it is possible to literally plot on a map the distribution of health and social services in a defined geographical area.

REMAST The REMAST Tool allows a good-quality common description of the socioeconomic profile of the population of a specified area, alongside key features of mental health service provision, including those provided by primary and social care services. It enables researchers, service planners and policy makers in different regions, countries and at the European level to compare 'like with like' and to allow adequate use of data from different service systems. REMAST also allows collection of the data necessary to make an assessment of the spatial distribution of services in selected Study Areas.

The Tool was built using the experience of previous developed and validated international instruments: the European Services Mapping Schedule (ESMS) (Johnson et al., 2000), the Description and Evaluation of Services and Directories in Europe (DESDE) (Salvador-Carulla et al 2013) and the WHO Assessment Instrument for Mental Health Systems (WHO-AIMS). (Saxena et al., 2007). Detailed step by step guidance on how to categorise different types of services is provided in REMAST; to ensure consistency in the way in which services are coded it can be helpful to attend a short face to face workshop on the tool to work through specific scenarios.

5. How can we better understand pathways of care in mental health systems?

Thornicroft & Tansella (1999) define pathways to and through mental health services as "… the routes taken by patients in making a first contact with health services, and the subsequent sequence of contacts within an episode of care. These sequences are highly dependent upon the availability of services locally, and also upon historical patterns of referral and treatment between agencies." The authors see valuable potential of service users' pathway analyses not only in identifying structures and processes of good quality of care but also in revealing weaknesses of service systems.

In terms of limited resource availability and the overall demand for cost-effectiveness, the intensity of mental health care should be directly related to the severity of mental health problems. Thornicroft & Tansella (1999) suggest that specialist mental health services should concentrate entirely on the care for service users with the most severe symptoms and disabilities, while primary care services should provide for all other individuals with less severe conditions. However, patterns of service use are much more varied. Verhaak et al. (2004) found a large variation between different European countries

regarding the diagnosis and treatment of psychological symptoms in general practice, which could not be explained by the health care system characteristics they explored. Pathways will be influenced by the availability of services and financing mechanisms. They are also an indication of the quality of a system and can influence other quality of care indicators, such as patient satisfaction.

REPATO

With this in mind, REPATO: the REfinement PAthways Tool has been developed to collect information describing the typical and most common pathways of care for people with mental health needs in the adult population for a specific country, region or otherwise defined geographical area. After a literature review and pilot studies in eight European countries, and from a pragmatic perspective recognising limited resources available for data collection and analysis, three key topics have been selected: (1) service utilisation patterns within primary care, and also between primary care and specialist mental health care, (2) continuity of mental health care and (3) readmission following acute psychiatric hospitalisation. It also looks at financial and other factors influencing service utilisation patterns, such as organisational (service characteristics) and individual (service user and treatment characteristics) variables. The tool collects information to distinguish between service users with severe mental health problems and/or complex needs (defined pragmatically for the purpose of REPATO as being diagnosed with schizophrenia or bipolar disorder), compared to the population with mental health needs in general.

The selected "one step" pathways, if adequately described, can in themselves provide valuable insights into the functioning of the system of care for adults with mental health needs. The information collected by the tool could be helpful in gaining a better knowledge of the interface between primary and secondary care and of the similarities and differences in the pathways which people usually follow. Special attention is paid on the extent, to which general practitioners treat service users with psychiatric disorders themselves or refer them to psychiatric care. It also looks at the relationship between the identified pathway characteristics and the quality of mental health care structures, processes and outcomes.

6. How can we better assess the quality of mental health systems?

The quality of care has been defined as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Kelley and Hurst, 2006). Several countries have implemented projects and initiatives to define and evaluate the quality of care in health and mental health systems (OECD, 2012). This has been undertaken to address several issues, including the need to safeguard the human rights of service users, improve transparency in assessing the quality of mental health systems and look at how cost containment strategies may impact on quality of care.

One of the challenges in assessing quality in a mental health system has been a lack of agreement on the dimensions and measures which should be used as indicators of quality of care in mental health (Hermann et al., 2006). In part this may be due to differences in the organisation of health care systems, policy priorities and data sources available in different countries. What is clear is that any assessment of quality needs to make use of a holistic and balanced set of indicators tailored to local context.

REQUALIT

To help address this issue REQUALIT (REfinement QUALIty of care Tool) has been developed. This instrument contains information on a set of indicators that can be useful in assessing quality. It combines indicators and analysis of the life-cycle of treatment with a number of well established dimensions of quality. It was developed following an extensive literature search for indicators on quality. Potential indicators were then rated by an expert group according to three criteria: relevance, scientific soundness and feasibility. As the aim of the REQUALIT is to be used in a comparable international way, the indicators should be based as far as possible on data routinely collected or easily available, and for this reason the feasibility of data represented the most important selection criteria.

The instrument considers indicators of quality of care that can apply across all mental health services, but for pragmatic reasons focuses specifically on services that can be mapped using the REMAST tool: primary care, outpatient services, community care and inpatient services. Specific indicators for general hospitals, forensic hospitals and services for vulnerable population groups are not included.

As Table 2 shows, indicators for a large number of themes have been identified. Some can be obtained by using administrative data systems; others are dependent on surveys or interviews. Some information is also collected as part of the REMAST tool, so would be readily available if information on service infrastructure and organisation has already been collected for that tool.

It is important that any analysis of quality contains indicators that cover the entire life-cycle of care provision (Donabedian 1980). REQUALIT includes indicators on the structural characteristics of the system, including staff mix, professional experience and qualifications, financial resources, legal and policy frameworks and the mix of services provided (Thornicroft and Tansella 2009). Many questions can be asked. For instance does a country have an appropriate human resources policy for mental health? What structures are place for continuing education, training and supervision? What is the balance of expenditure between hospital and community services?

Another key area of analysis is the process of care, including service user interaction with health professionals and services, as well as their level of involvement in treatment decisions. Process measures at national/regional level (e.g. admission rates) allow international comparisons. An important process issue is individuals' pathways to and through mental health services; the term is connected to accessibility and continuity domains of quality of care.

Finally, when looking at the life-cycle of care, the outcomes of care reflect interactions with the mental health system. They include health care outcomes as well as suicidal events, but can also look at broader outcomes such as housing and employment. The assessment of needs, broadly considering met and unmet needs, is an essential outcome indicator, both in service planning and in routine clinical practice to understand if the care provided is adequate and sufficient. Finally, service users' satisfaction with health services must be used for quality assurance purposes and it is generally considered a key dimension of quality of care.

REQUALIT also has indicators for dimensions seen in many performance frameworks, including effectiveness, efficiency, appropriateness, responsiveness, continuity, coordination and safety. For instance, one indicator included looks at the availability of early intervention services, both to recognise early signs and symptoms and to take appropriate action. Duration of untreated illness is associated with poorer outcomes. The presence of early intervention is also an indicator of accessibility. Accessibility is linked to responsiveness, and can for instance look at whether there are differences in access to services by different socioeconomic or cultural groups.

Table 2. Summary of key themes covered by indicators in REQUALIT

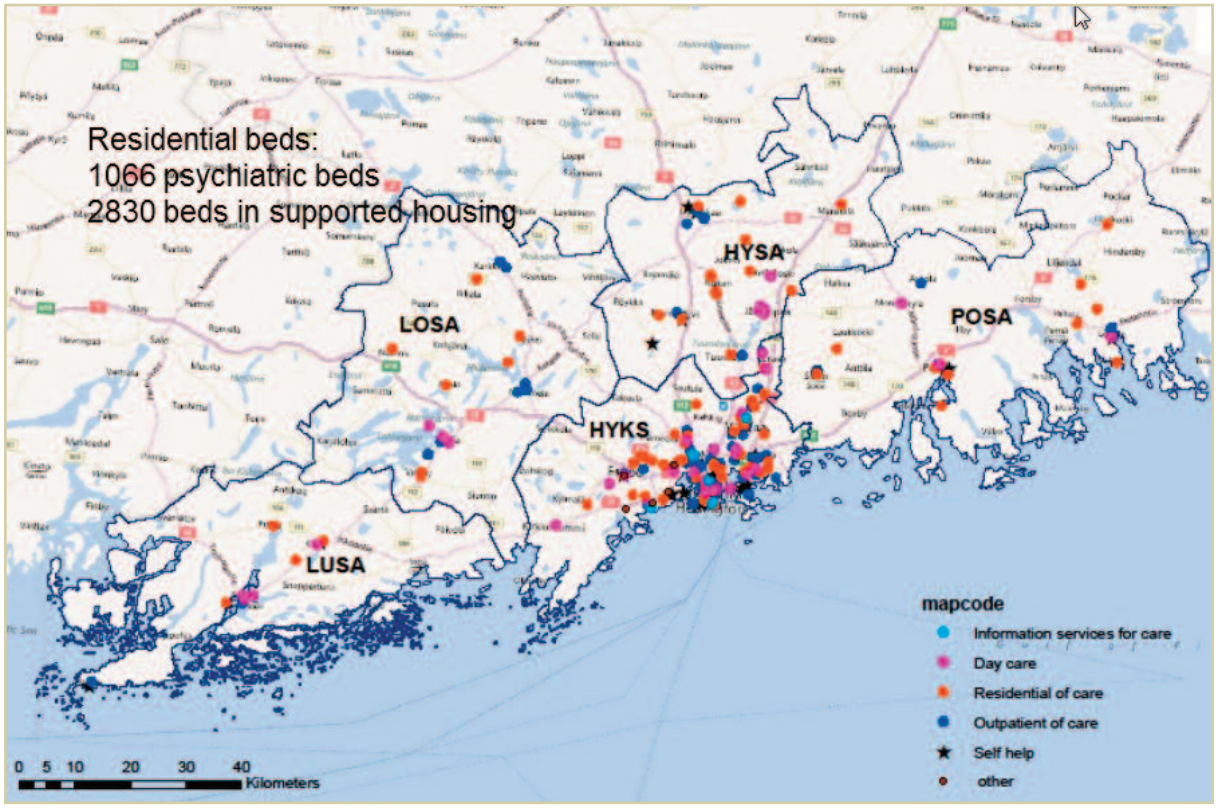
Section A Statistical indicators, mainly based on administrative data	Section B Interviews and data colection	Section C Variables based on REMAST data
Suicide	Outcome assessment	Balance
Length of stay	Physical health	Integration
Involuntary committal	Employment	Policies
Seclusion	Housing	Accessibility
Employment	Stigma and discrimination	
Housing	Early intervention	
Continuity of Care	Equity and cultural sensitivity	
Readmission	Staff morale and training	
Community tenure	Best practice	
	Assessment and monitoring mechanism	

7. How can we make best use of the REFINEMENT Decision Support Tool to analyse and interpret data?

The REFINEMENT Decision Support Toolkit comes with a manual, which provides guidance on how to use the Toolkit. It also includes descriptions of different theoretical concepts of quality, as well as a discussion of the main issues in health care financing. Each tool, FINCENTO, REMAST, REPATO and REQUALIT are discussed in detail, with information provided on the main content of each tool, important prerequisites in use, type of data sources used and (examples of) topics/indicators covered or that can be derived from the information collected. The tools can also be used in isolation, if for instance the end user's main objective might be solely to map care pathways. Some topics appear in more than one tool to facilitate separate use. The Manual also includes two examples of methods for data analysis, one looking at how to analyse spatial accessibility of services and a second which models the relative efficiency of different geographical health areas.

It can also be helpful to look at how information collected using the tools has previously been used to assess different issues in countries. For example data on the mapping of services in the Finland study area shown in Figure 4, which indicates a very high number of psychiatric beds, has already been used by policy makers to help them alter the balance between hospital and community based care in this locality.

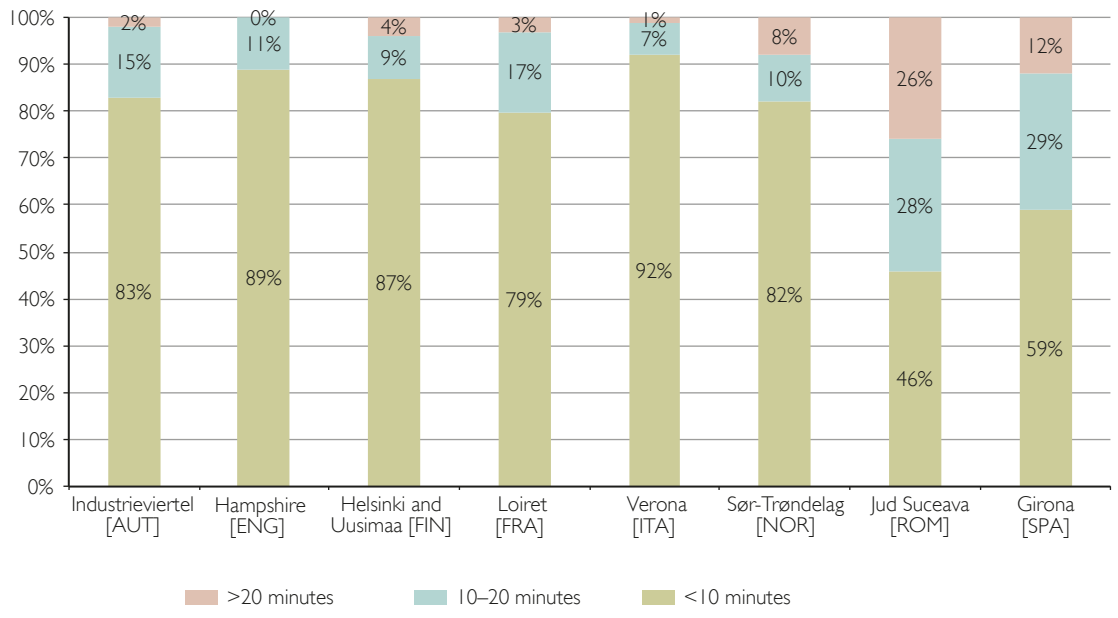
Figure 4: Geographical distribution of mental health services in Finnish REFINEMENT study area



In another example, analysis of data in England shows the value of having a more integrated approach to the provision of services, if one mental health service provider receives a budget to provide both inpatient and mobile community services in a locality. This eliminates any financial incentive for the service provider to retain resources solely within an inpatient system and promote better continuity of care.

A series of detailed examples from partner countries are also provided in an appendix to the manual. This can also help aid the end user in presenting selected findings from what potentially is a very rich set of information. For instance, comparative data can be presented on accessibility to services in different study area contexts by presenting typical travel times to outpatient mental health services as shown in Figure 5.

Figure D.3 Proportions of population with travel time from outpatient mental health service of <10 minutes, 10–20 minutes and >20 minutes



Even more comprehensive and detailed examination of the data collected in the REFINEMENT project related to each of the tools can be found in REFINEMENT project materials: McDaid et al. (2013), Straßmayr et al. (2013), Università degli Studi di Verona et al. (2012), Weibold et al. (2013) and Donisi et al. (2013).

8. What are the limitations of the REFINEMENT approach to assessing and interpreting data?

The DST Manual highlights the need to be cautious in the way that data is interpreted. One challenges is that people with mental health needs are not only cared for in specialist mental health services but also in more general services, especially in primary care, but also in non-psychiatric beds in general hospitals or in nursing homes. While efforts have been made to include these services in this toolkit, this caveat needs to be borne in mind when looking at service provision. Moreover, services are constantly developing. Models of community based services and more user centred services are being implemented with a stronger reliance on preventive actions. This implies a greater degree of fragmentation in service provision; more services may also be funded and organised outside of the health and social care systems. There are also challenges in capturing all aspects of different integrated care systems and coordination mechanisms that may be in place. This is why our guidance in the toolkit emphasises the importance of obtaining descriptive information, including potentially having conversations with different individuals within mental health systems.

Notwithstanding these limitations and cautions in the way in which data are interpreted, it is clear that by using the approach set out in the REFINEMENT Decision Support Toolkit, a rich set of information can be obtained that will be of use to policy makers both in terms of understanding better how their local mental health systems function over time, but also to researchers across countries seeking to present information to policy making audiences on the strengths and weakness of the financing, organisation and quality of international mental health systems.

References

Becker T, Vázquez-Barquero JL. The European perspective of psychiatric reform. *Acta Psychiatrica Scandinavica* Suppl. 2001;(410): 8–14.

Becker T, Hülsmann S, Knudsen HC et al. Provision of services for people with schizophrenia in five European regions. *Social Psychiatry and Psychiatric Epidemiology* 2002;37: 465–474.

Donabedian A. (1980). *Explorations in Quality Assessment and Monitoring. Vol. 1. The Definition of Quality and Approaches to its Assessment*. Ann Arbor, MI: Health Administration Press.

Donisi V, Amaddeo F, Brunn M, Cid J, Hagmair G, Kalseth B, Malin M, McDaid D, Prigent A, Salazzari D, Sfectu R and the REFINEMENT Group. *Report on Quality of Care in the REFINEMENT partner countries. Data on quality of care collected via REQUALIT*. Verona: Università degli Studi di Verona, 2013.

European Commission. *European Pact for Mental Health and Wellbeing. Brussels: European Commission, 2008*. Available at http://ec.europa.eu/health/ph_determinants/life_style/mental/docs/pact_en.pdf.

Hermann R C, Mattke S, Somekh D et al. Quality indicators for international benchmarking of mental health care. *International Journal for Quality in Health Care* 2006; 31–38.

Institute for Health Metrics and Evaluation. *Global Burden of Disease 2010.* Seattle, IHME, 2013. Available at www.healthmetricsandevaluation.org/gbd/visualizations/gbd-arrow-diagram.

Jacobs R, McDaid D. Performance assessment in mental health services. In: Smith P, Mossialos E, Leatherman S, Papanicolas I (eds). *Performance Measurement for Health System Improvement: Experiences, Challenges and Prospects*. Cambridge: Cambridge University Press, 2009, pp 426–472.

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

Kelley E, Hurst J. *Health Care Quality Indicators Project Conceptual Framework Paper*. Paris: OECD Health Working Papers, 2006; No 23.

Knapp M, McDaid D, Mossialos E, Thornicroft G (eds). *Mental Health Policy and Practice Across Europe*. Buckingham: Open University Press, 2007.

OECD. *Mental Health Quality Indicators. Mental Health Expert Group Meeting*. Paris: OECD Health Working Papers, 2012: No 8.

Mason A, Goddard M, Myers L, Verzulli R. Navigating uncharted waters? How international experience can inform the funding of mental health care in England. *Journal of Mental Health* 2011;20(3): 234–248.

McDaid D. Psychiatric remuneration systems in Europe. *Die Psychiatrie* 2011;8(1): 1–7.

McDaid D, Park A, Matosevic T and the REFINEMENT group (2013). *An Overview of Health and Mental Health Care Systems in 9 European Countries. Refinement Report*. Verona: Università degli Studi di Verona, 2013.

McDaid D, Park A-L, Matosevic T et al. A Systematic mapping of mechanisms used to fund and pay for mental health services in high income countries. 2014 (journal paper in submission).

Moran V, Jacobs R. An international comparison of efficiency of inpatient mental health care systems. *Health Policy* 2013;112(1–2): 88–99.

Reinhardt UE. Economic relationships in health care, In: *OECD Health Care Systems in Transition: The Search for Efficiency*. Paris: Organisation for Economic Co-operation and Development, 1990.

Salvador-Carulla L, Tibaldi G, Johnson S et al. Patterns of mental health service utilisation in Italy and Spain. An investigation using the European Service Mapping Schedule. *Social Psychiatry and Psychiatric Epidemiology* 2005;40: 149–159.

Salvador-Carulla L, Poole M, González-Caballero JL et al. Development and usefulness of an instrument for the standard description and comparison of services for disabilities (DESDE). *Acta Psychiatrica Scandinava* Suppl, 2006; 432: 19–28.

Salvador-Carulla L, Alvarez-Galvez J, Romero C et al. 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.

Saxena S, Lora A, van Ommeren M et al. WHO's Assessment Instrument for Mental Health Systems: collecting essential information for policy and service delivery. *Psychiatric Services* 2007;58: 816–21.

Straßmayr C, Katschnig H, Amaddeo F, Brunn M, Cetrano G, Chevreul K, Cid J, McDaid D, Järvelin J, Kalseth B, Kalseth J, Malin M, Matosevic T, Pauna C, Salvador-Carulla L, Sfetcu R and the REFINEMENT Group. *Financial Incentives/Disincentives in Provider Payment Mechanisms and User Charges for Mental Health Care*. Verona: Università degli Studi di Verona, 2013.

Thornicroft G and Tansella M. *The Mental Health Matrix*. Cambridge, England: Cambridge University Press, 1999.

Thornicroft G, Tansella M. *Better Mental Health Care*. Cambridge: Cambridge University Press, 2009.

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

Università degli Studi di Verona and the REFINEMENT group. *Report: REMAST. REFINEMENT Mapping Services Toolkit*. Verona: Università degli Studi di Verona, 2012.

Verhaak PF, van den Brink-Muinen A, Bensing JM, Gask L. Demand and supply for psychological help in general practice in different European countries: access to primary mental health care in six European countries. *European Journal of Public Health* 2004;14(2): 134–140.

Weibold B, Katschnig H, Cetrano C et al. *Comparative Report on Pathway Differences in the REFINEMENT Partner Countries*. Verona: Università degli Studi di Verona, 2013.

Whiteford H A, Degenhardt L, Rehm J et al. Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *The Lancet* 2013; 382: 1575–86.

World Health Organisation Regional Office for Europe. *The European Mental Health Action Plan*. Available at www.euro.who.int/__data/assets/pdf_file/0004/194107/63wd11e_MentalHealth-3.pdf.