Emerald

Strengthening mental health systems in low- and middle-income countries

INTRODUCTION

Health systems the world over are facing ever greater demands and challenges, driven in part by technological advances and consumer expectations, but also by ageing populations, emerging epidemics and fiscal constraints. As such, health systems are constantly evolving entities which need to adapt to changing priorities and respond to new pressures. The health systems of low- and middle-income countries (LAMICs) are particularly strained, due to the lower availability of resources and the higher overall burden of disease in these populations (compared to high-income countries). Many LAMICs are in fact facing an epidemiological transition or 'double burden' of disease, as declining, but still disconcertingly high, levels of mortality due to communicable, maternal, perinatal and nutritional conditions are being replaced or matched by increasing rates of chronic non-communicable disease (NCD), including cardiovascular disease, cancer, diabetes and mental disorders. Integration of these and other emerging public health concerns into national health policies, plans and services represents a critical new challenge for health systems in LAMICs.

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EMERALD objectives are:

In the EMERALD collaborative research project we focus our attention and effort on how to strengthen the capacity of health systems in LAMICs to better meet the mental health needs of the populations they purportedly serve. EMERALD is an EU funded research programme running from 2012 to 2017. The aims are to improve mental health outcomes in six LMICs by generating evidence and capacity to enhance health system performance, thereby improving mental health care in the respective countries, and helping to reduce the mental health treatment gap. Specifically, the EMERALD Project aims to identify key health system barriers to, and solutions for, the scaled-up delivery of mental health services in LAMICs, and by doing so improve mental health outcomes in a fair and efficient way. expertise in our partnership, the EMERALD consortium pursue the following objectives:

Objective 1:
Adequate, fair and sustainable resourcing (health system inputs): To identify health system resources, financing mechanisms and information needed to scale-up mental health services and move towards universal coverage.
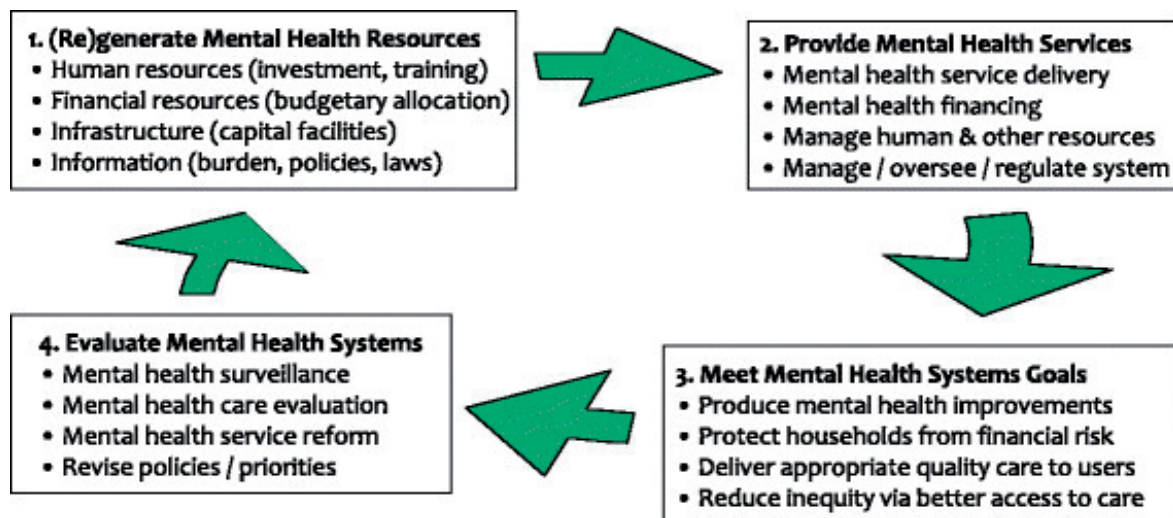
Objective 2:
Integrated service provision (health system processes): To evaluate the context, process, experience and health system implications of mental health service implementation.

Objective 3:
Improved coverage and goal attainment (health system outputs): To develop, use and monitor indicators of mental health service coverage and system performance.

Underlying all of these health system objectives, there is a further fundamental need: **To enhance local capacities and skills to plan, implement, evaluate and sustain system improvements.** The conceptual schema illustrated below in the figure shows the key mechanisms or pathways for achieving strengthened performance and improved outcomes. This conceptual framework is based upon the idea of a comprehensive and integrated system of mental health care.

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1. (Re)generate Mental Health Resources
- Human resources (investment, training)
- Financial resources (budgetary allocation)
- Infrastructure (capital facilities)
- Information (burden, policies, laws)

2. Provide Mental Health Services
- Mental health service delivery
- Mental health financing
- Manage human & other resources
- Manage / oversee / regulate system

4. Evaluate Mental Health Systems
- Mental health surveillance
- Mental health care evaluation
- Mental health service reform
- Revise policies / priorities

3. Meet Mental Health Systems Goals
- Produce mental health improvements
- Protect households from financial risk
- Deliver appropriate quality care to users
- Reduce inequity via better access to care

Conceptual scheme linking system inputs, processes, and outputs in the EMERALD programme.
Semrau et al. BMC Medicine 2015 13:79   doi:10.1186/s12916-015-0309-4

EMERALD countries and sites

The EMERALD programme is working to strengthen mental health systems in Ethiopia, India, Nepal, Nigeria, South Africa, and Uganda. These countries, to differing degrees, all face mental health system challenges that are common across LMICs such as weak governance, low resource bases, or poor information systems. The six countries were invited into the programme due to the commitment of local researchers and policymakers, and the timeliness of the programme within countries (for example, relating to mental health policy or service development). Due to the diversity of the sites, for instance, with regard to their geographical, economic, socio-cultural, and urban/rural contexts, this may increase the programme's relevance to a range of other LMIC settings.

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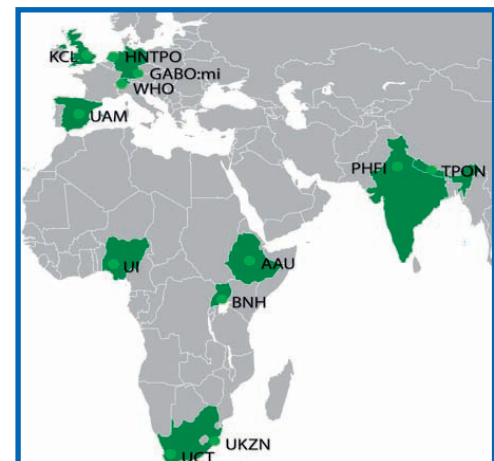
Activities and methods

EMERALD entails a large programme of work that is being implemented through a range of innovative methodologies . In addition, emphasis is placed on service user and carer involvement, reduction of stigma and discrimination, and dissemination of research findings. To ensure the comparability and generalizability of findings, broadly the same activities and methods are employed across all six participating countries of the programme.

Health system inputs

One of EMERALD's key objectives involves the identification of health system resources, finance mechanisms, and information needed to scale-up mental health services and move towards universal coverage. This is laid out across three task that address key policy questions:

- **What human, financial and other resources are needed to scale-up prioritised services and reduce the existing treatment gap?**
  To address this question, work is in progress to develop and integrate a module on MNS disorders within the United Nation's OneHealth systems planning tool. This is a tool to strengthen health system analysis, costing and financing scenarios at the country level. It does so by bringing together disease-specific planning and health systems planning, as well as incorporating modules to estimate the predicted health impact of scaling up interventions over time and for assessing fiscal space/financial sustainability. Through application of this tool, EMERALD provides new estimates of the cost and impact of scaling up interventions for MNS disorders, as well as assessing the health system implications of planned scale-up. This facilitates an integration of mental health programme-specific strategies into broader national health plans. By drawing on data from the real world settings of six diverse LMICs, key requirements for and constraints to local mental health service provision and scale-up are being built into the tool regarding local mental health service provision and needs, in a manner that has not previously been possible. These include, for example, human resource availability and capacity at the primary care level, capacity to deliver psychosocial interventions, and medication availability at different levels in the system.

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- **How are mental health resources currently distributed and what is the level of financial or social protection for persons with mental health problems?**
  Work is underway for a large survey in each of the six participating countries with household members of people with MNS disorders who attend health care facilities in the study district , to assess the economic impact of people living with an MNS disorder and the economic impact of improved care. The survey includes questions around household composition, income, and spending (on health care, including sources and sectors beyond the professional such as use of traditional/religious healers, as well as other services and goods).

- **How can scaled-up mental health services best be paid for in a way that is feasible, fair and appropriate within the fiscal constraints and structures of different countries?**
  To answer to this question   will involve data analysis as well as in-depth consultations with policymakers, planners, economists, and other stakeholders regarding potential financing mechanisms for mental health care in each country.

Health system processes

Another key objective for EMERALD is the evaluation of the context, process, experience, and health system implications of mental health service implementation. All six participating countries are using local adaptations of the WHO mhGAP Intervention Guide (mhGAP-IG) to facilitate the scaling-up of integrated mental health services. The mhGAP-IG includes diagnostic and treatment guidelines for nine MNS disorders common in LMICs, or which have a major public health impact or are associated with human rights abuses. Key strategies to support the development and implementation of mental health plans in LMICs from the district through to national levels are identified within EMERALD. This is achieved, inter alia, through:

- Documentary analyses of key legislation and policy documents at national, provincial, and/or district level at the beginning of the programme, to facilitate the implementation of legislative and policy imperatives (completed).

- Qualitative key informant interviews with relevant groups (such as policymakers, managers, district service providers, community service officers, service users, and carers) are being conducted at the start and end of the programme to better understand governance processes that enable or inhibit the development and implementation of mental health policies,

plans, and legislature for integrated mental health care due to the plurality of services), and to identify strategies to strengthen these processes.

- A mixed-method baseline and endline assessment of the impact of integrated care on the health system in the six participating countries, using questionnaires, observations within health care facilities, and semi-structured interviews with key informants.

Using data on the experiences from the 6 participating countries, we plan to develop a framework for mental health systems governance that will promote the implementation of mental health plans in LAMICs from national through to district level.

Health system outputs

Performance assessment requires valid, reliable and comparable data which can only be obtained through a robust health information system. EMERALD's third key objective will focus on the development of a set of indicators that will l allow for better estimation of the treatment gap within a specific setting, and which will assist in monitoring the scaling up of care and the reduction of the treatment gap. This is achieved by: i) review of existing information systems ; ii) a Delphi study, with an expert panel of mental health researchers, clinicians, and policymakers almost all working and residing in LMICs, who have generated and ranked a set of 52 indicators for routine measurement of mental health service coverage and system performance ; iii) in-depth interviews and focus group discussions with selected health information personnel and health care providers, to assess barriers related to the introduction and the use of selected indicators; and iv) monitoring and evaluation of the performance and utility of the selected indicators.

Capacity-building in mental health systems research

In addition to the above three key objectives, EMERALD has a strong focus to build up the capacity of i) local researchers, ii) policymakers and planners to implement system improvements for mental health care services, and iii) service users and caregivers in each participating country. This is realised through tailored capacity-building interventions for each of the three stakeholder groups (researchers, policymakers and planners, and service users and caregivers) that can be delivered independently within each of the EMERALD countries. Approaches include 'Training of Trainers' courses; funding for PhD (five so far; four are still planned) and Masters students (one so far; another is planned); supervision and monitoring of PhD students; mentoring mid-level researchers; workshops and policy dialogues; advocacy and empowerment workshops for service users and

caregivers; and capacity-building amongst health care providers to work towards greater service user involvement.

In addition, three Masters-level teaching modules with 28 sub-modules (see table below) have been developed to build capacity in mental health systems research within EMERALD countries and beyond, through integration of the modules into ongoing Masters courses within countries.

Module 1: Mental health system components	Module 2: Mental health systems research methods	Module 3: Mental health system contexts – Areas of special attention
1.1 Introduction to mental and neurological disorders	2.1 Mental health epidemiology	3.1 Stigma and discrimination
1.2 Health systems concepts and approaches	2.2 Methods to evaluate mental health interventions	3.2 Child and adolescent mental health
1.3 Mental health policy	2.3 Economic evaluation	3.3 Older adults
1.4 Leadership and governance	2.4 Qualitative research methods	3.4 Suicidal behavior
1.5 Service organization	2.5 Collaborative care in mental health	3.5 Systems research in humanitarian settings
1.6 Promotion and prevention	2.6 Service user and action research	3.6 Women / maternal / gender issues
1.7 Health systems financing	2.7 Research ethics	3.7 Culture and mental health
1.8 Human resources	2.8 Implementation science	
1.9 Information systems and monitoring and evaluation	2.9 Knowledge translation	
1.10 Interventions and technologies, delivery systems and essential treatments	2.10 Survival skills for researchers	
1.11 Human rights/equity		

Master-level modules in mental health system strengthening developed within EMERALD. From Semrau et al. BMC Medicine 2015 13:79   doi:10.1186/s12916-015-0309-4

Service user involvement and reduction of stigma and discrimination

Partnerships with service users are essential for the development of evidence-based care in government guidance across the globe . They may protect those who receive involuntary treatment abuses, or those who are marginalized due to their low socio-economic status or social stigma attached to MNS disorders, through their greater involvement in the implementation of mental health system processes. Close collaborations between service users/caregivers and healthcare professionals have been pioneered in mental health and HIV/AIDS worldwide, and the evidence of its usefulness is slowly emerging through a number of recent publications. Service users and their families and caregivers are thus involved in all components of the EMERALD programme, for example, through consultations, including qualitative work, to better understand contextual factors, capacity-building, and advocacy activities, and to pilot collaboration to embrace involvement of all stakeholders.

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Dissemination

The EMERALD programme is working to disseminate its research findings widely to engage with different stakeholder groups (such as Ministries of Health and Finance in study countries, policymakers and planners, national and international development agencies, non-governmental organizations working in mental health, mental health researchers, service users and providers, and caregivers). This includes the establishment of mental health research networks within the programme and beyond. Channels that are employed for this are joint publications in scientific journals, policy briefing papers, conference presentations and posters, a project website, project flyer, social media sites, and press conferences.

About EMERALD

EMERALD stands for Emerging mental health systems in low- and middle-income countries. The project started in November 2012 and is funded by the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 305968.

EMERALD brings together specialised psychiatrists from Europe, Africa and Asia and is centrally coordinated by Prof. Graham Thornicroft of the Institute of Psychiatry at King's College London.