

Research capacity for mental health in low- and middle-income countries: Results of a mapping project



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Global Forum for Health Research
1-5 route des Morillons
PO Box 2100
1211 Geneva 2
Switzerland
T + 41 22 791 4260
F + 41 22 791 4394
Email info@globalforumhealth.org

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Research for health is comprehensive, including biomedical research, health policy and systems research, operational research and research to understand the social, economic and environmental determinants of health.

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Research capacity for mental health in low- and middle-income countries

Results of a mapping project

Edited by
Pratap Sharan, Itzhak Levav,
Sylvie Olifson, Andrés de Francisco
and Shekhar Saxena

Members of the Project Group

Members of the Mental Health Research Mapping Project Group of the World Health Organization and the Global Forum for Health Research are as follows:

Brazil: Jair de Jesus Mari, Regional Coordinator and Supervisor/Principal Investigator (PI) and Denise Razzouk, Department of Psychiatry, Federal University of São Paulo; Jerónimo Gerolin, Centre of Evaluation and Data Integration (CAIDI), Federal University of São Paulo; Maria Thereza Dubugras, Department of Psychiatry, Federal University of São Paulo.

Nigeria: Oye Gureje (PI) and Lola Kola, Department of Psychiatry, University of Ibadan.

Peru: Guido Mazzotti (PI) (deceased), Facultad de Ciencias y Filosofía y Facultad de Medicina; Carla Gallo (PI), Fabián Fiestas and Giovanni Poletti, Facultad de Ciencias y Filosofía; Abel Sagástegui and Silvana Sarabia, Facultad de Medicina; Inés Bustamante, Facultad de Salud Pública y Administración, Universidad Peruana Cayetano Heredia.

Philippines: Exaltacion E Lamberte (PI), Avelita V Lapitan and Cecille C Pascasio, Social Development Research Centre, De La Salle University.

South Africa: Leslie Swartz (PI), Department of Psychology, Stellenbosch University, and Human Sciences Research Council; Kathleen McDougall, Alison Breen, Carol Legg and Margie Schneider, Human Sciences Research Council.

South Asia: Vikram Patel (PI), London School of Hygiene & Tropical Medicine, the United Kingdom and Sangath, India; Smita Naik, Sangath, India; Omar Rahman, Independent University, Bangladesh; Murad Khan, Aga Khan University, Pakistan; Suraj Thapa, Centre for Public Health Research and Services, Nepal; Athula Sumathipala, Forum for Research and Development, Sri Lanka.

Technical Co-ordination Group: Andrés de Francisco, Deputy Executive Director, Global Forum for Health Research, Geneva; Sylvie Olifson, Health Economist/Mental Health Project Manager, Global Forum for Health Research, Geneva; Shekhar Saxena, Coordinator, Mental Health: Evidence and Research, Department of Mental Health and Substance Abuse, World Health Organization, Geneva; Pratap Sharan, Consultant, World Health Organization and Professor, Department of Psychiatry, All India Institute of Medical Sciences, New Delhi; Itzhak Levav, Consultant, Global Forum for Health Research and Special Adviser for Mental Health, Mental Health Services, Ministry of Health, Jerusalem.

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Ethics committee approval: The institutional review boards of the respective teams approved the methodology. No formal ethical approval was required at two sites (Nigeria, Philippines) at the time the study was conducted.

Author contributions

Dr Pratap Sharan had full access to all of the data in this study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Study concept and design: A de Francisco, C Gallo, O Gureje, E Lamberte, I Levav, J Mari, G Mazzotti, S Olifson, V Patel, S Saxena, P Sharan, L Swartz.

Regional coordination and supervision/Principal Investigators (PI): C Gallo, O Gureje, E Lamberte, J Mari, G Mazzotti, V Patel, L Swartz.

Acquisition of data: Brazil: J Mari (PI), D Razzouk, J Gerolin, MT Dubugras. South Asia: V Patel (PI), S Naik, O Rahman, M Khan, S Thapa, A Sumathipala. Nigeria: O Gureje (PI), L Kola. Peru: G Mazzotti/C Gallo (PI), F Fiestas, G Poletti, A Sagástegui, S Sarabia, I Bustamante. Philippines: EE Lamberte (PI), AV Lapitan, CC Pascasio. South Africa: L Swartz (PI), K McDougall, A Breen, C Legg, M Schneider. Technical Coordination Group: A de Francisco, S Olifson, S Saxena, P Sharan, I Levav.

Analysis and interpretation of data: P Sharan, C Gallo, O Gureje, E Lamberte, J Mari, V Patel, L Swartz, S Olifson, I Levav, A de Francisco, S Saxena.

Drafting of the manuscript: P Sharan, S Olifson, I Levav, A de Francisco, S Saxena.

Critical revision of the manuscript for important intellectual content: P Sharan, S Olifson, I Levav, A de Francisco, S Saxena, C Gallo, O Gureje, E Lamberte, J Mari, V Patel, L Swartz, D Razzouk, J Gerolin, MT Dubugras, S Naik, O Rahman, M Khan, S Thapa, A Sumathipala, L Kola, F Fiestas, G Poletti, A Sagástegui, S Sarabia, I Bustamante, AV Lapitan, CC Pascasio, K McDougall, A Breen, C Legg, M Schneider.

Obtained funding: A de Francisco, S Olifson.

Administrative, technical, or material support: A de Francisco, S Saxena, S Olifson, I Levav, P Sharan, C Gallo, O Gureje, E Lamberte, J Mari, G Mazzotti, V Patel, L Swartz.

Supervision: A de Francisco, S Saxena, S Olifson, I Levav, P Sharan, C Gallo, O Gureje, E Lamberte, J Mari, G Mazzotti, V Patel, L Swartz.

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Foreword

Low- and middle-income countries (LMICs) account for more than 85% of the world's six billion people. In absolute terms, the burden of mental health conditions falls heavily on these countries; however, the resources available to meet mental health challenges are meagre. Indeed, an overwhelming majority of countries in Africa and South-East Asia spend less than 1% of their limited health budgets on mental health.

The 'Mental Health: Global Action Programme' (mhGAP) of the World Health Organization (WHO) envisions an active role for research in efforts to change the current mental health situation at the country level. Research-generated information is seen to be essential in determining needs, proposing new cost-effective interventions, monitoring their implementation and evaluating their effectiveness. Conceivably, such information will enable LMICs to better utilize their limited mental health resources. Yet a comprehensive picture of mental health research production in these countries has been lacking. How much (or how little) research is being conducted on mental health issues? What is the focus of such research in terms of disorders, populations, and types of studies? What do researchers and other stakeholders see as the priorities for mental health research in their countries and how do they think such priorities should be determined? What challenges do researchers face in conducting effective research? To what extent is research successfully translated into policy, programmes or interventions? What hinders or helps such efforts?

To answer these questions, the Global Forum for Health Research (Global Forum) and WHO undertook the daunting task of mapping actors working in the field of mental health research, research priorities, and the impact of research on mental health policy and practice in LMICs of Africa, Asia and Latin America. An unevenness in the 'terrain' of mental health research and research infrastructure development within and across the three regions is a significant, although not surprising, finding of the study. Another key contribution of the project is the similarities found in priorities between researchers and stakeholders, and across regions. The latter raises genuine hopes of collaboration between LMICs and all stakeholders to make research an instrument for change.

However, simply funding or doing more research alone will not suffice: research must be relevant to the needs of LMICs. Also, a sound, transparent, scientific and participatory process must be instituted for the identification of the research priorities which will make the largest contribution to people's mental health at the country and global levels.

In shedding light on mental health research production in LMICs and offering recommendations for its management, 'Research capacity for mental health in low- and middle-income countries: Results of a mapping project' itself represents an important piece of research for change.

Professor Stephen Matlin
Executive Director
Global Forum for Health Research

Dr Benedetto Saraceno
Director
Department of Mental Health
and Substance Abuse
World Health Organization

Preface

In 2004, the Global Forum and WHO, Department of Mental Health and Substance Abuse, Mental Health: Evidence and Research, initiated a project entitled: 'Mental health: Mapping of research capacity in low- and middle-income countries'. Six teams (two from each region in Africa, Asia and Latin America and the Caribbean) were selected through a request for proposals, and a three-day workshop was conducted in order to standardize the research methods. The work was carried out under the coordination and technical guidance of the project secretariat representing both convening institutions (as signed below). The project was funded by the Global Forum and the World Bank.

This joint publication, resulting from the analysis of the six region data, is aimed at raising awareness on the needs of research capacity in mental health in LMICs. The scale and findings of this study provide a valuable confirmation of what was suspected but never systematically documented, and confirms the pressing need to improve research capacity in mental health.

This report is primarily addressed to policy-makers, programme managers and funders of research for health, at national and global levels, and calls them to immediate action. Since its foundation in 1998, the Global Forum has consistently called the attention of the global community to the imbalance in the allocation of resources for health research and the need to better focus research efforts on the health of the poor. It also created a movement for analysis and debate on, *inter alias*, priority setting in health research and the allocation of resources. Mental health remains one of the most neglected and underresourced areas in public health, despite the fact that the need is ever increasing. The lack of recognition of mental health and illness within the overall health status and well-being of the population is both a cause and a consequence of the fact that mental health research is poorly funded and developed. This report continues the task of the Global Forum and, in joining forces with WHO, strongly requests all institutions to place mental health high on their agenda. It is now in the hands of all stakeholders involved in mental health research to heed the message.

Pratap Sharan

Itzhak Levav

Sylvie Olifson

Andrés de Francisco

Shekhar Saxena

Executive summary

Mental and neurological disorders are responsible for 13% of the global burden of disease. In addition, more than half of the 10 leading risk factors that cause one third of premature deaths worldwide have behavioural determinants, such as unsafe sex, tobacco or alcohol consumption, etc. Despite this evidence, mental health is a neglected and an underresearched area of public health, particularly in low- and middle-income countries (LMICs). This project was initiated by the Global Forum and WHO to provide an account of the current status of mental health research in 114 LMICs in Africa (52), Asia (32) and Latin America and the Caribbean (30) by: (1) mapping actors working in the field of mental health research; (2) mapping current research agendas; (3) describing the process of setting priorities for mental health research; and (4) describing the dissemination of such research and its impact on mental health policy and practice.

Researchers, decision-makers, university administrators and association officers working in the area of mental health were enumerated through an extensive, standardized search of indexed (Medline and PsycINFO databases) and non-indexed (local journals, unpublished papers, conference proceedings, and reports) literature. Over 10 000 relevant articles were identified, along with 4633 mental health researchers and 3829 other stakeholders. Surveys conducted with each of the four groups yielded information on research production, priorities and funding. In-depth interviews with key informants elicited views on the interface between policy and research.

Fifty-seven per cent of the 114 LMICs were found to contribute fewer than five articles to the international mental health indexed literature for a 10-year period (1993–2003), while very few articles could be identified from non-indexed sources in almost 70% of the countries, suggesting a paucity of mental health research (and researchers) in many LMICs. Some countries, on the other hand, such as Argentina, Brazil, China, India, the Republic of Korea and South Africa contributed significantly to international mental health publications – a finding that attests to notable variations in mental health research production within as well as across regions.

The survey results showed broad agreement among researchers and other mental health related stakeholders, and across regions, regarding priorities for mental health research in LMICs. Epidemiological studies of burden and risk factors, health systems research, and social science research were the highest ranked types of needed research. Depression/anxiety, substance use disorders, and psychoses were identified as the top three priority disorders, while prioritized population groups were children and adolescents, women, and persons exposed to violence/trauma. The most important criteria for prioritizing research were burden of disease, social justice, and availability of funds, although researchers and other stakeholders differed markedly regarding the importance of personal interest of researchers as a criterion for prioritizing research.

Most of the in-depth interview participants reported that the mental health research output of their countries was low, lending support to the findings of the literature audit. Many reasons were cited for this. Interviewees reported that clinicians and academics faced many demands in a context characterized by poor funding, a lack of

trained personnel, little infrastructural support, and a paucity of research networks, in institutions which mostly lacked a research culture.

While the interviews yielded examples of research that had impacted on policy and practice, participants reported that few policies, interventions or programmes are based on information derived from mental health research conducted in their country, mainly due to a gap in communication between researchers and decision-makers. Indeed, survey respondents indicated that for almost every example they could recall of research impacting on policy and practice, they could think of another where it had not. Lack of a critical mass of trained and informed actors on both sides and lack of baseline studies to support the development of policies were seen as factors contributing to this communication gap.

These findings highlight the need to review and strengthen the management of mental health research so that it meets the national needs of LMICs as well as contributes to the global fund of knowledge. Governments and other institutions in LMICs should devise mechanisms to allocate greater funds to research, capacity and infrastructure strengthening. Although some examples of research impacting policy and practice are available, in general there is little interface between research and policy. There is a need for organizations to bridge the gap between policy and research by sensitizing researchers about the usefulness of involving other stakeholders in their research and sensitizing stakeholders about the importance of good mental health research. Finally, it should be re-emphasized that half of the LMICs in the three regions had made very little progress in mental health research and research infrastructure development. The challenge now is to develop strategies for the countries that have made the least progress.

The findings of the report emphasize the need for:

1. Governments and other institutions considering mental health crucial to the overall health of their populations and an important bearing on national development.
2. Integrating mental health research within health research systems to enhance synergies and avoid inefficiencies, gaps and duplications.
3. Establishing a leading body to identify and monitor gaps in national and regional mental health research, formulate priorities, advocate for funds, assess research capacity, establish networks, disseminate information and provide technical and financial support.
4. Formulating and implementing mental health research priorities through a transparent, participatory and scientific process. The Combined Approach Matrix (CAM) of the Global Forum is an effective tool for priority setting in this regard.
5. Increasing national funding for mental health research, bringing it into line, as far as possible, with the country's burden of mental disorders. In addition, leading research donors must include a specific mental health component in their budgetary allocations.
6. Investing in mental health research capacity strengthening, particularly through research trainings and incentives for mental health professionals.
7. Developing research networks and public-private partnerships. In particular, more LMIC researchers and other stakeholders should be connected to established research networks.
8. Mainstreaming cross-cutting issues, such as socioeconomic status and gender, in all strategies and research designs, as key variables.
9. Connecting with information networks in health research to ensure the sharing and utilization of mental health information by researchers, policy-makers, and the general population.

OVERVIEW

Background

Mental and neurological disorders are responsible for 13% of the global burden of disease, and almost half of the 10 leading risk factors that cause about one third of premature deaths (e.g. unsafe sex, tobacco use and alcohol consumption) have major behavioural determinants (World Health Organization, 2002a). Despite this evidence, mental health is a neglected and an underresearched area of public health, particularly in LMICs (Rochon et al., 2004; World Health Organization, 2005).

Aim

This project was initiated by the Global Forum and WHO to provide an account of the current status of mental health research in 114 LMICs in Africa (52), Asia (32) and Latin America and the Caribbean (30) by mapping:

- actors working in the field of mental health research;
- current research agendas;
- the process of setting priorities for mental health research;
- the dissemination of such research and its impact on mental health policy and practice.

Methods

LMICs in each of the three regions were divided between two regional teams (hereafter referred to as Latin America A and B, Africa A and B, and Asia A and B), based on multiple criteria including geographical contiguity, population size (to make the task of teams equitable), language (to facilitate exchange with researchers) and existing networks available to the teams. An extensive, standardized search of indexed (Medline and PsycINFO databases) and non-indexed literature (local journals, unpublished papers, presentations, and reports) was conducted by each of the teams to identify researchers and other stakeholders (decision-makers, university administrators, association officers, henceforth referred to as stakeholders) working in the area of mental health and to assess and quantify the research agenda of LMIC researchers as reflected in their publications.

A survey of the identified researchers, decision-makers, university administrators and association officials was conducted to gather information on research resources, methods, priorities and funding. In-depth interviews with key informants were held to elicit their views on the interface between policy and research.

Results

Indexed literature

A total of 6813 relevant articles in Medline and PsycINFO were identified. Each database yielded approximately half of these articles. For the years 1999–2003, for which data were available from all six regions (n=4940), the contribution from each region was as follows: Asia A (33.9%), Latin America A (18.6%), Asia B (18.2%), Latin America B (16.9%), Africa A (10.4%) and Africa B (2.1%). The contribution from 66 (57.9%) countries was very low (≤ 5 articles). China (including Hong Kong Special Administrative Region and Province of Taiwan) contributed approximately one fourth, and the five leading countries (Argentina, Brazil, China, India and South Africa) contributed almost two thirds of these articles.

Almost two thirds of articles were published in English, 20.3% in Spanish and Portuguese, and 12.8% in local languages. Almost all articles in Africa A and Asia B were in English. Three fifths of articles in Latin America were in Spanish or Portuguese, and one third of articles in Asia A were in local languages.

Fourteen of the 25 journals that published the highest number of mental health articles from these 114 countries were edited in LMICs. Ten of the 11 journals published in high-income countries were English language journals. Six of the 14 journals edited in LMICs published English language editions.

Three teams (Latin America A, Latin America B, and Africa A) classified articles obtained through the search in a specified format. The commonest disorders addressed in these publications were depression and anxiety (23.1%), substance use disorders (11.9%), and psychoses (8.4%). About 15.8% of articles focused on children and adolescents, 5.3% on women and 4.4% on the elderly. Relatively more papers from Africa A addressed issues related to vulnerable populations (49.5%). One third of articles published in indexed journals addressed social science/psychological themes, one quarter addressed health services research themes and about a tenth each addressed clinical and epidemiology/public health themes. About 56% of articles from Africa A focused on social science/psychological themes, while 36.3% of articles from Latin America A focused on issues related to health services.

Grey (non-Medline/PsycINFO) literature

A total of 3598 articles were identified from sources other than Medline/PsycINFO, attesting to the substantial non-indexed research information available in LMICs. Two thirds of these articles were not indexed in any national/regional/international databases. More than 100 articles were identified from the following sources: *Indian Journal of Psychiatry* (217, 6%), *Journal of Korean Academy of Nursing* (117, 3.3%), *Journal of the Korean Neuropsychiatric Association* (307, 8.5%), and *Journal of the Psychiatric Association of Thailand* (96, 2.7%).

Three teams (Africa A, Asia A, and Asia B) provided information about the language of the articles. Almost 55% of the articles were published in English and 28% in local languages. All articles from Asia B and two thirds of articles from Africa A were published in English. More than half of the articles from Asia A were published in local languages.

Researchers' survey

No mental health researcher was identified in 31 (27.2%) countries and five or fewer researchers were identified in 26 countries (22.8%). Almost one third of the 4633 identified mental health researchers resided in China, India and Brazil. Completed questionnaires were received from 914 researchers residing in 53 countries (response rate 21.1%). The maximum number of responses was received from Brazil (227) and India (125).

Researchers from all major disciplines of mental health and institutional backgrounds were represented by the respondents. Half of the respondents had received formal training in research methodology, two thirds had reviewed articles/grant applications and half had served on editorial/other boards.

Three quarters of respondents stated that policy-makers were not involved in the planning and conduction of mental health research. Although 83% of all respondents had access to ethics review boards, this was not the case for more than half of the respondents from Africa B.

Fifty-six per cent of the respondents had access to less than (the equivalent of) US\$ 10 000 per annum for conducting research; and 60% had no access to research fellowships/consultancies for career development. Three fifths of respondents had no access to pay-for-use Internet resources and two fifths had access to less than three journals. Africa B and Asia B had the least access to research funds, fellowships/consultancies and literature. Three fifths of respondents were not attached to research networks, however, four fifths of respondents had access to technical support in biostatistics or epidemiology and two thirds to technical support in neurosciences or basic sciences.

In researchers' opinions the top mental health research priorities in terms of theme, disorder and specific population were:

Theme: epidemiological studies of burden and risk factors, health systems research, and social science research;

Disorder: depression/anxiety, substance use disorders, psychoses;

Vulnerable populations: children and adolescents, women, persons suffering from violence/trauma.

The top three criteria they feel should be used to prioritize mental health research in LMICs are: burden of disease, personal interest and availability of funds. The key challenges faced by the researchers are lack of funds, lack of trained staff and lack of time.

Each survey respondent was asked for details of three research projects that they had conducted within the last five years. Responses on 1847 projects were received. Almost four fifths of the projects did not involve regional/international collaboration. About one third of projects (60% in Africa B) were non-funded.

The three most important factors motivating their current research are personal interest (68%), burden of disease/public health considerations (56.2%) and career prospects (26%). More than one third of projects addressed themes related to epidemiology and public health, and almost a quarter each addressed social/psychological sciences

and clinical themes. Two fifths of the projects were related to depression/anxiety and almost one fifth each to substance use disorders and psychoses. About one third of projects each were focused on women and on children and adolescents, about one fifth each on the poor and the elderly.

Two thirds of the respondents had fewer than five publications in the last five years in any scientific journal. While about three fifths of the respondents had communicated their findings in local newspapers, less than one third had utilized other media/methods to disseminate findings to stakeholders. Only about one third of respondents felt that they could identify a policy, programme, advocacy or practice change that was based on evidence derived from their research.

Stakeholders' survey

In total, 3829 other stakeholders (decision-makers, university administrators, and association officials) were identified. While 1779 non-researcher stakeholders were identified in Asia A, only 44 were identified in Africa B. Very few stakeholders (<3) were identified in 37 (32.5%) countries. The overall response rate was 10.1%.

Decision-makers' survey

Decision-makers from 31 (27.2%) countries responded. Less than 10 responses were received from Africa A, Africa B and Asia B. Almost 90% of decision-maker respondents stated that they were involved in some aspect of the mental health research process, however, relatively few decision-makers (21%) were directly involved with ethical issues. More than two thirds of the respondents stated that decision-makers should be involved in dissemination of research findings, priority setting, planning and implementation of mental health research, however, less than one third suggested that decision-makers should participate in ethical aspects or funding of research activities.

More than half of decision-makers responded that their institutions had no direct role in training activities, training sponsorship or research collaboration. However, between three fifths and four fifths of decision-makers reported that their institutions were involved in policy and administrative aspects of mental health research.

More than three fifths of decision-makers stated that they were aware of policy, programme, advocacy or practice change that was based on evidence derived from mental health research conducted in their countries; and three quarters of the respondents reported that they had been involved in activities aimed at ensuring the utilization/implementation of mental health research findings.

Decision-makers' top three criteria for prioritizing mental health research in LMICs were: burden of disease, social justice and availability of funds. The top three priority themes, disorders and populations listed by decision-makers were:

Theme: epidemiological studies of burden and risk factors, health systems research and social science research;

Disorder: depression/anxiety, substance use disorders, psychoses/disorders with onset in childhood and adolescence;

Vulnerable populations: children and adolescents, persons suffering from violence/trauma, women.

More than half of decision-makers felt that the media reported basic information about delivery of health services or helped in dissemination of research results. On the other hand, more than two fifths of decision-makers felt that the national media often sensationalized mental illness in a negative way.

University administrators' survey

University administrators from 24 (21.1%) countries responded. Only seven responses were received from Africa. More than three quarters of the university administrators reported that their institutions were involved in training, research and services. More than two thirds of these institutions employed few (≤ 10) mental health researchers and nearly 70% of these researchers spent only a small part ($< 25\%$) of their time in research activities. Almost one fifth of institutions did not offer any training course on mental health research. Two thirds of the institutions had ongoing research collaboration with international bodies, agencies or groups and two thirds had ongoing research collaboration with community-based groups.

One third of these institutions received less than US\$ 10 000 (equivalent) per annum in external funding for mental health research, and almost 63% spent less than US\$ 10 000 (equivalent) of internal funds per annum on mental health research.

More than one sixth of institutions did not have access to the Internet. One third of the remaining institutions did not have access to pay-for-use Internet resources. About 14% of institutions did not have access to any national or international journals, while three fifths had access to fewer than three national journals. On the other hand, nearly half of institutions had access to more than 10 international journals. Between 15% to 30% of institutions did not have access to technical support in epidemiology or biostatistics, technical support in neurosciences or basic sciences, or ethics review boards. Universities in Asia B seemed to have fewer resources in comparison to other regions.

Nearly three fifths of university administrators stated that they were aware of policy, programme, advocacy or practice change based on the evidence derived from mental health research conducted in their country. On the other hand, 44% of respondents stated that they were aware of mental health research findings that should have led to such changes but had not been utilized.

University administrators' top three criteria for prioritizing mental health research in LMICs were: burden of disease, social justice and availability of funds. The top three priority themes, disorders and populations listed by university administrators were:

Theme: epidemiological studies of burden and risk factors, health systems research and social science research;

Disorder: depression/anxiety, substance use disorders, mental disorders with onset in childhood and adolescence;

Vulnerable populations: children and adolescents, women, elderly.

Nearly three fifths of university administrators felt that the media reported basic information about delivery of health services or helped in dissemination of research results. On the other hand, one third of university administrators also felt that the national media often sensationalized mental illness in a negative way.

Association officers' survey

Association officers from 37 (32.5%) countries responded. Only two responses were received from Africa B. Two thirds of associations targeted social justice issues related to mental health. Almost 94% of respondents felt that mental health research was very or moderately relevant for their associations and two fifths stated that it was a major activity for their association. Only about one fifth of associations were involved in ethical issues related to mental health research. Less than one third of respondents suggested that associations should be involved in facilitation of subject participation, ethical issues and fundraising for mental health research.

More than three fifths of respondents stated that their associations had been involved in activities aimed at ensuring the implementation of mental health research findings. The associations used the following methods to facilitate implementation: advocacy (58%), lobbying policy-makers (42%) and raising funds (29%). Half of association officers stated that they were aware of policy, programme, advocacy or practice change that was based on evidence derived from mental health research conducted in their country. On the other hand, 43% of respondents were also aware of mental health research findings that should have led to such changes but had not been utilized.

Association officers' top three criteria for prioritizing mental health research were: burden of disease, social justice and availability of funds. The top three priority themes, disorders and populations listed were:

Theme: epidemiological studies of burden and risk factors, health systems research and social science research;

Disorder: depression/anxiety, substance use disorders, psychoses;

Vulnerable populations: children and adolescents, persons suffering from violence and trauma, poor.

Nearly three quarters of the association officers felt that the media reported basic information about delivery of health services and half felt that the media helped in dissemination of research results. On the other hand, one third of association officers also felt that the national media often sensationalized mental illness in a negative way. Respondents from Latin America A were more positive about the role played by the media in relation to mental disorders.

Comparison of stakeholder groups

The four groups of stakeholders shared a number of similar perspectives on research priorities. Also, there were broad similarities in the views expressed by various stakeholders across the regions. Three research themes were consistently ranked the highest: epidemiological studies of burden and risk factors, health systems research, and social science research. Priority mental disorders/conditions were: depression/anxiety, substance use disorders, and psychoses. Prioritized population groups were: children and adolescents, women, and persons affected by violence/trauma. The top three criteria for prioritizing research were burden of disease, social justice, and availability of funds. A notable difference was seen between the stakeholder groups regarding the importance of personal interest of researchers as a criterion for prioritizing research, with the researchers ranking it high in importance and the other stakeholder groups giving it a low rank.

There was a broad agreement between three stakeholder groups (decision-makers, university administrators, association officers) regarding the involvement of national media in mental health research activities. Between 34% and 44% of stakeholders believed that the media was sensationalizing mental illness in a negative way and only 17% to 35% of stakeholders believed that the media was advocating the cause of the mentally ill. On the other hand, a positive finding was that the media was seen by the majority of stakeholders to take its role in disseminating basic information about mental illness relatively seriously.

The triangulation of data sources yielded moderate to good agreement between researchers and university administrators regarding access to funds for conducting research, to Internet and pay-for-use Internet resources, journals, technical support in epidemiology and biostatistics and in neurosciences and basic sciences, and ethics review boards. Nearly a quarter of researchers and university administrators stated that they had access to less than US\$ 1000 (equivalent) per annum for mental health research. About one third of universities in LMICs receive less than US\$ 10 000 (equivalent) per annum for mental health research.

Sixty-eight per cent of university administrators and one quarter of decision-makers stated that their institutions were involved in international collaborations on mental health research, suggesting that many of such collaborations occur at the level of researchers and institutions and decision-making bodies are not consulted/informed regarding these.

There was good agreement between decision-making bodies and association officers regarding the rank order of their involvement in the mental health research process. About nine tenths of each group felt that it was involved in the mental health research process, but only about one fifth of each group indicated an involvement in ethical aspects of mental health research.

Case study narratives

The team in Latin America A provided two narratives based on interviews with researchers. The first narrative described the positive impact of new alcohol policies on prevention of murders in a Brazilian city, while the second told about the success of a stepped-care programme for treating depression in low-income women in Santiago, Chile.

The team in Latin America B provided 19 narratives based on interviews with researchers and 13 narratives based on interviews with stakeholders. Most informants reported that the mental health research output of their countries was low. Lack of financial and human resources as well as lack of support from the government were identified as the main contributing factors. Informants reported that few policies, interventions or programmes were based on information derived from mental health research conducted in their country; mainly due to a gap in communication between researchers and stakeholders. The following factors were identified as contributing to the communication gap: lack of a critical mass of trained/informed actors on both sides, lack of baseline studies to support the development of policies, limited impact of WHO and Pan American Health Organization (PAHO) reports on researchers and stakeholders in the region, and political instability.

The team in Africa A provided two narratives based on joint interviews with pairs of researchers and stakeholders. The case studies demonstrated that individual researchers can have a deep impact on local mental health services. The narratives also highlighted the contextual issues that lead researchers in this region to place mental health issues within a broad framework. In addition, the narratives illustrated the multiple demands faced by clinicians and academics in the region and the lack of infrastructural support that impacts on their ability to conduct effective research.

The team from Africa B provided two narratives based on interviews with researchers and two narratives based on interviews with stakeholders from Nigeria. One demonstrated how a small study can lead to improvement in clinical practice within an institution. The other narratives emphasized that political will, prioritization of mental health issues (and/or research), and cultural beliefs are important in implementation of research results.

The Asia A team presented three cases that illustrated the impact (and lack of impact) of research findings on programmes, policies or interventions. Two 'success stories' demonstrated how research had led to the development and replication of community and primary care based training and service programmes, while the third case highlighted how lack of political will and resistance to policy change can block the implementation of research findings.

The Asia B team conducted in-depth interviews with five researchers and stakeholders. All respondents stated that policy-making was often not 'evidence based'. Communication barriers, structural barriers within systems, lack of user involvement, and lack of political will to strengthen the mental health sector were seen as barriers to translation of research into policy and practice. Respondents perceived lack of funds, lack of trained researchers and non availability of research networks as major barriers that impact negatively on mental health research productivity in the region.

Conclusions

Mental health research as a component of health research is an essential link to equity and development. The results of this study highlight the need to review and strengthen the management of mental health research so that it meets the national needs of LMICs as well as contributes to the global fund of knowledge. Organizations and governments in LMICs should allocate greater funds to research, capacity and infrastructure strengthening. Although some examples of research impacting policy are available, in general there is little interface between research and policy. There is a need for organizations to bridge the gap between policy and research by sensitizing researchers about the usefulness of involving other stakeholders in their research and sensitizing stakeholders about the importance of good mental health research. Finally, it should be re-emphasized that half of the LMICs in the three regions had made very little progress in mental health research and research infrastructure development. The challenge now is to develop strategies for the countries that have made the least progress.

Recommendations

1. Raise awareness of the importance of mental health

Governments and other institutions should consider mental health crucial to the overall health of their populations and to their national development. Mental

disorders cause immense suffering, disability, and consequently major economic and social costs. When they go untreated, they may lead to unhealthy behaviours, non-compliance with prescribed regimens, and even to diminished immune functioning and poor overall prognosis. The inclusion of mental health at all levels of health planning could make the difference.

2. Integrate with health research systems

Mental health research is not well coordinated with health research systems in many countries, resulting in inefficiencies, gaps and duplications. Integrating with the health research system can enhance synergies, ensuring that the total effect of national mental health research is more than the sum of individual efforts alone.

3. Establish governance and monitor progress in mental health research

A central planning unit involving the government, donors, research institutions and nongovernmental organizations (NGOs) should be established to ensure that national and regional mental health research issues are addressed. The unit could identify and monitor gaps in mental health research, formulate priorities and plans, advocate for funds, assess mental health research capacity, establish networks, disseminate information and provide technical and financial support for activities.

4. Formulate and implement mental health research priorities

A major effort is needed to ensure that all countries and institutions base their resource allocations on the burden of disorders, the main determinants of health and social justice. A priority-setting process that is transparent, participatory and scientific is needed to achieve these ends. The Combined Approach Matrix (CAM) of the Global Forum (Ghaffar, de Francisco and Matlin, 2004) is a promising tool for priority setting in this regard. The following steps are needed to ensure implementation of mental health research priorities: transformation of the broad list of research priority areas into a research portfolio; integration of priorities into an appropriate governmental plan, agenda or policy to ensure political backing; periodic review and update of priorities; and investment in research priorities. An important area of action for all countries will be to ensure that mental research addresses all key obstacles (such as stigma and inaccessibility) that impede the translation of mental health research findings towards improvements in people's mental health.

5. Increase funding for mental health research

All governments should measure their investments in mental health research and bring these into line, as far as possible, with their country's burden of mental disorders, using a systematic methodology for research priority setting. It would be useful to establish a database to identify resource needs, track results and leverage resources. At the national level, countries should explore innovative financing strategies. International bodies should mobilize broader funding support from foundations and special research agencies for mental health research issues. Specific funding allocation may be needed for Africa and South Asia. Discussions on financing needs for mental health research between partners are needed at the global, regional and country levels.

6. Invest in mental health research capacity strengthening

Strengthening of mental health research departments/units in schools of public health, medical schools and research institutions in LMICs should be considered essential. The

critical role of the enabling environment at the country level for good research (policies, infrastructure, salaries, equipment and supplies) also needs to be addressed. The sustainability of health research may be improved by establishing regional networks of mental health research scientists with a regional umbrella for research capacity strengthening governance. External donors could be encouraged to systematically include capacity-building components in their projects. International bodies like the Alliance for Health Policy and Systems Research (HPSR) and the Collaborative Training Project (CTP) launched in 2002 by the Alliance HPSR, Council on Health Research for Development (COHRED), the Global Forum and International Clinical Epidemiology Network (INCLIN) Trust could also be beneficially used to promote mental health research capacity building (Global Forum for Health Research, 2004).

7. Develop research networks and public-private partnerships

It is essential to promote the steady growth of collaborative international research networks as the principal means for mobilizing scientific talent to tackle common problems. It would be useful to connect more LMIC researchers and stakeholders to established mental health research networks (e.g. the Mental Health Global Action Programme of WHO and the Global Network for Research in Mental and Neurological Health (Global Forum for Health Research, 2004)) and networks focusing on priority-setting methodologies, policies and cross-cutting issues. More work is required in the areas of coordination of international programmes at country level; establishment of regional clearinghouses/databases on human and institutional resources, projects, funds and best practices; promotion of regional mental health research journals; and promotion of collaboration between LMICs and high-income countries and between two (or more) LMICs in priority areas.

8. Consider cross-cutting issues affecting mental health

The mental health status of a population and access to mental health care is influenced by a number of cross-cutting issues such as poverty, gender, research capacity and government policies. These cross-cutting issues can be best addressed by mainstreaming them as key variables in all strategies.

9. Connect with information networks in health research

Actions that can help ensure the sharing and utilization of mental health information by the population include: (1) promotion of collaborative efforts by governments, health professionals, publishers and international organizations for creating reliable, timely, high quality and affordable health care and health information systems (e.g. Health InterNetwork Access to Research Initiative, Scientists for Health and Research for Development, the Scientific Electronic Library Online, Bioline International, African Journals Online, and the Editors Group (coordinated by WHO)); (2) promotion of continuous medical training, education and research through the use of information and communication technologies; (3) involving all stakeholders in the knowledge cycle; and (4) building capacity for information and communication technologies (e.g. through the United Nations Information Technology Services).

1

INTRODUCTION

Health research plays a major role in advancing science and in providing solutions for health problems and can contribute to growth, development, equity, global security, and the fight against poverty (Commission on Health Research for Development, 1990). The massive imbalance between health research funding and outputs in terms of populations addressed has been referred to as the '10/90 gap' (Global Forum for Health Research, 2002, 2004; Horton, 2003; Editorial, 2004; Rochon et al., 2004).

Mental and neurological disorders are responsible for 13% of the global burden of disease, and more than half of the 10 leading risk factors that cause about one third of premature deaths worldwide have behavioural determinants (e.g. unsafe sex, tobacco use and alcohol consumption) (World Health Organization, 2002a). Despite this evidence, mental health is a neglected area within public health. WHO's atlas of mental health resources showed that 37% of 203 countries do not have a mental health policy and 25% of the 101 countries that reported their mental health budget spend less than 1% of the total health budget on mental health (World Health Organization, 2001a). In comparison to the burden imposed by mental disorders, mental health is also an underresearched health area (Rochon et al., 2004; World Health Organization, 2005).

The Mental Health Global Action Programme (mhGAP) of WHO envisions an active role for research in efforts required to change the current mental health situation in countries (World Health Organization, 2002b). However, bibliometric studies show that the contribution of LMICs to internationally accessible mental health literature was consistently less than 6% (Saxena et al., 2004, 2006; Patel and Sumathipala, 2001; Parker and Parker, 2002). As a response, WHO started the Research for Change initiative and brought together editors of scientific journals to facilitate a better balance between the mental health research needs and outputs in LMICs (Saxena, Sharan and Saraceno, 2004).

In order to reflect carefully on how mental health research could lead to improved mental health and health equity, the Global Forum launched the project 'Mental health: Mapping of research capacity in low- and middle-income countries' in collaboration with WHO.

Aim and objectives

The overall aim of this project was to provide an account of the current status of mental health research in LMICs, keeping in mind the Global Forum's goal to reduce the '10/90 gap' in health.

This project also hoped to map:

- actors involved in mental health research;
- current research agendas;
- the process of priority setting;
- the dissemination of mental health research and impact of research on mental health policy and practice in LMICs.

This project also hoped to produce a network of institutions and individuals working on research on mental and neurological disorders in LMICs.

2

METHODS

The project

The Global Forum issued a “Request for Proposals” that elicited 18 proposals from LMICs that matched its specified criteria. Six proposals from Latin America, Africa and Asia (two from each region) were selected based on their scope and the capabilities of the teams. Further project development occurred with coordination and support from the Global Forum and WHO. A standardization workshop with project leaders was conducted in June 2004. The Institutional Review Board of respective teams approved the methodology. No formal ethical approval was required at two sites at the time of the study (Nigeria, Philippines).

Regions

LMICs in each region were divided between the two regional teams (hereafter referred to as Latin America A and B, Africa A and B, and Asia A and B), based on multiple criteria including geographical contiguity, population size (to make the task of teams equitable), language (to facilitate exchange with researchers) and existing networks available to the teams. Thus the final subregional distribution, shown in Table 1 on the following page, was not always geographically tidy.

Data collection

Data were collected by means of: a search of indexed and non-indexed literature, a survey of researchers and stakeholders, and case study interviews.

Search of indexed and non-indexed literature

The Federal University of São Paulo (Brazil) was responsible for conducting the search of the Medline and PsycINFO online databases while each of the six regional teams searched ‘local’ databases. The team based in the Philippines additionally searched ProQuest, PsycARTICLES, and JSTOR databases and the results are included in the non-Medline/PsycINFO results for Asia A. The search was conducted for a 5-year period (1999 to 2003) for mega countries (population >100 million), and for a 10-year period (1993 to 2003) for the other countries in the region. The search criteria are shown in Box 1. The initial results of the online database search yielded over 50 000 references. After thoroughly reviewing and cleaning the search results, however, only 10–15% of the list was relevant mental health articles. Some teams used the Caidonline programme that was specifically developed for this project by researchers at the Federal University of São Paulo (Brazil) to categorize the articles according to: type of research, mental disorder, and specific population. These categories were

Table 1: Distribution of low- and middle-income countries in six subregions

Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B
Belize	Argentina	Angola	Algeria	American Samoa	Afghanistan
Brazil	Bolivia	Botswana	Benin	Cambodia	Bangladesh
Chile	Colombia	Burundi	Burkina Faso	China	Bhutan
Cuba	Costa Rica	Central African Republic	Cameroon	Fiji	India
Dominica	Dominican Republic	Comoros	Chad	Indonesia	Maldives
El Salvador	Ecuador	Congo	Côte d'Ivoire	Kiribati	Nepal
Guatemala	Grenada	Democratic Republic of the Congo	Equatorial Guinea	Lao People's Democratic Republic	Pakistan
Guyana	Haiti	Djibouti	Ethiopia	Malaysia	Sri Lanka
Jamaica	Honduras	Egypt	Gambia	Marshall Islands	
Nicaragua	Mexico	Eritrea	Ghana	Micronesia	
Paraguay	Panama	Gabon	Guinea	Mongolia	
St Lucia	Peru	Guinea-Bissau	Kenya	Myanmar	
St Vincent & Grenadines	St Kitts & Nevis	Lesotho	Liberia	North Mariana Islands	
Trinidad & Tobago	Suriname	Malawi	Libyan Arab Jamahiriya	Palau	
Uruguay	Venezuela	Mayotte	Madagascar	Papua New Guinea	
		Mozambique	Mali	Philippines	
		Namibia	Mauritania	Republic of Korea	
		Rwanda	Mauritius	Samoa	
		Sao Tome & Principe	Morocco	Solomon Islands	
		Seychelles	Niger	Thailand	
		South Africa	Nigeria	Timor-Leste	
		Sudan	Senegal	Tonga	
		Swaziland	Sierra Leone	Vanuatu	
		Uganda	Togo	Viet Nam	
		Zambia	Tunisia		
		Zimbabwe	United Republic of Tanzania		

used as part of the analysis of research agendas and priorities. Local databases (Box 2) were searched using the same key words (see Box 1). The search periods were slightly different in each country, based on the volume of search materials available to review. In general, however, the review period was for the years 1999 to 2003.

In addition, teams hand-searched local general and mental health journals; asked researchers for unpublished papers and presentations; and searched conference abstracts and proceedings, annual publications/reports/newsletters and bibliographies published by ministries, research councils, universities, libraries, professional associations, NGOs, international health and relief agencies, health delivery and research networks, international associations for various disorders, etc. Theses and dissertations were also reviewed, mainly through public access catalogues available at some of the larger universities within the region. The literature sourced through regional databases and grey literature searches was also categorized according to the type of research, mental disorder investigated and specific population sampled (if applicable) by some teams.

Box 1: Search criteria for literature

Inclusion criteria: Any piece of work relating to mental health issues including qualitative, epidemiological and biomedical research. Such work might be original research, published articles, editorials, congress abstracts, reports, theses and dissertations.

MeSH headings included in the study (PubMed):

- Schizophrenia and psychotic disorders
- Affective disorders (including postpartum depression)
- Anxiety disorders
- Alcohol abuse and dependence
- Drug abuse and dependence
- Dementias including Alzheimer
- Learning disabilities
- Childhood mental and behaviour disorders
- Stress disorders and post-traumatic stress disorder
- Eating disorders
- Epilepsy
- Suicide
- Mental co-morbidity of AIDS
- Neuropsychiatric disorders
- Mental health

Exclusion criteria: non-mental health studies, studies on migrant populations living in developed countries, animal studies, studies exclusively on personality traits or general psychology, letters or commentaries.

Box 2: Local databases

Latin America: Latindex; LILACS, SciELO database

Africa: African Journal Online, Association of African Universities Database of Theses and Dissertations, ADL, Braintrack, DATAD, ProQuest, Sabinet, SARA

Asia: HeLLis (Health Science Libraries across Asia), HERDIN (Philippines, studies on health research and development), IndMed, Koreamed, MedInd, PakMedi Net, Thai Index Medicus

Survey of researchers and stakeholders

Researchers were identified primarily through research publications indexed in PubMed and PsycINFO, but also through the process whereby stakeholders were identified: namely, through organizations and associations, non-indexed journals, regional databases, grey literature searches, ministry of health documents and through snowball sampling.

The search for complete and accurate correspondence addresses for the researchers was carried out by each team using directories of professional bodies, Google Scholar™, delegate lists of conferences, web sites of institutions/associations/organizations, and establishing contact with affiliated institutions, colleagues, and conference organizers. This updated list of researchers was then used in the survey phase to contact the researchers with a self-report questionnaire. The questionnaire was sent by post or electronically. Participants were informed about the objectives and methodology of the project before completing the questionnaire and were provided

with detailed instructions regarding its completion. Confidentiality of responses was maintained throughout data collection and analysis.

The questionnaire was developed within the broad health research system (HRS) framework (Sadana and Pang, 2003). The HRS is expected to serve the following functions: *stewardship* (vision, priorities, ethical standards, partnerships, monitoring and evaluation), *financing* (securing and allocating research funds accountably), *creating and sustaining resources* (building, strengthening and sustaining the human and physical capacity to conduct and absorb health research) and *producing and using research* (produce scientifically validated research outputs, translate and communicate research to inform health policy, practice, public opinion and the development of applications to improve health). The questionnaire consisted of 5 questions that primarily addressed issues related to stewardship, 1 question on financing, 12 questions on creating and sustaining resources and 38 questions on producing and utilizing research. Many questions related to producing and utilizing research addressed issues in the other three domains secondarily (e.g. three questions addressed financial issues).

The questionnaire was divided into the following sections:

- demographic and professional details (including training and research experience);
- research projects;
- research resources (journals, technical support, ethics review boards, funding);
- research impact (academic, dissemination to stakeholders, policy impact);
- research priorities (motivation for research, research priorities, and challenges faced).

The stakeholder questionnaires were modified versions of the researcher questionnaire. Three different questionnaires were designed for the following stakeholder categories:

- decision-makers (e.g. legislators, officials of Ministry of Health, health insurers and officials of donors/research councils);
- associations (e.g. associations of users/carers, other NGOs and professional associations);
- university authorities (especially administrators).

A number of strategies were used to maximize the response rate. A self-addressed stamped envelope was included with all posted questionnaires; respondents were offered either electronic or paper-based formats; and postal, electronic or telephone reminders were sent (up to four reminders were sent before considering the respondent as a refusal). Where feasible, teams also conducted face-to-face interviews, computer-assisted personal interviews and telephone interviews to elicit responses from local stakeholders. The time frame for responses on quantitative questions was five years.

The questionnaires were initially constructed in English, then translated to other languages and validated through judge methodology. Judges were a group of highly experienced researchers. A pilot study was carried out after validation. The results of this pilot study were shared with the Principal Investigators and their research teams, and their comments were incorporated in the final version of the questionnaire.

Returned questionnaires were checked for incomplete responses and the researchers were contacted with a request to complete the missing information. Despite these efforts, there were missing values for many variables; hence, the number of valid responses (n) for each variable is presented in the results. The data entered by the researchers and stakeholders was transferred into separate Access databases designed to store and manage data from the survey. Data were analyzed using the SPSS Version 12. The results are presented in percentages and central tendencies. The percentages sum is sometimes greater than 100% because of multiple responses to questions.

Case studies

Case study interviews were conducted with prominent researchers and stakeholders identified in the mapping exercise to collect examples of the successful and unsuccessful translation of research into policy and programmes, and to detail specific regional conditions. The specific methodology for identifying and developing case studies varied somewhat among the different teams. The Asia B team used the preliminary results from the researcher survey to develop an in-depth interview guide that explored specific findings. A draft of the questionnaire used by the Asia B team is shown in Box 3 on the following page. The Africa A team compiled two case studies in which interviews with researchers were supported by those with stakeholders. Teams from Latin America A, Latin America B, Africa B and Asia A, respectively, conducted 2, 26, 4 and 3 independent case studies of researchers and/or stakeholders.

Box 3: Qualitative questionnaire used in Asia B*

1. It is accepted that researchers need to collaborate with policy-makers and consumers. Our survey showed that 60% of researchers have not engaged with consumers of mental health services; 67.5% have not engaged with policy-makers and only 27% develop materials for policy-makers to disseminate findings of their research. Not surprisingly, only a third can definitely state that they know of examples in which policy, programme, or practice changes have occurred as a result of research evidence. What are the reasons for these low rates? How should these rates be improved?
2. Half the respondents ranked epidemiological studies of burden and risk factors as the first priority for future research while social science and health systems research were each ranked as a first priority by 17% of respondents. Only 8% of respondents ranked clinical trials or basic science research as the first priority. Do you agree with this finding? Given that there are so few intervention studies from developing countries, why are clinical trials ranked so low?
3. Common mental disorders (depressive and anxiety disorders) were ranked as the most important mental health condition for research by over a third of subjects. Psychoses, substance use disorders and child and adolescent mental health conditions each were cited by just over 10% of subjects. Women and children were each ranked by 30% of respondents as the most important vulnerable group in the community for research action. Poor people were cited by 16%. Do you agree with these choices? Why?
4. The reasons for their choices were mostly driven by the perception of the burden of these disorders, and in these vulnerable groups (55%), as well as personal interest in the subject (30%). Policy-maker request was only cited as the primary reason by 7%. Social justice was cited by 14%. What do you think is needed to improve the process of research priority setting and translation of evidence to policy in the region?
5. The main challenge to research in the region was by far the lack of funds (55%). Other factors were: lack of time (14%), lack of trained researchers (12%), and lack of research culture in the institution (10%). Do you agree with these perceptions? How can these gaps be addressed?
6. Two thirds of researchers are not members of any research networks; do you think that setting up a network would help achieve the mental health research agenda?
7. Only a third of researchers reported receiving any formal training in research methods and 20% have no access to epidemiological or statistical support. Do you think formal training is necessary? If yes, how do you think the need for training should be met? If no, how do you feel researchers should learn how to carry out research? 20% of researchers do not have access to any ethics review board. How should the needs for ethical review and monitoring of research be met?

* Percentages used in the questionnaire were based on preliminary data and do not match final results given elsewhere in this report.

3

RESULTS

Indexed literature

A total of 6813 relevant articles in Medline and PsycINFO were identified. Countries in Asia A contributed 35.6%, Latin America B 19%, Latin America A 16.1%, Africa A 13.3%, Asia B 13.2% and Africa B 2.7% of the identified indexed articles (Table 2), although the figures for Asia A and B are skewed by the fact that the team in Asia B did not collect data for 1993–1998 and the total for the Asia A team includes 229 articles located for 2004.

For the years 1999–2003, for which data were available from all six regions (n=4940), the contribution from each region was as follows: Asia A (n=1674, 33.9%), Latin America A (n=917, 18.6%), Asia B (n=897, 18.2%), Latin America B (n=836, 16.9%), Africa A (n=512, 10.4%) and Africa B (n=104, 2.1%).

Information on databases was not coded by Africa B. Table 3 shows that each database (Medline, PsycINFO) yielded about half of the identified articles in the other five regions. About 55% of articles referring to countries in Latin America A and Asia A were indexed in PubMed/Medline, while almost 60% of articles referring to countries in Asia B were indexed in PsycINFO.

Table 2: Indexed articles (Medline and PsycINFO) by year

Year	REGION						Total n=6813 (%)
	Latin America A n=1100 (%)	Latin America B n=1297 (%)	Africa A n=905 (%)	Africa B n=184 (%)	Asia A n=2428 (%)	Asia B n=899 (%)	
1993	44 (4.0)	79 (6.1)	0 (0.0)	17 (9.2)	0 (0.0)	0 (0.0)	140 (2.1)
1994	18 (1.6)	61 (4.7)	2 (0.2)	12 (6.5)	82 (3.4)	0 (0.0)	175 (2.6)
1995	28 (2.5)	90 (6.9)	77 (8.5)	12 (6.5)	90 (3.7)	0 (0.0)	297 (4.4)
1996	33 (3.0)	74 (5.7)	89 (9.8)	9 (4.9)	104 (4.3)	0 (0.0)	309 (4.5)
1997	31 (2.8)	82 (6.3)	104 (11.5)	10 (5.4)	111 (4.6)	0 (0.0)	338 (5.0)
1998	29 (2.6)	75 (5.8)	100 (11.0)	9 (4.9)	138 (5.7)	1 (0.1)	352 (5.2)
1999	152 (13.8)	158 (12.2)	98 (10.8)	24 (13.0)	252 (10.4)	133 (14.8)	817 (12.0)
2000	165 (15.0)	185 (14.3)	99 (10.9)	17 (9.2)	281 (11.6)	189 (21.0)	936 (13.7)
2001	188 (17.1)	190 (14.6)	113 (12.5)	18 (9.8)	347 (14.3)	167 (18.6)	1023 (15.0)
2002	208 (18.9)	165 (12.7)	115 (12.7)	20 (10.9)	470 (19.4)	184 (20.5)	1162 (17.1)
2003	204 (18.5)	138 (10.6)	87 (9.6)	25 (13.6)	324 (13.3)	224 (24.9)	1002 (14.7)
2004	0 (0.0)	0 (0.0)	19 (2.1)	2 (1.1)	229 (9.4)	1 (0.1)	251 (3.7)
Unknown	0 (0.0)	0 (0.0)	2 (0.2)	9 (4.9)	0 (0.0)	0 (0.0)	11 (0.2)

Table 3: Regional distribution of articles by database

	REGION					Total
	Latin America A	Latin America B	Africa A	Asia A	Asia B	
	n=1100 (%)	n=1297 (%)	n=905 (%)	n=2428 (%)	n=899 (%)	n=6629 (%)
Medline	614 (55.8)	676 (52.1)	449 (49.6)	1346 (55.4)	361 (40.2)	3446 (52.0)
PsycINFO	486 (44.2)	621 (47.9)	456 (50.4)	1082 (44.6)	538 (59.8)	3183 (48.0)

Researchers from 37 out of 114 LMICs (32.5%) in Latin America, Africa and Asia had not contributed any articles to journals indexed in Medline and PsycINFO. Researchers from another 29 countries (25.4%) had contributed five or fewer articles to such journals (Table 4). Countries with more than 100 indexed publications were China (1600, 23.5%), Brazil (792, 11.6%), India (712, 10.5%), South Africa (680, 10.0%), Argentina (665, 9.8%), the Republic of Korea (295, 4.3%), Mexico (256, 3.8%), Thailand (192, 2.8%), Chile (187, 2.7%), Malaysia (125, 1.8%), and Colombia (114, 1.7%). Articles from China included those from Hong Kong Special Administrative Region and Province of Taiwan.

The team in Africa B did not provide information on primary language of publication. For the other five regions almost two thirds of articles were published in English, 14.9% in Spanish, 12.8% in local languages and 5.4% in Portuguese (Table 5). Almost all articles in Africa A and Asia B were published in English. Three fifths of articles in Latin America B and one fifth in Latin America A were published in Spanish. One third of articles in Latin America A were published in Portuguese and a similar proportion of articles in Asia A were published in local languages.

Table 6 lists the 25 indexed (PubMed and PsycINFO) journals that published the highest number of articles on mental health from LMICs in Latin America, Africa and Asia.

Table 4: Countries contributing to indexed literature (Medline and PsycINFO)

Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B
Brazil	Argentina	Botswana	<i>Algeria</i>	<i>American Samoa</i>	Bangladesh
Chile	Bolivia	<i>Burundi</i>	<i>Burkina Faso</i>	Cambodia	India
Cuba	Colombia	<i>Central African Republic</i>	<i>Cameroon</i>	Indonesia	Nepal
El Salvador	Costa Rica	Democratic Republic of the Congo	Ethiopia	<i>Kiribati</i>	Pakistan
Guatemala	<i>Dominican Republic</i>	<i>Djibouti</i>	<i>Ghana</i>	Malaysia	Sri Lanka
Jamaica	Ecuador	Egypt	Guinea	Micronesia	
<i>Nicaragua</i>	<i>Grenada</i>	<i>Eritrea</i>	Kenya	Mongolia	
Trinidad & Tobago	<i>Haiti</i>	<i>Gabon</i>	<i>Libyan Arab Jamahiriya</i>	<i>Myanmar</i>	
Uruguay	<i>Honduras</i>	<i>Guinea-Bissau</i>	Morocco	<i>Northern Mariana Islands</i>	
	Mexico	<i>Lesotho</i>	Nigeria	<i>Palau</i>	
	<i>Panama</i>	Malawi	Senegal	Papua New Guinea	
	Peru	<i>Namibia</i>	Tunisia	Philippines	
	Venezuela	<i>Rwanda</i>		Republic of Korea	
		South Africa		Samoa	
		Sudan		<i>Solomon Islands</i>	
		<i>Swaziland</i>		Thailand	
		Uganda		<i>Timor-Leste</i>	
		Zambia		<i>Tonga</i>	
		Zimbabwe		Viet Nam	

Countries shown in italics contributed five or fewer articles

	REGION					Total
	Latin America A	Latin America B	Africa A	Asia A	Asia B	
	n=1100 (%)	n=1297 (%)	n=905 (%)	n=2428 (%)	n=899 (%)	n=6629 (%)
English	526 (47.8)	520 (40.1)	878 (97.0)	1409 (58.0)	898 (99.9)	4231 (63.8)
Local	0 (0.0)	0 (0.0)	14 (1.5)	835 (34.4)	0 (0.0)	849 (12.8)
Portuguese	354 (32.2)	6 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	360 (5.4)
Spanish	217 (19.7)	768 (59.2)	0 (0.0)	0 (0.0)	1 (0.1)	986 (14.9)
Others	3 (0.3)	3 (0.2)	9 (1.0)	2 (0.1)	0 (0.0)	17 (0.3)
Not coded	0 (0.0)	0 (0.0)	4 (0.4)	182 (7.5)	0 (0.0)	186 (2.8)

Table 5: Language of articles in indexed literature (Medline and PsycINFO)

Table 6: 25 indexed journals that have published the highest number of articles on mental health from LMICs in Latin America, Africa and Asia (Medline and PsycINFO)

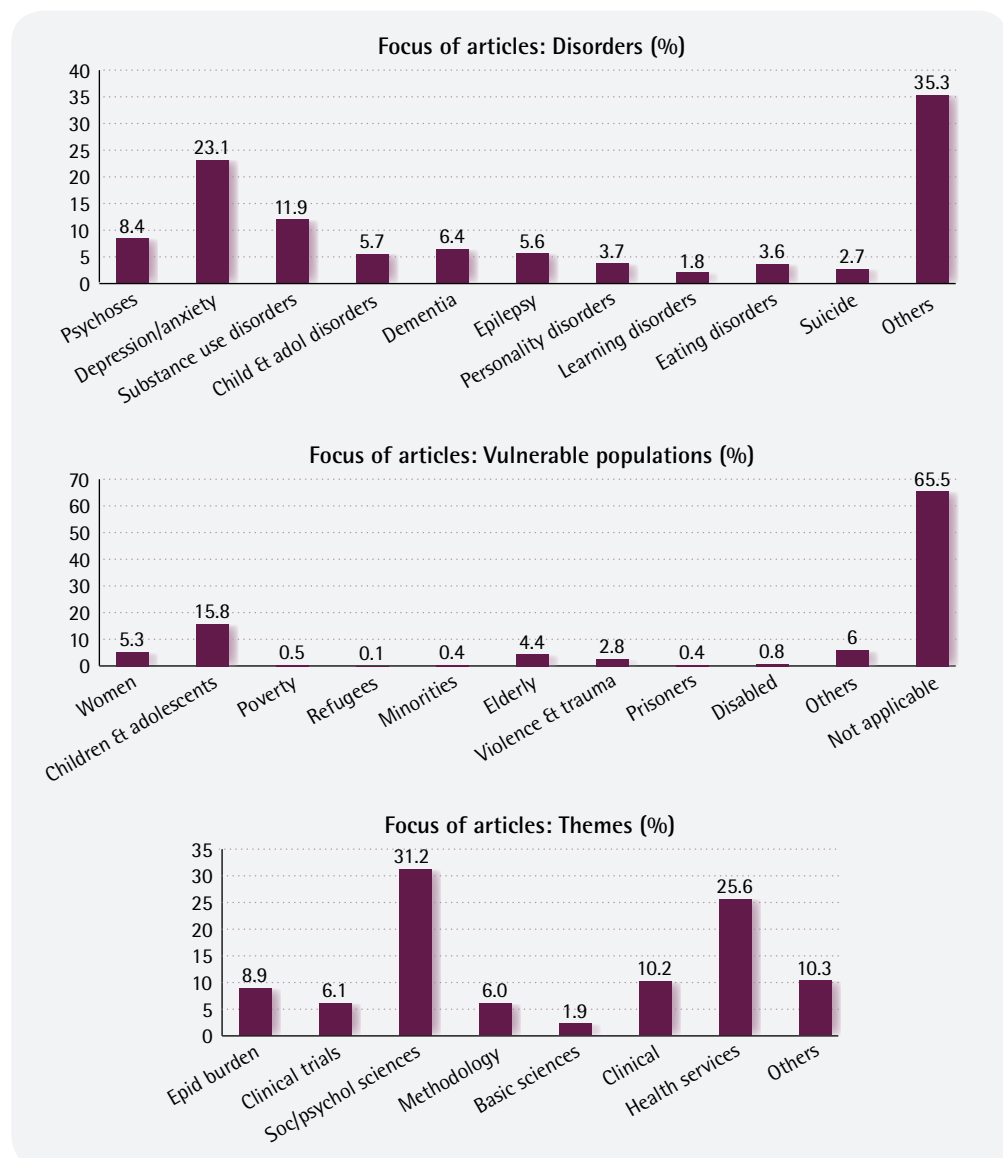
Rank	Journal	Country	Language	n=6813	%
1	Revista de Psicoanálisis	Argentina	Spanish	167	2.5
2	Revista de Neurología	Spain	Spanish	117	1.7
3	Revista Brasileira de Psiquiatria	Brazil	English, Portuguese, Spanish	110	1.6
4	Arquivos de Neuro-psiquiatria	Brazil	Portuguese	108	1.6
5	Acta Psiquiátrica y Psicológica de América Latina	Argentina	Spanish	101	1.5
6	Journal of the Medical Association of Thailand	Thailand	English, Thai	90	1.3
7	British Journal of Psychiatry	United Kingdom	English	78	1.1
8	Acta Psychiatrica Scandinavica	Denmark	English	75	1.1
9	Salud Mentale	Mexico	Spanish	69	1.0
10	Vertex	Argentina	Spanish	67	1.0
11	Journal of Personality and Clinical Studies	India	English	66	1.0
12	Social Psychiatry and Psychiatric Epidemiology	Germany	English	57	0.8
13	Revista Médica de Chile	Chile	Spanish	57	0.8
14	South African Journal of Psychology	South Africa	Afrikaans, English	52	0.8
15	Psychological Reports	United States of America	English	49	0.7
16	South African Medical Journal	South Africa	Afrikaans, English	49	0.7
17	The Australian and New Zealand Journal of Psychiatry	Australia	English	48	0.7
18	International Journal of Social Psychiatry	United Kingdom	English	48	0.7
19	Psychiatry Research	Ireland	English	46	0.7
20	Social Science & Medicine	United Kingdom	English	46	0.7
21	Revista de Saúde Pública	Brazil	Portuguese	45	0.7
22	International Journal of Geriatric Psychiatry	United Kingdom	English	44	0.6
23	SIS Journal of Projective Psychology and Mental Health	India	English	44	0.6
24	Jornal Brasileiro de Psiquiatria	Brazil	Portuguese	42	0.6
25	Psychiatry and Clinical Neurosciences	Australia	English	41	0.6

Four of the five leading journals publishing articles on mental health from concerned LMICs (each published more than 100 articles in the relevant period) are from Argentina and Brazil, and 14 of the 25 leading journals are from within the six subregions. These journals are based in Brazil (4), Argentina (3), India (2), South Africa (2), Thailand (1), Chile (1), and Mexico (1). Of the remaining, 10 are English language journals, 8 of which are based in England, Ireland, Australia, New Zealand or the United States. Six of the 14 journals published in LMICs publish English language editions.

Three teams (Latin America A, Latin America B, and Africa A) classified the identified articles according to the categories shown in Table 7. The commonest disorders addressed in the articles were depression and anxiety (23.1%), substance use disorders (11.9%), and psychoses (8.4%). More papers from Latin America B focused on dementia (9.4%) and epilepsy (9.5%) in comparison to psychoses (6.8%).

Only a third of indexed publications from these three subregions focused on vulnerable populations (Figure 1, Table 7) with 15.8% focusing on children and adolescents, 5.3% on women and 4.4% on the elderly. Relatively more papers from Africa focused on vulnerable populations (49.5%), and relatively fewer papers from Latin America A (21%)

Figure 1: Focus of articles published in indexed literature



Child & adol disorders: Disorders with onset in childhood and adolescence.
 Violence & trauma: People exposed to violence and trauma. Epid burden: Epidemiological studies of burden and risk factors. Soc/psychol sciences: Social/psychological sciences.

Note: The sum for some variables is more than 100% because subjects could give more than one response within the same content category.

	REGION			Total
	Latin America A	Latin America B	Africa A	
Disorders	n=1100 (%)	n=1297 (%)	n=822 (%)	n=3219 (%)
Psychoses	111 (10.1)	88 (6.8)	70 (8.5)	269 (8.4)
Depression/anxiety	288 (26.2)	188 (14.5)	268 (32.6)	744 (23.1)
Substance use disorders	156 (14.2)	153 (11.8)	74 (9.0)	383 (11.9)
Child & adol disorders	75 (6.8)	74 (5.7)	33 (4.0)	182 (5.7)
Dementia	69 (6.3)	122 (9.4)	14 (1.7)	205 (6.4)
Epilepsy	25 (2.3)	123 (9.5)	33 (4.0)	181 (5.6)
Personality disorders	30 (2.7)	63 (4.9)	26 (3.2)	119 (3.7)
Learning disorders	10 (0.9)	22 (1.7)	25 (3.0)	57 (1.8)
Eating disorders	47 (4.3)	45 (3.5)	25 (3.0)	117 (3.6)
Suicide	35 (3.2)	22 (1.7)	29 (3.5)	86 (2.7)
Others	350 (31.8)	454 (35.0)	333 (40.5)	1137 (35.3)
Vulnerable populations	n=1100 (%)	n=1297 (%)	n=819 (%)	n=3216 (%)
Women	39 (3.5)	49 (3.8)	81 (9.9)	169 (5.3)
Children & adolescents	102 (9.3)	213 (16.4)	194 (23.7)	509 (15.8)
Poverty	2 (0.2)	8 (0.6)	6 (0.7)	16 (0.5)
Refugees	1 (0.1)	0 (0.0)	2 (0.2)	3 (0.1)
Minorities	0 (0.0)	12 (0.9)	2 (0.2)	14 (0.4)
Elderly	48 (4.4)	87 (6.7)	8 (1.0)	143 (4.4)
Violence & trauma	5 (0.5)	5 (0.4)	81 (9.9)	91 (2.8)
Prisoners	1 (0.1)	1 (0.1)	12 (1.5)	14 (0.4)
Disabled	0 (0.0)	6 (0.5)	20 (2.4)	26 (0.8)
Others	30 (2.7)	68 (5.2)	94 (11.5)	192 (6.0)
Not applicable	869 (79.0)	822 (63.4)	414 (50.5)	2105 (65.5)
Theme	n=1100 (%)	n=1297 (%)	n=831 (%)	n=3228 (%)
Epid burden	69 (6.3)	179 (13.8)	39 (4.7)	287 (8.9)
Clinical trials	58 (5.3)	96 (7.4)	43 (5.2)	197 (6.1)
Soc/psychol sciences	178 (16.2)	363 (28.0)	465 (56.0)	1006 (31.2)
Methodology	114 (10.4)	59 (4.5)	20 (2.4)	193 (6.0)
Basic sciences	20 (1.8)	25 (1.9)	15 (1.8)	60 (1.9)
Clinical	24 (2.2)	198 (15.3)	108 (13.0)	330 (10.2)
Health services	399 (36.3)	358 (27.6)	69 (8.3)	826 (25.6)
Others	227 (20.6)	20 (1.5)	84 (10.1)	331 (10.3)

Table 7: Focus of articles published in indexed journals (Medline and PsycINFO)

Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma. Epid burden: Epidemiological studies of burden and risk factors. Soc/psychol sciences: Social/psychological sciences.

Note: The sum for some variables is more than 100% because subjects could give more than one response within the same content category.

addressed such issues. About 10% of articles from Africa A addressed issues related to victims of violence and trauma, while just 1% addressed issues of the elderly. On the other hand, about 6.7% of articles from Latin America B focused on the elderly.

One third of articles published in indexed journals addressed social science/psychological themes, one quarter addressed health services research themes and about a tenth each addressed themes related to clinical and epidemiological studies of burden and risk factors. About 56% of articles in Africa A focused on themes related to social science/psychology, while 36.3% and 10.4% of articles from Latin America A focused on themes related to health services research and methodology of research.

Non-Medline/PsycINFO literature

A total of 3598 articles were identified from sources other than Medline/PsycINFO, attesting to the substantial non-indexed research information available in LMICs.

Varying definitions of grey literature used by the different teams account for some of the regional variations in number of articles identified (Table 8). The Latin America A team defined the term strictly as literature not available in databases, journals, libraries or web sites (i.e., available only with the author) and hence it could identify only nine articles. On the other hand, the Asia A team used international indexes like the Thomson Institute for Scientific Information (ISI) database to search for articles and found 198 articles (ISI but not PubMed/PsycINFO, 5.5%). About 10% (n=361) of all articles were identified from the Literatura Peruana en Ciencias de la Salud (LIPECS) database in Latin America B. Table 9 presents the number of articles identified for all teams except Latin America A by year of publication. As was the case with the literature indexed in PubMed and PsycINFO, the Asia B team did not search for articles published prior to 1997, skewing the percentage of articles contributed by Asia.

Articles were identified from 58 out of 114 LMICs (51%). Five or fewer articles were identified in 21 countries (18.4%) and more than 100 articles were identified in Argentina (113, 3.1%), Bolivia (101, 2.8%), China (174, 4.8%), Colombia (250, 7%), Honduras (168, 4.7%), India (242, 6.7%), the Republic of Korea (497, 13.8%), Peru (357, 9.9%), the Philippines (169, 4.7%), South Africa (253, 7%), Thailand (381, 10.6%) and Venezuela (124, 3.5%).

More than 100 articles were identified from the following sources: *Indian Journal of Psychiatry* (217, 6%), *Journal of Korean Academy of Nursing* (117, 3.3%), *Journal of the Korean Neuropsychiatric Association* (307, 8.6%), and *Journal of the Psychiatric Association of Thailand* (96, 2.7%).

Table 8: Number of articles identified from grey literature

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Number	9	1175	422	112	1405	475	3598
%	0.3	32.7	11.7	3.1	39	13.2	100

Year	REGION					Total n=3589 (%)
	Latin America n=1175 (%)	Africa A n=422 (%)	Africa B n=112 (%)	Asia A n=1405 (%)	Asia B n=475 (%)	
1993	24 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	24 (0.7)
1994	10 (0.9)	0 (0.0)	3 (2.7)	49 (3.5)	0 (0.0)	62 (1.7)
1995	21 (1.8)	4 (0.9)	7 (6.3)	56 (4.0)	0 (0.0)	88 (2.5)
1996	18 (1.5)	15 (3.6)	16 (14.3)	95 (6.8)	0 (0.0)	144 (4.0)
1997	25 (2.1)	10 (2.4)	6 (5.4)	142 (10.1)	14 (2.9)	197 (5.5)
1998	41 (3.5)	24 (5.7)	7 (6.3)	139 (9.9)	15 (3.2)	226 (6.3)
1999	42 (3.6)	20 (4.7)	13 (11.6)	173 (12.3)	86 (18.1)	334 (9.3)
2000	68 (5.8)	37 (8.8)	7 (6.3)	120 (8.5)	92 (19.4)	324 (9.0)
2001	95 (8.1)	54 (12.8)	7 (6.3)	185 (13.2)	116 (24.4)	457 (12.7)
2002	82 (7.0)	51 (12.1)	5 (4.5)	165 (11.7)	96 (20.2)	399 (11.1)
2003	513 (43.7)	56 (13.3)	24 (21.4)	183 (13.0)	32 (6.7)	808 (22.5)
2004	84 (7.1)	44 (10.4)	2 (1.8)	98 (7.0)	17 (3.6)	245 (6.8)
2005	20 (1.7)	11 (2.6)	0 (0.0)	0 (0.0)	6 (1.3)	37 (1.0)
Unknown	132 (11.2)	96 (22.7)	15 (13.4)	0 (0.0)	1 (0.2)	244 (6.8)

Table 9: Grey literature by year of publication

Language	REGION			Total n=2302 (%)
	Africa A n=422 (%)	Asia A n=1405 (%)	Asia B n=475 (%)	
English	275 (65.2)	514 (36.6)	475 (100)	1264 (54.9)
Local	41 (9.7)	604 (43.0)	0 (0)	645 (28.0)
Not coded	106 (25.1)	287 (20.4)	0 (0)	393 (17.1)

Table 10: Grey literature by language of publication

Three regions (Africa A, Asia A, and Asia B) collected information about the language of the article (Table 10). Almost 55% of the articles were published in English and 28% in local languages. All articles in Asia B and at least two thirds of articles in Africa A were published in English, while more than two fifths of the articles were published in local languages in Asia A.

Researchers' survey

No mental health researcher was identified in 31 (27.2%) out of 114 LMICs and five or less researchers were identified in another 26 countries (22.8%). Almost one third of the 4633 mental health researchers identified resided in China, India and Brazil. While only 215 researchers could be identified in Africa B, 1724 were identified in Asia A.

Responses were received from 914 researchers residing in 53 countries, yielding a response rate of 21.1% (range 6.0% in Asia A to 37.0% in Africa A). The largest number of responses was received from Brazil (227) and India (125).

Demographic characteristics

The Africa B team could identify only 215 researchers, while the Asia A team identified 1724 researchers. More than 500 researchers were identified in China, India and Brazil and between 100 to 500 researchers were identified in the Philippines, the Republic of Korea, Thailand, Mexico, South Africa, Peru, Malaysia, Argentina, and Chile. About 38.5% of the identified researchers belonged to the country of residence of the investigating team (range 18.1% in Asia A to 71.2% in Latin America A).

Three fifths of the respondents were male (range 50.4% in Latin America A to 89.7% in Africa B). The average age of respondents was 45.4 years (SD=9.5). Almost one sixth of them were less than 35 years of age. Three fifths were in the age range of 35 to 50 years, one quarter in the age range of 50 to 65 years, and 3.3% were more than 65 years old.

Of respondents 47% were psychiatrists (range 27.5% in Africa A to 63.8% in Africa B), 18.3% were nurses (range 3.2% in Africa A to 27.8% in Latin America B), 12.4% were psychologists (range 8.6% in Africa B to 33.9% in Africa A), 8.6% were social scientists, 6.2% each were neurologists and other medical practitioners, 3.9% were public health professionals (more than 11% in Asia A and Africa A) and 17.2% belonged to other disciplines. (The total is more than 100% because some professionals identified themselves as belonging to more than one discipline.)

More than half of the respondents (56.3%) were working with institutions under the government/ministry (range 6.6% in Africa A to 81.1% in Latin America A), 30% were working in the private, for-profit sector (range 6.6% in Africa A to 55.2% in Africa B) and 22.3% were working with university departments (range 4.9% in Asia A to 68.9% in Africa A). About 12.2% of the respondents were working with research organizations and 7.3% with the nongovernmental (not-for-profit) sector. About 15% were affiliated with other kinds of organizations. (The total is more than 100% because some respondents were affiliated with more than one type of institution.)

Research training and peer recognition

Almost half of the respondents had received formal training in methodology related to epidemiology and public health (range 42.1% in Asia B to 55.9% in Africa B). Forty-five per cent of the respondents had received training in basic sciences (range 34.2% in Latin America B to 55.2% in Asia A), one third of the respondents had been trained in qualitative research methodology (range 21.9% in Latin America B to 63.9% in Africa), and one fifth of respondents had received formal training in other research methodologies.

More than three fifths of respondents were not attached to any research network (range 42.3% in Asia A to 80.6% in Latin America B). Of the remaining two fifths almost an equal proportion were attached to only national (12.7%), regional or international (10.6%) and both regional and international research networks (13%).

In terms of peer recognition, about one third of the respondents had never reviewed an article or a grant application and nearly half of them had not served on editorial or other boards (Table 11, Figure 2). Almost a quarter of respondents had reviewed more than 10 articles or grant proposals and nearly a fifth had served on more than two editorial or other boards.

Table 11: Peer recognition

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Reviewer	n=239 (%)	n=210 (%)	n=60 (%)	n=58 (%)	n=103 (%)	n=219 (%)	n=889 (%)
None	51 (21.3)	111 (52.9)	9 (15.0)	26 (44.8)	30 (29.1)	76 (34.7)	303 (34.1)
1	9 (3.8)	17 (8.1)	2 (3.3)	4 (6.9)	4 (3.9)	16 (7.3)	52 (5.8)
2-5	48 (20.1)	41 (19.5)	30 (50.0)	11 (19.0)	29 (28.2)	69 (31.5)	228 (25.6)
6-10	36 (15.1)	21 (10.0)	6 (10.0)	11 (19.0)	10 (9.7)	20 (9.1)	104 (11.7)
>10	95 (39.7)	20 (9.5)	13 (21.7)	6 (10.3)	30 (29.1)	38 (17.4)	202 (22.7)
Editor/board	n=239 (%)	n=208 (%)	n=60 (%)	n=58 (%)	n=103 (%)	n=220 (%)	n=888 (%)
None	125 (52.3)	76 (36.5)	30 (50.0)	34 (58.6)	48 (46.6)	114 (51.8)	427 (48.1)
1	34 (14.2)	44 (21.2)	11 (18.3)	11 (19.0)	16 (15.5)	47 (21.4)	163 (18.4)
2	30 (12.6)	46 (22.1)	9 (15.0)	5 (8.6)	17 (16.5)	30 (13.6)	137 (15.4)
>2	50 (20.9)	42 (20.2)	10 (16.7)	8 (13.8)	22 (21.4)	29 (13.2)	161 (18.1)

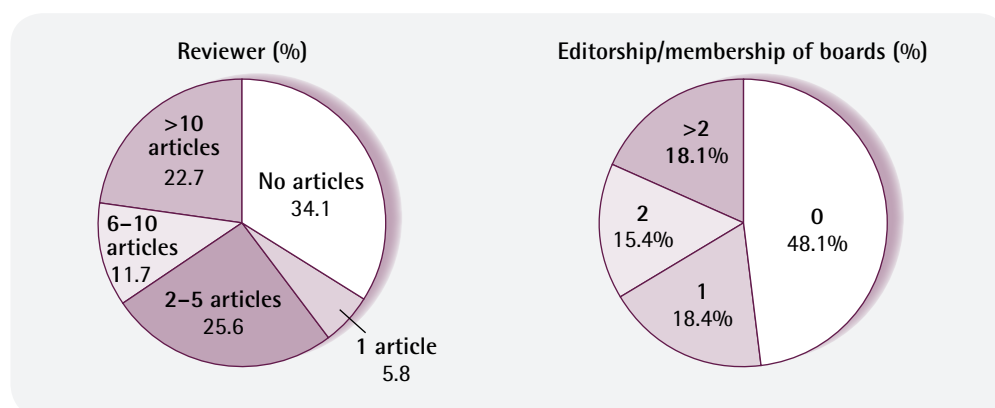


Figure 2: Peer recognition

Availability of research resources

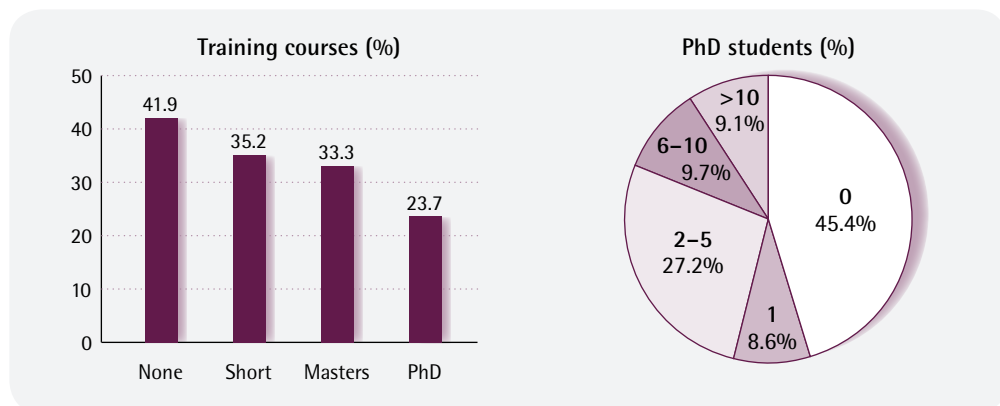
Two fifths of respondents (41.9%) were not working in institutions providing training courses on research (Table 12, Figure 3). About one third each was employed in institutions providing short courses or master level courses (training on research methodology was a component of the courses). About a quarter of respondents were employed in institutions offering doctoral level training programmes. Respondents in Africa A differed from other subregions: more of them were employed in institutions not offering any training programme (50.8%), fewer were associated with institutions offering short courses (20.3%) or more were associated with institutions providing master’s level programmes (39%) in comparison to other regions. A greater proportion of respondents in Latin America A (33.4%) and a smaller proportion of respondents in Latin America B (16.6%) and Africa A (16.9%) were involved with doctoral level programmes.

More than half of the respondents were involved in the supervision of at least one doctoral level student (some might be registered with their institutions and some with

Table 12: Training courses and PhD students

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Training courses	n=227 (%)	n=187 (%)	n=59 (%)	n=58 (%)	n=104 (%)	n=201 (%)	n=836 (%)
None	81 (35.7)	86 (46.0)	30 (50.8)	22 (37.9)	46 (44.2)	85 (42.3)	350 (41.9)
Short	83 (36.6)	64 (34.2)	12 (20.3)	20 (38.5)	38 (36.5)	77 (38.3)	294 (35.2)
Masters	84 (37.0)	54 (28.9)	23 (39.0)	17 (29.3)	37 (35.6)	65 (32.3)	278 (33.3)
PhD	76 (33.4)	31 (16.6)	10 (16.9)	12 (20.7)	20 (19.2)	50 (24.9)	198 (23.7)
PhD students	n=219 (%)	n=191 (%)	n=55 (%)	n=57 (%)	n=102 (%)	n=211 (%)	n=835 (%)
None	82 (37.4)	77 (40.3)	20 (36.4)	26 (45.6)	57 (55.9)	117 (55.5)	379 (45.4)
1	15 (6.8)	17 (8.9)	9 (16.4)	6 (10.5)	6 (5.9)	19 (9.0)	72 (8.6)
2–5	59 (26.9)	54 (28.3)	17 (30.9)	15 (26.3)	26 (25.5)	56 (26.5)	227 (27.2)
6–10	42 (19.2)	19 (9.9)	2 (3.6)	2 (3.5)	5 (4.9)	11 (5.2)	81 (9.7)
>10	21 (9.6)	24 (12.6)	7 (12.7)	8 (14.0)	8 (7.8)	8 (3.8)	76 (9.1)

Figure 3: Training courses and PhD students



other institutions). Three fifths of those involved with PhD students had guided less than five in the last five years. Respondents from Latin America A and Africa A were supervising the most doctoral level students (that is, a greater percentage of them were supervising at least one student) and those in Asia A and Asia B, the least.

Only a quarter of respondents reported that policy-makers were involved in their research work (range 57% in Africa A to 8% in Latin America A) (Table 13). Nine tenths of respondents in Latin American countries felt that the involvement of policy-makers was inadequate. About 83% of respondents stated that they had access to ethics review boards. However, more than half of researchers in Africa B did not have access to such review boards. Two thirds of respondents felt that consumers/users (data not shown in table) were involved during some stage of research planning and execution (range 60% in Africa B to 81% in Latin America A).

Table 13: Stewardship, funding and career development

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Policy-maker involvement	n=224 (%)	n=195 (%)	n=60 (%)	n=55 (%)	n=102 (%)	n=212 (%)	n=848 (%)
Yes	17 (7.6)	24 (12.3)	34 (56.7)	17 (30.9)	47 (46.1)	69 (32.5)	208 (24.5)
Access to ethics RB	n=227 (%)	n=195 (%)	n=57 (%)	n=57 (%)	n=104 (%)	n=214 (%)	n=854 (%)
None	9 (4.0)	45 (23.1)	5 (8.8)	30 (52.6)	14 (13.5)	43 (20.1)	146 (17.1)
In institution	210 (92.5)	114 (58.5)	47 (82.5)	25 (43.9)	74 (71.2)	144 (67.3)	614 (71.9)
Outside institution	8 (3.5)	36 (18.5)	5 (8.8)	2 (3.5)	16 (15.4)	27 (12.6)	94 (11.0)
Scale of funding (US\$)	n=125 (%)	n=138 (%)	n=51 (%)	n=20 (%)	n=56 (%)	n=109 (%)	n=499 (%)
<10 ³	5 (4.0)	47 (34.1)	14 (27.5)	11 (55.0)	3 (5.4)	51 (46.8)	131 (26.3)
10 ³ –10 ⁴	44 (35.2)	43 (31.2)	14 (27.5)	4 (20.0)	21 (37.5)	22 (20.2)	148 (29.7)
10 ⁴ –10 ⁵	62 (49.6)	37 (26.8)	13 (25.5)	4 (20.0)	20 (35.7)	30 (27.5)	166 (33.3)
>10 ⁵	14 (11.2)	11 (8.0)	10 (19.6)	1 (5.0)	12 (21.4)	6 (5.5)	54 (10.8)
MH research fellowship	n=227 (%)	n=192 (%)	n=60 (%)	n=57 (%)	n=101 (%)	n=205 (%)	n=842 (%)
No	101 (44.5)	123 (64.1)	40 (66.7)	43 (75.4)	51 (50.5)	148 (72.2)	504 (59.9)
Public institution	111 (48.9)	49 (25.5)	16 (26.7)	7 (12.3)	36 (35.6)	44 (21.5)	263 (31.2)
Private institution	25 (11.0)	25 (13.0)	5 (8.3)	4 (7.0)	23 (22.8)	21 (10.2)	103 (12.2)

Access to ethics RB: Access to ethics review board. Scale of funding: <10³: <1000, 10³–10⁴: 1000–10 000, 10⁴–10⁵: 10 000–100 000, >10⁵: >100 000 US\$ equivalent. MH research fellowship: Mental health research fellowship.

Three fifths of respondents had no access to research fellowships/consultancies for research career enhancement (range 44.5% in Latin America A to 75.4% in Africa B). Public or charitable institutions funded three fifths of the fellowships that were available.

Only 55% of respondents replied to the question on amount of funding. Almost one quarter of them received less than the equivalent of US\$ 1000 per annum (range 4% in Latin America A to 55% in Africa B) (Figure 4). About 30% of respondents received

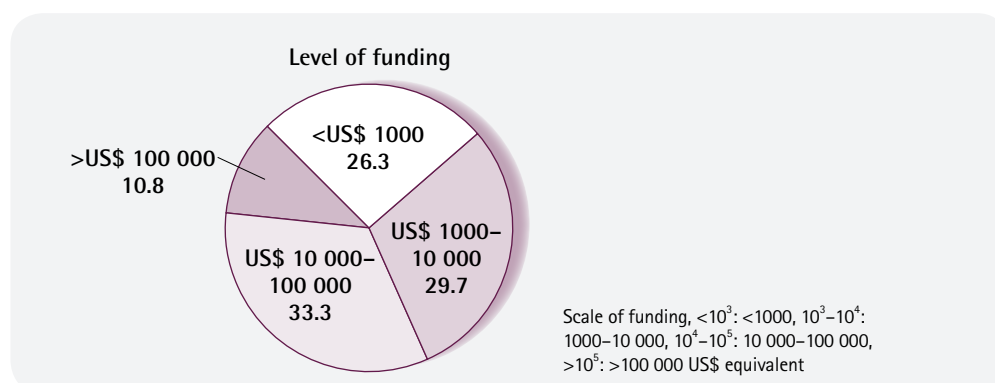


Figure 4: Scale of funding (US\$ equivalent)

the equivalent of between US\$ 1000 and US\$ 10 000 per annum. Another one third secured research funds between US\$ 10 000 and US\$ 100 000 equivalent (range 20% in Africa B to 49.6% in Latin America A). Only one tenth of respondents (about one fifth in Asia A and Africa A) had access to research funds above the equivalent of US\$ 100 000 per annum.

While 95% of respondents had access to the Internet, three fifths had no access to pay-for-use resources (Table 14, Figure 5). One tenth of respondents had no access to journals or libraries on a regular basis, while 30% had access to very few journals (<3). Only 37.4% of respondents had routine access to more than 10 journals. Regional differences were marked in this regard. Respondents in Latin America A and Africa A had access to a greater number of journals.

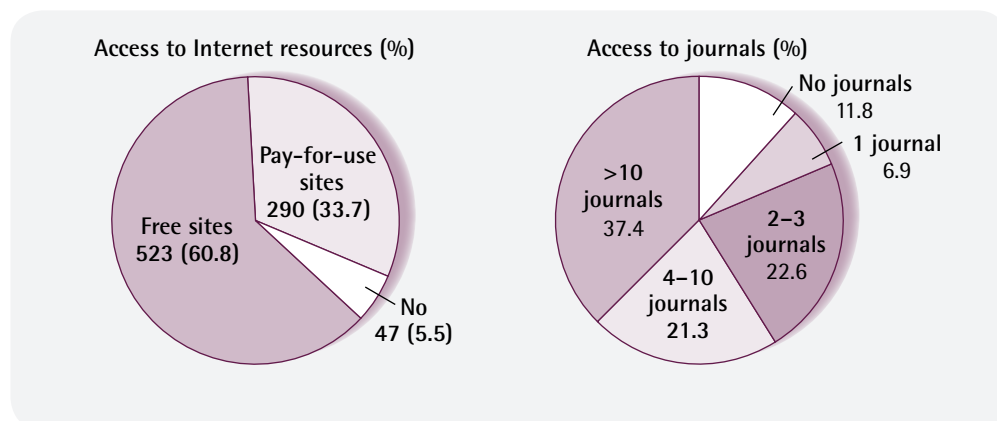
Table 14: Access to literature and technical support

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Access to Internet	n=228 (%)	n=195 (%)	n=59 (%)	n=57 (%)	n=106 (%)	n=215 (%)	n=860 (%)
No	1 (0.4)	0 (0.0)	1 (1.7)	8 (14.0)	10 (9.4)	27 (12.6)	47 (5.5)
Free sites	123 (53.9)	114 (58.5)	27 (45.8)	42 (73.7)	73 (68.9)	144 (67.0)	523 (60.8)
Pay-for-use sites	104 (45.6)	81 (41.5)	31 (52.5)	7 (12.3)	23 (21.7)	44 (20.5)	290 (33.7)
Library	n=227 (%)	n=195 (%)	n=58 (%)	n=55 (%)	n=106 (%)	n=209 (%)	n=850 (%)
No journals	7 (3.1)	34 (17.4)	5 (8.6)	8 (14.5)	15 (14.2)	31 (14.8)	100 (11.8)
1 journal	9 (4.0)	17 (8.7)	4 (6.9)	3 (5.5)	12 (11.3)	14 (6.7)	59 (6.9)
2–3 journals	26 (11.5)	59 (30.3)	3 (5.2)	17 (30.9)	25 (23.6)	62 (29.7)	192 (22.6)
4–10 journals	47 (20.7)	34 (17.4)	17 (29.3)	20 (36.4)	17 (16.0)	46 (22.0)	181 (21.3)
>10 journals	138 (60.8)	51 (26.2)	29 (50.0)	7 (12.7)	37 (34.9)	56 (26.8)	318 (37.4)
Epi/biostat support	n=226 (%)	n=195 (%)	n=59 (%)	n=57 (%)	n=105 (%)	n=212 (%)	n=854 (%)
None	28 (12.4)	60 (30.8)	11 (18.6)	18 (31.6)	18 (17.1)	41 (19.3)	176 (20.6)
In institution	136 (60.2)	85 (43.6)	35 (59.3)	25 (43.9)	55 (52.4)	116 (54.7)	452 (52.9)
Outside institution	33 (14.6)	33 (16.9)	9 (15.3)	10 (17.5)	23 (21.9)	39 (18.4)	147 (17.2)
Qualified self	29 (12.8)	17 (8.7)	4 (6.8)	4 (7.0)	9 (8.6)	16 (7.5)	79 (9.3)
Neuro/basic sci support	n=226 (%)	n=195 (%)	n=57 (%)	n=58 (%)	n=105 (%)	n=213 (%)	n=854 (%)
None	49 (21.7)	99 (50.8)	17 (29.8)	24 (41.4)	31 (29.5)	68 (31.9)	288 (33.7)
In institution	120 (53.1)	54 (27.7)	27 (47.4)	25 (43.1)	51 (48.6)	103 (48.4)	380 (44.5)
Outside institution	33 (14.6)	35 (17.9)	9 (15.8)	6 (10.3)	20 (19.0)	34 (16.0)	137 (16.0)
Qualified self	24 (10.6)	7 (3.6)	4 (7.0)	3 (5.2)	3 (2.9)	8 (3.8)	49 (5.7)

Free sites: Access only to free web sites. Pay-for-use sites: Access to pay-for-use resources. Epi/biostat support: Technical support in epidemiology/biostatistics. Neuro/basic sci support: Technical support in neurosciences/basic sciences.

Note: The sum for some variables is more than 100% because subjects could give more than one response within the same content category.

Figure 5: Access to scientific literature



Free sites: Access only to free web sites. Pay-for-use sites: Access to pay-for-use resources.

Note: The sum for some variables is more than 100% because subjects could give more than one response within the same content category.

One fifth of respondents had no access to technical support in biostatistics or epidemiology and another one fifth had to depend on colleagues in other institutions for this kind of expertise. Respondents in Latin America A were better placed and those in Africa B were relatively less well placed in this regard.

One third of respondents had no access to technical support in neurosciences or basic sciences (range 21.7% in Latin America A to 50.8% in Latin America B) and another sixth were dependent on colleagues outside their institutions. Only 31.3% of respondents in Latin America B were either qualified themselves or had adequate support available within their institution.

Researchers' perspective on mental health priorities and challenges

The top three criteria employed by researchers for prioritizing mental health research in LMICs were: burden of disease, personal interest, and availability of funds (Table 15, Figure 6). A greater proportion of researchers from Asia A and Africa A considered policy-makers' request to be an important criterion for research prioritization.

The top mental health research priorities within the categories of theme, disorder and vulnerable populations were as follows:

Theme: epidemiological studies of burden and risk factors, health systems research, and social science research.

Disorder: depression/anxiety, substance use disorders, and psychoses.

Vulnerable populations: children and adolescents, women, and persons exposed to violence/trauma.

The order of priorities within the categories was almost uniform across the regions, except that clinical trials were ranked third among themes in Latin America A; mental disorder with onset in childhood and adolescence was ranked as the second most important disorder in Africa A and Asia B; the elderly were ranked second among vulnerable groups in Latin America A and Asia A, while the poor were ranked second in Africa A and third in Asia B.

Table 15: Researchers' perspective: Research priorities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Criteria for prioritization	n=219 (%)	n=180 (%)	n=55 (%)	n=58 (%)	n=103 (%)	n=193 (%)	n=808 (%)
Burden of disease	205 (93.6)	166 (92.2)	53 (96.4)	52 (89.7)	94 (91.3)	156 (80.8)	726 (89.9)
Availability of funds	86 (39.3)	77 (42.8)	8 (14.5)	23 (39.7)	46 (44.7)	37 (19.2)	277 (34.3)
Personal interest	174 (79.5)	79 (43.9)	45 (81.8)	43 (74.1)	72 (69.9)	160 (82.9)	573 (70.9)
Policy-maker request	35 (16.0)	31 (17.2)	15 (27.3)	10 (17.2)	39 (37.9)	29 (15.0)	159 (19.7)
Others	75 (34.2)	22 (12.2)	11 (20.0)	2 (3.4)	6 (5.8)	26 (13.5)	142 (17.6)
Priority: Theme	n=219 (%)	n=180 (%)	n=57 (%)	n=57 (%)	n=105 (%)	n=194 (%)	n=812 (%)
Epid burden	199 (90.9)	162 (90.0)	54 (94.7)	53 (93.0)	87 (82.9)	164 (84.5)	719 (88.5)
Clinical trials	132 (60.3)	64 (35.6)	15 (26.3)	25 (43.9)	43 (41.0)	76 (39.2)	355 (43.7)
Social sciences	79 (36.1)	103 (57.2)	41 (71.9)	32 (56.1)	72 (68.6)	138 (71.1)	465 (57.3)
Health systems	155 (70.8)	129 (71.7)	43 (75.4)	33 (57.9)	83 (79.0)	144 (74.2)	587 (72.3)
Basic sciences	86 (39.3)	60 (33.3)	12 (21.1)	21 (36.8)	27 (25.7)	58 (29.9)	264 (32.5)
Others	11 (5.0)	10 (5.6)	2 (3.5)	0 (0.0)	3 (2.9)	10 (5.2)	36 (4.4)
Priority: Disorder	n=219 (%)	n=180 (%)	n=57 (%)	n=58 (%)	n=104 (%)	n=193 (%)	n=811 (%)
Psychoses	90 (41.1)	79 (43.9)	17 (29.8)	26 (44.8)	49 (47.1)	69 (35.8)	330 (40.7)
Depression/anxiety	188 (85.8)	141 (78.3)	37 (64.9)	37 (63.8)	80 (76.9)	137 (71.0)	620 (76.4)
Substance use disorders	156 (71.2)	98 (54.4)	27 (47.4)	31 (53.4)	43 (41.3)	71 (36.8)	426 (52.5)
Child & adol disorders	77 (35.2)	57 (31.7)	30 (52.6)	21 (36.2)	31 (29.8)	83 (43.0)	299 (36.9)
Dementia	52 (23.7)	25 (13.9)	4 (7.0)	8 (13.8)	22 (21.2)	24 (12.4)	135 (16.6)
Epilepsy	14 (6.4)	16 (8.9)	4 (7.0)	5 (8.6)	8 (7.7)	25 (13.0)	72 (8.9)
Personality disorders	23 (10.5)	27 (15.0)	5 (8.8)	10 (17.2)	15 (14.4)	36 (18.7)	116 (14.3)
Learning disorders	22 (10.0)	37 (20.6)	11 (19.3)	4 (6.9)	11 (10.6)	34 (17.6)	119 (14.7)
Eating disorders	16 (7.3)	15 (8.3)	1 (1.8)	2 (3.4)	2 (1.9)	7 (3.6)	43 (5.3)
Suicide	19 (8.7)	3 (1.7)	14 (24.6)	5 (8.6)	34 (32.7)	53 (27.5)	128 (15.8)
Others	16 (7.3)	24 (13.3)	14 (24.6)	9 (15.5)	10 (9.6)	27 (14.0)	100 (12.3)
Priority: Population	n=219 (%)	n=180 (%)	n=57 (%)	n=57 (%)	n=105 (%)	n=189 (%)	n=807 (%)
Women	95 (43.4)	98 (54.4)	30 (52.6)	31 (54.4)	48 (45.7)	123 (65.1)	425 (52.7)
Children & adolescents	174 (79.5)	138 (76.7)	36 (63.2)	33 (57.9)	70 (66.7)	119 (63.0)	570 (70.6)
Poor	98 (44.7)	72 (40.0)	33 (57.9)	14 (24.6)	42 (40.0)	77 (40.7)	336 (41.6)
Refugees	6 (2.7)	5 (2.8)	5 (8.8)	13 (22.8)	5 (4.8)	11 (5.8)	45 (5.6)
Minorities	18 (8.2)	25 (13.9)	6 (10.5)	5 (8.8)	11 (10.5)	26 (13.8)	91 (11.3)
Elderly	119 (54.3)	40 (22.2)	3 (5.3)	18 (31.6)	56 (53.3)	62 (32.8)	298 (36.9)
Violence & trauma	104 (47.5)	98 (54.4)	27 (47.4)	23 (40.4)	32 (30.5)	67 (35.4)	351 (43.5)
Prisoners	10 (4.6)	6 (3.3)	3 (5.3)	9 (15.8)	4 (3.8)	12 (6.3)	44 (5.5)
Disabled	23 (10.5)	25 (13.9)	18 (31.6)	11 (19.3)	31 (29.5)	37 (19.6)	145 (18.0)
Others	11 (5.0)	18 (10.0)	5 (8.8)	2 (3.5)	8 (7.6)	13 (6.9)	57 (7.1)

Epid burden: Epidemiological studies of burden and risk factors. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give more than one response within the same content category.

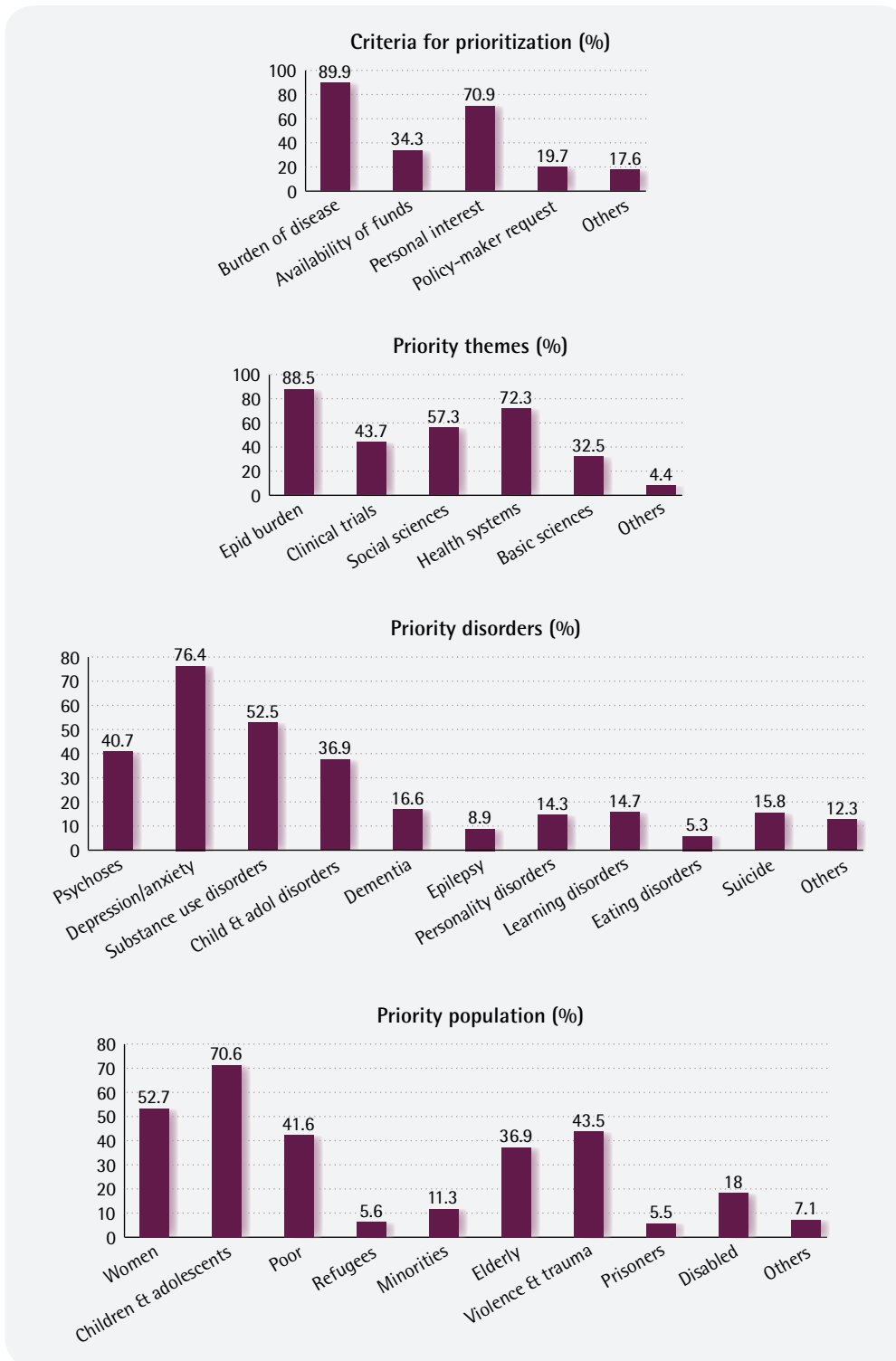


Figure 6: Researchers' perspective: Research priorities

Epid burden: Epidemiological studies of burden and risk factors.
 Child & adol disorders: Disorders with onset in childhood and adolescence.
 Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give more than one response within the same content category.

The top three challenges faced by researchers in their pursuit of mental health research in LMICs were: lack of funds, lack of trained staff and lack of time (Table 16, Figure 7). Indeed, in all six regions respondents ranked lack of funds as the biggest challenge and lack of trained staff as either the second or the third biggest challenge they face. Lack of an appropriate research culture and lack of time were considered important challenges in Latin American countries, while lack of collaborators was an important challenge in African countries and lack of time an important challenge in Asian countries.

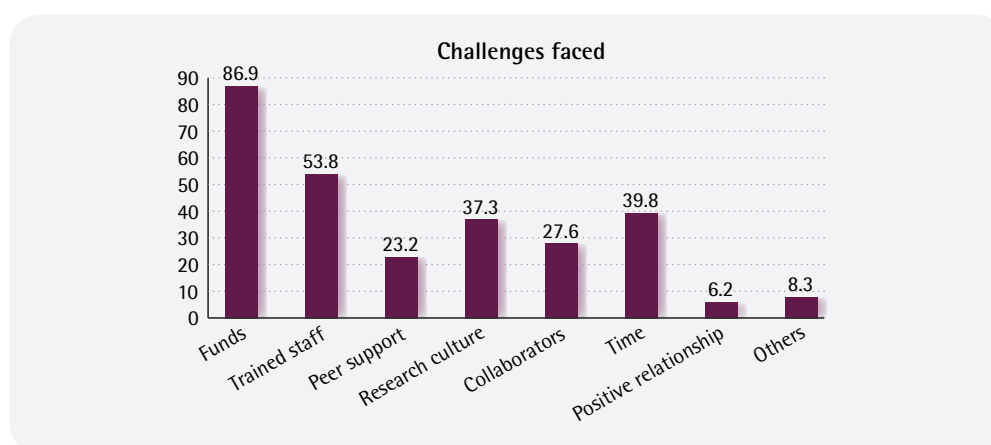
Table 16: Researchers' perspective: Challenges faced

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Challenges faced	n=219 (%)	n=180 (%)	n=57 (%)	n=58 (%)	n=103 (%)	n=190 (%)	n=807 (%)
Funds	202 (92.2)	165 (91.7)	47 (82.5)	49 (84.5)	92 (89.3)	146 (76.8)	701 (86.9)
Trained staff	132 (60.3)	92 (51.1)	29 (50.9)	24 (41.4)	61 (59.2)	96 (50.5)	434 (53.8)
Peer support	50 (22.8)	55 (30.6)	5 (8.8)	13 (22.4)	25 (24.3)	39 (20.5)	187 (23.2)
Research culture	81 (37.0)	93 (51.7)	11 (19.3)	16 (27.6)	26 (25.2)	74 (38.9)	301 (37.3)
Collaborators	48 (21.9)	31 (17.2)	17 (29.8)	19 (32.8)	24 (23.3)	84 (44.2)	223 (27.6)
Time	76 (34.7)	49 (27.2)	34 (59.6)	18 (31.0)	63 (61.2)	81 (42.6)	321 (39.8)
Positive relationship	10 (4.6)	8 (4.4)	2 (3.5)	8 (13.8)	5 (4.9)	17 (8.9)	50 (6.2)
Others	28 (12.8)	15 (8.3)	8 (14.0)	7 (12.1)	4 (3.9)	5 (2.6)	67 (8.3)

Positive relationship: Positive relationship among researchers (or personal conflicts).

Note: The sum is more than 100% because subjects could give multiple responses.

Figure 7: Researchers' perspective: Challenges faced



Positive relationship: Positive relationship among researchers (or personal conflicts).

Note: The sum is more than 100% because subjects could give multiple responses.

Current research endeavours

Each researcher was asked for details of three recent research projects. Responses were obtained for 1847 projects (Table 17, Figure 8). The respondents were the Principal Investigators in almost three fifths of the projects. A smaller proportion of researchers from Africa were Principal Investigators (less than 50% in Africa B and 53.5% in Africa A). Respondents served as Co-principal Investigator in 14.7% and as collaborators in 5% of research projects. Relatively few respondents were involved in projects as researchers (11.6%) or research supervisors (8%).

Almost four fifths of the projects involved either no collaboration (37.5%) or national collaboration (43.6%). Relatively more projects in Asia B (56.9%) and Africa B (48.5%) were conducted without collaboration and in Latin America B with national collaboration (66.2%). Almost one fifth of projects were conducted in collaboration with high-income countries and less than one tenth in collaboration with other LMICs. Relatively more projects in Africa A were conducted in collaboration with high-income countries (33.3%) and other LMICs (14.3%); and relatively fewer projects in Asia B (14.2%) involved collaboration with high-income countries.

Table 17: Mental health research projects: Role, setting, collaboration and funding

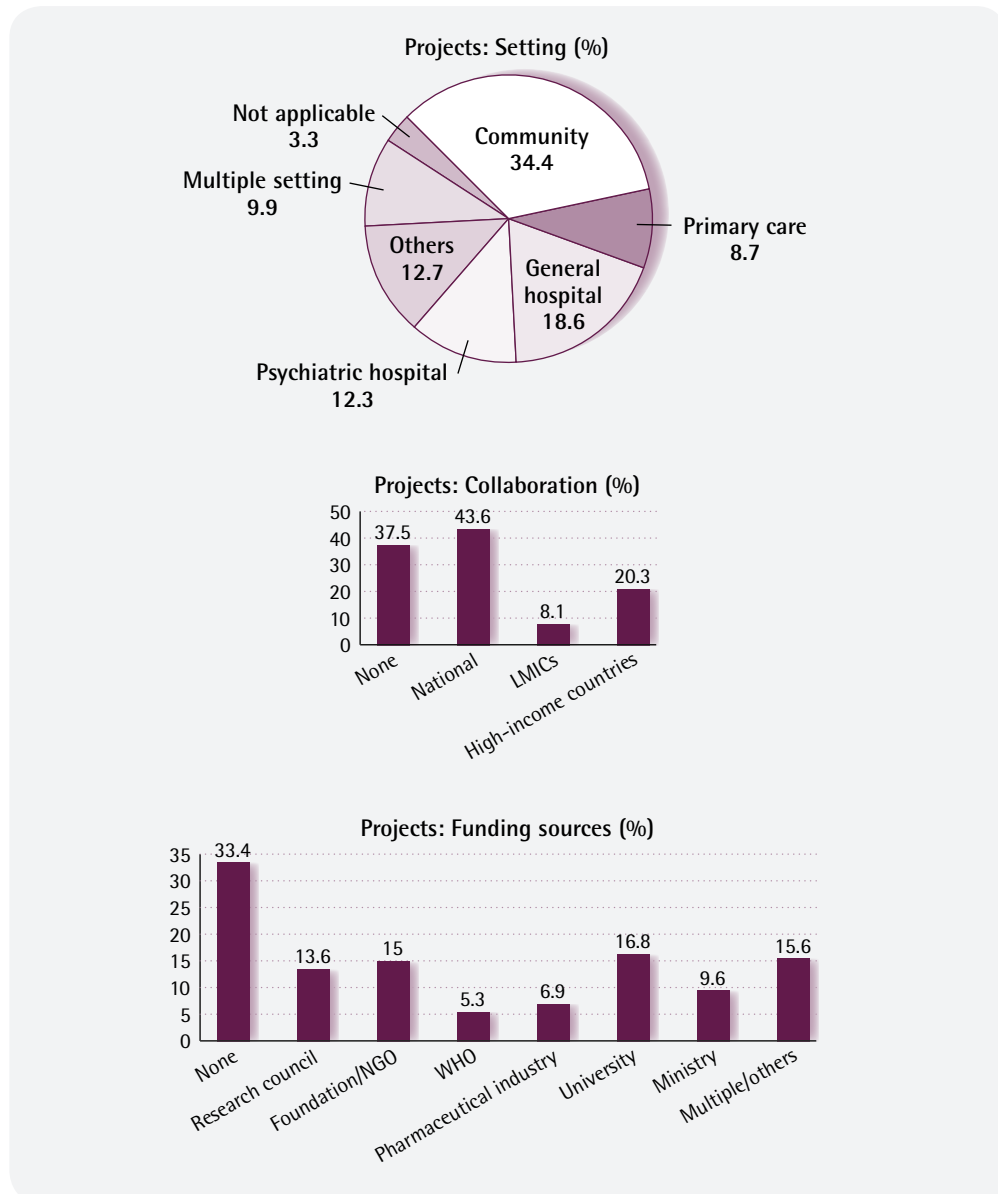
	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Role	n=463 (%)	n=413 (%)	n=129 (%)	n=133 (%)	n=225 (%)	n=468 (%)	n=1831 (%)
Principal Investigator	285 (61.6)	251 (60.8)	69 (53.5)	66 (49.6)	141 (62.7)	265 (56.6)	1077 (58.8)
Co-principal Investigator	59 (12.7)	57 (13.8)	27 (20.9)	25 (18.8)	38 (16.9)	64 (13.7)	270 (14.7)
Collaborator	19 (4.1)	21 (5.1)	7 (5.4)	7 (5.3)	14 (6.2)	23 (4.9)	91 (5.0)
Researcher	48 (10.4)	56 (13.6)	19 (14.7)	16 (12.0)	23 (10.2)	50 (10.7)	212 (11.6)
Supervisor	46 (9.9)	17 (4.1)	7 (5.4)	12 (9.0)	7 (3.1)	58 (12.4)	147 (8.0)
Others	6 (1.3)	11 (2.7)	0 (0.0)	3 (2.3)	2 (0.9)	8 (1.7)	30 (1.6)
Setting	n=478 (%)	n=413 (%)	n=128 (%)	n=134 (%)	n=222 (%)	n=468 (%)	n=1843 (%)
Community	129 (27.0)	134 (32.4)	56 (43.8)	58 (43.3)	68 (30.6)	191 (40.8)	634 (34.4)
Primary care	108 (22.6)	15 (3.6)	12 (9.4)	5 (3.7)	13 (5.9)	8 (1.7)	161 (8.7)
General hospital	62 (13.0)	74 (17.9)	6 (4.7)	34 (25.4)	51 (23.0)	116 (24.8)	343 (18.6)
Psychiatric hospital	43 (9.0)	47 (11.4)	11 (8.6)	19 (14.2)	31 (14.0)	75 (16.0)	226 (12.3)
Others	79 (16.5)	70 (16.9)	20 (15.6)	15 (11.2)	11 (5.0)	39 (8.3)	234 (12.7)
Multiple settings	42 (8.8)	52 (12.6)	18 (14.1)	3 (2.2)	42 (18.9)	26 (5.6)	183 (9.9)
Not applicable	15 (3.1)	21 (5.1)	5 (3.9)	0 (0.0)	6 (2.7)	13 (2.8)	60 (3.3)
Collaboration	n=500 (%)	n=408 (%)	n=135 (%)	n=132 (%)	n=228 (%)	n=466 (%)	n=1869 (%)
None	178 (35.6)	76 (18.6)	41 (30.4)	64 (48.5)	77 (33.8)	265 (56.9)	700 (37.5)
National	206 (41.2)	270 (66.2)	68 (50.4)	36 (27.3)	106 (46.5)	128 (27.5)	814 (43.6)
LMICs	19 (3.8)	38 (9.3)	19 (14.1)	15 (11.4)	28 (12.3)	32 (6.9)	151 (8.1)
High-income countries	121 (24.2)	81 (19.9)	45 (33.3)	22 (16.7)	45 (19.7)	66 (14.2)	379 (20.3)
Funding source	n=500 (%)	n=410 (%)	n=136 (%)	n=133 (%)	n=226 (%)	n=470 (%)	n=1875 (%)
None	131 (26.2)	132 (32.2)	29 (21.3)	80 (60.2)	43 (19.0)	212 (45.1)	626 (33.4)
Research council	72 (14.4)	69 (16.8)	25 (18.4)	11 (8.3)	40 (17.7)	38 (8.1)	255 (13.6)
Foundation/NGO	101 (20.2)	56 (13.7)	32 (23.5)	15 (11.3)	37 (16.4)	40 (8.5)	281 (15.0)
WHO	13 (2.6)	13 (3.2)	10 (7.4)	3 (2.3)	14 (6.2)	46 (9.8)	99 (5.3)
Pharmaceutical industry	33 (6.6)	34 (8.3)	7 (5.1)	4 (3.0)	29 (12.8)	23 (4.9)	130 (6.9)
University	77 (15.4)	84 (20.5)	42 (30.9)	10 (7.5)	51 (22.6)	51 (10.9)	315 (16.8)
Ministry	40 (8.0)	49 (12.0)	17 (12.5)	7 (5.3)	39 (17.3)	28 (6.0)	180 (9.6)
Multiple/others	122 (24.4)	35 (8.5)	29 (21.3)	15 (11.3)	19 (8.4)	72 (15.3)	292 (15.6)

LMICs: Regional or international collaboration with LMICs. High-income countries: International collaboration with high-income countries.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

About one third of research projects received no funding. Relatively more projects in Africa B (60.2%) and Asia B (45.1%) and relatively fewer projects in Asia A (19%) and Africa A (21.3%) were non-funded. Universities (16.6%), foundations/NGOs (15%) and research councils (13.6%) were the major funding agencies for mental health projects. Government ministries provided funds for 9.6% of projects and WHO for 5.3%. While foundations/NGOs provided funds for 23.5% of projects in Africa A, they did so for

Figure 8: Mental health research projects: Setting, collaboration and funding



LMICs: Regional or international collaboration with LMICs. High-income countries: International collaboration with high-income countries.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

only 8.5% of projects in Asia A. Universities provided funds for 30.9% of projects in Africa A but only 7.5% of projects in Africa B. Government ministries (17.3%) and the pharmaceutical industry (12.8%) were important funding agencies in Asia A.

Just over one third of projects were based in the community setting. About 43% of projects in Africa A and B were based in this setting. Almost one fifth of research projects were conducted in the setting of general hospitals and about one tenth each in psychiatric hospitals, primary care facilities, other settings and in multiple settings. Only 4.7% of projects were in the general hospital setting in Africa A while 25.4% of projects were in this setting in Africa B. While only 1.7% of projects were in the primary care setting in Asia B, almost 22.6% of projects were in this setting in Latin America A. Almost one fifth of projects in Asia A were in multiple settings.

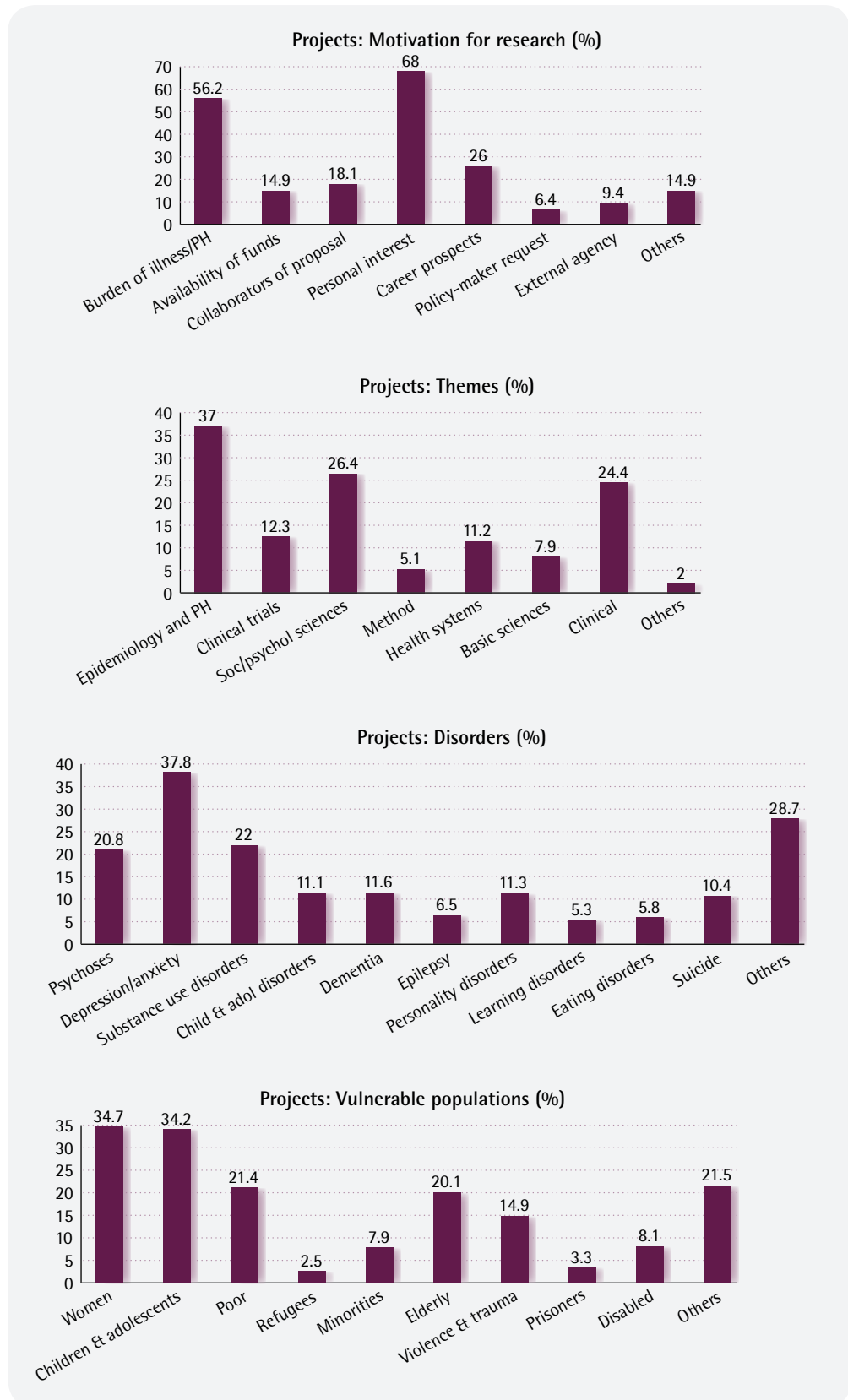
A majority of projects were carried out as a result of the researcher's personal interest (68%) or for burden of disease and public health considerations (56.2%) (Table 18, Figure 9). Almost one quarter of projects were conducted to further career interests of researchers, one fifth because of proposals from collaborators, one sixth in relation

Table 18: Mental health research projects: Content areas and motivation for research

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Factors motivating research	n=500 (%)	n=412 (%)	n=135 (%)	n=134 (%)	n=221 (%)	n=466 (%)	n=1868 (%)
Burden of illness/PH	301 (60.2)	207 (50.2)	89 (65.9)	95 (70.9)	118 (53.4)	239 (51.3)	1049 (56.2)
Availability of funds	53 (10.6)	70 (17.0)	26 (19.3)	14 (10.4)	69 (31.2)	46 (9.9)	278 (14.9)
Collaborator proposal	71 (14.2)	116 (28.2)	24 (17.8)	22 (16.4)	48 (21.7)	58 (12.4)	339 (18.1)
Personal interest	358 (71.6)	268 (65.0)	94 (69.6)	87 (64.9)	155 (70.1)	308 (66.1)	1270 (68.0)
Career prospects	160 (32.0)	66 (16.0)	28 (20.7)	56 (41.8)	82 (37.1)	94 (20.2)	486 (26.0)
Policy-maker request	20 (4.0)	7 (1.7)	20 (14.8)	2 (1.5)	40 (18.1)	30 (6.4)	119 (6.4)
External agency	22 (4.4)	66 (16.0)	15 (11.1)	18 (13.4)	34 (15.4)	21 (4.5)	176 (9.4)
Others	58 (11.6)	46 (11.2)	31 (23.0)	9 (6.7)	47 (21.3)	88 (18.9)	279 (14.9)
Theme	n=471 (%)	n=413 (%)	n=135 (%)	n=132 (%)	n=229 (%)	n=467 (%)	n=1847 (%)
Epidemiology and PH	168 (35.7)	135 (32.7)	59 (43.7)	58 (43.9)	71 (31.0)	193 (41.3)	684 (37.0)
Clinical trials	57 (12.1)	36 (8.7)	17 (12.6)	14 (10.6)	46 (20.1)	58 (12.4)	228 (12.3)
Soc/psychol sciences	65 (13.8)	90 (21.8)	59 (43.7)	25 (18.9)	66 (28.8)	182 (39.0)	487 (26.4)
Method	11 (2.3)	18 (4.4)	11 (8.1)	3 (2.3)	17 (7.4)	35 (7.5)	95 (5.1)
Health systems	16 (3.4)	23 (5.6)	35 (25.9)	17 (12.9)	36 (15.7)	80 (17.1)	207 (11.2)
Basic sciences	49 (10.4)	31 (7.5)	8 (5.9)	5 (3.8)	16 (7.0)	36 (7.7)	145 (7.9)
Clinical	101 (21.4)	80 (19.4)	24 (17.8)	37 (28.0)	59 (25.8)	150 (32.1)	451 (24.4)
Others	0 (0.0)	0 (0.0)	5 (3.7)	1 (0.8)	8 (3.5)	22 (4.7)	36 (2.0)
Disorder	n=501 (%)	n=402 (%)	n=129 (%)	n=134 (%)	n=225 (%)	n=464 (%)	n=1855 (%)
Psychoses	67 (13.4)	64 (15.9)	30 (23.3)	35 (26.1)	79 (35.1)	111 (23.9)	386 (20.8)
Depression/anxiety	181 (36.1)	131 (32.6)	55 (42.6)	58 (43.3)	95 (42.2)	181 (39.0)	701 (37.8)
Substance use disorders	128 (25.5)	86 (21.4)	39 (30.2)	32 (23.9)	35 (15.6)	89 (19.2)	409 (22.0)
Child & adol disorders	52 (10.4)	41 (10.2)	19 (14.7)	14 (10.4)	28 (12.4)	52 (11.2)	206 (11.1)
Dementia	66 (13.2)	45 (11.2)	10 (7.8)	17 (12.7)	39 (17.3)	39 (8.4)	216 (11.6)
Epilepsy	15 (3.0)	23 (5.7)	12 (9.3)	12 (9.0)	16 (7.1)	42 (9.1)	120 (6.5)
Personality disorders	38 (7.6)	40 (10.0)	13 (10.1)	20 (14.9)	18 (8.0)	81 (17.5)	210 (11.3)
Learning disorders	25 (5.0)	18 (4.5)	10 (7.8)	5 (3.7)	13 (5.8)	27 (5.8)	98 (5.3)
Eating disorders	37 (7.4)	32 (8.0)	6 (4.7)	7 (5.2)	9 (4.0)	17 (3.7)	108 (5.8)
Suicide	33 (6.6)	43 (10.7)	27 (20.9)	9 (6.7)	27 (12.0)	54 (11.6)	193 (10.4)
Others	112 (22.4)	142 (35.3)	45 (34.9)	37 (27.6)	54 (24.0)	142 (30.6)	532 (28.7)
Vulnerable populations	n=500 (%)	n=361 (%)	n=120 (%)	n=133 (%)	n=201 (%)	n=385 (%)	n=1700 (%)
Women	138 (27.6)	131 (36.3)	53 (44.2)	50 (37.6)	59 (29.4)	159 (41.3)	590 (34.7)
Children & adolescents	127 (25.4)	135 (37.4)	65 (54.2)	46 (34.6)	69 (34.3)	139 (36.1)	581 (34.2)
Poor	113 (22.6)	62 (17.2)	48 (40.0)	24 (18.0)	36 (17.9)	80 (20.8)	363 (21.4)
Refugees	7 (1.4)	8 (2.2)	9 (7.5)	2 (1.5)	5 (2.5)	12 (3.1)	43 (2.5)
Minorities	46 (9.2)	18 (5.0)	16 (13.3)	10 (7.5)	8 (4.0)	36 (9.4)	134 (7.9)
Elderly	100 (20.0)	65 (18.0)	13 (10.8)	24 (18.0)	68 (33.8)	72 (18.7)	342 (20.1)
Violence & trauma	58 (11.6)	53 (14.7)	28 (23.3)	19 (14.3)	31 (15.4)	65 (16.9)	254 (14.9)
Prisoners	13 (2.6)	8 (2.2)	7 (5.8)	2 (1.5)	10 (5.0)	16 (4.2)	56 (3.3)
Disabled	15 (3.0)	33 (9.1)	14 (11.7)	4 (3.0)	30 (14.9)	41 (10.6)	137 (8.1)
Others	80 (16.0)	105 (29.1)	24 (20.0)	18 (13.5)	43 (21.4)	96 (24.9)	366 (21.5)

Burden of illness/PH: Burden of illness/public health. External agency: Commissioned by external agency. Epidemiology & PH: Epidemiology and public health. Soc/psychol sciences: Social/psychological sciences. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma. Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Figure 9: Mental health research projects: Content areas and motivation for research



Burden of illness/PH: Burden of illness/public health. External agency: Commissioned by external agency. Epidemiology & PH: Epidemiology and public health. Soc/psychol: Social/psychological sciences. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

to availability of funds, and one tenth were commissioned by external agencies. Only 6.4% of projects were initiated because of requests from policy-makers. More projects in Africa B (70.9%) and Africa A (65.9%) were motivated by burden of disease/public health considerations in comparison to other regions. Availability of funds was a major consideration in the initiation of about one third of projects in Asia A, while proposals from collaborators was a major consideration in initiation of 28.2% of projects in Latin America B. Career development was listed as a major motivation in 41.8% and 37.1% of projects in Africa B and Asia A in comparison to only 16% of projects in Latin America B. Almost one fifth and one sixth of projects, respectively in Asia A and Africa A were motivated by policy-maker requests.

More than one third of projects addressed themes related to epidemiological studies of burden and risk factors, and almost a quarter each addressed themes related to social/psychological research (range 13.8% in Latin America A to 43.7% in Africa A) and clinical research. About one quarter of research projects concerned clinical trials and another one tenth, health systems research.

Two fifths of projects addressed issues related to depression or anxiety disorders and almost one fifth each looked at issues related to substance use disorders and psychoses. One tenth each involved disorders with onset in childhood and adolescence, dementia, personality disorders and suicide. While 35.1% of projects in Asia A focused on psychoses, this was the case for only 13.4% of projects in Latin America A. About 30.2% of projects in Africa A addressed issues related to substance use disorders, while only 15.6% of projects in Asia A did so. One fifth of projects in Africa A were related to suicide.

The overall response rate to the questions on vulnerable populations was less than that for other aspects of projects by about 7.5%. Approximately one third of projects were focused on women, another third on children and adolescents, one fifth on poverty and the elderly, and one sixth on persons exposed to violence or trauma. A greater proportion of projects in Africa A were focused on vulnerable populations (children and adolescents (54.2%), women (44.2%), poor (40%), persons affected by violence and trauma (23.3%), minorities (13.3%), persons with disability (11.7%), refugees (7.5%), and prisoners (5.8%) in comparison to all other regions. However, fewer projects (10.9%) from this region addressed issues related to the elderly. Relatively fewer projects in Latin America A addressed issues related to women (27.6%) and children and adolescents (25.4%). Researchers in Asia A carried out relatively more projects on the elderly (34%) and persons with disability (15%).

Dissemination of research findings and impact of research

Two thirds of the respondents had fewer than five publications in the last five years (Table 19, Figure 10) even in local scientific journals (journals edited in the country of origin). The range was from about half in Latin America A to three quarters in Africa A, Africa B and Latin America B. Almost three quarters had fewer than five publications in the last five years in international scientific journals. While about one third of respondents from Latin America A and Africa A had published more than five articles in international journals in the last five years, only one sixth of respondents from Latin America B had a similar publication record. About one third of authors sought publication in journals with a high impact factor (range 42.4% in Latin America A to 21.3% in Latin America B). The other major criteria for journal

Table 19: Dissemination of research findings

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Publication local journal	n=220 (%)	n=193 (%)	n=56 (%)	n=55 (%)	n=102 (%)	n=212 (%)	n=838 (%)
None	9 (4.1)	30 (15.5)	9 (16.1)	6 (10.9)	24 (23.5)	35 (16.5)	113 (13.5)
1	9 (4.1)	31 (16.1)	8 (14.3)	7 (12.7)	10 (9.8)	16 (7.5)	81 (9.7)
2–5	97 (44.1)	84 (43.5)	27 (48.2)	29 (52.7)	38 (37.3)	83 (39.2)	358 (42.7)
6–10	50 (22.7)	24 (12.4)	6 (10.7)	6 (10.9)	9 (8.8)	37 (17.5)	132 (15.8)
>10	55 (25.0)	24 (12.4)	6 (10.7)	7 (12.7)	21 (20.6)	41 (19.3)	154 (18.4)
Publication international journal	n=220 (%)	n=193 (%)	n=55 (%)	n=58 (%)	n=102 (%)	n=212 (%)	n=840 (%)
None	36 (16.4)	70 (36.3)	10 (18.2)	14 (24.1)	41 (40.2)	73 (34.4)	244 (29.0)
1	34 (15.5)	36 (18.7)	5 (9.1)	7 (12.1)	17 (16.7)	34 (16.0)	133 (15.8)
2–5	73 (33.2)	54 (28.0)	22 (40.0)	20 (34.5)	23 (22.5)	53 (25.0)	245 (29.2)
6–10	37 (16.8)	15 (7.8)	8 (14.5)	14 (24.1)	4 (3.9)	30 (14.2)	108 (12.9)
>10	40 (18.2)	18 (9.3)	10 (18.2)	3 (5.2)	17 (16.7)	22 (10.4)	110 (13.1)
Presentation local	n=218 (%)	n=192 (%)	n=54 (%)	n=56 (%)	n=101 (%)	n=215 (%)	n=836 (%)
None	13 (6.0)	28 (14.6)	5 (9.3)	12 (21.4)	21 (20.8)	44 (20.5)	123 (14.7)
1	11 (5.0)	18 (9.4)	5 (9.3)	10 (17.9)	12 (11.9)	26 (12.1)	82 (9.8)
2–5	70 (32.1)	59 (30.7)	24 (44.4)	26 (46.4)	38 (37.6)	96 (44.7)	313 (37.4)
6–10	44 (20.2)	30 (15.6)	12 (22.2)	3 (5.4)	18 (17.8)	26 (12.1)	133 (15.9)
>10	80 (36.7)	57 (29.7)	8 (14.8)	5 (8.9)	12 (11.9)	23 (10.7)	185 (22.1)
Presentation international	n=220 (%)	n=187 (%)	n=53 (%)	n=58 (%)	n=102 (%)	n=215 (%)	n=835 (%)
None	67 (30.5)	63 (33.7)	10 (18.9)	34 (58.6)	37 (36.3)	121 (56.3)	332 (39.8)
1	26 (11.8)	26 (13.9)	5 (9.4)	6 (10.3)	16 (15.7)	28 (13.0)	107 (12.8)
2–5	66 (30.0)	59 (31.6)	22 (41.5)	11 (19.0)	33 (32.4)	49 (22.8)	240 (28.7)
6–10	32 (14.5)	19 (10.2)	10 (18.9)	3 (5.2)	6 (5.9)	6 (2.8)	76 (9.1)
>10	29 (13.2)	20 (10.7)	6 (11.3)	4 (6.9)	10 (9.8)	11 (5.1)	80 (9.6)
Dissemination	n=220 (%)	n=140 (%)	n=52 (%)	n=54 (%)	n=69 (%)	n=147 (%)	n=682 (%)
Television	98 (44.5)	59 (42.1)	13 (25.0)	12 (22.2)	19 (27.5)	47 (32.0)	248 (36.4)
Radio	81 (36.8)	57 (40.7)	25 (48.1)	13 (24.1)	20 (29.0)	44 (29.9)	240 (35.2)
Local newspaper	146 (66.4)	81 (57.9)	25 (48.1)	18 (33.3)	36 (52.2)	90 (61.2)	396 (58.1)
International newspaper	41 (18.6)	17 (12.1)	11 (21.2)	6 (11.1)	13 (18.8)	17 (11.6)	105 (15.4)
Leaflets	66 (30.0)	54 (38.6)	18 (34.6)	4 (7.4)	23 (33.3)	42 (28.6)	207 (30.4)
Policy materials	13 (5.9)	18 (12.9)	23 (44.2)	5 (9.3)	31 (44.9)	40 (27.2)	130 (19.1)
Others	0 (0.0)	35 (25.0)	5 (9.6)	–	9 (13.0)	34 (23.1)	84 (12.3)
Impact	n=218 (%)	n=191 (%)	n=56 (%)	n=57 (%)	n=100 (%)	n=214 (%)	n=836 (%)
No	66 (30.3)	85 (44.5)	13 (23.2)	19 (33.3)	37 (37.0)	87 (40.7)	307 (36.7)
Yes	84 (38.5)	65 (34.0)	24 (42.9)	14 (24.6)	39 (39.0)	70 (32.7)	296 (35.4)
Uncertain	68 (31.2)	41 (21.5)	19 (33.9)	24 (42.1)	24 (24.0)	57 (26.6)	233 (27.9)

Publication local journal: Publication in national scientific journal. Publication international journal: Publication in international scientific journal. Presentation local: Scientific presentation in national conference or meeting. Presentation international: Scientific presentation in international conference or meeting.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

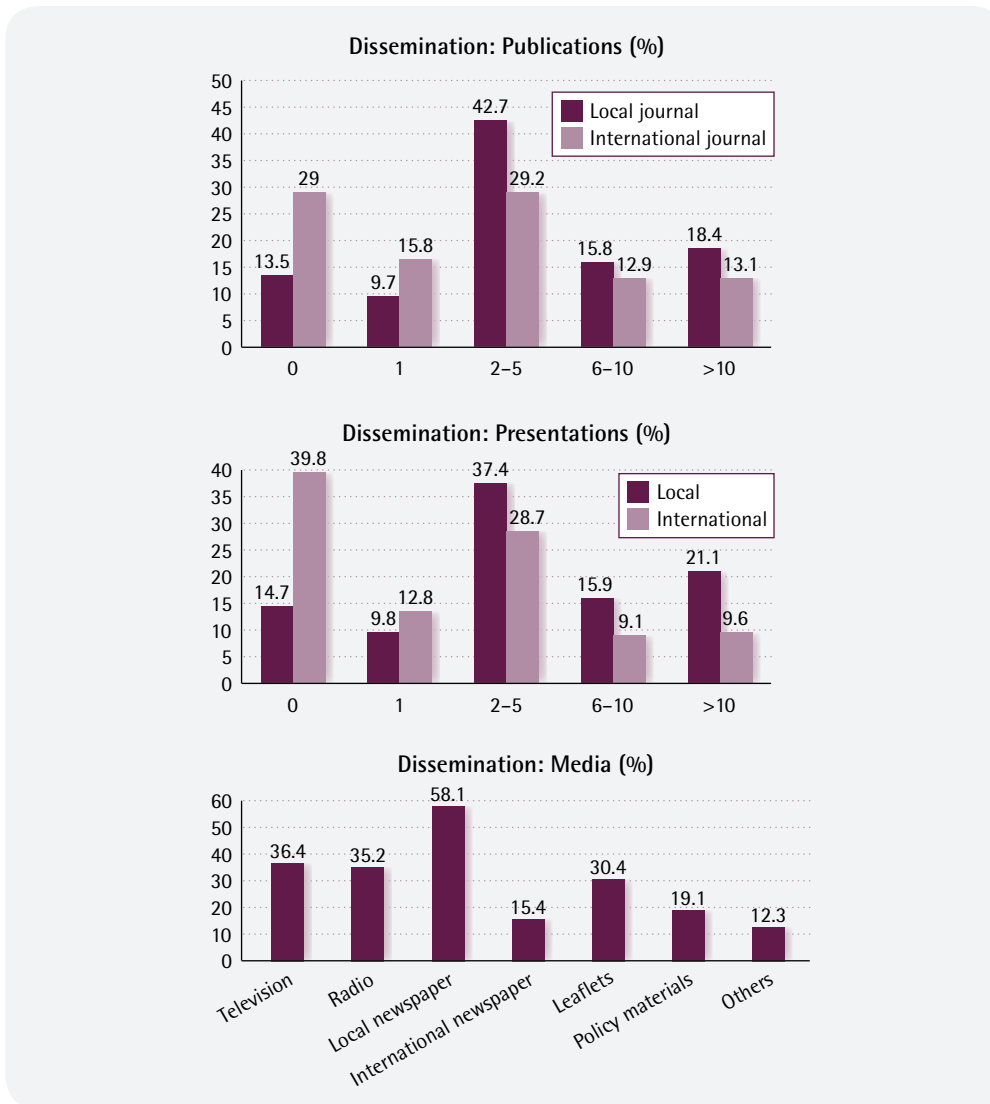


Figure 10: Dissemination of research findings

Local journal: Publication in national scientific journal. International journal: Publication in international scientific journal. Presentation local: Scientific presentation in national conference or meeting. Presentation international: Scientific presentation in international conference or meeting.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

selection were readership of the journal (18.6%, range 31% in Africa B to 12.5% in Asia A) and expectation of acceptance by the journal (18.4%).

Almost five sixths of respondents had communicated their research findings at local scientific conferences and meetings. Counterintuitively, while only a tenth of researchers from Africa B did not have any publication, one fifth of them had not made any presentation. A similar, but less marked trend was evident for Asia B. While 71% of respondents had at least one publication in international journals, only 60% had made presentations at international scientific conferences and meetings. This trend was more marked in Asia B and Africa B.

Dissemination of research findings outside the scientific community was limited. While about three fifths of the respondents had communicated research findings in local newspapers, only about one third had utilized television, radio and leaflets to reach out to various stakeholders, and less than one fifth had the experience of disseminating research findings to the international press or through documents aimed at policy-makers or other stakeholder groups.

About one third of respondents felt that they could identify some policy, programme, advocacy or practice change that had resulted from the evidence provided by their

projects. On the other hand, one third of respondents could also identify research evidence (that they had generated) that should have influenced policy, programmes, advocacy or practice change, but had not done so.

Stakeholders' survey

Stakeholders identified

In total 3829 non-researcher stakeholders were identified. Of these individuals 849 (22%) were decision-makers (officers in ministries and research councils, insurance executives), 1869 (49%) were officers of associations (users and carers, professional) and NGOs, and 1111 (29%) were university administrators (Table 20). While 1779 stakeholders were identified in Asia A, only 44 were identified in Africa B. No stakeholders were identified in 22 countries (19.3%) out of the 114 LMICs searched and fewer than three stakeholders were identified in another 15 countries (13.2%) (Table 21).

Table 20: Distribution of identified stakeholders

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
	n=319 (%)	n=1006 (%)	n=425 (%)	n=44 (%)	n=1779 (%)	n=256 (%)	n=3829 (%)
Decision-makers	92 (28.8)	364 (36.2)	126 (29.6)	18 (40.9)	220 (12.4)	29 (11.3)	849 (22.2)
Association officers	129 (40.4)	223 (22.2)	211 (49.6)	15 (34.1)	1101 (61.9)	190 (74.2)	1869 (48.8)
University administrators	98 (30.7)	419 (41.7)	88 (20.7)	11 (25.0)	458 (25.7)	37 (14.5)	1111 (29.0)

Table 21: Countries where fewer than three stakeholders were identified

Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B
Dominica Guyana Jamaica St. Lucia	<i>Haiti</i>	<i>Djibouti</i> <i>Guinea-Bissau</i> <i>Mayotte</i> <i>Sao Tome & Principe</i> <i>Somalia</i>	Algeria Benin Burkina Faso Cameroon Chad Côte d'Ivoire Equatorial Guinea Ethiopia Gambia Ghana Guinea Liberia Libyan Arab Jamahiriya Madagascar Mali Mauritania Mauritius Morocco Niger Senegal Sierra Leone Togo Tunisia	<i>Timor-Leste</i>	Afghanistan Bhutan Maldives

No italics: No stakeholder identified. Italics: Less than three stakeholders identified.

Decision-makers' survey

Decision-makers from 31 of the 114 LMICs (27.2%) responded to the survey. The overall response rate was 10.1% and it varied from 6.2% in Asia A to 35.3% in Africa B. Table 22 shows the country of residence of these respondents. The most responses were received from Brazil (17.1%) and Peru (10.5%). Two thirds of decision-maker respondents were male, however, three quarters of the respondents in Africa A and half of the respondents in Latin America A were female. The average age of respondents was 48.6 (SD=8.0) years. Respondents from Africa A were younger (42.3 ±7.5 years) and those from Latin America B were older (51.8 ±8.1 years) in comparison to respondents from other regions.

Countries	n=76	%
Argentina	5	6.6
Belize	1	1.3
Bolivia	1	1.3
Brazil	13	17.1
Colombia	3	3.9
Costa Rica	3	3.9
Dominican Republic	1	1.3
Egypt	1	1.3
Eritrea	1	1.3
Fiji	1	1.3
India	1	1.3
Kenya	1	1.3
Lao People's Democratic Republic	1	1.3
Lesotho	2	2.6
Malawi	1	1.3
Mexico	4	5.3
Mozambique	1	1.3
Nepal	1	1.3
Nigeria	6	7.9
Pakistan	4	5.3
Panama	1	1.3
Papua New Guinea	2	2.6
Peru	8	10.5
Philippines	3	3.9
Republic of Korea	1	1.3
Seychelles	1	1.3
South Africa	1	1.3
Sri Lanka	1	1.3
Thailand	4	5.3
Tonga	1	1.3
Venezuela	1	1.3

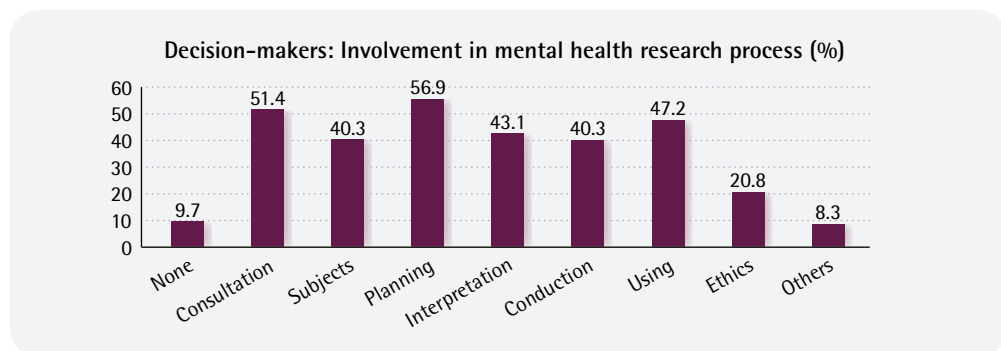
Table 22: Responses from decision-makers by country

Table 23: Decision-makers' involvement in mental health research process

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
	n=14 (%)	n=23 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=72 (%)
None	0 (0.0)	0 (0.0)	2 (25.0)	0 (0.0)	0 (0.0)	5 (71.4)	7 (9.7)
Consultation	8 (57.1)	14 (60.9)	2 (25.0)	4 (57.1)	7 (53.8)	2 (28.6)	37 (51.4)
Subjects	3 (21.4)	11 (47.8)	2 (25.0)	6 (85.7)	7 (53.8)	0 (0.0)	29 (40.3)
Planning	6 (42.9)	16 (69.6)	3 (37.5)	6 (85.7)	10 (76.9)	0 (0.0)	41 (56.9)
Interpretation	4 (28.6)	12 (52.2)	4 (50.0)	2 (28.6)	9 (69.2)	0 (0.0)	31 (43.1)
Conduction	3 (21.4)	6 (26.1)	5 (62.5)	6 (85.7)	8 (61.5)	1 (14.3)	29 (40.3)
Using	8 (57.1)	3 (13.0)	6 (75.0)	6 (85.7)	9 (69.2)	2 (28.6)	34 (47.2)
Ethics	1 (7.1)	3 (13.0)	2 (25.0)	3 (42.9)	5 (38.5)	1 (14.3)	15 (20.8)
Others	3 (21.4)	1 (4.3)	0 (0.0)	1 (14.3)	1 (7.7)	0 (0.0)	6 (8.3)

Note: The sum is more than 100% because subjects could give multiple responses.

Figure 11: Decision-makers' involvement in mental health research process



Note: The sum is more than 100% because subjects could give multiple responses.

In the presentation of results that follows only the most striking regional differences are highlighted as few responses were obtained from each region. No comments will be made about Africa A, Africa B and Asia B as less than 10 responses were received from these subregions.

About 10% of decision-maker respondents stated that they were not involved in mental health research in any way (Table 23, Figure 11). Two fifths to three fifths of decision-makers were involved in most aspects of mental health research (e.g. consultation, planning, interpretation, etc.). However, only one fifth of decision-makers were involved in ethical aspects of research.

More than two thirds of decision-maker respondents suggested that dissemination of research findings (84%), priority setting (71%) and planning and implementation (67%) were appropriate areas for involvement of decision-makers in mental health research (Table 24). Forty-five per cent felt that decision-makers should also participate directly in the conduction of research. Less than one third of respondents suggested that decision-makers should participate in fundraising and funding of research activities, and ethical aspects of research.

Table 24: Decision-makers' perspective: Possible areas of involvement in mental health research activities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
	n=14 (%)	n=24 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=73 (%)
Priority setting	11 (78.6)	16 (66.7)	6 (75.0)	4 (57.1)	12 (92.3)	3 (42.9)	52 (71.2)
Planning	7 (50.0)	18 (75.0)	5 (62.5)	6 (85.7)	11 (84.6)	2 (28.6)	49 (67.1)
Implementation	6 (42.9)	16 (66.7)	5 (62.5)	6 (85.7)	11 (84.6)	5 (71.4)	49 (67.1)
Dissemination	14 (100.0)	22 (91.7)	7 (87.5)	6 (85.7)	9 (69.2)	3 (42.9)	61 (83.6)
Fundraising	4 (28.6)	8 (33.3)	2 (25.0)	3 (42.9)	4 (30.8)	0 (0.0)	21 (28.8)
Conduction of research	4 (28.6)	7 (29.2)	7 (87.5)	6 (85.7)	8 (61.5)	1 (14.3)	33 (45.2)
Ethical review	4 (28.6)	2 (8.3)	2 (25.0)	5 (71.4)	5 (38.5)	1 (14.3)	19 (26.0)
Funding	8 (57.1)	1 (4.2)	0 (0.0)	2 (28.6)	3 (23.1)	1 (14.3)	15 (20.5)
Others	1 (7.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)

Note: The sum is more than 100% because subjects could give multiple responses.

When asked about their institution's support for mental health research, more than half of decision-makers responded that their institutions had no direct role in training activities (including sponsorship) (Table 25). However, two fifths of their institutions

Table 25: Decision-makers' institutional support to mental health research

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Training	n=13 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=70 (%)
None	8 (61.5)	12 (54.5)	4 (50.0)	1 (14.3)	6 (46.2)	7 (100.0)	38 (54.3)
Short courses	1 (7.7)	5 (22.7)	1 (12.5)	5 (71.4)	5 (38.5)	0 (0.0)	17 (24.3)
Degree programme	0 (0.0)	3 (13.6)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)	4 (5.7)
Both short & degree	4 (30.8)	2 (9.1)	3 (37.5)	0 (0.0)	2 (15.4)	0 (0.0)	11 (15.7)
Collaboration	n=14 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=71 (%)
None	6 (42.9)	14 (63.6)	5 (62.5)	3 (42.9)	4 (30.8)	6 (85.7)	38 (53.5)
National	4 (28.6)	3 (13.6)	0 (0.0)	1 (14.3)	6 (46.2)	0 (0.0)	14 (19.7)
International	1 (7.1)	2 (9.1)	1 (12.5)	1 (14.3)	0 (0.0)	0 (0.0)	5 (7.0)
Both nat & inter	3 (21.4)	3 (13.6)	2 (25.0)	2 (28.6)	3 (23.1)	1 (14.3)	14 (19.7)
Support	n=13 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=70 (%)
Policy	9 (69.2)	12 (54.5)	3 (37.5)	7 (100.0)	8 (61.5)	2 (28.6)	41 (58.6)
MH eval/res unit	7 (53.8)	19 (86.4)	1 (12.5)	6 (85.7)	8 (61.5)	0 (0.0)	41 (58.6)
Support research	12 (92.3)	20 (90.9)	5 (62.5)	6 (85.7)	11 (84.6)	3 (42.9)	57 (81.4)
Research literature	9 (69.2)	16 (72.7)	4 (50.0)	5 (71.4)	12 (92.3)	2 (28.6)	48 (68.6)

Both short & deg: Both short courses and degree programmes. Both nat & inter: Both national and international. MH eval/res unit: Mental health evaluation/research unit.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Table 26: Decision-makers' awareness of mental health research impact

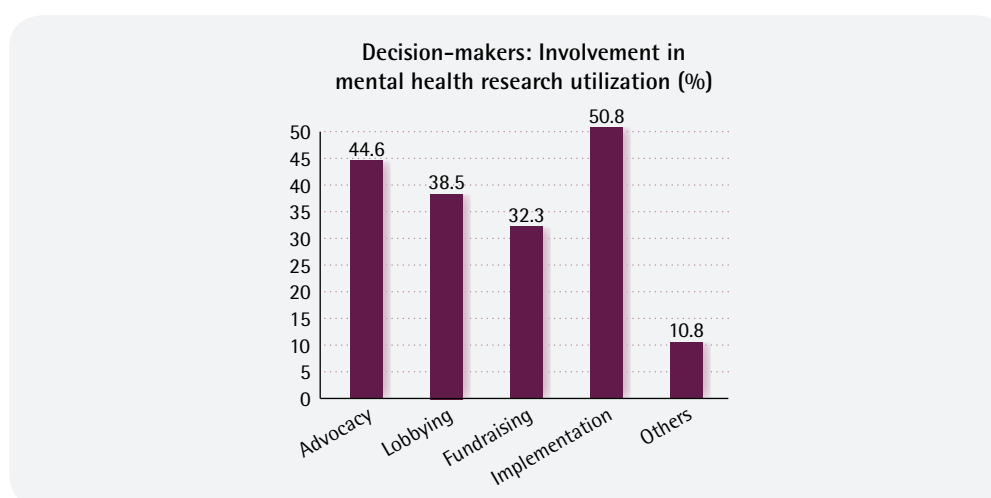
	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Impact	n=14 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=71 (%)
No	7 (50.0)	5 (22.7)	3 (37.5)	2 (28.6)	1 (7.7)	5 (71.4)	23 (32.4)
Yes	7 (50.0)	13 (59.1)	5 (62.5)	5 (71.4)	12 (92.3)	2 (28.6)	44 (62.0)
Don't know	0 (0.0)	4 (18.2)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (5.6)
No impact	n=14 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=71 (%)
No	8 (57.1)	7 (31.8)	3 (37.5)	3 (42.9)	5 (38.5)	7 (100.0)	33 (46.5)
Yes	6 (42.9)	13 (59.1)	5 (62.5)	4 (57.1)	8 (61.5)	0 (0.0)	36 (50.7)
Don't know	0 (0.0)	2 (9.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.8)

supported short courses, and one fifth supported degree programmes. Similar findings emerged for ongoing collaboration on mental health research. Between three fifths and four fifths of decision-maker respondents reported that their institutions had policy on mental health research, a mental health evaluation/research unit, supported mental health research activities, and they were aware of research literature reporting mental health issues in their countries (journals, conference abstracts, documents, etc.).

In terms of the impact of mental health research, more than three fifths of decision-maker respondents stated that they were aware of policy, programme, advocacy, or practice change that has resulted from the evidence of mental health research findings obtained in their country (Table 26). On the other hand, half of the respondents were also aware of mental health research findings that should have resulted in such change but had not been used.

Nearly three quarters of the decision-maker respondents reported that they were involved in activities aimed at ensuring the utilization of mental health research findings (Figure 12, Table 27). However, only 50% of respondents from Latin America B and 28.6% from

Figure 12: Decision-makers' involvement in activities aimed at ensuring the utilization of mental health research findings



Note: The sum is more than 100% because subjects could give multiple responses.

Table 27: Decision-makers' involvement in activities aimed at ensuring the utilization of mental health research findings

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Ever active	n=14 (%)	n=24 (%)	n=5 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=70 (%)
No	0 (0.0)	8 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)	5 (71.4)	13 (18.6)
Yes	14 (100.0)	12 (50.0)	5 (100.0)	6 (85.7)	13 (100.0)	2 (28.6)	52 (74.3)
Don't know	0 (0.0)	4 (16.7)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)	5 (7.1)
Activity	n=14 (%)	n=24 (%)	n=5 (%)	n=7 (%)	n=13 (%)	n=2 (%)	n=65 (%)
Advocacy	5 (35.7)	4 (16.7)	5 (100.0)	5 (71.4)	9 (69.2)	1 (50.0)	29 (44.6)
Lobbying	4 (28.6)	4 (16.7)	4 (80.0)	4 (57.1)	9 (69.2)	0 (0.0)	25 (38.5)
Fundraising	3 (21.4)	7 (29.2)	3 (60.0)	4 (57.1)	4 (30.8)	0 (0.0)	21 (32.3)
Implementation	4 (28.6)	10 (41.7)	3 (60.0)	5 (71.4)	9 (69.2)	2 (100.0)	33 (50.8)
Others	4 (28.6)	0 (0.0)	0 (0.0)	1 (14.3)	1 (7.7)	1 (50.0)	7 (10.8)

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Asia B reported such involvement. Between a third and half of respondents stated that they were involved in various ways (advocacy, lobbying, fundraising and implementation) to ensure the appropriate utilization of mental health research findings.

Decision-makers' top three criteria for prioritization of mental health research were: burden of disease, social justice and availability of funds (Table 28, Figure 13). A relatively greater proportion of decision-makers from Latin America A and Asia A considered requests from policy-makers to be an important criterion for prioritization of mental health research in comparison to respondents from other regions.

The top three priority themes, disorders and populations listed by decision-makers were:

Theme: epidemiological studies of burden and risk factors, health systems research, social science research.

Disorder: depression/anxiety, substance use disorders, psychoses/mental disorders with onset in childhood and adolescence.

Vulnerable populations: children and adolescents, persons exposed to violence/trauma, women.

Less than 10% of decision-makers claimed that there was no involvement of the national media in mental health research activities (Table 29, Figure 14). More than half of decision-makers felt that the media reported basic information about delivery of health services or helped in dissemination of research results and about a fifth felt that the national media played a constructive role in popularization of research culture and advocacy for implementation of research findings. On the other hand, more than two fifths of decision-makers felt that the national media often sensationalized mental illness in a negative way and about a quarter felt that the media was overemphasizing a medical (as opposed to psychosocial) model of mental illness.

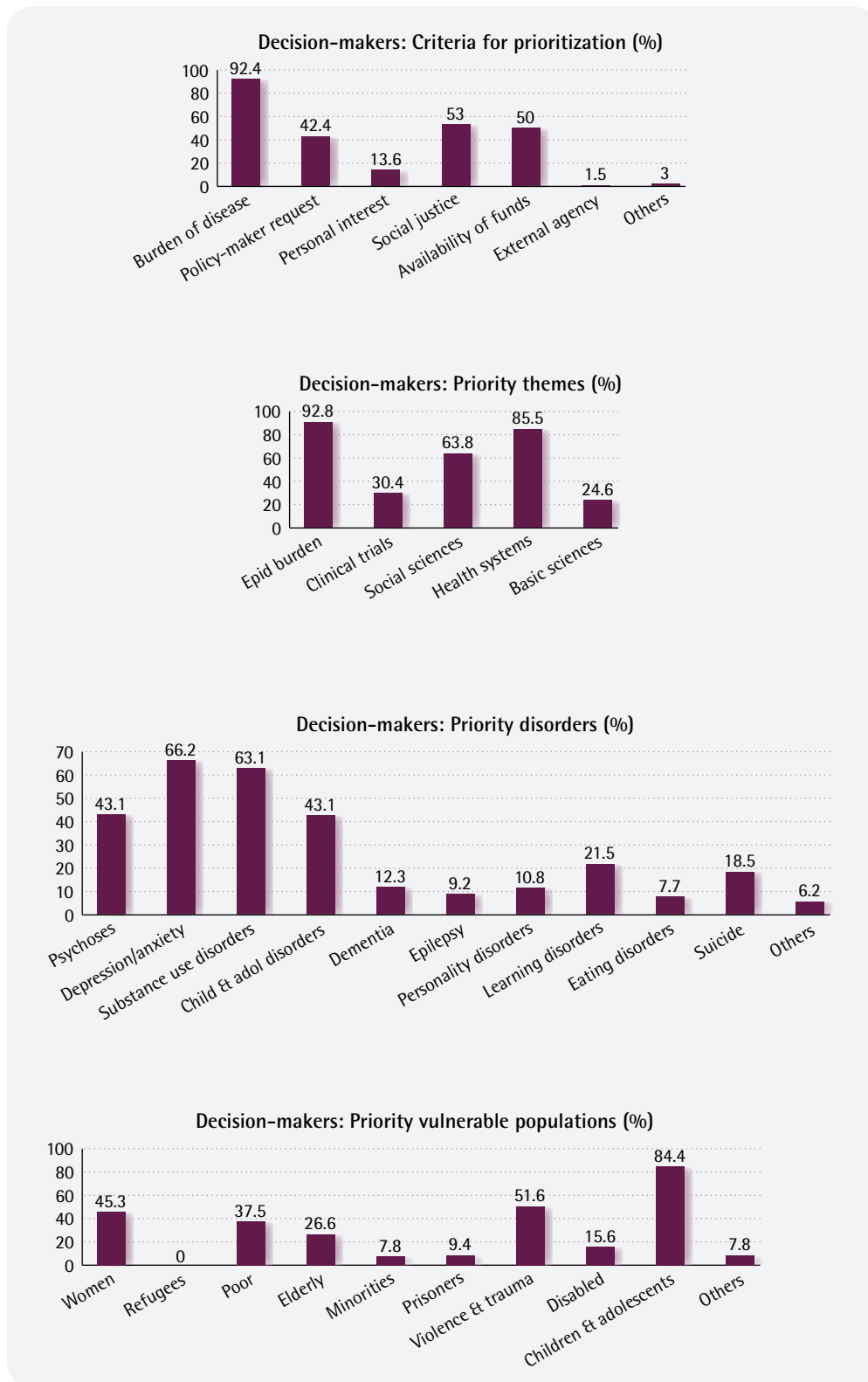
Table 28: Decision-makers' perspective: Research priorities

Criteria	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
	n=14 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=10 (%)	n=6 (%)	n=66 (%)
Burden of disease	14 (100.0)	19 (90.5)	8 (100.0)	5 (71.4)	9 (90.0)	6 (100.0)	61 (92.4)
Policy-maker request	10 (71.4)	7 (33.3)	2 (25.0)	2 (28.6)	5 (50.0)	2 (33.3)	28 (42.4)
Personal interest	3 (21.4)	0 (0.0)	0 (0.0)	3 (42.9)	2 (20.0)	1 (16.7)	9 (13.6)
Social justice	8 (57.1)	19 (90.5)	1 (12.5)	2 (28.6)	2 (20.0)	3 (50.0)	35 (53.0)
Availability of funds	4 (28.6)	16 (76.2)	3 (37.5)	3 (42.9)	4 (40.0)	3 (50.0)	33 (50.0)
External agency	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (10.0)	0 (0.0)	1 (1.5)
Others	1 (7.1)	1 (4.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (3.0)
Theme	n=14 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=12 (%)	n=7 (%)	n=69 (%)
Epid burden	14 (100.0)	19 (90.5)	7 (87.5)	6 (85.7)	11 (91.7)	7 (100.0)	64 (92.8)
Clinical trials	7 (50.0)	6 (28.6)	2 (25.0)	0 (0.0)	4 (33.3)	2 (28.6)	21 (30.4)
Social sciences	7 (50.0)	13 (61.9)	7 (87.5)	6 (85.7)	5 (41.7)	6 (85.7)	44 (63.8)
Health systems	13 (92.9)	18 (85.7)	7 (87.5)	6 (85.7)	9 (75.0)	6 (85.7)	59 (85.5)
Basic sciences	4 (28.6)	7 (33.3)	1 (12.5)	3 (42.9)	2 (16.7)	0 (0.0)	17 (24.6)
Disorder	n=13 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=11 (%)	n=5 (%)	n=65 (%)
Psychoses	7 (53.8)	6 (28.6)	5 (62.5)	4 (57.1)	4 (36.4)	2 (40.0)	28 (43.1)
Depression/anxiety	6 (46.2)	16 (76.2)	7 (87.5)	2 (28.6)	8 (72.7)	4 (80.0)	43 (66.2)
Substance use disorders	7 (53.8)	11 (52.4)	6 (75.0)	6 (85.7)	7 (63.6)	4 (80.0)	41 (63.1)
Child & adol disorders	8 (61.5)	12 (57.1)	2 (25.0)	3 (42.9)	2 (18.2)	1 (20.0)	28 (43.1)
Dementia	0 (0.0)	4 (19.0)	0 (0.0)	3 (42.9)	1 (9.1)	0 (0.0)	8 (12.3)
Epilepsy	1 (7.7)	1 (4.8)	3 (37.5)	0 (0.0)	0 (0.0)	1 (20.0)	6 (9.2)
Personality disorders	2 (15.4)	2 (9.5)	0 (0.0)	1 (14.3)	0 (0.0)	2 (40.0)	7 (10.8)
Learning disorders	3 (23.1)	6 (28.6)	0 (0.0)	2 (28.6)	2 (18.2)	1 (20.0)	14 (21.5)
Eating disorders	2 (15.4)	3 (14.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (7.7)
Suicide	6 (46.2)	0 (0.0)	1 (12.5)	0 (0.0)	5 (45.5)	0 (0.0)	12 (18.5)
Others	1 (7.7)	2 (9.5)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)	4 (6.2)
Vulnerable populations	n=13 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=10 (%)	n=5 (%)	n=64 (%)
Women	5 (38.5)	9 (42.9)	4 (50.0)	4 (57.1)	3 (30.0)	4 (80.0)	29 (45.3)
Refugees	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Poor	4 (30.8)	10 (47.6)	4 (50.0)	3 (42.9)	1 (10.0)	2 (40.0)	24 (37.5)
Elderly	2 (15.4)	5 (23.8)	1 (12.5)	4 (57.1)	4 (40.0)	1 (20.0)	17 (26.6)
Minorities	2 (15.4)	1 (4.8)	0 (0.0)	2 (28.6)	0 (0.0)	0 (0.0)	5 (7.8)
Prisoners	3 (23.1)	0 (0.0)	1 (12.5)	1 (14.3)	0 (0.0)	1 (20.0)	6 (9.4)
Violence & trauma	10 (76.9)	11 (52.4)	3 (37.5)	0 (0.0)	6 (60.0)	3 (60.0)	33 (51.6)
Disabled	1 (7.7)	4 (19.0)	1 (12.5)	2 (28.6)	2 (20.0)	0 (0.0)	10 (15.6)
Children & adolescents	12 (92.3)	17 (81.0)	8 (100.0)	5 (71.4)	9 (90.0)	3 (60.0)	54 (84.4)
Others	0 (0.0)	3 (14.3)	1 (12.5)	0 (0.0)	1 (10.0)	0 (0.0)	5 (7.8)

External agency: Commissioned by external agency. Epid burden: Epidemiological studies of burden and risk factors. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Figure 13: Decision-makers' perspective: Research priorities



External agency: Commissioned by external agency. Epid burden: Epidemiological studies of burden and risk factors. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

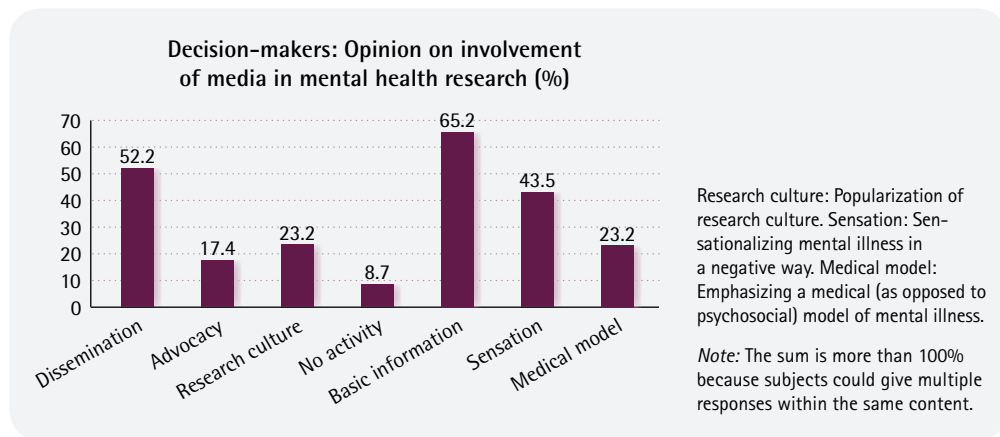
Table 29: Decision-makers' opinion on involvement of national media in mental health research activities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Media	n=13 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=12 (%)	n=7 (%)	n=69 (%)
Dissemination	6 (46.2)	13 (59.1)	5 (62.5)	5 (71.4)	6 (50.0)	1 (14.3)	36 (52.2)
Advocacy	0 (0.0)	2 (9.1)	3 (37.5)	3 (42.9)	3 (25.0)	1 (14.3)	12 (17.4)
Research culture	5 (38.5)	5 (22.7)	2 (25.0)	1 (14.3)	3 (25.0)	0 (0.0)	16 (23.2)
No activity	1 (7.7)	2 (9.1)	1 (12.5)	0 (0.0)	0 (0.0)	2 (28.6)	6 (8.7)
Basic information	5 (38.5)	16 (72.7)	5 (62.5)	6 (85.7)	8 (66.7)	5 (71.4)	45 (65.2)
Sensation	9 (69.2)	10 (45.5)	3 (37.5)	4 (57.1)	4 (33.3)	0 (0.0)	30 (43.5)
Medical model	6 (46.2)	5 (22.7)	0 (0.0)	2 (28.6)	3 (25.0)	0 (0.0)	16 (23.2)

Research culture: Popularization of research culture. Sensation: Sensationalizing mental illness in a negative way. Medical model: Emphasizing a medical (as opposed to psychosocial) model of mental illness.

Note: The sum is more than 100% because subjects could give multiple responses within the same content.

Figure 14: Decision-makers' opinion on involvement of national media in mental health research activities



University administrators' survey

University administrators from 24 of the 114 LMICs (21.1%) responded to the survey. Table 30 shows the country of residence of these respondents. The most responses were received from Brazil and Colombia (12% of all responses, each). Seventy per cent of university administrators who responded were men. The average age of respondents was 49.3 (SD=9.6) years. Respondents from Asia A were younger (average age 45.4 ±8.6 years).

In the presentation of results that follows only the most striking regional differences are highlighted as few responses were obtained from each region. No comments will be made regarding the two African subregions as less than 10 responses were received from each.

More than three quarters of the university administrators reported that their institutions were involved in mental health training, research and services (Table 31). One third of university administrators reported that their institutions also carried out

Countries	n=54	%	Countries	n=38	%
Argentina	2	2.2	Indonesia	5	5.4
Bangladesh	8	8.7	Malaysia	1	1.1
Bolivia	3	3.3	Mexico	3	3.3
Brazil	11	12.0	Nepal	3	3.3
Burundi	1	1.1	Nigeria	2	2.2
Chile	3	3.3	Pakistan	4	4.3
China	8	8.7	Peru	4	4.3
Colombia	11	12.0	Philippines	6	6.5
Ecuador	2	2.2	Republic of Korea	5	5.4
Egypt	2	2.2	South Africa	1	1.1
Fiji	1	1.1	Thailand	3	3.3
India	2	2.2	United Republic of Tanzania	1	1.1

Table 30: Responses from university administrators by country

Table 31: University administrators' institutional profile

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Media	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=85 (%)
Service	13 (92.9)	10 (52.6)	4 (100.0)	2 (66.7)	25 (89.3)	12 (70.6)	66 (77.6)
Advocacy	1 (7.1)	3 (15.8)	1 (25.0)	3 (100.0)	7 (25.0)	5 (29.4)	20 (23.5)
Research	13 (92.9)	15 (78.9)	4 (100.0)	2 (66.7)	23 (82.1)	13 (76.5)	70 (82.4)
Policy	6 (42.9)	7 (36.8)	1 (25.0)	1 (33.3)	10 (35.7)	4 (23.5)	29 (34.1)
Training	13 (92.9)	17 (89.5)	4 (100.0)	1 (33.3)	25 (89.3)	13 (76.5)	73 (85.9)
None	0 (0.0)	0 (0.0)	0 (0.0)	1 (33.3)	1 (3.6)	1 (5.9)	3 (3.5)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	6 (21.4)	3 (17.6)	9 (10.6)

Note: The sum is more than 100% because subjects could give multiple responses.

assignments related to policy formulation or consultancy and one quarter stated that their institutions engaged in advocacy.

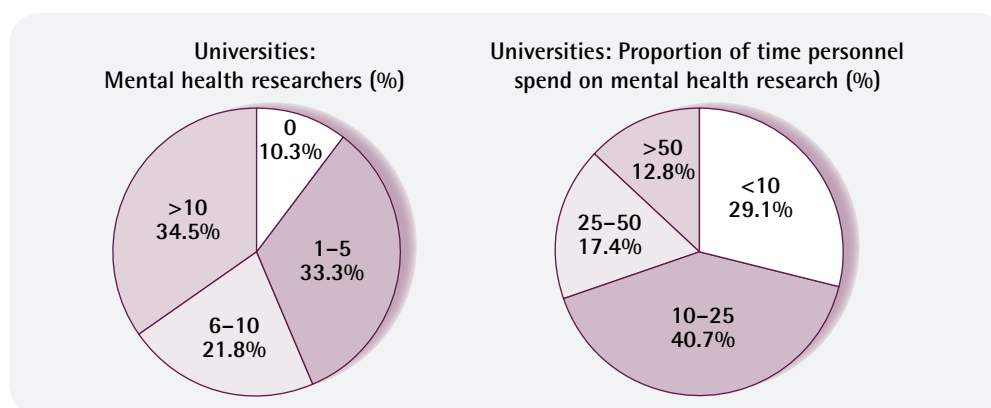
About 10% of university administrators' institutions employed no mental health researchers (Table 32, Figure 15). This was the case for about a quarter of institutions in Latin America B. About one third of institutions had more than 10 mental health researchers. The contrast between Latin America A and Latin America B was sharp in this regard with 71% of institutions in the former and none in the latter subregion having more than 10 mental health researchers. Nearly 70% of mental health researchers in these institutions spent less than 25% of their time in research related activities. Almost one fifth of institutions offered no courses with mental health research as a component. This was the case with nearly half of the institutions in Asia B. On the other hand, almost half of the institutions offered both short courses and degree programmes on mental health research.

Table 32: University-based mental health research resources: Personnel and training courses

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=87 (%)
0	1 (7.1)	5 (23.8)	0 (0.0)	0 (0.0)	1 (3.6)	2 (11.8)	9 (10.3)
1–5	1 (7.1)	7 (33.3)	1 (25.0)	0 (0.0)	9 (32.1)	11 (64.7)	29 (33.3)
6–10	2 (14.3)	9 (42.9)	0 (0.0)	1 (33.3)	5 (17.9)	2 (11.8)	19 (21.8)
>10	10 (71.4)	0 (0.0)	3 (75.0)	2 (66.7)	13 (46.4)	2 (11.8)	30 (34.5)
Work hours	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=86 (%)
<10%	2 (14.3)	4 (20.0)	3 (75.0)	0 (0.0)	8 (28.6)	8 (47.1)	25 (29.1)
10–25%	5 (35.7)	9 (45.0)	1 (25.0)	0 (0.0)	12 (42.9)	8 (47.1)	35 (40.7)
25–50%	5 (35.7)	4 (20.0)	0 (0.0)	2 (66.7)	3 (10.7)	1 (5.9)	15 (17.4)
>50%	2 (14.3)	3 (15.0)	0 (0.0)	1 (33.3)	5 (17.9)	0 (0.0)	11 (12.8)
Courses	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=17 (%)	n=87 (%)
None	2 (14.3)	2 (10.0)	1 (25.0)	0 (0.0)	4 (13.8)	8 (47.1)	17 (19.5)
Short courses	0 (0.0)	7 (35.0)	1 (25.0)	0 (0.0)	5 (17.2)	4 (23.5)	17 (19.5)
Degree programme	2 (14.3)	2 (10.0)	1 (25.0)	2 (66.7)	3 (10.3)	1 (5.9)	11 (12.6)
Both short & degree	10 (71.4)	9 (45.0)	1 (25.0)	1 (33.3)	17 (58.6)	4 (23.5)	42 (48.3)

Both short & degree: Both short courses and degree programmes.

Figure 15: University-based mental health research personnel



One third of university administrators' institutions had access to external funds of less than US\$ 10 000 (equivalent) per year for mental health research (Table 33, Figure 16). Only two fifths of institutions had access to external funds of more than US\$ 100 000 (equivalent) per year. Three quarters of institutions in Asia B had access to external funds of less than US\$ 10 000 dollars (equivalent) per year. In contrast, nearly three quarters of institutions in Asia A had access to external funds of more than US\$ 100 000 (equivalent) per year.

Almost 63% of university administrators' institutions were spending less than US\$ 10 000 (equivalent) of internal funds per year on mental health research. Only

Table 33: University-based mental health research resources: Scale of funding (US\$)

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
External	n=9 (%)	n=15 (%)	n=4 (%)	n=1 (%)	n=15 (%)	n=11 (%)	n=55 (%)
<10 ³	1 (11.1)	3 (20.0)	3 (75.0)	0 (0.0)	0 (0.0)	6 (54.5)	13 (23.6)
10 ³ -10 ⁴	0 (0.0)	1 (6.7)	0 (0.0)	0 (0.0)	3 (20.0)	2 (18.2)	6 (10.9)
10 ⁴ -10 ⁵	3 (33.3)	9 (60.0)	0 (0.0)	0 (0.0)	1 (6.7)	2 (18.2)	15 (27.3)
>10 ⁵	5 (55.6)	2 (13.3)	1 (25.0)	1 (100.0)	11 (73.3)	1 (9.1)	21 (38.2)
Internal	n=6 (%)	n=14 (%)	n=4 (%)	n=1 (%)	n=12 (%)	n=12 (%)	n=49 (%)
<10 ³	2 (33.3)	4 (28.6)	3 (75.0)	0 (0.0)	1 (8.3)	9 (75.0)	19 (38.8)
10 ³ -10 ⁴	2 (33.3)	3 (21.4)	0 (0.0)	1 (100.0)	4 (33.3)	2 (16.7)	12 (24.5)
10 ⁴ -10 ⁵	1 (16.7)	7 (50.0)	1 (25.0)	0 (0.0)	2 (16.7)	1 (8.3)	12 (24.5)
>10 ⁵	1 (16.7)	0 (0.0)	0 (0.0)	0 (0.0)	5 (41.7)	0 (0.0)	6 (12.2)

Scale of funding: <10³: <1000; 10³-10⁴: 1000-10 000; 10⁴-10⁵: 10 000-100 000; >10⁵: >100 000 US\$ equivalent.

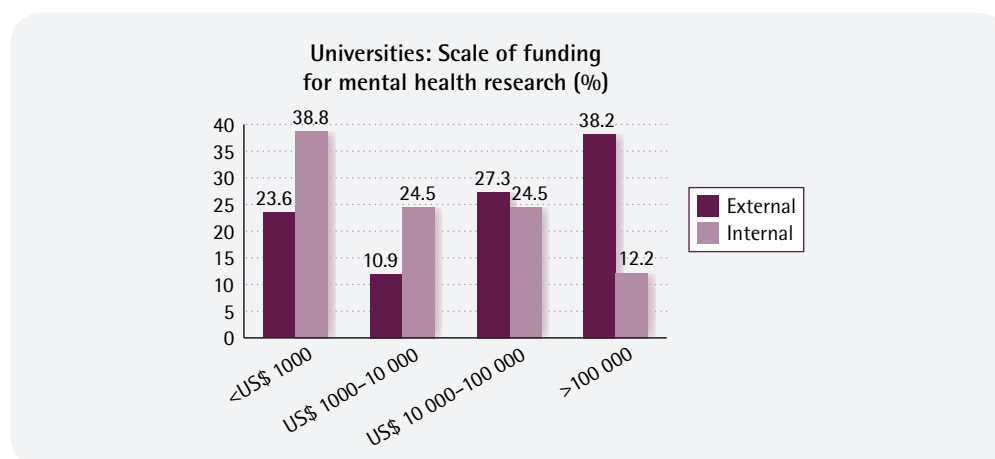


Figure 16: Funding for university-based mental health research (US\$)

12% of institutions were spending more than US\$ 100 000 (equivalent) of internal funds per year. Of institutions in Asia B 92% were spending less than US\$ 10 000 (equivalent) of internal funds per year. In contrast, two fifths of institutions in Asia A were spending more than US\$ 100 000 dollars (equivalent) of internal funds per year on mental health research.

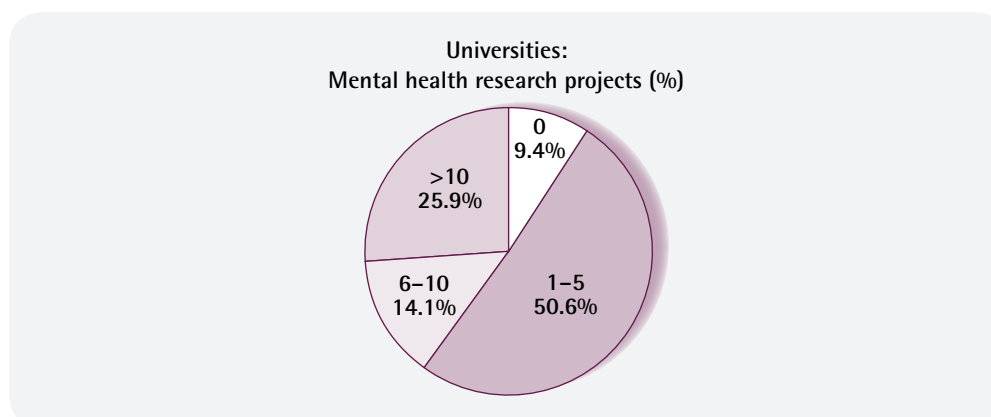
One tenth of university administrators' institutions had no ongoing mental health research projects (Table 34, Figure 17). Only one quarter of institutions had more than 10 ongoing projects. This was the case for almost two thirds of institutions in Latin America A. Two thirds of the university administrators' institutions had ongoing research collaboration with international bodies, agencies or groups and two thirds had such collaboration with community-based groups.

More than one sixth of university administrators' institutions did not have access to the Internet while one third did not have access to pay-for-use Internet resources

Table 34: University-based mental health research resources: Projects and collaboration

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Projects	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=85 (%)
0	1 (7.1)	0 (0.0)	2 (50.0)	1 (33.3)	1 (3.6)	3 (17.6)	8 (9.4)
1-5	4 (28.6)	11 (57.9)	1 (25.0)	0 (0.0)	15 (53.6)	12 (70.6)	43 (50.6)
6-10	0 (0.0)	4 (21.1)	0 (0.0)	2 (66.7)	4 (14.3)	2 (11.8)	12 (14.1)
>10	9 (64.3)	4 (21.1)	1 (25.0)	0 (0.0)	8 (28.6)	0 (0.0)	22 (25.9)
Collaboration	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=87 (%)
International	12 (85.7)	13 (61.9)	2 (50.0)	3 (100.0)	18 (64.3)	11 (64.7)	59 (67.8)
Collaboration	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=7 (%)	n=77 (%)
Community based group	11 (78.6)	10 (47.6)	2 (50.0)	2 (66.7)	22 (78.6)	5 (71.4)	52 (67.5)

Figure 17: University-based mental health research projects



(Table 35). More institutions in Latin America A (79%) and Latin America B (65%) and fewer institutions in Asia B (12%) had access to pay-for-use Internet resources. About 14% of institutions did not have access to any journals (Figure 18). This was the case for twice as many institutions in Asia B (30%), while in Latin America A no institutions were without access to journals. Overall, three fifths of institutions had access to three or fewer national journals, with 96% of institutions in Asia B but only 29% of institutions in Latin America A falling into this category. One fifth of institutions had no access to international journals. This was true for three fifths of institutions in Asia B. On the other hand, nearly half of the institutions had access to more than 10 international journals. Nearly four fifths of institutions in Latin America A, but no institution in Asia B, were in this category.

About 15% of university administrators' institutions did not have access to technical support in epidemiology or biostatistics. A lack of such support was reported by 29% of university administrator respondents from Asia B and by no respondents in Latin America A. Nearly 29% of institutions did not have access to technical support in neurosciences or basic sciences. Lack of such support was reported by 65% and 14% of respondents from Asia B and Latin America A, respectively. One fifth of institutions

Table 35: University-based mental health research resources: Access to literature and technical support

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Access to Internet	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=17 (%)	n=87 (%)
No	2 (14.3)	1 (5.0)	1 (25.0)	1 (33.3)	5 (17.2)	5 (29.4)	15 (17.2)
Free sites	1 (7.1)	6 (30.0)	1 (25.0)	1 (33.3)	9 (31.0)	10 (58.8)	28 (32.2)
Pay-for-use sites	11 (78.6)	13 (65.0)	2 (50.0)	1 (33.3)	15 (51.7)	2 (11.8)	44 (50.6)
Access to nat journals	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=17 (%)	n=87 (%)
No journals	0 (0.0)	2 (10.0)	1 (25.0)	2 (66.7)	2 (6.9)	5 (29.4)	12 (13.8)
1 journal	1 (7.1)	3 (15.0)	0 (0.0)	0 (0.0)	3 (10.3)	9 (52.9)	16 (18.4)
2–3 journals	3 (21.4)	9 (45.0)	2 (50.0)	1 (33.3)	8 (27.6)	2 (11.8)	25 (28.7)
4–10 journals	5 (35.7)	2 (10.0)	1 (25.0)	0 (0.0)	3 (10.3)	1 (5.9)	12 (13.8)
>10 journals	5 (35.7)	4 (20.0)	0 (0.0)	0 (0.0)	13 (44.8)	0 (0.0)	22 (25.3)
Access to int journals	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=86 (%)
No journals	1 (7.1)	1 (5.0)	1 (25.0)	1 (33.3)	2 (7.1)	10 (58.8)	16 (18.6)
1 journal	2 (14.3)	1 (5.0)	1 (25.0)	0 (0.0)	2 (7.1)	1 (5.9)	7 (8.1)
2–3 journals	0 (0.0)	2 (10.0)	1 (25.0)	0 (0.0)	2 (7.1)	4 (23.5)	9 (10.5)
4–10 journals	0 (0.0)	4 (20.0)	0 (0.0)	2 (66.7)	4 (14.3)	2 (11.8)	12 (14.0)
>10 journals	11 (78.6)	12 (60.0)	1 (25.0)	0 (0.0)	18 (64.3)	0 (0.0)	42 (48.8)
Epi/biostat support	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=86 (%)
None	0 (0.0)	3 (15.0)	0 (0.0)	1 (33.3)	4 (14.3)	5 (29.4)	13 (15.1)
In institution	14 (100.0)	17 (85.0)	3 (75.0)	2 (66.7)	20 (71.4)	10 (58.8)	66 (76.7)
Outside institution	0 (0.0)	0 (0.0)	1 (25.0)	0 (0.0)	4 (14.3)	2 (11.8)	7 (8.1)
Neuro/basic sci support	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=86 (%)
None	2 (14.3)	5 (25.0)	1 (25.0)	1 (33.3)	5 (17.9)	11 (64.7)	25 (29.1)
In institution	12 (85.7)	13 (65.0)	2 (50.0)	2 (66.7)	20 (71.4)	4 (23.5)	53 (61.6)
Outside institution	0 (0.0)	2 (10.0)	1 (25.0)	0 (0.0)	3 (10.7)	2 (11.8)	8 (9.3)
Access to ethics RB	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=27 (%)	n=17 (%)	n=85 (%)
None	1 (7.1)	3 (15.0)	2 (50.0)	0 (0.0)	3 (11.1)	9 (52.9)	18 (21.2)
In institution	12 (85.7)	17 (85.0)	2 (50.0)	3 (100.0)	22 (81.5)	8 (47.1)	64 (75.3)
Outside institution	1 (7.1)	0 (0.0)	0 (0.0)	0 (0.0)	2 (7.4)	0 (0.0)	3 (3.5)

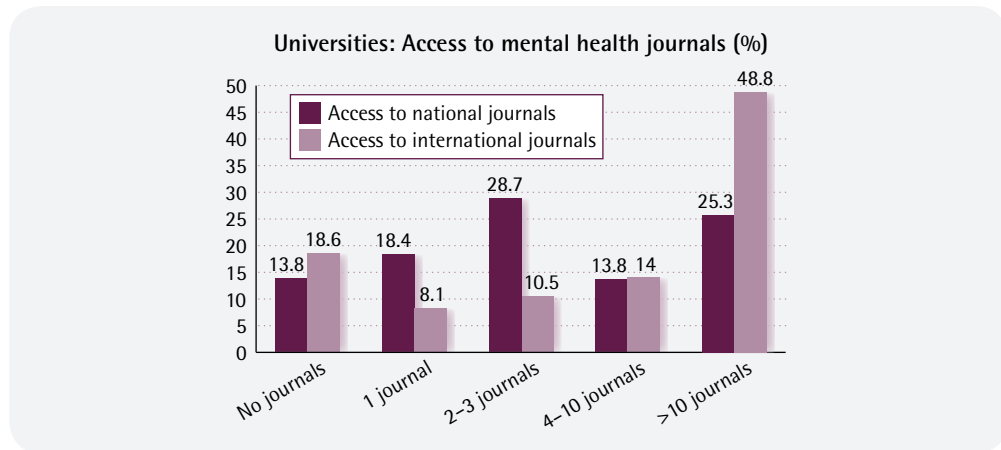
Free sites: Access only to free web sites. Pay-for-use sites: Access to pay-for-use resources. Access to nat journals: Access to national journals. Access to int journals: Access to international journals. Epi/biostat support: Access to technical support in epidemiology and biostatistics. Neuro/basic sci support: Access to technical support in neurosciences, basic sciences. Access to ethics RB: Access to ethics review board.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

did not have access to ethics review boards. This was the case for 53% and 7% of the institutions in Asia B and Latin America A, respectively. Less than 10% of institutions relied on technical or ethical review support from outside the institution.

Nearly three fifths of university administrator respondents stated that they were aware of policy, programme, advocacy, or practice change that has resulted from the

Figure 18: University-based mental health research resources: Access to journals



evidence of mental health research findings obtained in their countries (Table 36). About 78% of respondents from Asia A and 36% from Latin America A were aware of such changes. On the other hand, 44% of respondents were also aware of mental health research findings that should have resulted in such changes but had not been used. Nearly 62% of respondents from Asia A and only 29% from Latin America A were aware of such examples.

University administrators' top three criteria for prioritizing mental health research in LMICs were: burden of disease, social justice and availability of funds (Table 37, Figure 19). University administrators from Asia B considered personal interest of researchers to be an important criterion in deciding research priorities.

The top three priority themes, disorders and populations listed by university administrators were:

Theme: epidemiological studies of burden and risk factors, health systems research, social science research;

Disorder: depression/anxiety, substance use disorders, mental disorders with onset in children and adolescents;

Vulnerable populations: children and adolescents, women, elderly.

Table 36: University administrators' awareness of mental health research impact

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Impact	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=27 (%)	n=17 (%)	n=86 (%)
No	9 (64.3)	8 (38.1)	2 (50.0)	0 (0.0)	6 (22.2)	9 (52.9)	34 (39.5)
Yes	5 (35.7)	11 (52.4)	2 (50.0)	3 (100.0)	21 (77.8)	8 (47.1)	50 (58.1)
Don't know	0 (0.0)	2 (9.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.3)
No impact	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=26 (%)	n=16 (%)	n=84 (%)
No	10 (71.4)	5 (23.8)	3 (75.0)	1 (33.3)	10 (38.5)	9 (56.3)	38 (45.2)
Yes	4 (28.6)	7 (33.3)	1 (25.0)	2 (66.7)	16 (61.5)	7 (43.8)	37 (44.0)
Don't know	0 (0.0)	9 (42.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	9 (10.7)

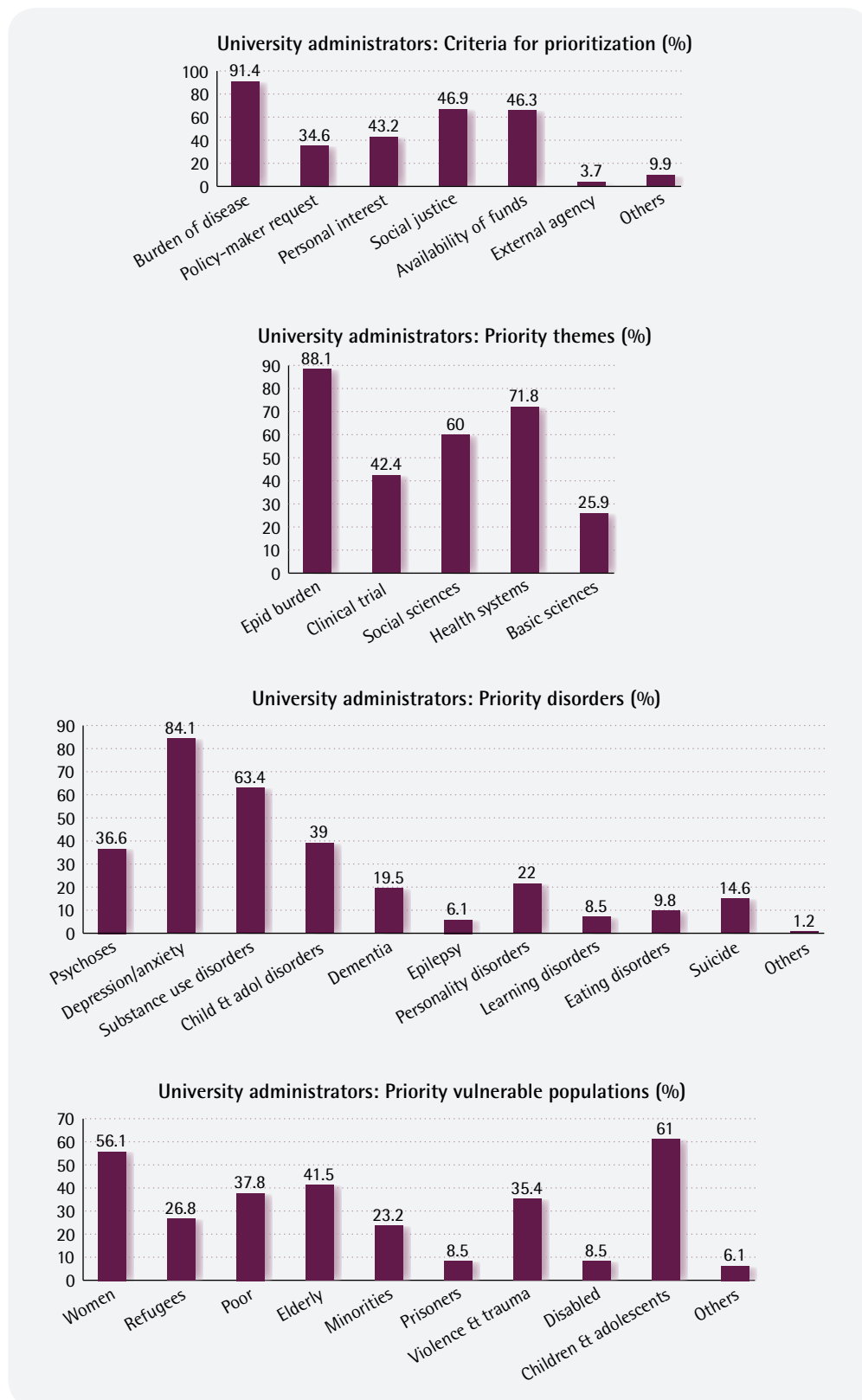
Table 37: University administrators' perspective: Research priorities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Criteria	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=13 (%)	n=81 (%)
Burden of disease	14 (100.0)	17 (89.5)	3 (75.0)	3 (100.0)	24 (85.7)	13 (100.0)	74 (91.4)
Policy-maker request	6 (42.9)	4 (21.1)	1 (25.0)	2 (66.7)	11 (39.3)	4 (30.8)	28 (34.6)
Personal interest	7 (50.0)	2 (10.5)	3 (75.0)	2 (66.7)	12 (42.9)	9 (69.2)	35 (43.2)
Social justice	10 (71.4)	15 (78.9)	0 (0.0)	0 (0.0)	8 (28.6)	5 (38.5)	38 (46.9)
Availability of funds	7 (50.0)	6 (31.6)	2 (50.0)	3 (100.0)	12 (42.9)	7 (58.3)	37 (46.3)
External agency	2 (14.3)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.6)	0 (0.0)	3 (3.7)
Others	1 (7.1)	6 (31.6)	1 (25.0)	0 (0.0)	0 (0.0)	0 (0.0)	8 (9.9)
Theme	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=14 (%)	n=85 (%)
Epid burden	14 (100.0)	19 (90.5)	3 (75.0)	3 (100.0)	22 (75.9)	13 (92.9)	74 (88.1)
Clinical trials	5 (35.7)	12 (57.1)	2 (50.0)	0 (0.0)	9 (31.0)	8 (57.1)	36 (42.4)
Social sciences	8 (57.1)	8 (38.1)	2 (50.0)	3 (100.0)	20 (69.0)	10 (71.4)	51 (60.0)
Health systems	12 (85.7)	10 (47.6)	2 (50.0)	3 (100.0)	23 (79.3)	11 (78.6)	61 (71.8)
Basic sciences	6 (42.9)	8 (38.1)	1 (25.0)	0 (0.0)	7 (24.1)	0 (0.0)	22 (25.9)
Disorder	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=14 (%)	n=82 (%)
Psychoses	6 (42.9)	6 (31.6)	1 (25.0)	0 (0.0)	12 (42.9)	5 (35.7)	30 (36.6)
Depression/anxiety	13 (92.9)	16 (84.2)	3 (75.0)	1 (33.3)	22 (78.6)	14 (100.0)	69 (84.1)
Substance use disorders	9 (64.3)	11 (57.9)	2 (50.0)	3 (100.0)	17 (60.7)	10 (71.4)	52 (63.4)
Child & adol disorders	8 (57.1)	4 (21.1)	2 (50.0)	0 (0.0)	12 (42.9)	6 (42.9)	32 (39.0)
Dementia	5 (35.7)	3 (15.8)	0 (0.0)	2 (66.7)	4 (14.3)	2 (14.3)	16 (19.5)
Epilepsy	3 (21.4)	0 (0.0)	1 (25.0)	0 (0.0)	0 (0.0)	1 (7.1)	5 (6.1)
Personality disorders	4 (28.6)	7 (36.8)	1 (25.0)	3 (100.0)	2 (7.1)	1 (7.1)	18 (22.0)
Learning disorders	4 (28.6)	0 (0.0)	0 (0.0)	0 (0.0)	2 (7.1)	1 (7.1)	7 (8.5)
Eating disorders	2 (14.3)	6 (31.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	8 (9.8)
Suicide	4 (28.6)	0 (0.0)	0 (0.0)	0 (0.0)	6 (21.4)	2 (14.3)	12 (14.6)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.6)	0 (0.0)	1 (1.2)
Vulnerable populations	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=13 (%)	n=82 (%)
Women	8 (57.1)	7 (36.8)	2 (50.0)	3 (100.0)	17 (58.6)	9 (69.2)	46 (56.1)
Refugees	2 (14.3)	15 (78.9)	1 (25.0)	0 (0.0)	3 (10.3)	1 (7.7)	22 (26.8)
Poor	10 (71.4)	1 (5.3)	1 (25.0)	3 (100.0)	8 (27.6)	8 (61.5)	31 (37.8)
Elderly	8 (57.1)	3 (15.8)	0 (0.0)	0 (0.0)	16 (55.2)	7 (53.8)	34 (41.5)
Minorities	2 (14.3)	14 (73.7)	0 (0.0)	1 (33.3)	2 (6.9)	0 (0.0)	19 (23.2)
Prisoners	2 (14.3)	3 (15.8)	0 (0.0)	1 (33.3)	1 (3.4)	0 (0.0)	7 (8.5)
Violence & trauma	9 (64.3)	0 (0.0)	3 (75.0)	0 (0.0)	13 (44.8)	4 (30.8)	29 (35.4)
Disabled	2 (14.3)	4 (21.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (7.7)	7 (8.5)
Children & adolescents	12 (85.7)	4 (21.1)	3 (75.0)	1 (33.3)	21 (72.4)	9 (69.2)	50 (61.0)
Others	0 (0.0)	4 (21.1)	0 (0.0)	0 (0.0)	1 (3.4)	0 (0.0)	5 (6.1)

External agency: Commissioned by external agency. Epid burden: Epidemiological studies of burden and risk factors. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Figure 19: University administrators' perspective: Research priorities



External agency: Commissioned by external agency. Epid burden: Epidemiological studies of burden and risk factors. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

University administrators in Latin America B considered clinical trials to be among priority themes, personality disorders to be among priority disorders, and refugees and minorities to be among priority populations for mental health research. University administrators in Latin America A considered the poor and persons exposed to violence and trauma to be among priority populations for mental health research, while those in Asia B included the poor among the top three priority populations.

Of university administrator respondents 6% claimed that there was no involvement of the national media in mental health research activities (Table 38, Figure 20). Nearly three fifths of university administrators felt that the media reported basic information about delivery of health services or helped in dissemination of research results, and more than one third of university administrators felt that the national media played a constructive role in popularization of research culture and advocacy for implementation of research findings. On the other hand, one third of university administrators also felt that the national media often sensationalized mental illness in a negative way and about 17% felt that the media overemphasized a medical (as opposed to psychosocial) model of mental illness. Respondents from Asia B differed from university administrators elsewhere in that one sixth of them noted that the

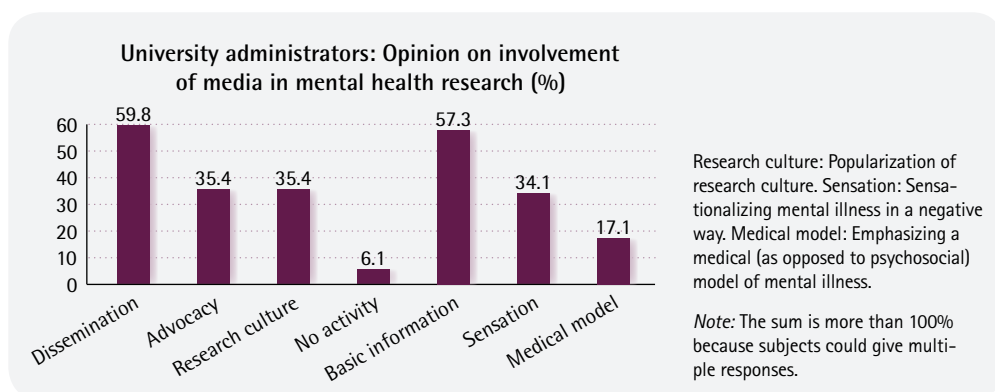
Table 38: University administrators' opinion on involvement of national media in mental health research activities

	REGION					Total n=82 (%)
	Latin America A n=14 (%)	Latin America B n=21 (%)	Africa B n=3 (%)	Asia A n=27 (%)	Asia B n=17 (%)	
Dissemination	9 (64.3)	15 (71.4)	3 (100.0)	18 (66.7)	4 (23.5)	49 (59.8)
Advocacy	1 (7.1)	7 (33.3)	1 (33.3)	15 (55.6)	5 (29.4)	29 (35.4)
Research culture	5 (35.7)	9 (42.9)	1 (33.3)	11 (40.7)	3 (17.6)	29 (35.4)
No activity	0 (0.0)	1 (4.8)	0 (0.0)	1 (3.7)	3 (17.6)	5 (6.1)
Basic information	7 (50.0)	10 (47.6)	0 (0.0)	16 (59.3)	14 (82.4)	47 (57.3)
Sensation	6 (42.9)	10 (47.6)	0 (0.0)	9 (33.3)	3 (17.6)	28 (34.1)
Medical Model	4 (28.6)	3 (14.3)	1 (33.3)	3 (11.1)	3 (17.6)	14 (17.1)

Research culture: Popularization of research culture. Sensation: Sensationalizing mental illness in a negative way. Medical model: Emphasizing a medical (as opposed to psychosocial) model of mental illness.

Note: The sum is more than 100% because subjects could give multiple responses within the same content.

Figure 20: University administrators' opinion on involvement of national media in mental health research activities



national media had no involvement in mental health research activities; four fifths felt that the national media reported basic information on mental health but only about a quarter felt that the media was disseminating mental health research findings. Only one sixth felt that the national media was popularizing a research culture while one sixth felt that the national media was sensationalizing mental illness in a negative way. Relatively more respondents from Asia A (56%) and fewer respondents from Latin America A (7%) in comparison to other regions felt that their national media engaged in advocacy for implementation of research findings.

Association officers' survey

Association officers from 37 of 114 LMICs (32.5%) responded to the survey. Table 39 shows the country of residence of the association officer respondents. The most responses were received from the Philippines (18%) and India (17%). In the presentation of results that follows only the most striking regional differences are highlighted as few responses were obtained from each region. No comments will be made regarding Africa B as less than five responses were received from this subregion.

More than half of the officers stated that their association supported users of mental health care services; about a quarter stated that their association carried out mental health advocacy and about two fifths stated that their association was involved in mental

Table 39: Responses from association officers by country

Country	n=88	%	Country	n=80	%
Angola	1	0.6	Micronesia	1	0.6
Argentina	8	4.8	Nepal	7	4.2
Belize	1	0.6	Nicaragua	1	0.6
Bolivia	2	1.2	Nigeria	2	1.2
Botswana	1	0.6	Pakistan	3	1.8
Brazil	16	9.5	Panama	1	0.6
Cambodia	1	0.6	Peru	1	0.6
China	12	7.1	Philippines	30	17.9
Costa Rica	2	1.2	Republic of Korea	3	1.8
Cuba	1	0.6	Samoa	1	0.6
El Salvador	1	0.6	South Africa	4	2.4
Fiji	3	1.8	Sri Lanka	9	5.4
Guatemala	1	0.6	Swaziland	1	0.6
Honduras	1	0.6	Thailand	8	4.8
India	28	16.7	Uruguay	1	0.6
Indonesia	5	3	Venezuela	1	0.6
Malawi	2	1.2	Viet Nam	4	2.4
Malaysia	1	0.6	Zambia	2	1.2
Mexico	1	0.6			

Table 40: Profile of associations

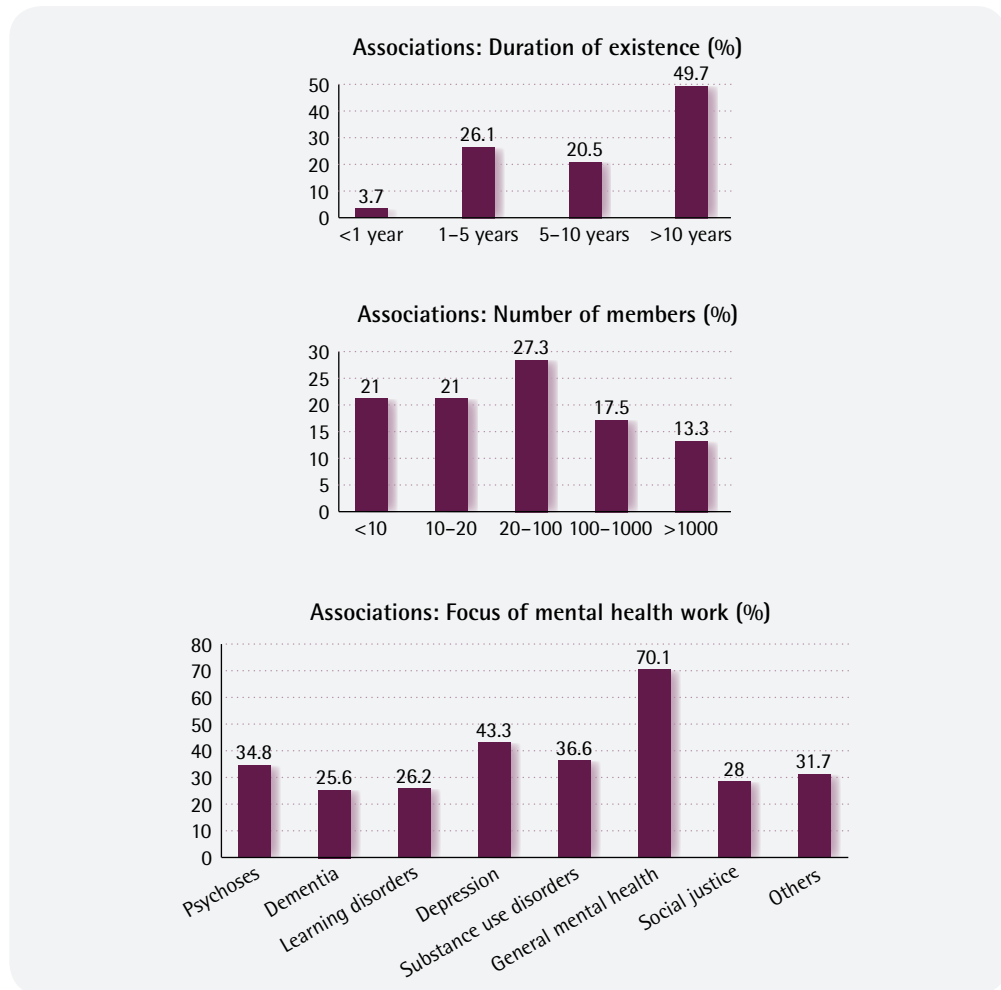
	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Type of group	n=18 (%)	n=17 (%)	n=9 (%)	n=2 (%)	n=69 (%)	n=41 (%)	n=158 (%)
Support	7 (38.9)	12 (70.6)	7 (77.8)	2 (100.0)	31 (44.9)	23 (56.1)	82 (51.9)
Advocacy	3 (16.7)	1 (5.9)	2 (22.2)	0 (0.0)	23 (33.3)	14 (34.1)	43 (27.2)
Research	8 (44.4)	4 (23.5)	0 (0.0)	0 (0.0)	28 (40.6)	23 (56.1)	63 (39.9)
Duration of existence	n=22 (%)	n=17 (%)	n=11 (%)	n=2 (%)	n=68 (%)	n=41 (%)	n=161 (%)
<1 year	0 (0.0)	3 (17.6)	0 (0.0)	0 (0.0)	1 (1.5)	2 (4.9)	6 (3.7)
1–5 years	6 (27.3)	4 (23.5)	3 (27.3)	1 (50.0)	17 (25.0)	11 (26.8)	42 (26.1)
5–10 years	5 (22.7)	3 (17.6)	4 (36.4)	0 (0.0)	13 (19.1)	8 (19.5)	33 (20.5)
>10 years	11 (50.0)	7 (41.2)	4 (36.4)	1 (50.0)	37 (54.4)	20 (48.8)	80 (49.7)
Number of members	n=22 (%)	n=16 (%)	n=10 (%)	n=2 (%)	n=62 (%)	n=31 (%)	n=143 (%)
<10	2 (9.1)	9 (56.3)	1 (10.0)	0 (0.0)	13 (21.0)	5 (16.1)	30 (21.0)
10–20	6 (27.3)	2 (12.5)	0 (0.0)	0 (0.0)	13 (21.0)	9 (29.0)	30 (21.0)
20–100	9 (40.9)	3 (18.8)	1 (10.0)	2 (100.0)	13 (21.0)	11 (35.5)	39 (27.3)
100–1000	3 (13.6)	2 (12.5)	6 (60.0)	0 (0.0)	11 (17.7)	3 (9.7)	25 (17.5)
>1000	2 (9.1)	0 (0.0)	2 (20.0)	0 (0.0)	12 (19.4)	3 (9.7)	19 (13.3)
Focus of work	n=22 (%)	n=17 (%)	n=11 (%)	n=2 (%)	n=67 (%)	n=45 (%)	n=164 (%)
Psychoses	4 (18.2)	5 (29.4)	3 (27.3)	1 (50.0)	26 (38.8)	18 (40.0)	57 (34.8)
Dementia	4 (18.2)	2 (11.8)	2 (18.2)	0 (0.0)	19 (28.4)	15 (33.3)	42 (25.6)
Learning disorders	2 (9.1)	4 (23.5)	4 (36.4)	1 (50.0)	19 (28.4)	13 (28.9)	43 (26.2)
Depression	4 (18.2)	7 (41.2)	5 (45.5)	0 (0.0)	34 (50.7)	21 (46.7)	71 (43.3)
Substance use disorders	3 (13.6)	6 (35.3)	3 (27.3)	2 (100.0)	26 (38.8)	20 (44.4)	60 (36.6)
General mental health	9 (40.9)	10 (58.8)	8 (72.7)	1 (50.0)	52 (77.6)	35 (77.8)	115 (70.1)
Social justice	6 (27.3)	6 (35.3)	7 (63.6)	2 (100.0)	12 (17.9)	19 (42.2)	46 (28.0)
Others	10 (45.5)	6 (37.5)	5 (45.5)	1 (50.0)	13 (19.4)	21 (46.7)	52 (31.7)

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

health research (Table 40, Figure 21). Nearly 71% of respondents from Latin America B reported that their association supported users, 6% stated that their association carried out mental health advocacy and 24% stated that their association was involved in mental health research. In comparison, none of the respondents in Africa A stated that their association was involved in mental health research, although 56% of respondents in Asia B stated that their association was involved in research pursuits.

More than 50% of respondents stated that their associations had been in existence for less than 10 years. Two fifths of associations were small in terms of membership (<20 members), while 13% were large (>1000 members). Yet only 10% of associations in Africa A were small, whereas 69% of associations in Latin America B had less than

Figure 21: Profile of associations



Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

20 members. None of the associations in Latin America B, however, had more than 1000 members.

Of respondents 70% stated that their association's focus was the entire field of mental health. Between 25.6% and 43.3% of respondents stated that their associations targeted specific issues within this field. Relatively fewer respondents from Latin America A reported that their associations focused on mental health issues in general (41%), psychoses (18%), learning disorders (9%), depression (18%), and substance use disorders (14%). Almost two thirds of respondents from Africa A reported that their associations targeted issues related to social justice concerning people perceived as having a mental health problem.

Of respondents 71% felt that mental health research activities were very relevant and 23% felt that they were moderately relevant for their associations (Table 41, Figure 22). Only 4% of respondents reported that their associations were not involved in any mental health research activity. Between 39% and 54% of respondents stated that their associations were involved in providing consultation for, facilitating subject participation in, designing, interpreting/disseminating and directly conducting mental health research. One fifth of respondents reported that their associations were also involved in ethical review of mental health research protocols. Nearly three quarters of the respondents from Africa A reported that their associations were involved in providing consultation for mental health research. Only about a quarter

Table 41: Involvement of associations in mental health research

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Relevance	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=65 (%)	n=45 (%)	n=160 (%)
Very	21 (95.5)	12 (80.0)	9 (81.8)	1 (50.0)	43 (66.2)	28 (62.2)	114 (71.3)
Moderate	1 (4.5)	1 (6.7)	2 (18.2)	0 (0.0)	20 (30.8)	13 (28.9)	37 (23.1)
Not at all	0 (0.0)	1 (6.7)	0 (0.0)	1 (50.0)	1 (1.5)	3 (6.7)	6 (3.8)
Don't know	0 (0.0)	1 (6.7)	0 (0.0)	0 (0.0)	1 (1.5)	1 (2.2)	3 (1.9)
Activities	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=69 (%)	n=45 (%)	n=164 (%)
None	3 (13.6)	2 (13.3)	2 (18.2)	0 (0.0)	2 (2.9)	3 (6.7)	12 (7.3)
Consultation	7 (31.8)	7 (46.7)	8 (72.7)	1 (50.0)	25 (36.2)	16 (35.6)	64 (39.0)
Subjects	5 (22.7)	7 (46.7)	4 (36.4)	1 (50.0)	38 (55.1)	16 (35.6)	71 (43.3)
Research design	7 (31.8)	4 (26.7)	5 (45.5)	0 (0.0)	32 (46.4)	21 (46.7)	69 (42.1)
Interp/dissem	5 (22.7)	3 (20.0)	5 (45.5)	0 (0.0)	28 (40.6)	21 (46.7)	62 (37.8)
Conduction of research	13 (59.1)	6 (40.0)	5 (45.5)	1 (50.0)	39 (56.5)	25 (55.6)	89 (54.3)
Ethical review	4 (18.2)	0 (0.0)	2 (18.2)	0 (0.0)	12 (17.4)	13 (28.9)	31 (18.9)
Others	2 (9.1)	1 (6.7)	2 (18.2)	0 (0.0)	1 (1.4)	14 (31.1)	20 (12.2)
Implementation	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=66 (%)	n=45 (%)	n=161 (%)
No	7 (31.8)	6 (40.0)	3 (27.3)	1 (50.0)	24 (36.4)	12 (26.7)	53 (32.9)
Yes	15 (68.2)	6 (40.0)	8 (72.7)	1 (50.0)	39 (59.1)	32 (71.1)	101 (62.7)
Don't know	0 (0.0)	3 (20.0)	0 (0.0)	0 (0.0)	3 (4.5)	1 (2.2)	7 (4.3)
Method used to implement	n=22 (%)	n=6 (%)	n=11 (%)	n=2 (%)	n=37 (%)	n=33 (%)	n=120 (%)
Advocacy	5 (22.7)	0 (0.0)	6 (54.5)	1 (50.0)	31 (83.8)	26 (78.8)	69 (57.5)
Lobbying policy-makers	5 (22.7)	3 (50.0)	7 (63.6)	1 (50.0)	13 (35.1)	21 (63.6)	50 (41.7)
Fundraising	4 (18.2)	1 (16.7)	4 (36.4)	1 (50.0)	13 (35.1)	12 (36.4)	35 (29.2)
Others	7 (31.8)	3 (50.0)	2 (18.2)	0 (0.0)	4 (10.8)	12 (36.4)	28 (23.4)

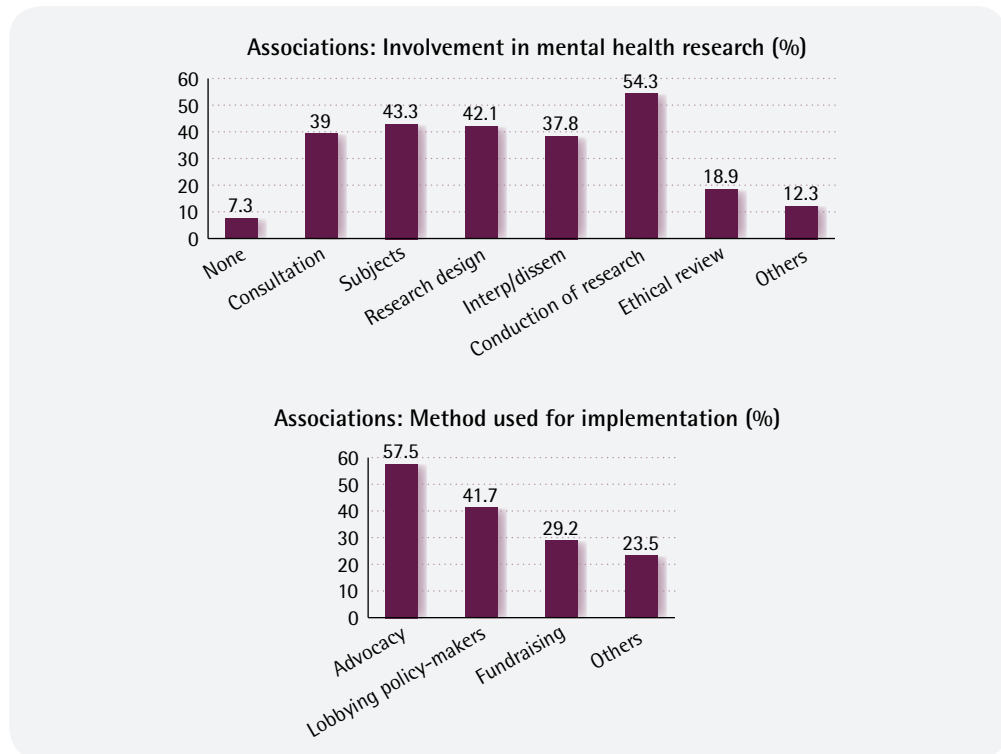
Interp/dissem: Interpretation/dissemination.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

of respondents from Latin America A reported that their associations facilitated the participation of subjects in or were involved in interpretation/dissemination of mental health research. Similarly, 20% to 27% of respondents from Latin America B reported that their associations were involved in designing or interpreting/disseminating mental health research. None of the respondents from Latin America B reported the involvement of their association in the ethical review process.

More than three fifths of respondents stated that their associations had been involved in activities aimed at ensuring the implementation of mental health research findings. However, only two fifths of respondents from Latin America B reported such involvement. Respondents reported that their associations used the following methods to ensure implementation of mental health research findings: advocacy (58%), lobbying policy-

Figure 22: Involvement of associations in mental health research



Interp/dissem:
Interpretation/dissemination.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

makers (42%) and raising funds (29%). While four fifths of respondents from Asia A and Asia B reported that their associations engaged in advocacy, only about a quarter of respondents from Latin America A made this assertion. Similarly, while 64% of respondents from Africa A and Asia B reported that their associations engaged in lobbying policy-makers, only 23% of respondents from Latin America A made this assertion.

Two thirds or more of respondents suggested that dissemination of research findings (70%), planning (62%), and conducting mental health research (62%) were appropriate areas for involvement of associations in mental health research (Table 42). Of respondents 55% and 49%, respectively, felt that associations should also participate in implementation of research findings and priority setting. One third or less of respondents suggested that associations should be involved in facilitation of subject participation, ethical aspects and fundraising. A greater number of respondents from Africa A supported the involvement of associations in priority setting (70%), planning (80%), implementation (90%), dissemination (90%), and conduction (80%) of mental health research in comparison to other regions. Fewer respondents from Latin America B felt that associations should be involved in implementation (40%) and conduction (26.7%) of research than respondents from other regions.

Half of association officer respondents stated that they were aware of policy, programme, advocacy or practice change that has resulted from the evidence of mental health research findings obtained in their countries (Table 43). About 64% of respondents from Africa A and 27% of respondents from Latin America B were aware of such changes. On the other hand, 43% of respondents were also aware of mental health research findings that should have resulted in such changes but had not been used. Nearly 57% of respondents from Asia B were aware of such examples.

Association officers' top three criteria for prioritizing mental health research in LMICs were: burden of disease, social justice and availability of funds (Table 44, Figure 23).

Table 42: Possible areas of involvement of associations in mental health research activities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
	n=22 (%)	n=15 (%)	n=10 (%)	n=2 (%)	n=66 (%)	n=44 (%)	n=159 (%)
Priority setting	13 (59.1)	9 (60.0)	7 (70.0)	1 (50.0)	23 (34.8)	25 (56.8)	78 (49.1)
Planning	11 (50.0)	8 (53.3)	8 (80.0)	1 (50.0)	40 (60.6)	31 (70.5)	99 (62.3)
Subjects	7 (31.8)	6 (40.0)	4 (40.0)	1 (50.0)	19 (28.8)	17 (38.6)	54 (34.0)
Implementation	16 (72.7)	6 (40.0)	9 (90.0)	1 (50.0)	29 (43.9)	27 (61.4)	88 (55.3)
Dissemination	16 (72.7)	11 (73.3)	9 (90.0)	1 (50.0)	42 (63.6)	32 (72.7)	111 (69.8)
Fundraising	5 (22.7)	2 (13.3)	3 (30.0)	2 (100.0)	11 (16.7)	11 (25.0)	34 (21.4)
Conduction of research	13 (59.1)	4 (26.7)	8 (80.0)	1 (50.0)	43 (65.2)	30 (68.2)	99 (62.3)
Ethical review	8 (36.4)	4 (26.7)	5 (50.0)	0 (0.0)	13 (19.7)	19 (43.2)	49 (30.8)
Others	1 (4.5)	1 (6.7)	0 (0.0)	0 (0.0)	0 (0.0)	7 (15.9)	9 (5.7)

Note: The sum is more than 100% because subjects could give multiple responses.

Table 43: Association officers' awareness of mental health research impact

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Impact	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=67 (%)	n=46 (%)	n=163 (%)
No	9 (40.9)	6 (40.0)	1 (9.1)	0 (0.0)	8 (11.9)	11 (23.9)	35 (21.5)
Yes	11 (50.0)	4 (26.7)	7 (63.6)	0 (0.0)	36 (53.7)	27 (58.7)	85 (52.1)
Don't know	2 (9.1)	5 (33.3)	3 (27.3)	2 (100.0)	23 (34.3)	8 (17.4)	43 (26.4)
No impact	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=66 (%)	n=46 (%)	n=162 (%)
No	8 (36.4)	3 (20.0)	3 (27.3)	1 (50.0)	15 (22.7)	15 (32.6)	45 (27.8)
Yes	11 (50.0)	6 (40.0)	5 (45.5)	0 (0.0)	21 (31.8)	26 (56.5)	69 (42.6)
Don't know	3 (13.6)	6 (40.0)	3 (27.3)	1 (50.0)	30 (45.5)	5 (10.9)	48 (29.6)

Association officers from Latin America A and Asia A considered the criterion of policy-makers' request to be important in deciding research priorities. Association officers from Asia B considered personal interest of researchers to be an important criterion for deciding research priorities.

The top three priority themes, disorders and populations listed by association officers were:

Theme: epidemiological studies of burden and risk factors, health systems research, social science research;

Disorder: depression/anxiety, substance use disorders, psychoses;

Vulnerable populations: children and adolescents, persons exposed to violence and trauma, poor.

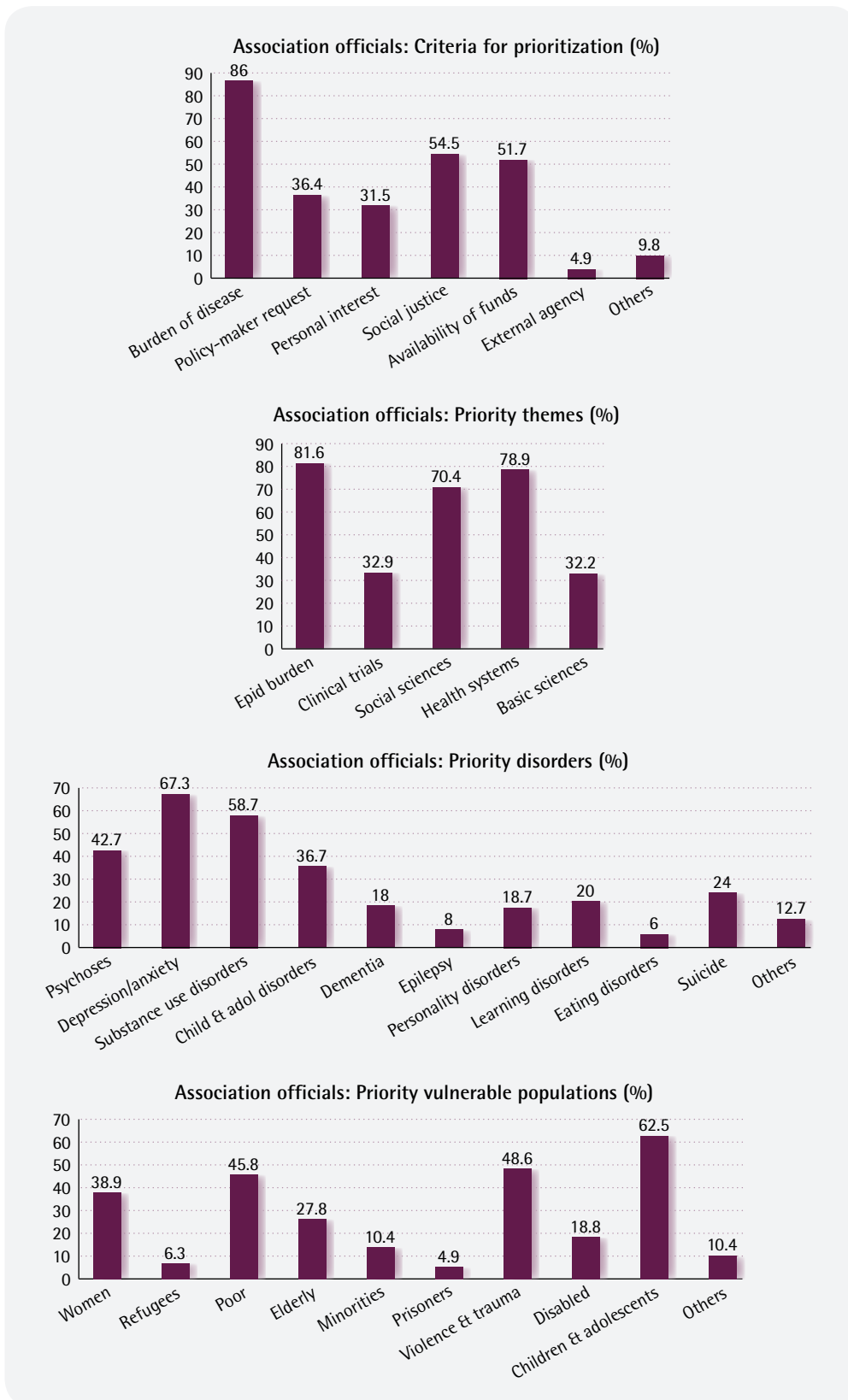
Table 44: Association officers' perspective: Research priorities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Criteria	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=65 (%)	n=30 (%)	n=143 (%)
Burden of disease	19 (90.5)	11 (78.6)	10 (90.9)	1 (50.0)	52 (80.0)	30 (100.0)	123 (86.0)
Policy-maker request	10 (47.6)	5 (35.7)	1 (9.1)	0 (0.0)	25 (38.5)	11 (36.7)	52 (36.4)
Personal interest	4 (19.0)	2 (14.3)	2 (18.2)	1 (50.0)	24 (36.9)	12 (40.0)	45 (31.5)
Social justice	14 (66.7)	10 (71.4)	9 (81.8)	1 (50.0)	24 (36.9)	20 (66.7)	78 (54.5)
Availability of funds	8 (38.1)	8 (57.1)	5 (45.5)	2 (100.0)	41 (63.1)	10 (33.3)	74 (51.7)
External agency	3 (14.3)	1 (7.1)	0 (0.0)	1 (50.0)	2 (3.1)	0 (0.0)	7 (4.9)
Others	3 (14.3)	2 (14.3)	2 (18.2)	0 (0.0)	3 (4.6)	4 (13.3)	14 (9.8)
Theme	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=69 (%)	n=35 (%)	n=152 (%)
Epid burden	18 (85.7)	13 (92.9)	8 (72.7)	2 (100.0)	55 (79.7)	28 (80.0)	124 (81.6)
Clinical trial	8 (38.1)	4 (28.6)	5 (45.5)	0 (0.0)	24 (34.8)	9 (25.7)	50 (32.9)
Social sciences	13 (61.9)	9 (64.3)	10 (90.9)	2 (100.0)	43 (62.3)	30 (85.7)	107 (70.4)
Health systems	21 (100.0)	12 (85.7)	8 (72.7)	2 (100.0)	47 (68.1)	30 (85.7)	120 (78.9)
Basic sciences	12 (57.1)	3 (21.4)	2 (18.2)	0 (0.0)	24 (34.8)	8 (22.9)	49 (32.2)
Disorder	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=69 (%)	n=33 (%)	n=150 (%)
Psychoses	14 (66.7)	6 (42.9)	5 (45.5)	2 (100.0)	28 (40.6)	9 (27.3)	64 (42.7)
Depression/anxiety	14 (66.7)	10 (71.4)	6 (54.5)	0 (0.0)	49 (71.0)	22 (66.7)	101 (67.3)
Substance use disorders	11 (52.4)	12 (85.7)	6 (54.5)	2 (100.0)	42 (60.9)	15 (45.5)	88 (58.7)
Child & adol disorders	11 (52.4)	3 (21.4)	3 (27.3)	0 (0.0)	21 (30.4)	17 (51.5)	55 (36.7)
Dementia	6 (28.6)	1 (7.1)	2 (18.2)	0 (0.0)	15 (21.7)	3 (9.1)	27 (18.0)
Epilepsy	5 (23.8)	0 (0.0)	1 (9.1)	1 (50.0)	4 (5.8)	1 (3.0)	12 (8.0)
Personality disorders	6 (28.6)	5 (35.7)	2 (18.2)	0 (0.0)	11 (15.9)	4 (12.1)	28 (18.7)
Learning disorders	7 (33.3)	3 (21.4)	2 (18.2)	0 (0.0)	14 (20.3)	4 (12.1)	30 (20.0)
Eating disorders	6 (28.6)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.4)	2 (6.1)	9 (6.0)
Suicide	11 (52.4)	0 (0.0)	2 (18.2)	0 (0.0)	9 (13.0)	14 (42.4)	36 (24.0)
Others	5 (23.8)	2 (14.3)	2 (18.2)	0 (0.0)	3 (4.3)	7 (21.2)	19 (12.7)
Vulnerable populations	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=64 (%)	n=32 (%)	n=144 (%)
Women	7 (33.3)	4 (28.6)	5 (45.5)	0 (0.0)	21 (32.8)	19 (59.4)	56 (38.9)
Refugees	3 (14.3)	0 (0.0)	0 (0.0)	1 (50.0)	1 (1.6)	4 (12.5)	9 (6.3)
Poor	13 (61.9)	7 (50.0)	5 (45.5)	1 (50.0)	30 (46.9)	10 (31.3)	66 (45.8)
Elderly	8 (38.1)	0 (0.0)	0 (0.0)	1 (50.0)	24 (37.5)	7 (21.9)	40 (27.8)
Minorities	4 (19.0)	3 (21.4)	2 (18.2)	0 (0.0)	1 (1.6)	5 (15.6)	15 (10.4)
Prisoners	4 (19.0)	0 (0.0)	2 (18.2)	0 (0.0)	1 (1.6)	0 (0.0)	7 (4.9)
Violence & trauma	9 (42.9)	5 (35.7)	6 (54.5)	1 (50.0)	32 (50.0)	17 (53.1)	70 (48.6)
Disabled	6 (28.6)	2 (14.3)	5 (45.5)	0 (0.0)	9 (14.1)	5 (15.6)	27 (18.8)
Children & adolescents	15 (71.4)	11 (78.6)	8 (72.7)	2 (100.0)	3 (4.7)	23 (71.9)	90 (62.5)
Others	2 (9.5)	5 (35.7)	0 (0.0)	0 (0.0)	2 (3.1)	6 (18.8)	15 (10.4)

External agency: Commissioned by external agency. Epid burden: Epidemiological studies of burden and risk factors. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Figure 23: Association officers' perspective: Research priorities



External agency: Commissioned by external agency. Epid burden: Epidemiological studies of burden and risk factors. Child & adol disorders: Disorders with onset in childhood and adolescence. Violence & trauma: People exposed to violence and trauma.

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

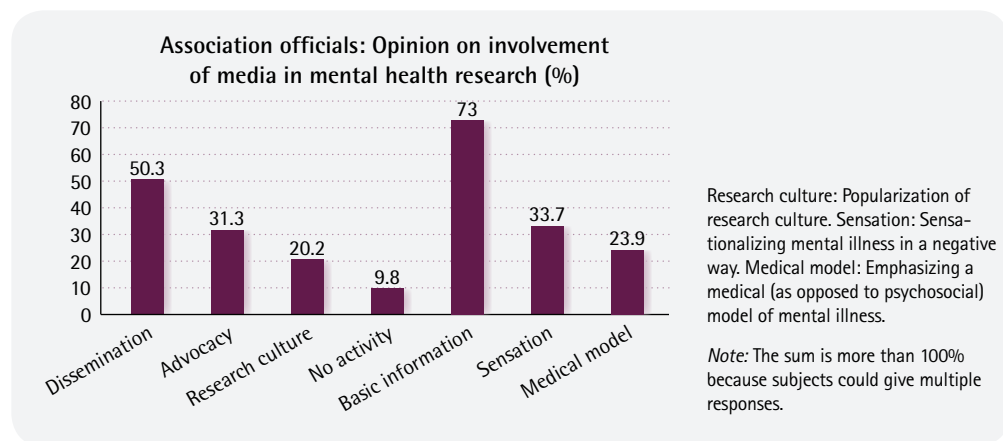
Table 45: Association officers' opinion on involvement of national media in mental health research activities

	REGION						Total n=163 (%)
	Latin America A n=21 (%)	Latin America B n=14 (%)	Africa A n=11 (%)	Africa B n=2 (%)	Asia A n=69 (%)	Asia B n=46 (%)	
Dissemination	14 (66.7)	9 (64.3)	5 (45.5)	1 (50.0)	33 (47.8)	20 (43.5)	82 (50.3)
Advocacy	4 (19.0)	3 (21.4)	5 (45.5)	1 (50.0)	25 (36.2)	13 (28.3)	51 (31.3)
Research culture	11 (52.4)	3 (21.4)	2 (18.2)	1 (50.0)	8 (11.6)	8 (17.4)	33 (20.2)
No activity	0 (0.0)	1 (7.1)	2 (18.2)	0 (0.0)	5 (7.2)	8 (17.4)	16 (9.8)
Basic information	17 (81.0)	11 (78.6)	8 (72.7)	2 (100.0)	49 (71.0)	32 (69.6)	119 (73.0)
Sensation	9 (42.9)	3 (21.4)	7 (63.6)	2 (100.0)	16 (23.2)	18 (39.1)	55 (33.7)
Medical model	7 (33.3)	0 (0.0)	4 (36.4)	2 (100.0)	12 (17.4)	14 (30.4)	39 (23.9)

Research culture: Popularization of research culture. Sensation: Sensationalizing mental illness in a negative way. Medical model: Emphasizing a medical (as opposed to psychosocial) model of mental illness.

Note: The sum is more than 100% because subjects could give multiple responses.

Figure 24: Association officers' opinion on involvement of national media in mental health research activities



Association officers in Latin America A and Asia B considered disorders with onset in childhood and adolescence and suicide to be among priority disorders; and association officers in Asia B considered women to be among priority populations for mental health research.

Of association officer respondents 10% claimed that there was no involvement of the national media in mental health research activities (Table 45, Figure 24). Nearly three quarters of the association officers felt that the media reported basic information about delivery of health services and half felt that the media helped in dissemination of research results. Between one fifth and one third of association officers stated that the national media played a constructive role in popularization of research culture and advocacy for implementation of research findings. On the other hand, one third of association officers felt that the national media often sensationalized mental illness in a negative way and about a quarter felt that the media was overemphasizing a medical (as opposed to psychosocial) model of mental illness. Nearly two thirds of respondents from Africa A stated that the national media sensationalized mental illness in a negative way. On the other hand, respondents from Latin America A

differed from association officers elsewhere in that all of them claimed that the national media was involved in mental health research activities; two thirds felt that the national media was disseminating mental health research findings; and half felt that the national media was popularizing a research culture.

Qualitative findings

Case study narratives

While the subregional teams took differing approaches in carrying out the case study research, the resulting case study narratives confirm and complement the survey findings by providing examples of the successful or unsuccessful translation of research into policy and practice as well as the challenges faced by researchers in conducting their research and disseminating findings. The following section provides an overview of the major themes that emerge from them.

Latin America A

The team in Latin America A compiled two case studies based on interviews with researchers. The focus of the first case study was the positive impact of new alcohol policies on the prevention of murders in Diadema, Brazil.

Based on data showing that approximately 60% of murders and 45% of assaults on women in Diadema (a city on the outskirts of São Paulo, Brazil) occurred between 23:00 and 06:00, and were associated with consumption of alcohol, the Diadema government adopted a new municipal code establishing prohibition on sale of alcoholic beverages after 23:00. Political leaders of Diadema developed an active strategy for promoting public support for this new policy. In case of disobedience, progressive administrative penalties were applied. Public opinion polls carried out prior to adoption of the law suggested that 83% of the community agreed with the new policy. Later polls revealed that 98% of residents of Diadema knew about the law and 93% supported it. Analysis of data obtained from public records demonstrated that, in the two years following the implementation of the new policy, a statistically significant decline in murders but not in assaults against women took place (although assaults against women showed a downward trend). These research findings were disseminated to various health department authorities, and 27 cities of the metropolitan region of São Paulo state have subsequently adopted the policy.

The second case study described the success of a stepped-care programme for treating depression in low-income women in Santiago, Chile. Primary care clinics are the main source of health assistance for the majority of the poor population in Chile. The researchers decided to implement and evaluate an improved and affordable programme using a multi-component approach within the existing health system. To create a sense of ownership, the researchers held preliminary discussions with local health providers and policy-makers (municipal and Ministry of Health). A randomized controlled trial was conducted in three primary care clinics, located in deprived urban areas in Chile. Female primary care patients with major depression were allocated to usual care or stepped-care (led by a non-medical health worker during the initial three months). Management included psychoeducation, follow-up, and drug treatment for severe depression. A substantial difference between groups was observed on all outcome measures, in favour of the stepped-care programme. Research findings were disseminated to policy-makers through extensive meetings

with officers from the Ministry of Health. The Chilean Ministry of Health adopted the intervention for the National Depression Programme in Primary Care.

The two narratives show how research can have an impact on policy formulation if it focuses on public health problems that are important in the opinion of politicians and the general public, and if it is executed in active consultation with these stakeholders.

Latin America B

The team in Latin America B collected 18 case study narratives through interviews with researchers, 13 narratives based on interviews with other stakeholders and a special narrative for Grenada and St Kitts and Nevis, based on the work of researchers from a developed country. Looking across the narratives, several key themes emerge concerning challenges for generating mental health research and its impact on policy and programme development.

Most informants reported that their countries had a low mental health research output and that a major share of funding came either from personal investment or from pharmaceutical industry-sponsored clinical trials. Lack of financial and human resources as well as lack of support from the government were identified as the main contributing factors for the low research output. Examples of successful research were supported by academic institutions, WHO-PAHO and local NGOs. Informants stated that there was a need to include training in research methodology, statistical tools and English in university programmes, to identify opportunities for funding, and to promote networking of researchers in the region. Researchers and stakeholders also recognized the necessity of converging local and international efforts for strengthening research capacity and research utilization.

Researchers and stakeholders reported that few policies, interventions or programmes are generated from research results mainly due to the communication gap between various stakeholders (including researchers) supporting research. Other factors included lack of a critical mass of trained/informed actors on both sides, lack of baseline studies to support the development of policies, poor impact of WHO-PAHO reports on researchers and stakeholders in the region, and political instability. Recommendations for addressing these factors included changes in WHO-PAHO mechanisms of interaction with actors, and finding avenues and funds for training stakeholders and for generation of baseline research.

Africa A

The team in Africa A constructed two case study narratives based on interviews with pairs of researchers and stakeholders. The case studies highlight the ways in which individual researchers can make an impact on the landscape of local mental health services.

One narrative focused on the work of a South African researcher who works towards policy change and a broader understanding of socioeconomic and psychosocial issues. He illustrated his approach by recounting his work on adolescent health in schools. The findings from this project were disseminated to the scientific community, schools, the Department of Education and the media. He stressed the need for infrastructural support, human resources and time in producing quality research, and highlighted the importance of the research community in this regard. He also articulated the need

for a career path where researchers can rise up through the university administrative hierarchy but continue doing research.

The other narrative was based on an interview with a researcher from Malawi, who is interested in community intervention. One study, completed in collaboration with John Hopkins University in the USA, involved training nurses as counsellors for couples living with HIV, while his PhD research looked at a health education intervention for the control of schistosomiasis among school children. The research he has been involved in has had different kinds of impact – in academia, in the service-provision sector (e.g. through NGOs) and in the popular press/media. He notes that his government's focus is on physical health and that Malawi's mental health research agenda is largely set by funding from outside of Malawi. He also describes the resource constraints that researchers in his country face on a regular basis, such as lack of access to online journals and e-books, and the relative isolation of researchers.

These case studies shed some light on the contextual issues that lead researchers in this region to place mental health issues within a broad framework. They also highlight the importance of the quality of the relationship between stakeholders and researchers in the translation of research into policy or practice. In addition, the narratives illustrate the multiple demands faced by clinicians and academics and the lack of infrastructural support that impacts on their ability to conduct effective research.

Africa B

The team from Africa B contributed two case study narratives based on interviews with researchers and two narratives based on interviews with stakeholders from Nigeria.

A research-to-practice 'success story' was reported by a university-based researcher who conducted a self-funded study. The findings of his study on psychoeducation of relatives and patients attending a hospital outpatient clinic were disseminated through publications in medical journals and within the hospital, which led to improvement in practice within his institution. He believed that his findings could be adopted in similar settings in other parts of the world. A story of the unsuccessful translation of research into policy was provided by a psychiatrist in a teaching hospital who conducted a self-funded study comparing "traditional mental health practice with orthodox practice". He sought to examine the claim that traditional mental health care is cheaper than orthodox care. Despite the dissemination of his findings through medical journals, national seminars and workshops, and public lectures, they did not influence policy. He attributed this to a lack of political will on the part of policy-makers, inadequate attention being paid to research activities, and to ingrained cultural beliefs about the causes of mental illness.

One of the stakeholders interviewed—the president of a faith-based NGO—reported that despite his intimate association with a number of private and government organizations that were involved in research activities, he was not aware of any research that had influenced policy in Nigeria. The other stakeholder interviewed—a ministry official—stated that he was aware of a number of research findings that had influenced policy, programmes or advocacy but that these were not related to mental health.

All four interviewees seemed to agree that evidence-based research findings were not being utilized optimally in the country. They were of the view that the media had an important role to play in the dissemination of research findings and that there was a need for increased government funding for research activities.

Asia A

The Asia A team contributed three case studies. Two demonstrate the successful impact of research findings on a programme, policy or intervention while the third is about a research project that should have made an impact but did not due to lack of political will and resistance to policy change.

The first case describes a community-based mental health initiative carried out in Calumpit, Bulacan, the Philippines. Based on findings from the administration of a questionnaire (Community Attitude towards Mental Illness (CAMI)), the researchers conducted a training workshop on mental health for health workers and launched a community mental health service that involved patients and their families. The work was replicated in other regions in the Philippines. The second case study concerns a research study, funded by WHO, that established protocols for the delivery of mental health services in the primary care community setting, and led to the development of epidemiologic instruments and training manuals. Its model of organizing caregivers and family support systems at the community level formed one of the bases for much work done by the World Association of Psychosocial Rehabilitation (WAPR) in this area. The experience with the family support groups also led to a programme funded by a private drug company called 'A Meaningful Day' for patients with schizophrenia and their families.

The third case study provides an example of where research findings did not produce an impact on programme development. The case involved a project that had been implemented in a region of Visayas Island, the Philippines. In the 1990s, the model used for addressing mental disorders in the Philippines focused mostly on tertiary care hospital settings. A group was commissioned by the Department of Health to explore the feasibility of providing community mental health services by mobilizing general health care providers like doctors and nurses. Though the study provided compelling data favouring community care, the system of service delivery for mental health care did not change. That the study's findings did not result in change in service delivery might be attributed to a lack of publications about the findings, the non-involvement/lack of interest of advocacy groups and stigma against mental illness.

Asia B

The Asia B team took a different approach to the collection of qualitative data and used the preliminary results from the researcher survey to develop a questionnaire for in-depth interviews with five researchers and stakeholders to explore specific findings.

All interview participants observed that policy-making in their country was not 'evidence-based'. Communication barriers between stakeholder groups, structural barriers within health research systems, lack of user involvement, and lack of political will to strengthen the mental health sector by policy-makers were seen as reasons for the low rate of translation of research into policy and practice. The interviewees suggested that there was a need for an organization to bridge the gap between policy and research, and for sensitizing researchers about the usefulness of involving policy-makers in their research and sensitizing policy-makers about the importance of good mental health research. Dissemination of research findings through suitable methods to appropriate stakeholders was stated as important. Further, a need for national and international organizations to come together to improve the process of research priority setting was also suggested.

All interview participants agreed that very few clinical trials were conducted in the region. Lack of skills and interest in conducting clinical trials were seen as the major reasons for the low rates. Some respondents expressed the need to prioritize basic science research. All respondents cited women, children and adolescents, and the poor as the most important vulnerable groups. The need to give attention to marginalized population groups like migrants was also expressed. The respondents agreed that common mental disorders (depression and anxiety), suicide and severe conditions like schizophrenia were important areas of research.

Some interviewees perceived lack of funds as a major obstacle in conducting research and urged that an organization be set up to monitor research conducted in the region and allocation of funds. In contrast, some interview participants perceived lack of funds as being less of a problem in comparison to lack of trained researchers capable of writing good proposals and conducting good research. Formal and intensive training in epidemiological, public health, social science and other research methods at the national level and at the level of organizations (e.g. professional organizations, NGOs) and institutions (academic and research) was suggested. These researchers also saw rigorous training of researchers on proposal writing, coordinating, conducting research and disseminating research findings as urgent regional needs. The interviewees also agreed that most researchers work in isolation and setting up a network was critical.

Stipulation of law or policy, highly functional regulatory systems including institutional or state level ethics committees, and awareness about ethics and good practices in research were cited as important by all interview participants.

Examples of impact on policy and programmes

A number of anecdotal reports from researchers and stakeholders citing research as impacting or not impacting on policy, programme and practice presented themselves in the course of data collection (Appendix I). Some notable examples are:

1. Policy, programme, advocacy, or practice resulting from the evidence of research findings

- **Bangladesh:** The results of a project on the effects of psychosocial stimulation on the development and behaviour of malnourished children in Bangladesh was presented to the United Nations Children's Fund (UNICEF), which used them in the Early Childhood Development Program.
- **Chile:** Studies on depression led to the establishment of a national programme to identify and prevent depression in primary health care settings.
- **Colombia:** A prevention programme for eating disorders was implemented with support of PAHO/WHO, based on reports of high prevalence in the country.
- **Ecuador:** Research on familial dysfunction and depression in adolescence led to a programme to prevent and treat intrafamilial violence in the county and the establishment of a reference system for violence and maltreatment (SIREPARM).
- **Mexico:** Research findings have been translated into national health policies for migrants and their families.
- **Pakistan:** The Government of Pakistan adopted a model of care for psychological problems in the aftermath of a natural disaster (October 2005 earthquake) based on the findings of a randomized controlled trial on the effectiveness of counselling by

minimally trained community women in reducing levels of anxiety and depression in women of semi-urban communities.

- **Peru:** The evidence obtained in the Mental Health Study in Peru by the Instituto Especializado de Salud Mental led to the elaboration of the Program on Mental Health, National Sanitary Strategy in Mental Health and Culture of Peace, and the Program of Health Repair (in regions affected by violence) by the Ministry of Health.
- **South Africa:** Department of Health's Standard Treatment Guidelines for Common Mental Health Conditions was based on research conducted in the country.

2. Research evidence that should have influenced policy, programme, advocacy or practice but has not done so

- **Colombia:** National study on mental health did not lead to policy changes, even though it was supported by WHO.
- **Egypt:** Research in forensic psychiatry failed to convince politicians to enact new legislation concerning mental health.
- **India:** Routine screening for postpartum depression in mother and child health programmes has not started despite recommendations based on findings from studies on postpartum depression.
- **Mexico:** Documentation of increase in alcohol abuse has not led to changes in legislation about this matter.
- **Mozambique:** The 2003 Community Epidemiological Study and the data collected by the Mozambique Network on Drug Use did not have an impact on policy.
- **Peru:** The results of studies linking nutrition with cognitive development were not incorporated in the subsequent formulation of food-support programmes.
- **South Africa:** Policy briefing on an increase in heroin abuse in Cape Town and Gauteng province did not have an impact on policy.
- **Uganda:** Despite evidence of the magnitude of the problem of alcohol and substance abuse, the adoption of the National Alcohol and Substance Abuse Control Programme has been delayed.

4 DISCUSSION

LMICs account for more than 85% of the world's 6.7 billion people. In absolute terms, the burden of neuropsychiatric conditions falls heavily on LMICs. In contrast, the resources available to meet mental health challenges in these countries are meagre: an overwhelming majority of countries in African and South-East Asian regions spend less than 1% of their limited health budgets on mental health (World Health Organization, 2005). Between 44% and 70% of patients with common and severe mental disorders do not receive treatment even in high-income countries (Kohn et al., 2004). The treatment gap in developing countries could be as large as 90%. Closing this gap is a clear obligation; otherwise, no discourse around new classifications, concern about more sophisticated diagnosis, or development of innovative psychopharmacological research can be credible (Saraceno, 2004).

The Mental Health: Global Action Programme (mhGAP) of the World Health Organization envisions an active role for research in the multidimensional efforts required to change the current mental health situation at country level (World Health Organization, 2002b). Research-generated information is perceived as essential to determine needs, to propose new cost-effective interventions of an individual or collective nature, to monitor the process of their implementation and evaluate the changes sought, and to explore the obstacles that prevent recommended cost-effective action to be carried out. Conceivably, research generated information will enable LMICs to better utilize their meagre mental health resources.

The difference between the research information that is needed to plan the best possible services in a given setting and that which is currently available can be called the research gap. All available indications point towards the fact that the research gap is particularly large in LMICs. Doing more research alone will not suffice: research must be relevant to the needs of LMICs. The World Health Report 2001 (World Health Organization, 2001b) suggests that relevant research in and for LMICs should assist them in reducing the burden of common and disabling disorders through evidence-based and feasible interventions, while ensuring equity and cultural relevance and safeguarding ethical principles. Currently, the mental health effort in the developing world is based primarily on evidence from high-income countries. This approach has serious disadvantages, in that the majority of the available information is collected from vastly different cultural and socioeconomic contexts. Culturally relevant research should inform mental health policy and service development, treatment decision-making, and anti-stigma and discrimination programmes. Similarly, mental health research in relation to LMICs that is done by academics from high-income countries (such research forms at least one quarter of the mental health literature available on LMICs) often has no real connection to local service development (Saxena et al., 2004). The relevance of research may be better ensured if a consortium, run democratically by researchers, planners and administrators, decision-makers, donors and community representatives jointly establish the research policies of a country for a defined period of time.

While substantial progress has been made in the past decade in the measurement and understanding of the burden of neuropsychiatric disorders, little was known until now about the research resources to address this problem. Identifying research capacity for mental health in such a large geographical context (LMICs in three continents) is daunting, yet it is becoming ever more important to assess gaps in resource requirements. The recognition of the gap is indeed a precursor for attacking the problem. Another precursor to finding a solution to the gap is understanding the ways in which priorities for mental health research are set in LMICs, so that a sound methodology and a scientific process for the identification of the research priorities which will make the largest contribution to people's mental health at the country and global levels could be instituted.

Literature

Saxena et al. (2004) have commented on the variations in coverage of mental health literature by international databases. For this reason, a number of databases were used to identify mental health researchers and their research. The number of databases included in the study, however, was limited by the fact that many are pay-for-use and the teams based in LMICs did not have the resources to access them. Medline, which can be accessed free of charge, provides good coverage of the medical literature as does PsycINFO to psychological literature. Addition of the Sociofile database could have yielded a still larger number of articles related to the sociocultural aspects of mental health research (Saxena et al., 2004).

Of the 114 countries included in the survey 57% contributed very few (≤ 5) articles to the international mental health literature over a period of 5–10 years (1993–2003 for most countries; 1998–2003 for mega countries). Many of these are mid-sized countries with relatively large populations like Afghanistan, Angola, Benin, Chad, Comoros, Democratic Republic of the Congo, the Gambia, Liberia, Madagascar, Mali, Myanmar, Niger, Paraguay, Timor-Leste and United Republic of Tanzania, among others. The general level of development of the country, political instability, lack of mental health research infrastructure and trained personnel, diversion of trained mental health personnel to other health fields or migration to more developed countries, and lack of policy direction for mental health research are perhaps the most important factors contributing to the paucity of mental health research in these countries.

A total of 3598 articles published in the study period were identified from sources other than Medline/PsycINFO. More than two thirds of these articles were identified from sources other than regional/international databases, attesting to the substantial non-indexed research information available in LMICs. Very few publications (≤ 5) could be identified from almost 70% of the surveyed countries, indicating a serious paucity of mental health research literature in some countries and underlining the difficulties in locating such literature.

Countries in Asia A contributed more than one third of indexed publications from LMICs of the six subregions for the years 1999–2003. Some countries in this region such as China and the Republic of Korea contribute significantly to international mental health publications. Asian countries as a group contributed more than half of the indexed publications from the regions under consideration, India being another major contributor. Latin America contributed 35.5% of the articles, with Brazil and Argentina contributing a major proportion. African countries contributed only 12.5%

of the international mental health publications, despite a significant contribution from South Africa. In fact, Africa B countries contributed only 2.4% of articles to the pool. Similar findings have been reported in previous studies (Patel and Sumathipala, 2001; Parker and Parker, 2002; Saxena et al., 2004, 2006). Factors known to lead to variability in contribution from various LMICs include the level of development (the Republic of Korea is now a high-income country; Argentina and Brazil are upper middle-income countries), population of trained personnel (e.g. China and India), and language (Indian and South African researchers are fluent in English) (Patel and Sumathipala, 2001; Saxena et al., 2004, 2006). The relative contribution to grey (versus indexed) literature was high for Bolivia, Colombia, Honduras, Peru, the Philippines, the Republic of Korea, Thailand and Venezuela. However, it is difficult to comment on this finding given the difficulties faced in searching for such materials by teams located in another country or because of language and logistical problems.

Almost two thirds of articles in indexed databases from the LMICs being studied were published in English. Also, 16 of the top 25 indexed journals with contributions from LMICs are English language journals. It appears that English is the lingua franca for global scientific communication. On the other hand, nearly three fifths of indexed articles from Latin American countries were in Spanish or Portuguese. This was probably due to the fact that 9 of the top 25 indexed journals publishing mental health articles from LMICs were edited in Brazil, Argentina, Chile and Mexico. This finding suggests that indexing of non-English language journals in international databases provides greater visibility to mental health literature from non-English speaking populations.

Three regions (Africa A, Asia A, and Asia B) provided information on the language of articles comprising their grey literature search results. A comparison of indexed and grey literature (Table 46) suggests that relatively more grey literature in Africa A and Asia A was published in local languages in comparison to indexed literature. These results suggest that not writing in English may bias the chances of getting published. This may be particularly true for African countries, which do not have many journals in international indexes.

On the one hand, the finding suggests that researchers should be supported regarding the language requirements of publication, on the other it argues for indexing more

	REGION			Total
	Africa A	Asia A	Asia B	
Indexed literature	n=905 (%)	n=2428 (%)	n=899 (%)	n=4232 (%)
English	878 (97.0)	1409 (58.0)	898 (99.9)	3185 (75.3)
Local	14 (1.5)	835 (34.4)	0 (0.0)	849 (20.1)
Not coded	4 (0.4)	182 (7.5)	0 (0.0)	186 (4.4)
Grey literature	n=422 (%)	n=1405 (%)	n=475 (%)	n=2302 (%)
English	275 (65.2)	514 (36.6)	475 (100)	1264 (54.9)
Local	41 (9.7)	604 (43.0)	0 (0)	645 (28.0)
Not coded	106 (25.1)	287 (20.4)	0 (0)	393 (17.1)

Table 46: Comparison of language of publication of indexed and grey literature

multi-language/non-English language journals in international databases (Saxena et al., 2004; Anonymous, 2004). More than 100 non-Medline/PsycINFO articles were identified from the following sources: *Indian Journal of Psychiatry*, *Journal of Korean Academy of Nursing*, *Journal of the Korean Neuropsychiatric Association*, and *Journal of the Psychiatric Association of Thailand*, suggesting that these journals are serious candidates for inclusion in international databases.

The audit of research themes in published literature suggested that depression and anxiety, substance use disorders, and psychoses were the disorders that were addressed most often. There seemed to be relative neglect of self-inflicted injuries among mental health conditions causing a high burden of diseases as found in a previous audit by Saxena et al. (2004).

About two thirds of indexed publications were classified as not focusing on vulnerable populations. In particular there was a neglect of the most vulnerable/marginalized groups like the poor, refugees, minorities, prisoners and the disabled. Relatively more papers from Africa A were focused on vulnerable populations, suggesting both a need and recognition of this focus.

One third of articles published in indexed journals addressed social science/psychological themes, one quarter addressed health services research themes and about a tenth each addressed clinical and epidemiology/public health themes. The findings are in keeping with a previous audit of international mental health literature from LMICs (Saxena et al., 2004) and suggest that the trend towards publication of more papers devoted to biological research and fewer papers devoted to health services research would be detrimental to LMICs (Pincus et al., 1993; Saxena et al., 2004; Anonymous, 2004). The findings of the present audit should be taken as indicative rather than definitive as they are based on the work of the three teams (Latin America A, Latin America B, and Africa A) that classified the articles according to the specified format.

Researchers' and stakeholders' surveys

Some methodological issues

The sample of the researcher survey is fairly large but cannot be construed as representative, given the low response rate (21.1%), and the fact that some countries with strong mental health research production (e.g. Brazil) are overrepresented. The sample of the stakeholder respondents (n=336) is not very large, nor can it be construed as representative, given the low response rate (10.1%). However, due to the intensity and breadth of the identification exercise, this study provides a wide range of opinion on the agenda of mental health researchers and stakeholders and the mental health research infrastructure available in LMICs with relatively established research capacity.

There were a number of reasons for the low response rate. First, in some countries there are simply very few actors. Second, it was very difficult (and sometimes impossible) to get up-to-date contact details for a large number of the researchers and stakeholders who were identified. Language could have been a barrier in some countries. Technical barriers like inefficient web sites, telephone and postal systems, and administrative barriers such as having to 'go through official channels' and the dispersion of mental health staff across various departments of institutions also added

to the difficulty in reaching actors and in obtaining their responses. In addition, there were indications that researchers were overburdened, that the questionnaire was perceived as long and complex, and that respondents were sceptical about the utility of the information that the questionnaire sought.

Another limitation of any exercise on stakeholder groups is that some stakeholder groups, such as officers of human rights NGOs, may not have much information about or experience with the needs of specific groups like the rehabilitative needs of patients with dementia. Stakeholder groups may have varying knowledge about current research on mental health.

A general point that can be made about the information obtained from a broad spectrum of LMICs is that the uniformities rather than differences across regions were marked. A previous study on health policies and systems research showed similar results (Gonzalez-Block, 2004). It is possible that both studies sampled a set of established researchers (three fifths were Principal Investigators, two thirds had served as reviewers, and half had served on editorial/other boards in the present study). This might have introduced a floor effect to regional differences in both studies.

Issues pertinent to multiple stakeholder groups

Since different questionnaires were used for each stakeholder group, responses could be compared only in regard to specific questions.

Researchers, university administrators, decision-makers and association officers

All four stakeholder groups – researchers, university administrators, decision-makers and association officers – regarded burden of disease as the most important criterion for the prioritization of research (Table 47). The latter three groups (university administrators, decision-makers and association officials) also agreed that social justice was the second most important criterion. The stakeholder groups, however, differed markedly on the importance of personal interests of researchers as a criterion for the prioritization of research. Not surprisingly, researchers placed it second, while university administrators placed it fourth and decision-makers and association officials placed it last (fifth) in importance. All non-researcher stakeholder groups considered availability of funds as the third most important criterion while researchers placed it fourth. All stakeholder groups considered policy-maker request to be of low importance in prioritization of research. An Australian study also found that stakeholder groups tend to have different perspectives on research priorities; however, there are also a number of areas of agreement (Jorm et al., 2002a). Priority setting is a political process that requires transparency and accountability. This can be achieved only through inclusiveness and mutual respect, a common understanding of criteria, consensus on the selection process and skilful synthesis of research priorities. Currently accepted methods of prioritization like the Essential National Health Research (ENHR) and Combined Approach Matrix (CAM) include several criteria for prioritization (Ghaffar, de Francisco and Matlin, 2004). There seems to be a need to educate all stakeholders that research prioritization should employ multiple criteria and this is an area for action by international bodies.

There was agreement among all stakeholders regarding the rank order of prioritization of research themes: burden of disease, health systems research, social science research,

Table 47: Comparison of researchers, university administrators, decision-makers and association officers regarding criteria for prioritization of mental health research

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=219 (%)	n=180 (%)	n=55 (%)	n=58 (%)	n=103 (%)	n=193 (%)	n=808 (%)
Burden of disease	205 (93.6)	166 (92.2)	53 (96.4)	52 (89.7)	94 (91.3)	156 (80.8)	726 (89.9)
Policy-maker request	35 (16.0)	31 (17.2)	15 (27.3)	10 (17.2)	39 (37.9)	29 (15.0)	159 (19.7)
Personal interest	174 (79.5)	79 (43.9)	45 (81.8)	43 (74.1)	72 (69.9)	160 (82.9)	573 (70.9)
Social justice	–	53 (29.4)	27 (49.1)	34 (58.6)	62 (60.2)	76 (39.4)	252 (42.8)*
Availability of funds	86 (39.3)	77 (42.8)	8 (14.5)	23 (39.7)	46 (44.7)	37 (19.2)	277 (34.3)
Others	75 (34.2)	22 (12.2)	11 (20.0)	2 (3.4)	6 (5.8)	26 (13.5)	142 (17.6)
University administrators	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=13 (%)	n=81 (%)
Burden of disease	14 (100.0)	17 (89.5)	3 (75.0)	3 (100.0)	24 (85.7)	13 (100.0)	74 (91.4)
Policy-maker request	6 (42.9)	4 (21.1)	1 (25.0)	2 (66.7)	11 (39.3)	4 (30.8)	28 (34.6)
Personal interest	7 (50.0)	2 (10.5)	3 (75.0)	2 (66.7)	12 (42.9)	9 (69.2)	35 (43.2)
Social justice	10 (71.4)	15 (78.9)	0 (0.0)	0 (0.0)	8 (28.6)	5 (38.5)	38 (46.9)
Availability of funds	7 (50.0)	6 (31.6)	2 (50.0)	3 (100.0)	12 (42.9)	7 (53.8)	37 (45.7)
Others	3 (21.4)	6 (31.6)	1 (25.0)	0 (0.0)	1 (3.6)	0 (0.0)	11 (13.6)
Decision-makers	n=14 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=10 (%)	n=6 (%)	n=66 (%)
Burden of disease	14 (100.0)	19 (90.5)	8 (100.0)	5 (71.4)	9 (90.0)	6 (100.0)	61 (92.4)
Policy-maker request	10 (71.4)	7 (33.3)	2 (25.0)	2 (28.6)	5 (50.0)	2 (33.3)	28 (42.4)
Personal interest	3 (21.4)	0 (0.0)	0 (0.0)	3 (42.9)	2 (20.0)	1 (16.7)	9 (13.6)
Social justice	8 (57.1)	19 (90.5)	1 (12.5)	2 (28.6)	2 (20.0)	3 (50.0)	35 (53.0)
Availability of funds	4 (28.6)	16 (76.2)	3 (37.5)	3 (42.9)	4 (40.0)	3 (50.0)	33 (50.0)
Others	1 (7.1)	1 (4.8)	0 (0.0)	0 (0.0)	1 (10.0)	0 (0.0)	3 (4.5)
Association officers	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=65 (%)	n=30 (%)	n=143 (%)
Burden of disease	19 (90.5)	11 (78.6)	10 (90.9)	1 (50.0)	52 (80.0)	30 (100.0)	123 (86.0)
Policy-maker request	10 (47.6)	5 (35.7)	1 (9.1)	0 (0.0)	25 (38.5)	11 (36.7)	52 (36.4)
Personal interest	4 (19.0)	2 (14.3)	2 (18.2)	1 (50.0)	24 (36.9)	12 (40.0)	45 (31.5)
Social justice	14 (66.7)	10 (71.4)	9 (81.8)	1 (50.0)	24 (36.9)	20 (66.7)	78 (54.5)
Availability of funds	8 (38.1)	8 (57.1)	5 (45.5)	2 (100.0)	41 (63.1)	10 (33.3)	74 (51.7)
Others	6 (28.6)	3 (21.4)	2 (18.2)	1 (50.0)	5 (7.7)	4 (13.3)	21 (14.7)

*n=589

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

clinical trials and basic science (Table 48). Regional differences in scale of research spending could explain the relatively greater importance that stakeholders from Latin America A accord to biological (clinical trials and basic science) in comparison to social science research. Brazil and Cuba have been noted to be among the very few LMICs that spend close to 2% of their national health expenditure on health research (Global Forum for Health Research, 2002). A greater proportion of stakeholders may prioritize biological research if they feel that it is financially feasible.

Table 48: Comparison of researchers, university administrators, decision-makers and association officers regarding research priorities: Themes

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=219 (%)	n=180 (%)	n=57 (%)	n=57 (%)	n=105 (%)	n=194 (%)	n=812 (%)
Burden of disease	199 (90.9)	162 (90.0)	54 (94.7)	53 (93.0)	87 (82.9)	164 (84.5)	719 (88.5)
Clinical trials	132 (60.3)	64 (35.6)	15 (26.3)	25 (43.9)	43 (41.0)	76 (39.2)	355 (43.7)
Social sciences	79 (36.1)	103 (57.2)	41 (71.9)	32 (56.1)	72 (68.6)	138 (71.1)	465 (57.3)
Health systems	155 (70.8)	129 (71.7)	43 (75.4)	33 (57.9)	83 (79.0)	144 (74.2)	587 (72.3)
Basic sciences	86 (39.3)	60 (33.3)	12 (21.1)	21 (36.8)	27 (25.7)	58 (29.9)	264 (32.5)
Others	11 (5.0)	10 (5.6)	2 (3.5)	0 (0.0)	3 (2.9)	10 (5.2)	36 (4.4)
University administrators	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=14 (%)	n=85 (%)
Burden of disease	14 (100.0)	19 (90.5)	3 (75.0)	3 (100.0)	22 (75.9)	13 (92.9)	74 (87.1)
Clinical trials	5 (35.7)	12 (57.1)	2 (50.0)	0 (0.0)	9 (31.0)	8 (57.1)	36 (42.4)
Social sciences	8 (57.1)	8 (38.1)	2 (50.0)	3 (100.0)	20 (69.0)	10 (71.4)	51 (60.0)
Health systems	12 (85.7)	10 (47.6)	2 (50.0)	3 (100.0)	23 (79.3)	11 (78.6)	61 (71.8)
Basic sciences	6 (42.9)	8 (38.1)	1 (25.0)	0 (0.0)	7 (24.1)	0 (0.0)	22 (25.9)
Decision-makers	n=14 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=12 (%)	n=7 (%)	n=69 (%)
Burden of disease	14 (100.0)	19 (90.5)	7 (87.5)	6 (85.7)	11 (91.7)	7 (100.0)	64 (92.8)
Clinical trials	7 (50.0)	6 (28.6)	2 (25.0)	0 (0.0)	4 (33.3)	2 (28.6)	21 (30.4)
Social sciences	7 (50.0)	13 (61.9)	7 (87.5)	6 (85.7)	5 (41.7)	6 (85.7)	44 (63.8)
Health systems	13 (92.9)	18 (85.7)	7 (87.5)	6 (85.7)	9 (75.0)	6 (85.7)	59 (85.5)
Basic sciences	4 (28.6)	7 (33.3)	1 (12.5)	3 (42.9)	2 (16.7)	0 (0.0)	17 (24.6)
Association officers	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=69 (%)	n=35 (%)	n=152 (%)
Burden of disease	18 (85.7)	13 (92.9)	8 (72.7)	2 (100.0)	55 (79.7)	28 (80.0)	124 (81.6)
Clinical trials	8 (38.1)	4 (28.6)	5 (45.5)	0 (0.0)	24 (34.8)	9 (25.7)	50 (32.9)
Social sciences	13 (61.9)	9 (64.3)	10 (90.9)	2 (100.0)	43 (62.3)	30 (85.7)	107 (70.4)
Health systems	21 (100.0)	12 (85.7)	8 (72.7)	2 (100.0)	47 (68.1)	30 (85.7)	120 (78.9)
Basic sciences	12 (57.1)	3 (21.4)	2 (18.2)	0 (0.0)	24 (34.8)	8 (22.9)	49 (32.2)

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

Depression/anxiety and substance use disorders were ranked as the first and second most important disorders by all stakeholder groups (Table 49). Psychoses and disorders with onset in childhood and adolescence were ranked either third or fourth in terms of importance. An Australian study also reported that affective disorders were ranked consistently highly by all stakeholder groups (Jorm et al., 2002b). The prioritization of these disorders by a large proportion of stakeholders is in line with global burden of disease estimates. However, the higher prioritization of disorders with onset in childhood and adolescence in comparison to learning disorders runs counter to their proportional burdens. It is possible, that the stakeholders in the present survey considered, as did

Table 49: Comparison of researchers, university administrators, decision-makers and association officers regarding research priorities: Disorder

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=219 (%)	n=180 (%)	n=57 (%)	n=58 (%)	n=104 (%)	n=193 (%)	n=811 (%)
Psychoses	90 (41.1)	79 (43.9)	17 (29.8)	26 (44.8)	49 (47.1)	69 (35.8)	330 (40.7)
Depression/anxiety	188 (85.8)	141 (78.3)	37 (64.9)	37 (63.8)	80 (76.9)	137 (71.0)	620 (76.4)
Substance use disorders	156 (71.2)	98 (54.4)	27 (47.4)	31 (53.4)	43 (41.3)	71 (36.8)	426 (52.5)
Child & adol disorders	77 (35.2)	57 (31.7)	30 (52.6)	21 (36.2)	31 (29.8)	83 (43.0)	299 (36.9)
Dementia	52 (23.7)	25 (13.9)	4 (7.0)	8 (13.8)	22 (21.2)	24 (12.4)	135 (16.6)
Epilepsy	14 (6.4)	16 (8.9)	4 (7.0)	5 (8.6)	8 (7.7)	25 (13.0)	72 (8.9)
Personality disorders	23 (10.5)	27 (15.0)	5 (8.8)	10 (17.2)	15 (14.4)	36 (18.7)	116 (14.3)
Learning disorders	22 (10.0)	37 (20.6)	11 (19.3)	4 (6.9)	11 (10.6)	34 (17.6)	119 (14.7)
Eating disorders	16 (7.3)	15 (8.3)	1 (1.8)	2 (3.4)	2 (1.9)	7 (3.6)	43 (5.3)
Suicide	19 (8.7)	3 (1.7)	14 (24.6)	5 (8.6)	34 (32.7)	53 (27.5)	128 (15.8)
Others	16 (7.3)	24 (13.3)	14 (24.6)	9 (15.5)	10 (9.6)	27 (14.0)	100 (12.3)
University administrators	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=14 (%)	n=82 (%)
Psychoses	6 (42.9)	6 (31.6)	1 (25.0)	0 (0.0)	12 (42.9)	5 (35.7)	30 (36.6)
Depression/anxiety	13 (92.9)	16 (84.2)	3 (75.0)	1 (33.3)	22 (78.6)	14 (100.0)	69 (84.1)
Substance use disorders	9 (64.3)	11 (57.9)	2 (50.0)	3 (100.0)	17 (60.7)	10 (71.4)	52 (63.4)
Child & adol disorders	8 (57.1)	4 (21.1)	2 (50.0)	0 (0.0)	12 (42.9)	6 (42.9)	32 (39.0)
Dementia	5 (35.7)	3 (15.8)	0 (0.0)	2 (66.7)	4 (14.3)	2 (14.3)	16 (19.5)
Epilepsy	3 (21.4)	0 (0.0)	1 (25.0)	0 (0.0)	0 (0.0)	1 (7.1)	5 (6.1)
Personality disorders	4 (28.6)	7 (36.8)	1 (25.0)	3 (100.0)	2 (7.1)	1 (7.1)	18 (22.0)
Learning disorders	4 (28.6)	0 (0.0)	0 (0.0)	0 (0.0)	2 (7.1)	1 (7.1)	7 (8.5)
Eating disorders	2 (14.3)	6 (31.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	8 (9.8)
Suicide	4 (28.6)	0 (0.0)	0 (0.0)	0 (0.0)	6 (21.4)	2 (14.3)	12 (14.6)
Others	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.6)	0 (0.0)	1 (1.2)
Decision-makers	n=13 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=11 (%)	n=5 (%)	n=65 (%)
Psychoses	7 (53.8)	6 (28.6)	5 (62.5)	4 (57.1)	4 (36.4)	2 (40.0)	28 (43.1)
Depression/anxiety	6 (46.2)	16 (76.2)	7 (87.5)	2 (28.6)	8 (72.7)	4 (80.0)	43 (66.2)
Substance use disorders	7 (53.8)	11 (52.4)	6 (75.0)	6 (85.7)	7 (63.6)	4 (80.0)	41 (63.1)
Child & adol disorders	8 (61.5)	12 (57.1)	2 (25.0)	3 (42.9)	2 (18.2)	1 (20.0)	28 (43.1)
Dementia	0 (0.0)	4 (19.0)	0 (0.0)	3 (42.9)	1 (9.1)	0 (0.0)	8 (12.3)
Epilepsy	1 (7.7)	1 (4.8)	3 (37.5)	0 (0.0)	0 (0.0)	1 (20.0)	6 (9.2)
Personality disorders	2 (15.4)	2 (9.5)	0 (0.0)	1 (14.3)	0 (0.0)	2 (40.0)	7 (10.8)
Learning disorders	3 (23.1)	6 (28.6)	0 (0.0)	2 (28.6)	2 (18.2)	1 (20.0)	14 (21.5)
Eating disorders	2 (15.4)	3 (14.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (7.7)
Suicide	6 (46.2)	0 (0.0)	1 (12.5)	0 (0.0)	5 (45.5)	0 (0.0)	12 (18.5)
Others	1 (7.7)	2 (9.5)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)	4 (6.2)

(continued)

Table 49 (continued)

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Association officers	n=21 (%)	n=14 (%)	n=11 (%)	<i>n=2 (%)</i>	n=69 (%)	n=33 (%)	n=150 (%)
Psychoses	14 (66.7)	6 (42.9)	5 (45.5)	<i>2 (100.0)</i>	28 (40.6)	9 (27.3)	64 (42.7)
Depression/anxiety	14 (66.7)	10 (71.4)	6 (54.5)	<i>0 (0.0)</i>	49 (71.0)	22 (66.7)	101 (67.3)
Substance use disorders	11 (52.4)	12 (85.7)	6 (54.5)	<i>2 (100.0)</i>	42 (60.9)	15 (45.5)	88 (58.7)
Child & adol disorders	11 (52.4)	3 (21.4)	3 (27.3)	<i>0 (0.0)</i>	21 (30.4)	17 (51.5)	55 (36.7)
Dementia	6 (28.6)	1 (7.1)	2 (18.2)	<i>0 (0.0)</i>	15 (21.7)	3 (9.1)	27 (18.0)
Epilepsy	5 (23.8)	0 (0.0)	1 (9.1)	<i>1 (50.0)</i>	4 (5.8)	1 (3.0)	12 (8.0)
Personality disorders	6 (28.6)	5 (35.7)	2 (18.2)	<i>0 (0.0)</i>	11 (15.9)	4 (12.1)	28 (18.7)
Learning disorders	7 (33.3)	3 (21.4)	2 (18.2)	<i>0 (0.0)</i>	14 (20.3)	4 (12.1)	30 (20.0)
Eating disorders	6 (28.6)	0 (0.0)	0 (0.0)	<i>0 (0.0)</i>	1 (1.4)	2 (6.1)	9 (6.0)
Suicide	11 (52.4)	0 (0.0)	2 (18.2)	<i>0 (0.0)</i>	9 (13.0)	14 (42.4)	36 (24.0)
Others	5 (23.8)	2 (14.3)	2 (18.2)	<i>0 (0.0)</i>	3 (4.3)	7 (21.2)	19 (12.6)

Child & adol disorders: Disorders with onset in childhood and adolescence.

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

the investigators of the Australian study, that the opportunity for prevention and early intervention could be greatest at this point in the lifespan (Griffiths et al., 2002). It is also possible that they included mental retardation (a burdensome condition) among disorders with onset in childhood and adolescence, though it was to be categorized with learning disorders, due to differences in naming conventions across countries.

Children and adolescents were ranked as the most important priority in terms of vulnerable populations by all stakeholder groups (Table 50). Women, persons exposed to violence/trauma, the poor and the elderly were ranked among the next four categories in terms of importance. Stakeholder groups in Australia consistently rated children and adolescents, aboriginal people and socially and economically disadvantaged groups as priorities (Jorm et al., 2002a). The similarity in findings of the two studies is salient in view of the differences in definition of population subgroups. The fact that women and children are ranked highest in this study points to the awareness that these are particularly important populations not only because they are disadvantaged, but also because they are very significant in population terms.

Between 52% and 62% of university administrators, decision-makers and association officers stated that they were aware of positive impacts of mental health research on policies and practices, while only 35% of researchers were aware of positive impacts (Table 51). The differences between stakeholders may be related to their awareness of the quantum of mental health research conducted (denominator), thus, those who conduct research feel that a smaller proportion of research is translated into policies and practices, while those who are involved in translation into policies and practices may be more aware of successful examples of implementation of research in policy or practice change. Between 40% and 51% of various stakeholder groups stated that

Table 50: Comparison of researchers, university administrators, decision-makers and association officers regarding research priorities: Vulnerable populations

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=219 (%)	n=180 (%)	n=57 (%)	n=57 (%)	n=105 (%)	n=189 (%)	n=807 (%)
Women	95 (43.4)	98 (54.4)	30 (52.6)	31 (54.4)	48 (45.7)	123 (65.1)	425 (52.7)
Refugees	6 (2.7)	5 (2.8)	5 (8.8)	13 (22.8)	5 (4.8)	11 (5.8)	45 (5.6)
Poor	98 (44.7)	72 (40.0)	33 (57.9)	14 (24.6)	42 (40.0)	77 (40.7)	336 (41.6)
Elderly	119 (54.3)	40 (22.2)	3 (5.3)	18 (31.6)	56 (53.3)	62 (32.8)	298 (36.9)
Minorities	18 (8.2)	25 (13.9)	6 (10.5)	5 (8.8)	11 (10.5)	26 (13.8)	91 (11.3)
Prisoners	10 (4.6)	6 (3.3)	3 (5.3)	9 (15.8)	4 (3.8)	12 (6.3)	44 (5.5)
Violence & trauma	104 (47.5)	98 (54.4)	27 (47.4)	23 (40.4)	32 (30.5)	67 (35.4)	351 (43.5)
Disabled	23 (10.5)	25 (13.9)	18 (31.6)	11 (19.3)	31 (29.5)	37 (19.6)	145 (18.0)
Children & adolescents	174 (79.5)	138 (76.7)	36 (63.2)	33 (57.9)	70 (66.7)	119 (63.0)	570 (70.6)
Others	11 (5.0)	18 (10.0)	5 (8.8)	2 (3.5)	8 (7.6)	13 (6.9)	57 (7.1)
University administrators	n=14 (%)	n=19 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=13 (%)	n=82 (%)
Women	8 (57.1)	7 (36.8)	2 (50.0)	3 (100.0)	17 (58.6)	9 (69.2)	46 (56.1)
Refugees	2 (14.3)	15 (78.9)	1 (25.0)	0 (0.0)	3 (10.3)	1 (7.7)	22 (26.8)
Poor	10 (71.4)	1 (5.3)	1 (25.0)	3 (100.0)	8 (27.6)	8 (61.5)	31 (37.8)
Elderly	8 (57.1)	3 (15.8)	0 (0.0)	0 (0.0)	16 (55.2)	7 (53.8)	34 (41.5)
Minorities	2 (14.3)	14 (73.7)	0 (0.0)	1 (33.3)	2 (6.9)	0 (0.0)	19 (23.2)
Prisoners	2 (14.3)	3 (15.8)	0 (0.0)	1 (33.3)	1 (3.4)	0 (0.0)	7 (8.5)
Violence & trauma	9 (64.3)	0 (0.0)	3 (75.0)	0 (0.0)	13 (44.8)	4 (30.8)	29 (35.4)
Disabled	2 (14.3)	4 (21.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (7.7)	7 (8.5)
Children & adolescents	12 (85.7)	4 (21.1)	3 (75.0)	1 (33.3)	21 (72.4)	9 (69.2)	50 (61.0)
Others	0 (0.0)	4 (21.1)	0 (0.0)	0 (0.0)	1 (3.4)	0 (0.0)	5 (6.1)
Decision-makers	n=13 (%)	n=21 (%)	n=8 (%)	n=7 (%)	n=10 (%)	n=5 (%)	n=64 (%)
Women	5 (38.5)	9 (42.9)	4 (50.0)	4 (57.1)	3 (30.0)	4 (80.0)	29 (45.3)
Refugees	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Poor	4 (30.8)	10 (47.6)	4 (50.0)	3 (42.9)	1 (10.0)	2 (40.0)	24 (37.5)
Elderly	2 (15.4)	5 (23.8)	1 (12.5)	4 (57.1)	4 (40.0)	1 (20.0)	17 (26.6)
Minorities	2 (15.4)	1 (4.8)	0 (0.0)	2 (28.6)	0 (0.0)	0 (0.0)	5 (7.8)
Prisoners	3 (23.1)	0 (0.0)	1 (12.5)	1 (14.3)	0 (0.0)	1 (20.0)	6 (9.4)
Violence & trauma	10 (76.9)	11 (52.4)	3 (37.5)	0 (0.0)	6 (60.0)	3 (60.0)	33 (51.6)
Disabled	1 (7.7)	4 (19.0)	1 (12.5)	2 (28.6)	2 (20.0)	0 (0.0)	10 (15.6)
Children & adolescents	12 (92.3)	17 (81.0)	8 (100.0)	5 (71.4)	9 (90.0)	3 (60.0)	54 (84.4)
Others	0 (0.0)	3 (14.3)	1 (12.5)	0 (0.0)	1 (10.0)	0 (0.0)	5 (7.8)

(continued)

Table 50 (continued)

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Association officers	n=21 (%)	n=14 (%)	n=11 (%)	<i>n=2 (%)</i>	n=64 (%)	n=32 (%)	n=144 (%)
Women	7 (33.3)	4 (28.6)	5 (45.5)	0 (0.0)	21 (32.8)	19 (59.4)	56 (38.9)
Refugees	3 (14.3)	0 (0.0)	0 (0.0)	1 (50.0)	1 (1.6)	4 (12.5)	9 (6.3)
Poor	13 (61.9)	7 (50.0)	5 (45.5)	1 (50.0)	30 (46.9)	10 (31.3)	66 (45.8)
Elderly	8 (38.1)	0 (0.0)	0 (0.0)	1 (50.0)	24 (37.5)	7 (21.9)	40 (27.8)
Minorities	4 (19.0)	3 (21.4)	2 (18.2)	0 (0.0)	1 (1.6)	5 (15.6)	15 (10.4)
Prisoners	4 (19.0)	0 (0.0)	2 (18.2)	0 (0.0)	1 (1.6)	0 (0.0)	7 (4.9)
Violence & trauma	9 (42.9)	5 (35.7)	6 (54.5)	1 (50.0)	32 (50.0)	17 (53.1)	70 (48.6)
Disabled	6 (28.6)	2 (14.3)	5 (45.5)	0 (0.0)	9 (14.1)	5 (15.6)	27 (18.8)
Children & adolescents	15 (71.4)	11 (78.6)	8 (72.7)	2 (100.0)	3 (4.7)	23 (71.9)	90 (62.5)
Others	2 (9.5)	5 (35.7)	0 (0.0)	0 (0.0)	2 (3.1)	6 (18.8)	15 (10.4)

Violence & trauma: People exposed to violence and trauma.

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

Table 51: Comparison of researchers, university administrators, decision-makers and association officers regarding impact of mental health research

I. Impact	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=218 (%)	n=191 (%)	n=56 (%)	n=57 (%)	n=100 (%)	n=214 (%)	n=836 (%)
No	66 (30.3)	85 (44.5)	13 (23.2)	19 (33.3)	37 (37.0)	87 (40.7)	307 (36.7)
Yes	84 (38.5)	65 (34.0)	24 (42.9)	14 (24.6)	39 (39.0)	70 (32.7)	296 (35.4)
Uncertain	68 (31.2)	41 (21.5)	19 (33.9)	24 (42.1)	24 (24.0)	57 (26.6)	233 (27.9)
University administrators	n=14 (%)	n=21 (%)	<i>n=4 (%)</i>	<i>n=3 (%)</i>	n=27 (%)	n=17 (%)	n=86 (%)
No	9 (64.3)	8 (38.1)	2 (50.0)	0 (0.0)	6 (22.2)	9 (52.9)	34 (39.5)
Yes	5 (35.7)	11 (52.4)	2 (50.0)	3 (100.0)	21 (77.8)	8 (47.1)	50 (58.1)
Don't know	0 (0.0)	2 (9.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.3)
Decision-makers	n=14 (%)	n=22 (%)	<i>n=8 (%)</i>	<i>n=7 (%)</i>	n=13 (%)	<i>n=7 (%)</i>	n=71 (%)
No	7 (50.0)	5 (22.7)	3 (37.5)	2 (28.6)	1 (7.7)	5 (71.4)	23 (32.4)
Yes	7 (50.0)	13 (59.1)	5 (62.5)	5 (71.4)	12 (92.3)	2 (28.6)	44 (62.0)
Don't know	0 (0.0)	4 (18.2)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (5.6)
Association officers	n=22 (%)	n=15 (%)	n=11 (%)	<i>n=2 (%)</i>	n=67 (%)	n=46 (%)	n=163 (%)
No	9 (40.9)	6 (40.0)	1 (9.1)	0 (0.0)	8 (11.9)	11 (23.9)	35 (21.5)
Yes	11 (50.0)	4 (26.7)	7 (63.6)	0 (0.0)	36 (53.7)	27 (58.7)	85 (52.1)
Don't know	2 (9.1)	5 (33.3)	3 (27.3)	2 (100.0)	23 (34.3)	8 (17.4)	43 (26.4)

(continued)

Table 51 (continued)

II. No impact	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=210 (%)	n=185 (%)	n=53 (%)	n=56 (%)	n=101 (%)	n=215 (%)	n=820 (%)
No	68 (32.4)	58 (31.4)	15 (28.3)	16 (28.6)	43 (42.6)	89 (41.4)	289 (35.2)
Yes	89 (42.4)	86 (46.5)	23 (43.4)	24 (42.9)	27 (26.7)	75 (34.9)	324 (39.5)
Uncertain	53 (25.2)	41 (22.2)	15 (28.3)	16 (28.6)	31 (30.7)	51 (23.7)	207 (25.2)
University administrators	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=26 (%)	n=16 (%)	n=84 (%)
No	10 (71.4)	5 (23.8)	3 (75.0)	1 (33.3)	10 (38.5)	9 (56.3)	38 (45.2)
Yes	4 (28.6)	7 (33.3)	1 (25.0)	2 (66.7)	16 (61.5)	7 (43.8)	37 (44.0)
Don't know	0 (0.0)	9 (42.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	9 (10.7)
Decision-makers	n=14 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=71 (%)
No	8 (57.1)	7 (31.8)	3 (37.5)	3 (42.9)	5 (38.5)	7 (100.0)	33 (46.5)
Yes	6 (42.9)	13 (59.1)	5 (62.5)	4 (57.1)	8 (61.5)	0 (0.0)	36 (50.7)
Don't know	0 (0.0)	2 (9.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.8)
Association officers	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=66 (%)	n=46 (%)	n=162 (%)
No	8 (36.4)	3 (20.0)	3 (27.3)	1 (50.0)	15 (22.7)	15 (32.6)	45 (27.8)
Yes	11 (50.0)	6 (40.0)	5 (45.5)	0 (0.0)	21 (31.8)	26 (56.5)	69 (42.6)
Don't know	3 (13.6)	6 (40.0)	3 (27.3)	1 (50.0)	30 (45.5)	5 (10.9)	48 (29.6)

Italic: n<10

they were aware of good mental health research evidence that had not been translated into policies and practices.

Despite stakeholders' awareness that some research is being translated into policy and practice, it is evident that efforts are 'hit and miss' and that, overall, mental health research in LMICs has a limited impact on policy or programme level change. Similar findings were reported in a study of the role of research in child health policy and programmes in Pakistan (Hilderbrand, Simon and Hyder, 2000) and in studies on general health in Mexico (Trostle, Bronfman and Langer, 1999). Evidence-based policy is difficult to realize and it is widely agreed that health policies do not reflect research evidence to the extent that, in theory, they could (Hanney et al., 2003). This emphasizes the need to differentiate between health technology assessment and the decision-making (or guidance forming) process of appraisal of that evidence and its implications.

Researchers, university administrators and decision-makers

About 20% of university administrators, 42% of researchers and 54% of decision-makers stated that their country did not have any course on mental health research methodology (Table 52). University administrators are most likely to be aware of the existence of such courses as they are usually conducted under the aegis of universities. Researchers and decision-makers might not be aware of relatively recent or less advertised courses.

Table 52: Comparison of researchers, university administrators and decision-makers regarding availability of training courses

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=227 (%)	n=187 (%)	n=59 (%)	n=58 (%)	n=104 (%)	n=201 (%)	n=836 (%)
None	81 (35.7)	86 (46.0)	30 (50.8)	22 (37.9)	46 (44.2)	85 (42.3)	350 (41.9)
Short courses	83 (36.6)	64 (34.2)	12 (20.3)	20 (34.5)	38 (36.5)	77 (38.3)	294 (35.22)
Masters programme*	84 (37.0)	54 (28.9)	23 (39.0)	17 (29.3)	37 (35.6)	65 (32.3)	278 (33.3)
PhD programme*	76 (33.5)	31 (16.6)	10 (16.9)	12 (20.7)	20 (19.2)	50 (24.9)	198 (23.7)
University administrators	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=29 (%)	n=17 (%)	n=87 (%)
None	2 (14.3)	2 (10.0)	1 (25.0)	0 (0.0)	4 (13.8)	8 (47.1)	17 (19.5)
Short courses	0 (0.0)	7 (35.0)	1 (25.0)	0 (0.0)	5 (17.2)	4 (23.5)	17 (19.5)
Degree programme*	2 (14.3)	2 (10.0)	1 (25.0)	2 (66.7)	3 (10.3)	1 (5.9)	11 (12.6)
Both short & degree*	10 (71.4)	9 (45.0)	1 (25.0)	1 (33.3)	17 (58.6)	4 (23.5)	42 (48.3)
Decision-makers	n=13 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=70 (%)
None	8 (61.5)	12 (54.5)	4 (50.0)	1 (14.3)	6 (46.2)	7 (100.0)	38 (54.3)
Short courses	1 (7.7)	5 (22.7)	1 (12.5)	5 (71.4)	5 (38.5)	0 (0.0)	17 (24.3)
Degree programme*	0 (0.0)	3 (13.6)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)	4 (5.7)
Both short & degree*	4 (30.8)	2 (9.1)	3 (37.5)	0 (0.0)	2 (15.4)	0 (0.0)	11 (15.7)

Both short & degree: Both short courses and degree programmes.

* Different response choices were provided to researchers and stakeholders in questionnaires.

Italic: n<10

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Decision-makers, university administrators and association officers

There was a broad agreement between various stakeholders regarding the involvement of national media in mental health research activities (Table 53). The three stakeholder groups agreed regarding the rank order of possibly adverse (or no) activities carried out by the media: sensationalizing mental illness in a negative way, emphasizing a medical (as opposed to psychosocial) model of mental illness, and no activity. The three stakeholder groups differed somewhat regarding the rank order of positive activities carried out by the media. However, all three groups considered the provision of basic information about mental health issues or the dissemination of mental health research findings as the two most constructive roles for the media. Advocacy or promotion of research culture were ranked third or fourth.

A positive finding was that, in the opinion of the majority of stakeholders, the media takes its role in dissemination and provision of basic information about mental illness relatively seriously. It is a matter of concern that between 34% and 44% of stakeholders believed that the media was sensationalizing mental illness in a negative way and only 17% to 35% of stakeholders believed that the media was advocating the cause of the mentally ill. That the media may be worsening the stigma attached to mental illness needs to be addressed urgently.

Table 53: Comparison of decision-makers, university administrators and association officers on involvement of national media in mental health research activities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Decision-makers	n=13 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=12 (%)	n=7 (%)	n=69 (%)
Dissemination	6 (46.2)	13 (59.1)	5 (62.5)	5 (71.4)	6 (50.0)	1 (14.3)	36 (52.2)
Advocacy	0 (0.0)	2 (9.1)	3 (37.5)	3 (42.9)	3 (25.0)	1 (14.3)	12 (17.4)
Research culture	5 (38.5)	5 (22.7)	2 (25.0)	1 (14.3)	3 (25.0)	0 (0.0)	16 (23.2)
No activity	1 (7.7)	2 (9.1)	1 (12.5)	0 (0.0)	0 (0.0)	2 (28.6)	6 (8.7)
Basic information	5 (38.5)	16 (72.7)	5 (62.5)	6 (85.7)	8 (66.7)	5 (71.4)	45 (65.2)
Sensation	9 (69.2)	10 (45.5)	3 (37.5)	4 (57.1)	4 (33.3)	0 (0.0)	30 (43.5)
Medical model	6 (46.2)	5 (22.7)	0 (0.0)	2 (28.6)	3 (25.0)	0 (0.0)	16 (23.2)
University administrators	n=14 (%)	n=21 (%)	–	n=3 (%)	n=27 (%)	n=17 (%)	n=82 (%)
Dissemination	9 (64.3)	15 (71.4)	–	3 (100.0)	18 (66.7)	4 (23.5)	49 (59.8)
Advocacy	1 (7.1)	7 (33.3)	–	1 (33.3)	15 (55.6)	5 (29.4)	29 (35.4)
Research culture	5 (35.7)	9 (42.9)	–	1 (33.3)	11 (40.7)	3 (17.6)	29 (35.4)
No activity	0 (0.0)	1 (4.8)	–	0 (0.0)	1 (3.7)	3 (17.6)	5 (6.1)
Basic information	7 (50.0)	10 (47.6)	–	0 (0.0)	16 (59.3)	14 (82.4)	47 (57.3)
Sensation	6 (42.9)	10 (47.6)	–	0 (0.0)	9 (33.3)	3 (17.6)	28 (34.1)
Medical model	4 (28.6)	3 (14.3)	–	1 (33.3)	3 (11.1)	3 (17.6)	14 (17.1)
Association officers	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=69 (%)	n=46 (%)	n=163 (%)
Dissemination	14 (66.7)	9 (64.3)	5 (45.5)	1 (50.0)	33 (47.8)	20 (43.5)	82 (50.3)
Advocacy	4 (19.0)	3 (21.4)	5 (45.5)	1 (50.0)	25 (36.2)	13 (28.3)	51 (31.3)
Research culture	11 (52.4)	3 (21.4)	2 (18.2)	1 (50.0)	8 (11.6)	8 (17.4)	33 (20.2)
No activity	0 (0.0)	1 (7.1)	2 (18.2)	0 (0.0)	5 (7.2)	8 (17.4)	16 (9.8)
Basic information	17 (81.0)	11 (78.6)	8 (72.7)	2 (100.0)	49 (71.0)	32 (69.6)	119 (73.0)
Sensation	9 (42.9)	3 (21.4)	7 (63.6)	2 (100.0)	16 (23.2)	18 (39.1)	55 (33.7)
Medical model	7 (33.3)	0 (0.0)	4 (36.4)	2 (100.0)	12 (17.4)	14 (30.4)	39 (23.9)

Research culture: Popularization of research culture. Sensation: Sensationalizing mental illness in a negative way. Medical model: Emphasizing a medical (as opposed to psychosocial) model of mental illness.

Italic: n<10

Note: The sum for some variables is more than 100% because subjects could give multiple responses within the same content category.

Studies consistently show that both entertainment and news media provide overwhelmingly dramatic and distorted images of mental illness that emphasize dangerousness, criminality and unpredictability. They also model negative reactions to the mentally ill, including fear, rejection, derision and ridicule. The consequences of negative media images for people who have a mental illness are profound. They impair self-esteem, help-seeking behaviours, medication adherence and overall recovery. Mental health advocates blame the media for promoting stigma and

discrimination towards people with a mental illness. However, the media may also be an important ally in challenging public prejudices, initiating public debate, and projecting positive, human interest stories about people who live with mental illness. By the same token, media lobbying and press liaison should take on a stronger focus for mental health professionals, not only as a way of speaking out for patients who may not be able to speak out for themselves, but as a means of improving public education and awareness. Also, given the consistency of research findings in this field, it may now be time to take up the challenging prospect of how to use the media to improve the life chances and recovery possibilities for people living with mental disorders (Corrigan et al., 2005; Stuart, 2006).

Researchers and university administrators

Understandably, more university administrators (38%) than researchers (11%) mentioned that research funds in excess of US\$ 100 000 (equivalent) per annum were available to them for conducting mental health research (Table 54). It is a matter of grave concern that about one third of universities in LMICs receive less than US\$ 10 000 (equivalent) for mental health research. Even in the low-cost setting of many LMICs, this is inadequate for conducting systematic research even with simple methodologies. Similar findings have been reported in the field of health policy and systems research in LMICs, where only 7% of projects were funded at US\$ 100 000 or more (Gonzalez-Block and Mills, 2003). The overall funding situation was better in Latin America A, where Brazil and Cuba have been noted to spend close to 2% of their national health expenditure on health research (Global Forum for Health Research, 2002, 2004).

Mental health researchers in LMICs face a massive information divide in terms of access to pay-for-use Internet resources and print journals. The present study and

Table 54: Comparison of researchers and university administrators regarding scale of external funding (US\$)

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Researchers	n=125 (%)	n=138 (%)	n=51 (%)	n=20 (%)	n=56 (%)	n=109 (%)	n=499 (%)
<10 ³	5 (4.0)	47 (34.1)	14 (27.5)	11 (55.0)	3 (5.4)	51 (46.8)	131 (26.3)
10 ³ –10 ⁴	44 (35.2)	43 (31.2)	14 (27.5)	4 (20.0)	21 (37.5)	22 (20.2)	148 (29.7)
10 ⁴ –10 ⁵	62 (49.6)	37 (26.8)	13 (25.5)	4 (20.0)	20 (35.7)	30 (27.5)	166 (33.3)
>10 ⁵	14 (11.2)	11 (8.0)	10 (19.6)	1 (5.0)	12 (21.4)	6 (5.5)	54 (10.8)
University administrators	n=9 (%)	n=15 (%)	n=4 (%)	n=1 (%)	n=15 (%)	n=11 (%)	n=55 (%)
<10 ³	1 (11.1)	3 (20.0)	3 (75.0)	0 (0.0)	0 (0.0)	6 (54.5)	13 (23.6)
10 ³ –10 ⁴	0 (0.0)	1 (6.7)	0 (0.0)	0 (0.0)	3 (20.0)	2 (18.2)	6 (10.9)
10 ⁴ –10 ⁵	3 (33.3)	9 (60.0)	0 (0.0)	0 (0.0)	1 (6.7)	2 (18.2)	15 (27.3)
>10 ⁵	5 (55.6)	2 (13.3)	1 (25.0)	1 (100.0)	11 (73.3)	1 (9.1)	21 (38.2)

Scale of funding: <10³: <1000, 10³–10⁴: 1000–10 000, 10⁴–10⁵: 10 000–100 000, >10⁵: >100 000 US\$ equivalent.

Italic: n<10

Table 55: Comparison of researchers and university administrators regarding access to literature

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
I. Access to Internet							
Researchers	n=228 (%)	n=195 (%)	n=59 (%)	n=57 (%)	n=106 (%)	n=215 (%)	n=860 (%)
No	1 (0.4)	0 (0.0)	1 (1.7)	8 (14.0)	10 (9.4)	27 (12.6)	47 (5.5)
Free sites	123 (53.9)	114 (58.5)	27 (45.8)	42 (73.7)	73 (68.9)	144 (67.0)	523 (60.8)
Pay-for-use sites	104 (45.6)	81 (41.5)	31 (52.5)	7 (12.3)	23 (21.7)	44 (20.5)	290 (33.7)
University administrators	n=14 (%)	n=20 (%)	<i>n=4 (%)</i>	<i>n=3 (%)</i>	n=29 (%)	n=17 (%)	n=87 (%)
No	2 (14.3)	1 (5.0)	<i>1 (25.0)</i>	<i>1 (33.3)</i>	5 (17.2)	5 (29.4)	15 (17.2)
Free sites	1 (7.1)	6 (30.0)	<i>1 (25.0)</i>	<i>1 (33.3)</i>	9 (31.0)	10 (58.8)	28 (32.2)
Pay-for-use sites	11 (78.6)	13 (65.0)	<i>2 (50.0)</i>	<i>1 (33.3)</i>	15 (51.7)	2 (11.8)	44 (50.6)
II. Access to journals							
Researchers	n=227 (%)	n=195 (%)	n=58 (%)	n=55 (%)	n=106 (%)	n=209 (%)	n=850 (%)
No journals	7 (3.1)	34 (17.4)	5 (8.6)	8 (14.5)	15 (14.2)	31 (14.8)	100 (11.8)
1 journal	9 (4.0)	17 (8.7)	4 (6.9)	3 (5.5)	12 (11.3)	14 (6.7)	59 (6.9)
2–3 journals	26 (11.5)	59 (30.3)	3 (5.2)	17 (30.9)	25 (23.6)	62 (29.7)	192 (22.6)
4–10 journals	47 (20.7)	34 (17.4)	17 (29.3)	20 (36.4)	17 (16.0)	46 (22.0)	181 (21.3)
>10 journals	138 (60.8)	51 (26.2)	29 (50.0)	7 (12.7)	37 (34.9)	56 (26.8)	318 (37.4)
Univ admin: Nat journals	n=14 (%)	n=20 (%)	<i>n=4 (%)</i>	<i>n=3 (%)</i>	n=29 (%)	n=17 (%)	n=87 (%)
No journals	0 (0.0)	2 (10.0)	<i>1 (25.0)</i>	<i>2 (66.7)</i>	2 (6.9)	5 (29.4)	12 (13.8)
1 journal	1 (7.1)	3 (15.0)	<i>0 (0.0)</i>	<i>0 (0.0)</i>	3 (10.3)	9 (52.9)	16 (18.4)
2–3 journals	3 (21.4)	9 (45.0)	<i>2 (50.0)</i>	<i>1 (33.3)</i>	8 (27.6)	2 (11.8)	25 (28.7)
4–10 journals	5 (35.7)	2 (10.0)	<i>1 (25.0)</i>	<i>0 (0.0)</i>	3 (10.3)	1 (5.9)	12 (13.8)
>10 journals	5 (35.7)	4 (20.0)	<i>0 (0.0)</i>	<i>0 (0.0)</i>	13 (44.8)	0 (0.0)	22 (25.3)
Univ admin: Nat journals	n=14 (%)	n=20 (%)	<i>n=4 (%)</i>	<i>n=3 (%)</i>	n=28 (%)	n=17 (%)	n=86 (%)
No journals	1 (7.1)	1 (5.0)	<i>1 (25.0)</i>	<i>1 (33.3)</i>	2 (7.1)	10 (58.8)	16 (18.6)
1 journal	2 (14.3)	1 (5.0)	<i>1 (25.0)</i>	<i>0 (0.0)</i>	2 (7.1)	1 (5.9)	7 (8.1)
2–3 journals	0 (0.0)	2 (10.0)	<i>1 (25.0)</i>	<i>0 (0.0)</i>	2 (7.1)	4 (23.5)	9 (10.5)
4–10 journals	0 (0.0)	4 (20.0)	<i>0 (0.0)</i>	<i>2 (66.7)</i>	4 (14.3)	2 (11.8)	12 (14.0)
>10 journals	11 (78.6)	12 (60.0)	<i>1 (25.0)</i>	<i>0 (0.0)</i>	18 (64.3)	0 (0.0)	42 (48.8)

Free sites: Access only to free web sites. Pay-for-use sites: Access available to pay-for-use resources. Univ admin: University administrators. Access to nat journals: Access to national journals. Access to int journals: Access to international journals.

Italic: n<10

a study on health policy and systems research institutions found that the digital divide (inability to access the Internet) was less of an issue in comparison to the information divide (Gonzalez-Block and Mills, 2003). Relatively more university administrators (51%) mentioned that their institutions had access to pay-for-use Internet sites in comparison to individual researchers (34%) (Table 55). On the other

hand, relatively fewer researchers (6%) mentioned that they had no access to the Internet in comparison to university administrators' institutions (17%). The pattern suggests that if universities provide Internet access, they try to provide access to pay-for-use resources also. On the other hand, the Internet appears indispensable for research work and researchers who were not provided with access by their institutions accessed it through personal means.

There was good agreement between researchers and university administrators regarding access to journals. Understandably, university administrators' responses indicated slightly greater access. The fact that three fifths of universities did not have access to more than three national journals on mental health in comparison to two fifths of universities that did not have access to a similar number of international journals suggests a paucity of relevant national publications or a preoccupation with providing journals with a high impact factor (Cetto and Alonso-Gamboa, 1998).

Countries in Latin America have addressed the issue of the information divide comprehensively. BIREME, the Latin American and Caribbean Center on Health Sciences Information (supported by PAHO) offers access to 5937 national journals and 5421 international journals. Much material from this library can be accessed online for free through the Scientific Electronic Library (SciELO) (<http://www.scielo.br>). Similarly, the Portal, CAPES allows students and academic staff of 97 universities and research institutions in Brazil free, comprehensive and high performance web access to the full-text of over 3500 scientific and technical international journals. This library includes free access to mainstream mental health journals. The Virtual Library of Cuba is a free electronic service that allows regional scientific information on health to be available to researchers, stakeholders, teachers and students. Similar models need to be developed in other regions.

There was also good agreement between researchers and university administrators regarding access to technical support in epidemiology and biostatistics, access to technical support in neurosciences/basic sciences, and access to ethics review boards (Table 56). Understandably, university administrators' responses indicated slightly greater access. A study on health policies and systems research also found that key support disciplines like statistics were present in at least two thirds of institutions in all LMICs (Gonzalez-Block and Mills, 2003). It is clear that nodes of mental health research activity have developed in many LMICs. In such countries, major investments are required towards long-term, targeted and sustainable capacity development. The complete lack of technical support in epidemiology/biostatistics in 15%, technical support in neuroscience/basic science in 29%, and ethics review boards in 21% of universities is a serious issue because universities are often the hubs of current national research endeavours and have long lasting impact on research capacity development.

University administrators and decision-makers

Researchers' collaboration on research projects was not compared with university administrators' and decision-makers' perspectives on collaboration because the data exist at different levels of objectivity across the stakeholder groups. Sixty-eight per cent of university administrators and 25% of decision-makers stated that their institutions were involved in international collaborative research on mental health, suggesting that many collaborations occur at the level of researchers and institutions and that decision-making bodies are not consulted/informed regarding these

Table 56: Comparison of researchers and university administrators regarding access to technical support

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Epidemiology & biostatistics support							
Researchers	n=226 (%)	n=195 (%)	n=59 (%)	n=57 (%)	n=105 (%)	n=212 (%)	n=854 (%)
None	28 (12.4)	60 (30.8)	11 (18.6)	18 (31.6)	18 (17.1)	41 (19.3)	176 (20.6)
In institution	136 (60.2)	85 (43.6)	35 (59.3)	25 (43.9)	55 (52.4)	116 (54.7)	452 (52.9)
Outside institution	33 (14.6)	33 (16.9)	9 (15.3)	10 (17.5)	23 (21.9)	39 (18.4)	147 (17.2)
Qualified self	29 (12.8)	17 (8.7)	4 (6.8)	4 (7.0)	9 (8.6)	16 (7.5)	79 (9.3)
University administrators	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=86 (%)
None	0 (0.0)	3 (15.0)	0 (0.0)	1 (33.3)	4 (14.3)	5 (29.4)	13 (15.1)
In institution	14 (100.0)	17 (85.0)	3 (75.0)	2 (66.7)	20 (71.4)	10 (58.8)	66 (76.7)
Outside institution	0 (0.0)	0 (0.0)	1 (25.0)	0 (0.0)	4 (14.3)	2 (11.8)	7 (8.1)
Neurosciences & basic sciences support							
Researchers	n=226 (%)	n=195 (%)	n=57 (%)	n=58 (%)	n=105 (%)	n=213 (%)	n=854 (%)
None	49 (21.7)	99 (50.8)	17 (29.8)	24 (41.4)	31 (29.5)	68 (31.9)	288 (33.7)
In institution	120 (53.1)	54 (27.7)	27 (47.4)	25 (43.1)	51 (48.6)	103 (48.4)	380 (44.5)
Outside institution	33 (14.6)	35 (17.9)	9 (15.8)	6 (10.3)	20 (19.0)	34 (16.0)	137 (16.0)
Qualified self	24 (10.6)	7 (3.6)	4 (7.0)	3 (5.2)	3 (2.9)	8 (3.8)	49 (5.7)
University administrators	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=86 (%)
None	2 (14.3)	5 (25.0)	1 (25.0)	1 (33.3)	5 (17.9)	11 (64.7)	25 (29.1)
In institution	12 (85.7)	13 (65.0)	2 (50.0)	2 (66.7)	20 (71.4)	4 (23.5)	53 (61.6)
Outside institution	0 (0.0)	2 (10.0)	1 (25.0)	0 (0.0)	3 (10.7)	2 (11.8)	8 (9.3)
Ethics review board access							
Researchers	n=227 (%)	n=195 (%)	n=57 (%)	n=57 (%)	n=104 (%)	n=214 (%)	n=854 (%)
None	9 (4.0)	45 (23.1)	5 (8.8)	30 (52.6)	14 (13.5)	43 (20.1)	146 (17.1)
In institution	210 (92.5)	114 (58.5)	47 (82.5)	25 (43.9)	74 (71.2)	144 (67.3)	614 (71.9)
Outside institution	8 (3.5)	36 (18.5)	5 (8.8)	2 (3.5)	16 (15.4)	27 (12.6)	94 (11.0)
University administrators	n=14 (%)	n=20 (%)	n=4 (%)	n=3 (%)	n=27 (%)	n=17 (%)	n=85 (%)
None	1 (7.1)	3 (15.0)	2 (50.0)	0 (0.0)	3 (11.1)	9 (52.9)	18 (21.2)
In institution	12 (85.7)	17 (85.0)	2 (50.0)	3 (100.0)	22 (81.5)	8 (47.1)	64 (75.3)
Outside institution	1 (7.1)	0 (0.0)	0 (0.0)	0 (0.0)	2 (7.4)	0 (0.0)	3 (3.5)

Italic: n<10

(Table 57). While this is somewhat unavoidable, greater involvement of decision-making bodies can lead to the better coordination and the development of larger and agenda-based networks and would also ensure that issues related to ethics and equality of collaborators are addressed.

Table 57: Comparison of university administrators and decision-makers regarding international mental health research collaboration

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
University administrators	n=14 (%)	n=21 (%)	n=4 (%)	n=3 (%)	n=28 (%)	n=17 (%)	n=87 (%)
International	12 (85.7)	13 (61.9)	2 (50.0)	3 (100.0)	18 (64.3)	11 (64.7)	59 (67.8)
Decision-makers	n=14 (%)	n=22 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=71 (%)
International	1 (7.1)	2 (9.1)	1 (12.5)	1 (14.3)	0 (0.0)	0 (0.0)	5 (7.0)
Both, nat & inter	3 (21.4)	3 (13.6)	2 (25.0)	2 (28.6)	3 (23.1)	1 (14.3)	14 (19.7)

Both, nat & inter: Both national and international.

Italic: n<10

Decision-makers and association officers

Similar patterns of current involvement (rank order of types of involvement) in mental health research were found for decision-makers and association officers (Table 58). About one tenth of each group felt that it was not involved at all and about one fifth of each group indicated an involvement in ethical aspects of mental health research.

Table 58: Comparison of decision-makers and association officers regarding their involvement in mental health research process

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Decision-makers	n=14 (%)	n=23 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=72 (%)
None	0 (0.0)	0 (0.0)	2 (25.0)	0 (0.0)	0 (0.0)	5 (71.4)	7 (9.7)
Consultation	8 (57.1)	14 (60.9)	2 (25.0)	4 (57.1)	7 (53.8)	2 (28.6)	37 (51.4)
Subjects	3 (21.4)	11 (47.8)	2 (25.0)	6 (85.7)	7 (53.8)	0 (0.0)	29 (40.3)
Research design	6 (42.9)	16 (69.6)	3 (37.5)	6 (85.7)	10 (76.9)	0 (0.0)	41 (56.9)
Interpretation	4 (28.6)	12 (52.2)	4 (50.0)	2 (28.6)	9 (69.2)	0 (0.0)	31 (43.1)
Conduction of research	3 (21.4)	6 (26.1)	5 (62.5)	6 (85.7)	8 (61.5)	1 (14.3)	29 (40.3)
Ethical review	1 (7.1)	3 (13.0)	2 (25.0)	3 (42.9)	5 (38.5)	1 (14.3)	15 (20.8)
Association officers	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=69 (%)	n=45 (%)	n=164 (%)
None	3 (13.6)	2 (13.3)	2 (18.2)	0 (0.0)	2 (2.9)	3 (6.7)	12 (7.3)
Consultation	7 (31.8)	7 (46.7)	8 (72.7)	1 (50.0)	25 (36.2)	16 (35.6)	64 (39.0)
Subjects	5 (22.7)	7 (46.7)	4 (36.4)	1 (50.0)	38 (55.1)	16 (35.6)	71 (43.3)
Research design	7 (31.8)	4 (26.7)	5 (45.5)	0 (0.0)	32 (46.4)	21 (46.7)	69 (42.1)
Interpretation	5 (22.7)	3 (20.0)	5 (45.5)	0 (0.0)	28 (40.6)	21 (46.7)	62 (37.8)
Conduction of research	13 (59.1)	6 (40.0)	5 (45.5)	1 (50.0)	39 (56.5)	25 (55.6)	89 (54.3)
Ethical review	4 (18.2)	0 (0.0)	2 (18.2)	0 (0.0)	12 (17.4)	13 (28.9)	31 (18.9)

Interp/dissemin: Interpretation/dissemination.

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

Table 59: Comparison of decision-makers and association officers regarding possible areas of involvement in mental health research activities

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Decision-makers	n=14 (%)	n=24 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=73 (%)
Priority setting	11 (78.6)	16 (66.7)	6 (75.0)	4 (57.1)	12 (92.3)	3 (42.9)	52 (71.2)
Planning	7 (50.0)	18 (75.0)	5 (62.5)	6 (85.7)	11 (84.6)	2 (28.6)	49 (67.1)
Implementation	6 (42.9)	16 (66.7)	5 (62.5)	6 (85.7)	11 (84.6)	5 (71.4)	49 (67.1)
Dissemination	14 (100.0)	22 (91.7)	7 (87.5)	6 (85.7)	9 (69.2)	3 (42.9)	61 (83.6)
Fundraising	4 (28.6)	8 (33.3)	2 (25.0)	3 (42.9)	4 (30.8)	0 (0.0)	21 (28.8)
Conduction of research	4 (28.6)	7 (29.2)	7 (87.5)	6 (85.7)	8 (61.5)	1 (14.3)	33 (45.2)
Ethical review	4 (28.6)	2 (8.3)	2 (25.0)	5 (71.4)	5 (38.5)	1 (14.3)	19 (26.0)
Association officers	n=22 (%)	n=15 (%)	n=10 (%)	n=2 (%)	n=66 (%)	n=44 (%)	n=159 (%)
Priority setting	13 (59.1)	9 (60.0)	7 (70.0)	1 (50.0)	23 (34.8)	25 (56.8)	78 (49.1)
Planning	11 (50.0)	8 (53.3)	8 (80.0)	1 (50.0)	40 (60.6)	31 (70.5)	99 (62.3)
Subjects	7 (31.8)	6 (40.0)	4 (40.0)	1 (50.0)	19 (28.8)	17 (38.6)	54 (34.0)
Implementation	16 (72.7)	6 (40.0)	9 (90.0)	1 (50.0)	29 (43.9)	27 (61.4)	88 (55.3)
Dissemination	16 (72.7)	11 (73.3)	9 (90.0)	1 (50.0)	42 (63.6)	32 (72.7)	111 (69.8)
Fundraising	5 (22.7)	2 (13.3)	3 (30.0)	2 (100.0)	11 (16.7)	11 (25.0)	34 (21.4)
Conduction of research	13 (59.1)	4 (26.7)	8 (80.0)	1 (50.0)	43 (65.2)	30 (68.2)	99 (62.3)
Ethical review	8 (36.4)	4 (26.7)	5 (50.0)	0 (0.0)	13 (19.7)	19 (43.2)	49 (30.8)

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

Decision-makers and association officers differed somewhat with regard to possible areas of involvement in mental health research (Table 59). The rank order given by decision-makers was: dissemination, priority setting, planning and implementation, direct conduction of research, fundraising, and ethical review; while the rank order given by association officers was: dissemination, planning and direct conduction of research, implementation, priority setting, ethical review, and fundraising.

Greater involvement of both groups in ethical aspects of research would strengthen that aspect of research. Decision-makers could help in development of relevant policies and association officials could help in maintenance of greater transparency.

As shown in Table 60, more decision-makers (74%) had been involved in activities aimed at implementation of mental health research results in comparison to association officers (63%). The rank order of the methods used by both groups to ensure implementation was similar: advocacy, lobbying and fundraising. Greater attention to fundraising for mental health research would be useful as lack of adequate resources is a major reason for poor development of mental health research in the surveyed countries. It is also likely that funds raised by decision-makers would be channelled to priority mental health areas.

Table 60: Comparison of decision-makers and association officers regarding involvement in activities aimed at utilization of mental health research findings

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Implementation activity							
Decision-makers	n=14 (%)	n=24 (%)	n=5 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=70 (%)
No	0 (0.0)	8 (33.3)	0 (0.0)	0 (0.0)	0 (0.0)	5 (71.4)	13 (18.6)
Yes	14 (100.0)	12 (50.0)	5 (100.0)	6 (85.7)	13 (100.0)	2 (28.6)	52 (74.3)
Don't know	0 (0.0)	4 (16.7)	0 (0.0)	1 (14.3)	0 (0.0)	0 (0.0)	5 (7.1)
Association officials	n=22 (%)	n=15 (%)	n=11 (%)	n=2 (%)	n=66 (%)	n=45 (%)	n=161 (%)
No	7 (31.8)	6 (40.0)	3 (27.3)	1 (50.0)	24 (36.4)	12 (26.7)	53 (32.9)
Yes	15 (68.2)	6 (40.0)	8 (72.7)	1 (50.0)	39 (59.1)	32 (71.1)	101 (62.7)
Don't know	0 (0.0)	3 (20.0)	0 (0.0)	0 (0.0)	3 (4.5)	1 (2.2)	7 (4.3)
Methods used for ensuring implementation							
Decision-makers	n=14 (%)	n=24 (%)	n=5 (%)	n=7 (%)	n=13 (%)	n=2 (%)	n=65 (%)
Advocacy	5 (35.7)	4 (16.7)	5 (100.0)	5 (71.4)	9 (69.2)	1 (50.0)	29 (44.6)
Lobbying policy-makers	4 (28.6)	4 (16.7)	4 (80.0)	4 (57.1)	9 (69.2)	0 (0.0)	25 (38.5)
Fundraising	3 (21.4)	7 (29.2)	3 (60.0)	4 (57.1)	4 (30.8)	0 (0.0)	21 (32.3)
Others	4 (28.6)	0 (0.0)	0 (0.0)	1 (14.3)	1 (7.7)	1 (50.0)	7 (10.8)
Association officials	n=22 (%)	n=6 (%)	n=11 (%)	n=2 (%)	n=37 (%)	n=33 (%)	n=120 (%)
Advocacy	5 (22.7)	0 (0.0)	6 (54.5)	1 (50.0)	31 (83.8)	26 (78.8)	69 (57.5)
Lobbying policy-makers	5 (22.7)	3 (50.0)	7 (63.6)	1 (50.0)	13 (35.1)	21 (63.6)	50 (41.7)
Fundraising	4 (18.2)	1 (16.7)	4 (36.4)	1 (50.0)	13 (35.1)	12 (36.4)	35 (29.2)
Others	7 (31.8)	3 (50.0)	2 (18.2)	0 (0.0)	4 (10.8)	12 (36.4)	28 (23.3)

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

Issues pertinent to individual stakeholder groups

Researchers

Even if one allows for the limitations of the methods for enumerating researchers (identification of researchers from their outputs and networks, inefficiency in locating them, language barriers, lack of respondent motivation, etc.), an inescapable conclusion is that there is an absence of mental health research capacity (<5 identified researchers) in half of the LMICs in Latin America, Africa and Asia. Many countries, where no researchers were identified, are thinly populated, but some, such as Chad, Comoros or Niger have a considerable population. On the other hand, the 53 countries from where more responses were received are home to about 54% of the world population and 71% of the population of LMICs.

Policy and priorities

Motivating factors for researchers (stated and reflected in projects) include personal interest, burden of disease, and availability of funds (Table 61). Burden of disease was

Table 61: Comparison of researchers' opinion and actual projects: Criteria for prioritization

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Importance in opinion	n=219 (%)	n=180 (%)	n=55 (%)	n=58 (%)	n=103 (%)	n=193 (%)	n=808 (%)
Burden of disease	205 (93.6)	166 (92.2)	53 (96.4)	52 (89.7)	94 (91.3)	156 (80.8)	726 (89.9)
Availability of funds	86 (39.3)	77 (42.8)	8 (14.5)	23 (39.7)	46 (44.7)	37 (19.2)	277 (34.3)
Personal interest	174 (79.5)	79 (43.9)	45 (81.8)	43 (74.1)	72 (69.9)	160 (82.9)	573 (70.9)
Policy-maker request	35 (16.0)	31 (17.2)	15 (27.3)	10 (17.2)	39 (37.9)	29 (15.0)	159 (19.7)
Importance in actual project	n=500 (%)	n=412 (%)	n=135 (%)	n=134 (%)	n=221 (%)	n=466 (%)	n=1868 (%)
Burden of disease	301 (60.2)	207 (50.2)	89 (65.9)	95 (70.9)	118 (53.4)	239 (51.3)	1049 (56.2)
Availability of funds	53 (10.6)	70 (17.0)	26 (19.3)	14 (10.4)	69 (31.2)	46 (9.9)	278 (14.9)
Personal interest	358 (71.6)	268 (65.0)	94 (69.6)	87 (64.9)	155 (70.1)	308 (66.1)	1270 (68.0)
Policy-maker request	20 (4.0)	7 (1.7)	20 (14.8)	2 (1.5)	40 (18.1)	30 (6.4)	119 (6.4)

Note: The sum is more than 100% because subjects could give multiple responses.

consistently rated as the most important criterion for prioritization by researchers when asked the question directly. However, in actual project situations, personal interest appears to be the more important criterion. Researchers' responses regarding the importance of policy-maker requests suggest that there is very little dialogue between mental health research and policy. This can be problematic because evidence suggests the importance of strategically integrating research into the health system functions of stewardship and service delivery to ensure government support for research (Gonzalez-Block and Mills, 2003). Similarly, early and ongoing involvement

Table 62: Comparison of researchers' opinion and actual projects: Theme

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Importance in opinion	n=219 (%)	n=180 (%)	n=57 (%)	n=57 (%)	n=105 (%)	n=194 (%)	n=812 (%)
Epid burden	199 (90.9)	162 (90.0)	54 (94.7)	53 (93.0)	87 (82.9)	164 (84.5)	719 (88.5)
Clinical trials	132 (60.3)	64 (35.6)	15 (26.3)	25 (43.9)	43 (41.0)	76 (39.2)	355 (43.7)
Social sciences	79 (36.1)	103 (57.2)	41 (71.9)	32 (56.1)	72 (68.6)	138 (71.1)	465 (57.3)
Health systems	155 (70.8)	129 (71.7)	43 (75.4)	33 (57.9)	83 (79.0)	144 (74.2)	587 (72.3)
Basic sciences	86 (39.3)	60 (33.3)	12 (21.1)	21 (36.8)	27 (25.7)	58 (29.9)	264 (32.5)
Importance in actual project	n=471 (%)	n=413 (%)	n=135 (%)	n=132 (%)	n=229 (%)	n=467 (%)	n=1847 (%)
Epidemiology & PH	168 (35.7)	135 (32.7)	59 (43.7)	58 (43.9)	71 (31.0)	193 (41.3)	684 (37.0)
Clinical trials	57 (12.1)	36 (8.7)	17 (12.6)	14 (10.6)	46 (20.1)	58 (12.4)	228 (12.3)
Soc/psychol sciences	65 (13.8)	90 (21.8)	59 (43.7)	25 (18.9)	66 (28.8)	182 (39.0)	487 (26.4)
Health systems	16 (3.4)	23 (5.6)	35 (25.9)	17 (12.9)	36 (15.7)	80 (17.1)	207 (11.2)
Basic sciences	49 (10.4)	31 (7.5)	8 (5.9)	5 (3.8)	16 (7.0)	36 (7.7)	145 (7.9)

Epid burden: Epidemiological studies of burden and risk factors. Epidemiology & PH: Epidemiology and public health. Soc/psychol: Social/psychological sciences.

Note: The sum is more than 100% because subjects could give multiple responses.

of relevant decision-makers in the conceptualization and conduct of the study is the best predictor of its utilization (Lomas, 2000).

Looking at researchers' opinion and their practice in actual project situations there is some concordance in the ranking of priority themes. Epidemiology/burden of disease/public health issues were ranked first in both instances and basic science research was ranked last (Table 62). However, health systems research which was felt to be the second most important theme in the subjective opinion of researchers received relatively less attention (fourth rank) in the objective project situation. There is a need to explore the factors (e.g. funding, complexity) that impede researchers in undertaking valued health systems research.

The rank order of disorders proved to be more or less consistent in researchers' opinion and in actual project situations (Table 63). Depression/anxiety, substance use disorders, and psychoses held on to the first three positions, while disorders with onset in childhood and adolescence came somewhat lower in actual project situations.

Table 63: Comparison of researchers' opinion and actual projects: Disorder

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Importance in opinion	n=219 (%)	n=180 (%)	n=57 (%)	n=58 (%)	n=104 (%)	n=193 (%)	n=811 (%)
Psychoses	90 (41.1)	79 (43.9)	17 (29.8)	26 (44.8)	49 (47.1)	69 (35.8)	330 (40.7)
Depression/anxiety	188 (85.8)	141 (78.3)	37 (64.9)	37 (63.8)	80 (76.9)	137 (71.0)	620 (76.4)
Substance use disorders	156 (71.2)	98 (54.4)	27 (47.4)	31 (53.4)	43 (41.3)	71 (36.8)	426 (52.5)
Child & adol disorders	77 (35.2)	57 (31.7)	30 (52.6)	21 (36.2)	31 (29.8)	83 (43.0)	299 (36.9)
Dementia	52 (23.7)	25 (13.9)	4 (7.0)	8 (13.8)	22 (21.2)	24 (12.4)	135 (16.6)
Epilepsy	14 (6.4)	16 (8.9)	4 (7.0)	5 (8.6)	8 (7.7)	25 (13.0)	72 (8.9)
Personality disorders	23 (10.5)	27 (15.0)	5 (8.8)	10 (17.2)	15 (14.4)	36 (18.7)	116 (14.3)
Learning disorders	22 (10.0)	37 (20.6)	11 (19.3)	4 (6.9)	11 (10.6)	34 (17.6)	119 (14.7)
Eating disorders	16 (7.3)	15 (8.3)	1 (1.8)	2 (3.4)	2 (1.9)	7 (3.6)	43 (5.3)
Suicide	19 (8.7)	3 (1.7)	14 (24.6)	5 (8.6)	34 (32.7)	53 (27.5)	128 (15.8)
Others	16 (7.3)	24 (13.3)	14 (24.6)	9 (15.5)	10 (9.6)	27 (14.0)	100 (12.3)
Importance in actual project	n=501 (%)	n=402 (%)	n=129 (%)	n=134 (%)	n=224 (%)	n=464 (%)	n=1855 (%)
Psychoses	67 (13.4)	64 (15.9)	30 (23.3)	35 (26.1)	79 (35.1)	111 (23.9)	386 (20.8)
Depression/anxiety	181 (36.1)	131 (32.6)	55 (42.6)	58 (43.3)	95 (42.2)	181 (39.0)	701 (37.8)
Substance use disorders	128 (25.5)	86 (21.4)	39 (30.2)	32 (23.9)	35 (15.6)	89 (19.2)	409 (22.1)
Child & adol disorders	52 (10.4)	41 (10.2)	19 (14.7)	14 (10.4)	28 (12.4)	52 (11.2)	206 (11.1)
Dementia	66 (13.2)	45 (11.2)	10 (7.8)	17 (12.7)	39 (17.3)	39 (8.4)	216 (11.6)
Epilepsy	15 (3.0)	23 (5.7)	12 (9.3)	12 (9.0)	16 (7.1)	42 (9.1)	120 (6.5)
Personality disorders	38 (7.6)	40 (10.0)	13 (10.1)	20 (14.9)	18 (8.0)	81 (17.5)	210 (11.3)
Learning disorders	25 (5.0)	18 (4.5)	10 (7.8)	5 (3.7)	13 (5.8)	27 (5.8)	98 (5.3)
Eating disorders	37 (7.4)	32 (8.0)	6 (4.7)	7 (5.2)	9 (4.0)	17 (3.7)	108 (5.8)
Suicide	33 (6.6)	43 (10.7)	27 (20.9)	9 (6.7)	27 (12.0)	54 (11.6)	193 (10.4)
Others	112 (22.4)	142 (35.3)	45 (34.9)	37 (27.6)	54 (24.0)	142 (30.6)	532 (28.7)

Child & adol disorders: Disorders with onset in childhood and adolescence.

Note: The sum is more than 100% because subjects could give multiple responses.

The rank order of vulnerable populations in researchers' opinion and actual project situations was similar. Children and adolescents, women, persons exposed to violence and trauma, the poor, and the elderly held the top five ranks (Table 64).

The top three challenges faced by researchers overall in their pursuit of mental health research in LMICs were: lack of funds, lack of trained staff and lack of time. Lack of an appropriate research culture and lack of time were considered important challenges in Latin American countries, lack of collaborators as an important challenge in African countries and lack of time as an important challenge in Asian countries. Earlier reports based on the opinion of few researchers in countries with relatively low medical/health research outputs have mentioned similar reasons. Horton (2000) reported that researchers in South Asia considered lack of funding, lack of technical support, lack of training in research methodology, poor library facilities, and limited Internet technology as important limitations for growth of health research. These themes were

Table 64: Comparison of researchers' opinion and actual projects: Vulnerable populations

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Importance in opinion	n=219 (%)	n=180 (%)	n=57 (%)	n=57 (%)	n=105 (%)	n=189 (%)	n=807 (%)
Women	95 (43.4)	98 (54.4)	30 (52.6)	31 (54.4)	48 (45.7)	123 (65.1)	425 (52.7)
Children & adolescents	174 (79.5)	138 (76.7)	36 (63.2)	33 (57.9)	70 (66.7)	119 (63.0)	570 (70.6)
Poor	98 (44.7)	72 (40.0)	33 (57.9)	14 (24.6)	42 (40.0)	77 (40.7)	336 (41.6)
Refugees	6 (2.7)	5 (2.8)	5 (8.8)	13 (22.8)	5 (4.8)	11 (5.8)	45 (5.6)
Minorities	18 (8.2)	25 (13.9)	6 (10.5)	5 (8.8)	11 (10.5)	26 (13.8)	91 (11.3)
Elderly	119 (54.3)	40 (22.2)	3 (5.3)	18 (31.6)	56 (53.3)	62 (32.8)	298 (36.9)
Violence & trauma	104 (47.5)	98 (54.4)	27 (47.4)	23 (40.4)	32 (30.5)	67 (35.4)	351 (43.5)
Prisoners	10 (4.6)	6 (3.3)	3 (5.3)	9 (15.8)	4 (3.8)	12 (6.3)	44 (5.5)
Disabled	23 (10.5)	25 (13.9)	18 (31.6)	11 (19.3)	31 (29.5)	37 (19.6)	145 (18.0)
Others	11 (5.0)	18 (10.0)	5 (8.8)	2 (3.5)	8 (7.6)	13 (6.9)	57 (7.1)
Importance in actual project	n=500 (%)	n=361 (%)	n=120 (%)	n=133 (%)	n=201 (%)	n=385 (%)	n=1700 (%)
Women	138 (27.6)	131 (36.3)	53 (44.2)	50 (37.6)	59 (29.4)	159 (41.3)	590 (34.7)
Children & adolescents	127 (25.4)	135 (37.4)	65 (54.2)	46 (34.6)	69 (34.3)	139 (36.1)	581 (34.2)
Poor	113 (22.6)	62 (17.2)	48 (40.0)	24 (18.0)	36 (17.9)	80 (20.8)	363 (21.4)
Refugees	7 (1.4)	8 (2.2)	9 (7.5)	2 (1.5)	5 (2.5)	12 (3.1)	43 (2.5)
Minorities	46 (9.2)	18 (5.0)	16 (13.3)	10 (7.5)	8 (4.0)	36 (9.4)	134 (7.9)
Elderly	100 (20.0)	65 (18.0)	13 (10.8)	24 (18.0)	68 (33.8)	72 (18.7)	342 (20.1)
Violence & trauma	58 (11.6)	53 (14.7)	28 (23.3)	19 (14.3)	31 (15.4)	65 (16.9)	254 (14.9)
Prisoners	13 (2.6)	8 (2.2)	7 (5.8)	2 (1.5)	10 (5.0)	16 (4.2)	56 (3.3)
Disabled	15 (3.0)	33 (9.1)	14 (11.7)	4 (3.0)	30 (14.9)	41 (10.6)	137 (8.1)
Others	80 (16.0)	105 (29.1)	24 (20.0)	18 (13.5)	43 (21.4)	96 (24.9)	366 (21.5)

Violence & trauma: People exposed to violence and trauma.

Note: The sum is more than 100% because subjects could give multiple responses.

also mentioned in the case narratives of researchers and stakeholders in Asia B in the present study. Horton (2000) also stated that researchers in Africa listed lack of resources, lack of research capacity, isolation of researchers, lack of funding and support staff, lack of funds, absence of priority direction, poor library facilities, and limited Internet technology as important limitations. These themes are highlighted in the case study narratives from Africa A in the present study. Similarly, El Ansari, Sowied and Jabbour (2004) listed the following as pertinent to uneven development of research in the Arab region: research capacity, access to information, degree of institutional and academic development, pressure on academics to provide public services rather than publish research, regional institutional differences in ways professional merit is recognized and career advancement achieved, strength of research and publication culture, and 'brain drain'. Although the present report confirms what was already largely known about the important challenges faced by researchers in LMICs based on a survey of a large sample, there is a need to assess these challenges in more detail and in specific locales, and there is the need for action to counteract these factors.

Positive examples of actions to help correct the situation of arbitrary prioritization of research are beginning in the mental health sector. For example, a document from the Brazilian Academy of Science (Zago et al., 2002) raised the issue of social inequalities in mental health service provision and lack of universal access for severe mental disorders. The commitment to approach inequity in the health sector has recently become the basis for developing a new policy in Brazil.

Research infrastructure and networks

Most mental health researchers in LMICs work in relative isolation. In particular, South-South dialogue was deficient. Similar findings were reported in the field of health policy and systems research, where a bibliometric analysis revealed that only 11% of all single-country papers and 21% of multi-country studies are the product of South-South collaboration (Gonzalez-Block, 2006). This is worrisome because South-South collaboration offers considerable promise of strengthening research capacity rapidly and efficiently across LMICs; because of similarities in agenda, familiarity with resources (and constraints) and low risk of long-term migration of professionals.

Assessment of research infrastructure shows a cup that is half full or half empty. Lack of trained staff was considered an important resource constraint in all regions. A survey of general health researchers from low-income countries had also reported lack of capacity to be major constraint in conducting research (Global Forum for Health Research, 2002). On the other hand, more than two thirds of respondents reported that they had access to guidance on methodological and neuroscience/basic sciences issues.

Dissemination and impact of research

Strategies to disseminate mental health research are not well developed in LMICs. Only about one third of respondents contributed regularly to scientific journals and a similar proportion utilized either direct methods (e.g. meetings, reports) or various channels offered by the media (except local newspapers, which were occasionally used by most of the researchers) to communicate with stakeholders. The study on health policy and system institutions also showed that most final products of research had an academic audience (Gonzalez-Block and Mills, 2003). If research is to contribute to better mental health outcomes, it has to be communicated to various stakeholders.

Stakeholders

A total of 3829 stakeholders were identified. Very few stakeholders (≤ 2) could be identified in one third of countries and only 44 stakeholders could be identified in Africa B. This was in part due to difficulties in identifying them (e.g. dependence on web sites and networks, inefficiency in locating them, language barriers, lack of respondent motivation, etc.) but it also reflected the paucity of stakeholders interested in mental health research in these countries.

Decision-makers

The top three criteria for prioritizing mental health research in LMICs by decision-makers were: burden of disease, social justice and availability of funds. The fact that even policy-makers did not consider policy-maker request as an important criterion for research prioritization is a matter of concern as issues such as equity are often not addressed by funding agencies (Gonzalez-Block, 2004).

There was broad agreement in the rank order of decision-makers' actual involvement, as well as their opinion of possible involvement, in mental health research: planning, directly conducting research, and ethics (Table 65). The relatively low involvement (and potential involvement) of decision-makers in ethical aspects of research is problematic in that it sits within the stewardship function of the health research system framework and should be a concern of decision-makers.

The study showed that decision-makers' institutions were involved in policy and administrative issues and general support to research activities, but there was little direct involvement in training activities. The relative lack of involvement of these institutions in sponsorship of research training and collaboration on mental health research is worrisome.

University administrators

The lack of availability of mental health research capacity and/or the low value placed on mental health research in many LMICs is highlighted by the fact that nearly one

Table 65: Comparison of decision-makers' opinion and actual focus of work

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Actual involvement	n=14 (%)	n=23 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=72 (%)
Planning	6 (42.9)	16 (69.6)	3 (37.5)	6 (85.7)	10 (76.9)	0 (0.0)	41 (56.9)
Conduction of research	3 (21.4)	6 (26.1)	5 (62.5)	6 (85.7)	8 (61.5)	1 (14.3)	29 (40.3)
Ethics	1 (7.1)	3 (13.0)	2 (25.0)	3 (42.9)	5 (38.5)	1 (14.3)	15 (20.8)
Possible areas of involvement	n=14 (%)	n=24 (%)	n=8 (%)	n=7 (%)	n=13 (%)	n=7 (%)	n=73 (%)
Planning	7 (50.0)	18 (75.0)	5 (62.5)	6 (85.7)	11 (84.6)	2 (28.6)	49 (67.1)
Conduction of research	4 (28.6)	7 (29.2)	7 (87.5)	6 (85.7)	8 (61.5)	1 (14.3)	33 (45.2)
Ethics	4 (28.6)	2 (8.3)	2 (25.0)	5 (71.4)	5 (38.5)	1 (14.3)	19 (26.0)

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

tenth of institutions had no mental health researchers or ongoing research projects, and one fifth of institutions offered no courses with mental health research as a component. This was true of nearly half of the institutions in Asia B.

Much mental health research in LMICs is carried out in small establishments and by part-time researchers. Only about one third of institutions (none in Latin America B) had more than 10 mental health researchers in the field, and nearly 70% of these researchers spent less than 25% of their time in research-related activities. However, university-based mental health researchers received peer support through research collaborations. Almost three quarters of institutions reported having ongoing research collaboration with international bodies, agencies or groups and two thirds had ongoing research collaboration with community-based groups.

The lack of communication between universities and policy-makers and community groups was reaffirmed by the fact that only one third of university administrators reported that their institutions carried out assignments related to policy formulation or consultancy and one quarter stated that their institutions engaged in advocacy.

Association officers

Association officers' opinion of the priority mental health disorders was consistent with the actual focus of their work (Table 66). Depression/anxiety, substance use disorders, and psychoses were rated as the three most important disorders. The rank orders of learning disorders and dementia, the other two comparable categories, as priority disorders were also consistent with actual focus of work.

One third or less of respondents suggested that associations should be involved in ethical aspects of research. Similarly, only one fifth of respondents (none from Latin America B) reported that their associations were actually involved in ethical review

Table 66: Comparison of association officers' opinion and actual focus of work

	REGION						Total
	Latin America A	Latin America B	Africa A	Africa B	Asia A	Asia B	
Importance in opinion	n=21 (%)	n=14 (%)	n=11 (%)	n=2 (%)	n=69 (%)	n=33 (%)	n=150 (%)
Psychoses	14 (66.7)	6 (42.9)	5 (45.5)	2 (100.0)	28 (40.6)	9 (27.3)	64 (42.7)
Depression/anxiety	14 (66.7)	10 (71.4)	6 (54.5)	0 (0.0)	49 (71.0)	22 (66.7)	101 (67.3)
Substance use disorders	11 (52.4)	12 (85.7)	6 (54.5)	2 (100.0)	42 (60.9)	15 (45.5)	88 (58.7)
Dementia	6 (28.6)	1 (7.1)	2 (18.2)	0 (0.0)	15 (21.7)	3 (9.1)	27 (18.0)
Learning disorders	7 (33.3)	3 (21.4)	2 (18.2)	0 (0.0)	14 (20.3)	4 (12.1)	30 (20.0)
Focus of work	n=22 (%)	n=17 (%)	n=11 (%)	n=2 (%)	n=67 (%)	n=45 (%)	n=164 (%)
Psychoses	4 (18.2)	5 (29.4)	3 (27.3)	1 (50.0)	26 (38.8)	18 (40.0)	57 (34.8)
Depression/anxiety	4 (18.2)	7 (41.2)	5 (45.5)	0 (0.0)	34 (50.7)	21 (46.7)	71 (43.3)
Substance use disorders	3 (13.6)	6 (35.3)	3 (27.3)	2 (100.0)	26 (38.8)	20 (44.4)	60 (36.6)
Dementia	4 (18.2)	2 (11.8)	2 (18.2)	0 (0.0)	19 (28.4)	15 (33.3)	42 (25.6)
Learning disorders	2 (9.1)	4 (23.5)	4 (36.4)	1 (50.0)	19 (28.4)	13 (28.9)	43 (26.2)

Italic: n<10

Note: The sum is more than 100% because subjects could give multiple responses.

of mental health research protocols. Involvement of associations in the ethical review of mental health research protocols can do much to ensure the transparency of this process and to demystify research to the community.

About three fifths of associations carried out activities aimed at ensuring the implementation of mental health research findings, mostly through advocacy (58%). Relatively few associations (29%) raised funds to ensure implementation. The low priority given to raising funds could be related to the fact that most of the respondents belonged to small or moderate-sized associations. However, in resource poor settings, there may be a need for not-for-profit associations to take up larger roles (Saxena and Sharan, 2003).

Case study narratives

The narratives show that to have an impact on policy formulation, research should focus on public health problems that appear important to politicians and the general public and should be executed in active consultation with these constituents. A systematic review of literature showed that the three most often mentioned facilitators of the use of research were personal contact between researchers and policy-makers, the timeliness of research, and inclusion of a summary with clear recommendations (Garner et al., 1998). The narratives also show that it is important to have the resources needed for the research (e.g. trained researchers and funding) in place if it is to have policy impact. Informants stated that there was a need to include training in research methodology, statistical tools and English in university programmes; to identify opportunities for funding; and to promote networking of researchers in the region to enable a robust mental health research output. Researchers and stakeholders also recognized the necessity of converging local and international efforts for strengthening research capacity and results utilization. The interviewees suggested that there was a need for an organization to bridge the gap between policy and research, and for sensitizing researchers about the usefulness of involving policy-makers in their research and for sensitizing policy-makers about the importance of good mental health research. Dissemination of research findings through suitable methods to appropriate stakeholders was stated as important. Further, interviewees mentioned that there was a need for national and international organizations to come together to improve the process of research priority setting.

Conclusions

Mental health research as a component of health research is an essential link to equity and development. The results of this study highlight the need to review and strengthen the management of mental health research so that it meets the national needs of LMICs as well as contributes to the global fund of knowledge. Other organizations and governments in LMICs should allocate greater funds to research, capacity and infrastructure strengthening. Though some examples of research impacting policy are available, in general there is little interface between research and policy. There is a need for organizations that work to bridge the gap between policy and research by sensitizing researchers about the usefulness of involving policy-makers in their research and sensitizing policy-makers about the importance of good mental health research. Finally, it should be re-emphasized that half of the LMICs in the three regions had made very little progress in mental health research and research infrastructure development. The challenge now is to develop strategies for the countries that have made the least progress.

5

RECOMMENDATIONS

1. Raise awareness of the importance of mental health

Governments and other institutions should consider mental health crucial to the overall health of their populations and to their national development. Mental, neurological and behavioural disorders cause immense suffering and disability. Furthermore, mental disorders and their untoward consequences are the cause of major economic and social costs. Also, people with these disorders are often subjected to social isolation, poor quality of life and increased morbidity and mortality. When mental disorders go untreated, they may lead to unhealthy behaviour, non-compliance with prescribed regimens, and even to diminished immune functioning and poor overall prognosis. The inclusion of mental health at all levels of health planning could make the difference.

2. Integrate with health research systems

Mental health policies and structures vary greatly in their performance – that is, in how efficiently they improve mental health conditions, expand access to health care and contain growth in expenditures. Since mental health research is not well coordinated with health research systems in many countries, it results in inefficiencies, gaps and duplications. A more systematic and managed approach to mental health research can help to address these problems because certain research questions or needs of the health system require collaboration and linkages between different research organizations and different disciplines. Integrating with the health research system can enhance synergies, ensuring that the total effect of national mental health research is more than the sum of individual efforts.

3. Establish governance and monitor progress in mental health research

A central planning unit involving the government, donors, research institutions and NGOs should be established to ensure that national and regional mental health research issues are addressed. Its mandate should not be to operate research programmes but to promote action by others. The unit could identify and monitor gaps in mental health research, formulate priorities and plans, advocate for funds, assess mental health research capacity, establish networks, disseminate information, and provide technical and financial support for activities such as the recruitment of a consultant, financing of meetings, publications and so on. This unit should liaise with national and regional forums on health research, such as the Asia-Pacific Health Research Forum, the South Asian Forum for Health Research, the African Health Research Forum and health networks like those between Latin America and the Caribbean countries, francophone Africa and Central Asian countries; and with global bodies like WHO, COHRED, the Global Forum, and the INCLIN Trust.

One of the major functions of such a unit would be to establish a mechanism for regular discussion on and monitoring of mental health problems and priorities by a variety of stakeholders (policy-makers, research institutions, community leaders, health care providers) dealing with major national health issues. This should include:

- Review of the mental health research gap in its various dimensions (including research quality) at the level of major disorders and risk factors as well as progress made in correction of the gap. In LMICs it may be useful to concentrate on epidemiological, behavioural and health system issues.
- Development and use of low-cost methods for collecting reliable data. Simple methods could solve important research problems and should not be devalued when compared with complex methodologies.
- Priority setting by using appropriate methodologies and in consultation with all stakeholders, with appropriate course correction.
- Assessment of funding provided for mental health research and its allocation among institutions and areas of mental health research.
- Review of results of capacity-building efforts and translation of research results into policies and interventions.
- Review of work of major networks engaged in helping correct the gap in mental health research.
- Discussions on cross-cutting issues in the fields of poverty, gender, and research capacity strengthening as they relate to the gap in mental health research.
- Discussion on integration with general health research to carry forward the mental health agenda.

Apart from monitoring of progress indicators, periodic external evaluations should be carried out.

4. Formulate and implement mental health research priorities

The process of setting priorities in health research is as critical as conducting the research itself. Priority-setting exercises in the area of mental health research are limited to a very few countries and institutions and a major effort is needed to ensure that all countries and institutions base their resource allocations on the burden of disorders, the main determinants of health, and social justice. Priority-setting exercises for mental health and mental health research should systematically take into account key actors and factors beyond the biomedical field (i.e., the individual, behavioural and community dimensions; sectors other than health which have a profound effect on the health status of a population; and macroeconomic policies) to ensure the most effective and efficient use of the limited resources available for mental health research.

In order to make the results as objective as possible – that is, as representative as possible – of the priorities of a local community, a nation or the global population, it is essential to adopt a priority-setting process which is as transparent and participatory as possible, and to apply a methodology which is as scientific as possible – even though both are costly in terms of the financial and human resources needed. The Combined Approach Matrix (CAM) of the Global Forum (Ghaffar, de Francisco and Matlin, 2004), which combines the main advantages of the various methodologies

for priority setting proposed in the 1990s and has been shown to be applicable to schizophrenia (Global Forum for Health Research, 2004) is a promising tool for priority setting in the mental health field (see publications catalogue, page 143).

The prioritization of mental health research should take place at the local, national and global levels, as resources are invested in health research, in one form or another, at all three levels. The three levels should be linked in an iterative process and involve all stakeholders. Mental health research priorities should be established by local communities, based on the local burden of disorders and determined through a participatory process involving the use of scientific tools. National authorities should then identify the national mental health research priorities, based on information about the national burden of disorders and the results of the priority-setting exercises of the local communities, again through a participatory process and the use of scientific tools. The definition of the national and local priorities and actual research activities should be the result of an iterative process between the two levels, the ultimate result being based on comparative advantages. International organizations and institutions with a global remit should then identify global mental health research priorities, based on the global burden of disorders and the national priorities defined by as many countries as possible, using a participatory process and scientific tools. Here also, the definition of the global and national mental health research priorities should be the result of an iterative process between the two levels, the ultimate result being based on comparative advantages.

A fundamental requirement for research to be effective is to ensure that the results of research are transformed into actual and measurable improvements in people's health. The following steps should be undertaken to implement the mental health research priorities:

- transformation of the broad list of research priority areas into a research portfolio;
- integration of priorities into an appropriate governmental plan, agenda or policy to ensure political backing;
- periodic review and update of priorities as priority setting is a long-term effort;
- investment in research priorities.

An important area of action for all countries will be to ensure that mental health research addresses all key obstacles (e.g. stigma, inaccessibility) that can explain why the findings of mental health research do not result in improvements in people's mental health.

5. Increase funding for mental health research

A detailed mapping of resource flows in the mental health field will help decision-makers to target, and therefore better allocate, funds supporting mental health research. However, very limited information is available about resource flows for mental health research and there seems to be little awareness of the usefulness of such information. All governments should measure their investments in mental health research and bring these into line, as far as possible, with their country's burden of mental disorders, using a systematic methodology for research priority setting. Particular attention should be paid to research outside the biomedical sector, which has been largely underfunded in comparison to its potential impact on people's health in general and mental health in particular. Furthermore, work on the lines suggested by the Commission on Macroeconomics and Health (2001) should be systematically pursued at country level

to document the high benefits, for each country and for the world as a whole, of prioritizing mental health research at the global, regional and national levels and of redirecting mental health research from low- to high-priority projects.

If the mental health research budget is ring fenced it should be possible to trace the financial flows in the mental health field by methodologies developed for monitoring spending on health research at the country level as outlined in the *Guide to producing national health accounts with special applications for low-income and middle-income countries* (World Health Organization, 2003). It would be useful to establish a database to identify resource needs, track results and leverage resources.

At the national level countries should explore innovative financing strategies (e.g. loans from development banks for mental health research, funding pools, funding intermediaries, public-private partnerships, etc.). International bodies should mobilize broader funding support from foundations and special research agencies (e.g. International Development Research Centre, Swedish Agency for Research Cooperation with Developing Countries) for mental health research issues. Similarly, should the Global Health Research Fund for research on neglected diseases and important risk factors, proposed by the Commission on Macroeconomics and Health (2001) materialize; a portion should be earmarked for mental health research. Additional funds could be channelled through special programmes for research and training in mental health through the Mental Health and Substance Abuse Department of WHO, the Global Forum and others. Specific funding allocation may be needed for Africa and South Asia. Discussions on financing needs for mental health research between partners are needed at the global, regional and country levels.

6. Invest in mental health research capacity strengthening

Research capacity is a tool to help a country deal with its national health problems, in as effective and efficient a manner as possible. It is therefore part of the national health system and should be integrated in a comprehensive national health plan for the promotion of health and the delivery of health services to the country. The Commission on Macroeconomics and Health (2001) has argued that mobilizing resources for larger investments in research capacity strengthening (RCS) is a central issue and is one of the most powerful, cost-effective and sustainable means of advancing health and development. A major thrust should be the measurement of the results and sustainability of the RCS efforts. There is thus a need to define the expected outcomes and impacts of mental health RCS programmes and develop indicators of progress from the outset.

The sustainability of health research may be improved by establishing regional networks of mental health research scientists with a regional umbrella for RCS governance. A facilitation unit to develop mental health research capacity could serve the same purpose at the national level. External donors could be encouraged to systematically include capacity-building components in their projects. Efforts should be made to earmark portions of research endowment funds (with equal participation from national governments) for mental health research. Partnership grants in which the principal investigator is a mental health researcher in the developing country institution could be useful and would exemplify the complementarity between individual training and institutional capacity development. Programmatic development of projects that involve researchers at various levels of career development and

introduce them to various research strategies and methodologies could be particularly useful in this regard. Strengthening of mental health research departments/units in schools of public health, medical schools and research institutions in LMICs should be considered essential. However, the huge costs of the 'brain drain' in the mental health field still needs to be assessed and strategies to reduce and possibly control this problem should be explored. It may be useful in this regard to map centres of excellence for regional capacity building.

The critical role of the enabling environment at the country level for good research (policies, infrastructure, salaries, equipment, and supplies) needs to be addressed. Potential partners for RCS in mental health include national medical research councils, professional organizations in the mental health field, mental health departments in academic institutions and civil society organizations with an interest in mental health research at the national level, along with professional bodies, donor organizations and organizations involved in health research governance at the international level. In this regard, incorporation of institutions conducting mental health research in the Alliance for Health Policy and Systems Research would be useful for generation and synthesis of mental health knowledge, mental health capacity building on national and global issues, and dissemination and use of mental health knowledge in health policies and systems (Alliance for Health Policy and Systems Research, 2002). The Collaborative Training Project (CTP) launched in 2002 by the Alliance for Health Policy and Systems Research, COHRED, the Global Forum and the INCLEN Trust also could be beneficially used to promote mental health research (Global Forum for Health Research, 2004).

7. Develop research networks and public-private partnerships

It is essential to promote the steady growth of collaborative international research networks as the principal means for mobilizing scientific talent to tackle common problems. The development of public-private partnerships is useful when neither the public sector nor the private sector alone can solve the problems at hand.

It would be useful to connect more LMIC researchers and stakeholders to the established mental health research networks (e.g. the Mental Health Global Action Programme of WHO and the Global Network for Research in Mental and Neurological Health) (Global Forum for Health Research, 2004) and networks focusing on priority-setting methodologies, policies and cross-cutting issues (e.g. Alliance for Health Policy and Systems Research) (Alliance for Health Policy and Systems Research, 2002); COHRED (COHRED Working Group on Priority Setting, 2000); the Global Forum; the Rockefeller Foundation; the United Kingdom Department for International Development (DFID) and the World Bank). Updated databases of researchers and stakeholders who are active in mental health research in LMICs would be useful to establish linkages.

In these collaborative efforts between the national, regional and global levels, the principle of subsidiarity should apply – that is, the regional level should only undertake what cannot be done at the country level and the global level should concentrate on issues which go beyond the regional level. More work is required in the areas of coordination of international programmes at country level; establishment of regional clearinghouses/databases on human and institutional resources, projects, funds and best practices; promotion of regional mental health research journals; promotion of collaboration between LMICs and high-income countries and between two (or more) LMICs in priority areas.

8. Consider cross-cutting issues affecting mental health

The mental health status of a population is influenced by a number of cross-cutting issues such as poverty, gender, research capacity and government policies. Gender and socioeconomic status also influence the access of individuals to health care and the quality of the treatment received. These cross-cutting issues can be best addressed by mainstreaming them as key variables in all strategies. Socioeconomic and gender sensitivity can only be achieved with a coherent set of policies to build capacity among researchers and involve civil society organizations in the determination of research priorities and in the design and conduct of individual studies.

9. Connect with information networks in health research

In addition to being a strategy in itself, information and communication has a role to play in all other strategies, in terms of both specific activities and indicators of success. Actions that can help in ensuring the sharing and utilization of mental health information by the population include:

- promotion of collaborative efforts by governments, health professionals, publishers and international organizations for creating reliable, timely, high quality and affordable health care and health information systems – for example, Health InterNetwork Access to Research Initiative (www.who.int/hinari/en), Scientists for Health and Research for Development (www.shared-global.org), the Scientific Electronic Library Online (www.scielo.org), Bioline International (www.bioline.org.br), and African Journals Online (www.ajol.info), and Editors Group (coordinated by WHO);
- promotion of continuous medical training, education and research through the use of information and communication technologies;
- involving all stakeholders in the knowledge cycle;
- building capacity for information and communication technologies (e.g. through the United Nations Information Technology Services (www.unites.org)).

提要

精神和神经障碍占全球疾病负担的3%。此外，导致全球范围内1/3早死的10个主要风险因素中的多半都与诸如不安全性行为、酗酒、酗酒等行为决定因素有关。尽管如此，心理健康仍然是公共卫生领域中一个被忽视的方面，对该领域的研究也远远不够，特别是在广大中低收入国家尤为如此。该项目由世界卫生组织和全球卫生研究论坛发起，旨在通过（1）确定心理健康研究领域的行为者；（2）制定目前的研究议程；（3）描述确定心理健康研究工作重点的过程；（4）介绍该研究成果的推广及其对心理健康政策和实践的影响，对包括30个拉丁美洲国家、52个非洲国家和32个亚洲国家在内的114个中低收入国家的心理健康研究的现状进行说明。

通过对索引文献（医学文献和心理学信息数据库）和非索引文献（当地期刊、未出版的论文、会议议程和报道）的广泛和规范化的搜索，列举了心理健康领域的广大研究人员和其他的利益相关方（包括决策者、大学管理人员和机构负责人）、10000多篇相关文章、4633位心理健康研究人员和3892位其他利益相关方。通过对上述四组中每组情况的调查，获得了关于研究成果、重点和筹资的信息。通过对关键知情人的深入采访，得出了关于政策和研究之间的关联和相互影响方面的看法。

在国际心理健康十年（1993 - 2003）索引文献中，114个中低收入国家中有57%的国家发表的文章不足5篇，而在非索引文献中，几乎有70%的国家很少有文章发表，这表明很多中低收入国家缺乏对心理卫生的研究（和研究人员）。而另一方面，一些国家如中国、印度、韩国、巴西、阿根廷和南非等在国际心理健康出版物中发表了大量的文章——这一结果证明在心理健康研究成果方面，区域内部和不同区域之间存在着明显的差异。

调查结果表明，研究人员、其他心理健康领域有关利益相关方和不同地区间已经就中低收入国家心理健康研究优先领域这一问题达成了广泛共识。对疾病负担和风险因素的流行病学研究、卫生系统研究和社会科学研究是最需要研究的三种类型。抑郁/焦虑、物质使用障碍和精神病被确定为三种最主要的障碍，而重点人群是儿童、青少年、妇女和遭受暴力/创伤的人群。尽管就研究人员个人研究兴趣的重要性是否应被视为确定研究优先领域的一个标准还存在明显的分歧，但广大研究人员和利益相关方均认为确定研究优先领域的最重要的标准是疾病负担、社会正义和资金的可及性。

经过深入采访，多数受访人员认为本国的心理健康研究成果很少，这就证实了相关文献审计得出的结果。同时也提到了导致这一问题的众多原因。受访人员提到在资金不足，缺少训练有素的人员和基础设施，缺少研究网络、多数机构研究文化缺失的情况下，临床医生和学者们仍然有很多需求有待满足。

尽管采访中出现了将对政策和实践产生影响的研究案例，但受访者表示，由于研究人员和决策者之间缺乏交流，政策、干预措施或项目很少是建立在心理

健康研究成果的基础之上的。的确，受访人员表示，几乎他们能想到的每一个关于研究对政策和实践影响的案例，都会有一个反例。双方都缺少大量的训练有素和了解情况的行为者以及用于支持政策发展的基线调查被认为是导致缺少交流的主要因素。

这些结果突出强调需要回顾并加强对心理健康研究的管理，从而使其满足广大中低收入国家的需求，并为全球知识基金做出贡献。广大中低收入国家的政府和其他机构应该设计相关机制，划拨更多的资金用于研究，加强能力和基础设施建设。尽管目前在研究对政策和实践的影响方面有一些案例，但总体来说，研究和政策之间的关联和相互影响仍然很少，所以相关组织有必要让研究人员充分认识到在其研究过程中其他利益相关方参与的有用性，同时让利益相关方了解进行充分的心理健康研究的重要性。通过这种方式来缩小政策和研究工作之间脱节的现象。最后，值得再次强调的一点是在三个地区的中低收入国家中有半数的国家在心理健康研究和研究基础设施开发方面的进展很小。目前面临的问题就是为进展最小的国家制定战略。

该报告的结果强调需要：

1. 政府和其他机构需要认识到，心理健康对本国人民的整体健康状况至关重要，同时对国家发展也具有重要影响。
2. 将心理健康研究纳入到整个卫生研究领域，从而增强合力、避免低效、分歧和重复。
3. 建立一个主导机构来确定并监测国家和地区范围内心理健康研究方面存在的差距、确定优先发展领域、寻求资金支持、对研究能力进行评估、建立网络、推广信息并提供技术和财政支持。
4. 通过透明、参与式和科学的过程制定并实施心理健康研究的优先领域。全球论坛的综合方法的矩阵分析（CAM）是确定优先发展领域的一个有效工具。
5. 增加国家对心理健康研究的资金投入，尽可能使其符合国家面临的精神障碍相关疾病负担的实际情况。此外，主要研究捐赠方必须在其预算中包括一项具体的用于心理健康的支出。
6. 对加强心理健康能力建设进行投资，特别是通过对该领域的专业人员进行研究培训，提供激励政策。
7. 发展研究网络和公私合作伙伴关系。特别是更多的中低收入国家的研究人员和其他利益相关方应该联合起来参与建设研究网络。
8. 将诸如社会经济现状和性别等跨领域的问题作为重要变量纳入到所有的战略制定和研究设计中。
9. 在卫生研究中运用信息网络，以确保研究人员、决策者和公众能够分享并利用心理健康方面的相关信息。

Résumé

Les troubles mentaux et neurologiques constituent 13% du fardeau mondial de la maladie. Il faut en outre considérer que les déterminants comportementaux représentent plus de la moitié des dix principaux facteurs de risque à l'origine d'un tiers de la mortalité prématurée dans le monde. Les pratiques sexuelles à risque, ainsi que la consommation de tabac et d'alcool en sont des exemples. Malgré ces faits avérés, la santé mentale reste un domaine négligé de la santé publique, dans lequel la recherche est insuffisante, plus particulièrement dans les pays à bas et moyen revenu. Le présent projet a été lancé par le Forum Mondial de la Recherche sur la Santé (Forum mondial) et l'Organisation mondiale de la Santé (OMS), dans le but de faire l'état des lieux de la recherche en santé mentale dans 114 pays à bas et moyen revenu d'Amérique latine et des Caraïbes (30), d'Afrique (52) et d'Asie (32) selon les étapes suivantes : (1) recensement des acteurs de la recherche en santé mentale ; (2) recensement des recherches en cours ; (3) description des processus d'établissement des priorités ; et (4) description de la diffusion de la recherche et de son influence sur les politiques et pratiques en matière de santé mentale.

Une liste de chercheurs, décideurs, administrateurs d'université et responsables d'association travaillant dans le domaine de la santé mentale a été dressée au moyen d'une recherche standardisée de la littérature indexée (bases de données Medline et psycINFO) et non indexée (journaux locaux, articles non publiés, actes de conférences et rapports). Ce travail a permis de trouver plus de 10 000 articles pertinents et d'identifier 4633 chercheurs en santé mentale et 3829 autres parties intéressées. Des enquêtes menées auprès de chacun des quatre groupes de partenaires décrits ci-dessus, ont ensuite permis de recueillir des informations sur la recherche produite, les priorités et le financement. Enfin, lors d'entretiens approfondis, des personnes-clés ont fait part de leur analyse de l'interface entre la politique et la recherche.

Il apparaît selon cette étude, que la contribution de 57% des 114 pays à bas ou moyen revenu à la littérature internationale indexée sur la santé mentale se limite à moins de cinq articles sur une période de 10 ans (1993–2003). En ce qui concerne les sources non

indexées, seul un nombre très restreint d'articles a été trouvé dans près de 70% de ces pays. Ces résultats mettent en évidence la carence de recherche en santé mentale (et de chercheurs) dans un grand nombre de pays à bas et moyen revenus. En revanche, certains pays comme l'Afrique du Sud, l'Argentine, le Brésil, la Chine, l'Inde et la République de Corée ont apporté une contribution significative aux publications internationales sur la santé mentale, ce qui témoigne des variations considérables dans la production de recherche qui existent à l'intérieur d'une même région ainsi qu'entre les différentes régions du monde.

Les résultats de l'enquête montrent que les chercheurs en santé mentale et autres intervenants-clés de toutes les régions, sont très largement d'accord sur les priorités de la recherche en santé mentale dans les pays à bas et moyen revenu. En tête de celles-ci, on trouve les études épidémiologiques sur la charge de morbidité et les facteurs de risque, la recherche sur les systèmes de santé et la recherche en sciences sociales. Les trois troubles considérés comme absolument prioritaires sont la dépression/anxiété, l'abus de substances et les psychoses, tandis que les groupes prioritaires au sein de la population sont les enfants et adolescents, les femmes et les personnes exposées à la violence ou aux traumatismes. Pour fixer des priorités en matière de recherche, les critères suivants sont considérés comme les plus importants : charge de morbidité, justice sociale et disponibilité des fonds. Il faut toutefois signaler de fortes divergences d'opinion entre les chercheurs et les autres intervenants-clés en ce qui concerne l'importance de l'intérêt personnel du chercheur en tant que critère pour fixer les priorités.

La plupart des participants aux entretiens approfondis ont souligné la faible production de recherche en santé mentale dans leur pays, corroborant ainsi les résultats de l'étude de la littérature. Les raisons citées sont multiples : Tant les praticiens que les universitaires doivent faire face à une forte sollicitation dans un contexte caractérisé par un manque de financement et de personnel qualifié, par un faible soutien sur le plan des infrastructures et par l'absence de véritables réseaux de recherche, cela dans des institutions où la culture de la recherche fait défaut.

Les entretiens ont certes permis de recueillir des exemples de recherches ayant eu une influence sur les politiques et pratiques en matière de santé mentale. Toutefois, selon les participants, seul un petit nombre de politiques, d'interventions ou de programmes sont établis à partir d'informations provenant de recherches en santé mentale menées dans leur pays. Cet état de fait est essentiellement imputable au manque de communication entre les chercheurs et les décideurs. En effet, les personnes interrogées ont indiqué qu'elles pouvaient citer à peu près autant d'exemples de recherches ayant influencé les politiques et pratiques que de contre-exemples. Deux facteurs semblent contribuer à ce manque de communication : le fait que le nombre d'acteurs qualifiés et informés n'atteigne pas une masse critique et l'absence de données de base pour soutenir les politiques de développement.

Ces résultats ont mis en exergue le besoin de réexaminer et de renforcer la gestion de la recherche en santé mentale afin que cette dernière réponde aux besoins des pays à bas et moyen revenus, et vienne enrichir la somme des connaissances au niveau mondial. Il est souhaitable que les gouvernements et les autres institutions des pays à bas et moyen revenu créent des mécanismes permettant d'accorder davantage de fonds à la recherche et au renforcement des capacités et des infrastructures. Il existe certes des exemples de recherches ayant influencé la politique et la pratique, mais l'interface entre recherche et politique est en général très restreinte. Les organisations doivent s'efforcer de jeter des ponts entre la politique et la recherche en sensibilisant les chercheurs à l'utilité d'impliquer d'autres intervenants-clés dans leurs recherches et en sensibilisant ces derniers à l'importance d'une recherche en santé mentale de qualité. Enfin, il faut souligner que, dans les trois régions étudiées, la moitié des pays à bas et moyen revenu n'a encore que très peu avancé sur le plan de la recherche en santé mentale et dans le développement d'infrastructures de recherche. Le défi à relever aujourd'hui est d'élaborer des stratégies pour les pays ayant le moins progressé.

Les résultats du rapport mettent l'accent sur la nécessité de:

1. Faire en sorte que les gouvernements et les autres institutions considèrent la santé mentale comme une composante essentielle de la santé de leur

population et son importante corrélation avec le développement de leur pays.

2. Intégrer la recherche en santé mentale au sein des systèmes de recherche en santé afin de créer des synergies et d'éviter les pertes d'efficacité, les lacunes et les doublons.
3. Instituer un organisme directeur chargé d'identifier et de gérer les lacunes de la recherche nationale et régionale en santé mentale, d'établir des priorités, de solliciter des fonds, d'évaluer la capacité de recherche, de créer des réseaux, de diffuser l'information et de fournir un soutien technique et financier.
4. Formuler et mettre en œuvre les priorités de la recherche en santé mentale au moyen d'un processus scientifique, transparent et participatif. La Combined Approach Matrix (CAM) du Forum mondial, une matrice combinant différentes approches, constitue un outil efficace pour l'établissement de priorités.
5. Augmenter le financement national de la recherche en santé mentale afin qu'il corresponde, dans la mesure du possible, à la charge de morbidité des troubles mentaux dans le pays concerné. Il est en outre nécessaire que les principaux donateurs incluent une part spécifiquement réservée à la santé mentale dans leurs affectations budgétaires.
6. Investir dans le renforcement de la capacité de recherche en santé mentale, plus particulièrement à travers la formation en recherche et par des incitations à l'adresse des professionnels de la santé mentale.
7. Développer des réseaux de recherche et des partenariats public-privés. Il faut en particulier que davantage de chercheurs et intervenants-clés des pays à bas et moyen revenu soient connectés aux réseaux de recherche existants.
8. Veiller à la prise en compte systématique (mainstreaming) de questions transversales telles que le statut socio-économique et le genre – considérées comme des variables-clés – lors de l'élaboration des stratégies et des projets de recherche.
9. Assurer le contact avec les réseaux d'information de la recherche en santé pour un meilleur partage et utilisation des informations concernant la santé mentale par les chercheurs, les décideurs et la population en général.

Sumário

Os transtornos mentais e neurológicos são responsáveis por 13% da carga global das doenças. Além disso, dentre os dez principais fatores de risco responsáveis por um terço das mortes prematuras em todo o mundo, mais da metade têm determinantes comportamentais, como por exemplo o comportamento sexual de risco, consumo de tabaco ou álcool, etc. Apesar desta evidência, a saúde mental é uma área negligenciada tanto na área da Saúde Pública como em pesquisa, especialmente, em países de baixa e média renda per capita. Este projeto foi desenvolvido pelo Global Forum for Health Research (Global Forum) e a Organização Mundial da Saúde (OMS) para investigar o estado atual da pesquisa em saúde mental em 114 países de baixa e média renda per capita na América Latina e Caribe (30), na África (52) e na Ásia (32), a partir da : (1) identificação dos principais atores que atuam em pesquisa na área de saúde mental; (2) identificação da agenda atual em pesquisa; (3) descrição do processo de estabelecimento de prioridades para pesquisa em saúde mental; e (4) descrição dos meios de divulgação dos resultados de pesquisa e o de seu impacto nas práticas de política em saúde mental.

Os pesquisadores em saúde mental e os indivíduos envolvidos em tomadas de decisão, administração de universidades e associações foram identificados através de uma busca extensa e padronizada em bases indexadas (Medline e PsycINFO) e não indexadas (periódicos locais, documentos não publicados, resumos de conferências e relatórios). Foram identificadas mais de 10.000 publicações, 4.633 pesquisadores em saúde mental e 3.829 indivíduos no exercício de atividades de administração de universidades, de associações e de tomada de decisão. O estudo realizado com esses quatro grupos forneceu informações sobre a produção científica, as prioridades e o financiamento em pesquisa em saúde mental. Foram realizadas entrevistas abertas com informantes-chave visando explorar as percepções desses atores sobre a interface entre a política e a pesquisa.

Durante o período de 10 anos (1993–2003), 57% dos 114 países de baixa e média renda per capita

contribuíram com menos de cinco publicações nas bases indexadas internacionais, e 70% desses países tinham poucas publicações na literatura não-indexada, sugerindo uma escassez importante de pesquisa e de pesquisadores em saúde mental. Por outro lado, certos países como a África do Sul, a Argentina, o Brasil, a China, a Índia e a República da Coreia contribuíram de maneira importante para as publicações internacionais sobre saúde mental – tal resultado demonstra a variação na produção científica em saúde mental entre os países e entre as diferentes regiões.

Os resultados do estudo mostram uma concordância geral sobre as prioridades em pesquisa em saúde mental entre os pesquisadores e os outros profissionais dos setores administrativos e de tomada de decisão em saúde mental, independente da região ou país pesquisado. Estudos epidemiológicos sobre a carga das doenças e dos fatores de risco, pesquisas em sistemas de saúde, e estudos focados nos aspectos sociais foram os principais tipos de pesquisas identificadas como prioritárias. Depressão/ansiedade, transtornos causados pelo consumo de substâncias e psicoses foram identificados como os três transtornos mentais mais prioritários, enquanto crianças e adolescentes, mulheres e pessoas expostas a violência /traumatismos foram os grupos populacionais considerados como sendo de alta prioridade. Os critérios mais importantes para definir as prioridades de pesquisa em saúde mental foram a carga global das doenças, justiça social, e disponibilidade de fundos, porém, os pesquisadores e os outros profissionais divergiram marcadamente quanto à importância do interesse pessoal dos pesquisadores como um critério de prioridade de pesquisa.

A maior parte dos participantes das entrevistas abertas relataram que a produção científica de seus países em saúde mental era muito baixa, o que justificava a escassez de publicações desses países na literatura científica. Foram citadas muitas razões. Segundo as pessoas entrevistadas, médicos e universitários enfrentavam muitas exigências num contexto caracterizado por poucos fundos, falta de pessoal treinado, pouco apoio em infra-estrutura, e

escassez de redes de pesquisa em instituições que na sua maioria não tinham cultura de pesquisa.

Enquanto as entrevistas forneceram exemplos de pesquisas que apresentaram impacto nas práticas de política, os participantes relataram que poucas políticas, intervenções ou programas são baseados em informação derivada dos estudos em saúde mental realizada no seu país, devido principalmente a lacunas de comunicação entre pesquisadores e aqueles envolvidos na tomada de decisão. Os participantes do estudo enfatizaram que para cada exemplo de que se lembravam de pesquisa com impacto nas práticas de política de saúde, havia quase sempre outro que não tinha tido nenhum impacto. A falta de uma massa crítica de atores treinados e bem informados em pesquisa e em tomadas de decisão e a falta de estudos que sirvam de apoio para o desenvolvimento de políticas de saúde foram considerados como os principais fatores que contribuem para esta lacuna de comunicação entre os pesquisadores e os agentes de tomada de decisão.

Estes resultados realçam a necessidade de analisar e reforçar a gestão da pesquisa em saúde mental para que se possam satisfazer as necessidades nacionais de países de baixa e média renda per capita assim como contribuir para o conjunto dos conhecimentos mundiais. Nos países de baixa e média renda per capita, os governos e outras instituições devem conceber mecanismos para aumentar o financiamento da pesquisa em saúde mental, aumentar capacitação dos pesquisadores e de melhorar a infra-estrutura para pesquisa. Embora existam alguns exemplos do impacto das pesquisas nas práticas de política em saúde mental, há geralmente pouca relação entre pesquisa e política. As organizações podem diminuir a lacuna existente entre a política e a pesquisa sensibilizando os investigadores sobre a utilidade da participação dos profissionais envolvidos nas práticas de política de saúde e de tomadas de decisão no delineamento de seus estudos e, também, sensibilizando estes profissionais sobre a importância de uma boa pesquisa em saúde mental. Finalmente, deve chamar-se a atenção para o fato de metade dos países de baixa e média renda per capita nas três regiões terem feito muito pouco progresso em pesquisa em saúde mental e no desenvolvimento de infra-estruturas para pesquisa. Agora, o desafio é desenvolver estratégias para os países onde o progresso foi menor.

As conclusões do relatório sublinham a necessidade de:

1. Governos e outras instituições considerarem a saúde mental vital para a saúde global das suas populações e um vetor importante para o desenvolvimento nacional.
2. Integrar a investigação em saúde mental com as pesquisas em sistemas de saúde para reforçar sinergias e evitar ineficiências, lacunas e duplicações de estudos.
3. Estabelecer um órgão diretor para identificar e monitorizar lacunas em pesquisa em saúde mental a nível nacional e regional, formular prioridades, angariar fundos, avaliar a capacidade de investigação, estabelecer redes de trabalho, divulgar informações e fornecer apoio técnico e financeiro.
4. Formular e pôr em prática prioridades de pesquisa em saúde mental graças a um processo transparente, participativo e científico. The Combined Approach Matrix (CAM) do Global Forum é um instrumento eficaz para estabelecimento de prioridades neste contexto.
5. Aumentar o financiamento nacional para investigação sobre saúde mental, tanto quanto possível de acordo com a carga global dos transtornos mentais no país. Além disso, os principais agentes de financiamento em pesquisa devem destinar um montante específico de seu orçamento para a saúde mental.
6. Investir para reforçar a capacitação em pesquisa em saúde mental, especialmente, através de treinamento em pesquisa e incentivos para profissionais de saúde mental.
7. Desenvolver redes entre pesquisadores e instituições e parcerias públicas/privadas. Em particular nos países de baixa e média renda per capita, os pesquisadores e os profissionais envolvidos em tomadas de decisão e práticas de política devem estabelecer um maior intercâmbio através de redes de pesquisa.
8. Integrar questões transversais, tais como condições socioeconómicas e de gênero, em todas as estratégias e desenhos de pesquisa, como variáveis essenciais.
9. Conectar através de redes de informação de pesquisa em saúde para assegurar a troca e a utilização de informações sobre saúde mental por investigadores, decisores e a população em geral.

Resumen

Los trastornos neurológicos y mentales representan el 13% de la carga global de enfermedad. Adicionalmente, más de la mitad de los diez riesgos descritos como causa principal de un tercio de las muertes prematuras en el mundo presentan algún componente ligado al comportamiento, tal como el sexo sin precaución, el consumo de tabaco o de alcohol, etc. A pesar de esta evidencia, la salud mental es un sector de la salud pública que es poco valorado e insuficientemente investigado, especialmente en los países de bajos y medianos ingresos (más adelante países LAMI por low-and middle-income).

Este proyecto fue planteado por el Foro Global para la Investigación en Salud (Foro Global) y por la Organización Mundial de la Salud (OMS) con el objetivo de generar un reporte de la situación actual de la investigación en salud mental de 114 países LAMI de América Latina y del Caribe (30), África (52) y Asia (32), en base a cuatro pautas: (1) identificando y localizando a las personas y entidades que obran en el ámbito de la investigación sobre salud mental; (2) identificando proyectos de investigación existentes y futuros; (3) describiendo cómo se establecen prioridades en la investigación sobre salud mental; y (4) describiendo la difusión de dicha investigación y el efecto que produce en las políticas y las prácticas nacionales en asuntos de salud mental.

Se llevó a cabo una búsqueda extensa y sistematizada de investigadores, tomadores de decisiones, administradores universitarios y representantes de asociaciones, extrayendo información de la literatura indexada (bases de datos Medline y PsycINFO) y de la literatura no indexada (periódicos locales, documentos no publicados, actas de conferencias e informes). Se identificó más de 10.000 artículos relevantes, y asimismo a 4.633 investigadores en salud mental y a otras 3.829 personas que obran en dicho sector. Mediante encuestas hechas a estas personas, se recabó información sobre la producción de investigación, sus prioridades y su financiación. Además, se realizó entrevistas pormenorizadas con protagonistas clave del sector, obteniendo datos relevantes sobre los vínculos entre la generación de políticas y la investigación.

Se encontró que un 57% de los 114 países LAMI contribuyeron con menos de cinco artículos sobre salud mental a toda la literatura internacional indexada en un período de diez años (1993–2003). Además se observó un escaso número de artículos de fuentes no indexadas en un 70% de los países, lo cual revela la falta de investigación (y de investigadores) en salud mental en numerosos países LAMI. En cambio, algunos países, como Argentina, Brasil, China, India, República de Corea y Sudáfrica, contribuyeron significativamente a la producción internacional de publicaciones sobre salud mental, dato que pone en evidencia notables variaciones en la producción de investigación sobre salud mental dentro y entre regiones del mundo.

Los resultados de las encuestas mostraron un amplio consenso entre los investigadores y demás protagonistas del sector de la salud mental, y entre las regiones, acerca de las prioridades que ha de enfocar la investigación en salud mental en países LAMI. Los tipos de investigación más necesaria resultaron ser los estudios epidemiológicos sobre impacto socioeconómico y factores de riesgo, investigación del sistema sanitario e investigación en ciencia social. Los tres trastornos que destacaron como prioritarios fueron la depresión/ansiedad, los trastornos por consumo de sustancias adictivas y las psicosis; en cuanto a grupos de población prioritarios destacaron los niños y los adolescentes, las mujeres y las personas expuestas a violencia o traumas. Los criterios más relevantes a la hora de fijar prioridades de investigación fueron el impacto socioeconómico de la enfermedad, la justicia social y la disponibilidad de fondos; cabe resaltar no obstante que los investigadores y demás protagonistas discreparon notablemente sobre la importancia que tiene el interés personal del investigador como criterio para definir prioridades de investigación.

La mayor parte de las personas que participaron en las entrevistas a profundidad coincidieron en que la producción de investigación sobre salud mental de su país era baja, corroborando de este modo los resultados de la encuesta realizada sobre las publicaciones. Se dio diversas razones para explicar este fenómeno. Las personas entrevistadas observaron que los médicos y académicos se hallan ante una fuerte demanda en un

contexto caracterizado por la falta de financiación, de personal calificado, de infraestructuras y por la escasez de redes de investigación, en instituciones que en su mayoría carecen de cultura investigadora.

Si bien es cierto que en las entrevistas pudo identificarse ejemplos de investigaciones que desembocaron en políticas y fueron llevadas a la práctica, los participantes señalaron a la vez que escasas políticas, intervenciones o programas se basan en datos que ha aportado la investigación sobre salud mental realizada en su país, debido principalmente a la falta de comunicación entre investigadores y demás partícipes del sector de la salud mental. De hecho, las personas entrevistadas a menudo comentaron que para cada caso que recordaban de investigación que había influenciado la política o la práctica médica, podían acordarse de otro caso en que el impacto había sido nulo. Se considera además que el no disponer de una masa crítica de personal calificado y entrenado, y la falta de estudios de línea de base que faciliten el desarrollo de políticas son factores que agudizan el problema de comunicación.

Estos datos muestran la necesidad de revisar y fortalecer la gestión de la investigación en salud mental, de modo que cubra las necesidades de los países LAMI, contribuyendo asimismo al acervo mundial de conocimientos. Los gobiernos y otras instituciones de países LAMI deberían idear mecanismos para lograr una mayor financiación de la investigación, y ampliar capacidades e infraestructuras. Aunque se haya dado ejemplos de investigaciones que han influido sobre políticas y prácticas médicas, no suele haber un enlace directo entre investigación y política. Las organizaciones han de acortar la distancia entre políticas e investigación, haciendo notar a los investigadores sobre la utilidad de involucrar a los demás protagonistas del sector en su investigación, y sensibilizando también a dichos protagonistas sobre la importancia de una buena investigación en salud mental. A modo de conclusión, valga reiterar que la mitad de los países LAMI de las tres regiones han progresado muy poco en investigación sobre salud mental y desarrollo de infraestructuras de investigación. El reto ahora es desarrollar estrategias para aquellos países que menos han avanzado al respecto.

Los hallazgos descritos en el informe ponen de manifiesto las siguientes necesidades:

1. Los gobiernos y otras instituciones deben considerar que la salud mental es un elemento esencial de la

salud general de la población y un factor clave del desarrollo nacional.

2. Integrar la investigación en salud mental dentro de los sistemas existentes de investigación médica para provocar sinergias y evitar la falta de eficiencia, las disparidades y la duplicación de esfuerzos.
3. Crear una entidad central que identifique y supervise las disparidades en investigación sobre salud mental entre el plano nacional y el plano regional, que formule prioridades, recolecte fondos, analice las capacidades de investigación, establezca redes de comunicación, difunda la información y proporcione asistencia técnica y financiera.
4. Formular e implementar las prioridades de la investigación sobre salud mental mediante un proceso transparente, participativo y científico. El llamado Combined Approach Matrix (CAM – Matriz de Enfoque Combinado) del Foro Global viene a ser una herramienta provechosa para fijar prioridades en este ámbito.
5. Incrementar la financiación nacional para la investigación en salud mental, procurando que corresponda a la carga socioeconómica que los trastornos mentales acarrearán para el país. Se trata además de lograr que los principales donantes de la investigación incluyan en sus partidas presupuestarias un componente en favor de la investigación en salud mental.
6. Invertir en fortalecer la capacidad de investigación en salud mental, especialmente por medio de formación en investigación e incentivos para los profesionales de la salud mental.
7. Desarrollar redes de investigación y acuerdos de colaboración entre sector público y sector privado. En particular, un mayor número de investigadores y otros protagonistas de los países LAMI deberían entrar en contacto con las redes de investigación existentes.
8. Introducir las problemáticas transversales, como son el estatus socioeconómico y el género, como variables clave en las estrategias y los proyectos de investigación.
9. Conectar con redes de información en investigación sobre salud mental para garantizar que los investigadores, los responsables de política sanitaria y la población en su conjunto compartan y aprovechen la información disponible sobre salud mental.

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Appendix 1:

Presence and absence of research impact: Evidence influencing policy, programme, advocacy or practice, by country

Latin America A

1. Policy, programme, advocacy or practice resulting from the evidence of research findings

Brazil

- Production of educational materials
- Development of clinical recommendations (guidelines)
- Implementation of mental health services
- Implementation of new therapeutic interventions
- Training of mental health professionals
- Influencing national and regional health policies

Chile

- National Mental Health Policies and Program
- National Program for Depression
- Prevention of drug use among children and adolescents
- Study of major depression in adults led to special attention for depression in health care.
- Studies about depression and schizophrenia were carried out and a national programme to prevent and identify depression was implemented in health centres.
- Project related to “screening of clinical and social risk factors for early identification of first episode of schizophrenia” established.

Cuba

- The Virtual Library of Cuba is a free electronic service that makes regional scientific information on health available to researchers, stakeholders, teachers and students.
- Infomed is a network available on the Internet to disseminate information from health institutions in Cuba.

El Salvador

- Stakeholder recalled a research project about violence against disabled students, where a prevention programme was implemented in cooperation with UNESCO and the Ministry of Education.

Latin America B

1. Policy, programme, advocacy or practice resulting from the evidence of research findings

Argentina

- Adoption of US National Institute on Drug Abuse (NIDA) recommendations: *Principles of Effective Treatment*, 1999. Validation of self-support groups
- Changes in practice, planning and evaluation in more than 50% of the institutions trained by the Itineris Foundation
- Changes in programmes following research results
- Dissemination of the conclusions of research on women's mental health at menopause
- Human resource training
- Increased awareness in the diagnosis of bipolar disorders
- National legislation on epilepsy was modified based on a proposal of the researcher.
- Research is used at hospitals to develop specific programmes
- Research results and recommendations on infantile psychoses and autism have been incorporated in general hospital and psychiatric hospital practice.
- The importance of a mental health specialist in epilepsy services was recognized.

Bolivia

- Changes in the medical curriculum at the Universidad Mayor de San Andres (UMSA)
- HIV carriers are more respected, less discriminated against.
- Inclusion of programmes for research on the incidence of suicide in Bolivia
- Model of mental health service provision in primary care settings
- Mental health observatory
- Modifications to the content of university programmes
- Policies at education level for the prevention of substance use
- Studies on quality of life and diabetes have led to a programme of liaison psychiatry for these patients.
- Media stories on suicide prevalence in La Paz

Colombia

- On a small scale, research results on depression in the community have generated policies and programmes on prevention.
- Changes in policies of community mental health programmes

- Definition of lines of action for the development of mental health policies in Tolima
- Definition of public policies for violence prevention in Medellin
- Government support for epidemiological studies on mental health in the elderly population
- Government support of a national study on mental health
- Guide for the presentation of social projects
- Implementation of prevention programmes for eating disorders, with support of PAHO/WHO, because of the high prevalence reported in the country
- Measures to prevent mental illness and improve mental health status in medical students
- Psychosocial help for epilepsy patients
- Reformulation of programmes based on the evidence of risk and protective factors influencing substance use
- The university office of student support has developed its own programme to give advice and support on mental health issues to students.

Costa Rica

- Study of the distribution of Ritalin prescriptions: two patterns were identified (public and private).
- Genetic basis of blindness; high-risk families were followed and counselled
- National Plan on Drugs of Abuse

Dominican Republic

- Changes in the management of substance abuse and addiction in programmes and therapeutic communities
- Service provision programmes for HIV patients; early care in children, intrafamilial violence, sexual education

Ecuador

- Increased sensitization of general physicians and general population on neuro-developmental problems in children at psychoneurosensory risk
- Infantile deparasitation programmes
- Recognizing quality of life issues and the prevalence of depression-anxiety in Parkinson's patients promoted a change in the management of this disease.
- Referral systems for persons experiencing violence and maltreatment to specialized health services such as psychiatry, social work services
- Research on familial dysfunction and depression in adolescence led to a programme to prevent intrafamilial violence.

Honduras

- Establishment of a clinical history form for use with patients with renal insufficiency, to facilitate hospital admittance and specialized care

- Implementation of a programme of specialized care for patients with renal insufficiency at the national hospital
- Studies on epilepsy leading to intervention programmes

Mexico

- Adjustments in the national mental health system
- Changes in therapeutic regimes in patients, following research results
- Creation of the Law for Prevention and Attention of Interfamilial Violence in Sonora, Mexico
- Evidence generated with population studies were accepted by health personnel, and led to more research as a result of their feedback.
- Gender perspective is considered in addiction studies
- Incorporation of new ideas into mental health practice
- Manual on identification of infant abuse and neglect is used in regional institutions working on family protection.
- National Programme Against Addictions, National Programme of Mental Health, National Programme against Depression
- Not legalizing cannabis for medical use
- Policies for the control of substance use and abuse
- Mental health programmes
- Research findings have been translated to national health policies for migrants and their families.
- Routine evaluation of functionality and incapacity in patients with severe mental disorders
- Studies on suicide in adolescence have been used to build programmes for intervention.
- Use of a researcher-developed and validated scale for HIV prevention in adolescents in colleges of the Universidad Autonoma de Nuevo Leon, and other Mexican states

Panama

- Inclusion of Panama in the World Health Organization-Assessment Instrument for Mental Health Systems (WHO-AIMS) project
- Formation of a network for the prevention of depression

Peru

- Acceptance of the need to modify management of psychiatry services
- Better knowledge of safety and tolerance of drugs used in the treatment of mental disorders
- Care of women with conventional and unconventional addictions
- Changes to healthy lifestyles
- Conceptualization of mental health and psychiatry as different entities in mental health programmes

- Definition of the therapeutic regime
- Development of educational material incorporating research findings
- Implementation of prevention programmes after national epidemiological studies on psychoactive substance use
- Improved management of male addiction patients with antisocial personality disorder in rehabilitation programmes
- Improvement of primary care programmes in northern metropolitan Lima
- Inclusion of results of the National Mental Health Survey in programmes, direct coordination with legislators and in advocacy programmes
- Mental health strategies in the country
- Mental Health Study in Peru by the Instituto Especializado de Salud Mental generated evidence that has been applied by the Ministry of Health to elaborate its Program on Mental Health, its National Sanitary Strategy in Mental Health and Culture of Peace, and the Program of Health Repair (in regions affected by violence).
- Prevention programmes implemented by the Ministries of Health and Education
- Reinforcement of the depot-neuroleptic programme at the Larco Herrera hospital
- Research results incorporated into Ministry of Health and National Institute of Mental Health policies
- The Peruvian Ministry of Health has distributed the recommendations from the survey on human rights to its institutional network.

Venezuela

- Awareness of psychopharmacological treatment-induced metabolic dysfunction
- Awareness of the relevance of basic and clinical research to generate better care
- Development of human resources
- State-of-the-art research in psychiatry graduate programmes
- Monitoring of anxiety disorders in personnel subjected to stressors in their work environment
- More generalized use of atypical antipsychotics

2. Research evidence that should have influenced policy, programme, advocacy or practice but has not done so

Argentina

- Awareness of risk and protection factors in prevention plans for primary schools
- Control of psychiatric complications in postoperative epilepsy patients
- Detection of Attention Deficit Hyperactivity Disorder (ADHD) and Pervasive Developmental Disorders (PDD) at school
- Establishment of special programmes for adolescent mothers to prevent psychopathological conditions
- Mental health services in the city of Buenos Aires, in the areas of epidemiology and psychopathology

- Identification of the mental health needs of working children
- Importance of early cognitive stimulation in children exposed to social risk
- Lack of trained human resources in mental health areas
- Lack of training in psychogeriatrics
- Quality of life scale for individuals with mental incapacity
- Nuclear Magnetic Resonance (NMR) as an important diagnostic tool
- Pharmacological recommendations in child and adolescent psychiatry
- Research on the users of urban health services was not incorporated in the Buenos Aires Metropolitan Area planning debate.
- Several epidemiological studies
- The high social impact of suicide in late adulthood
- Training in child psychiatry

Bolivia

- Deficiencies in mental health knowledge and management in primary care settings
- Importance of mental health in individuals' global health status
- Lack of awareness of mental health issues in primary care settings
- Lack of sexual education programmes in high schools
- Mental health work with populations under 14 years of age
- Transmission mechanisms of HIV, to avoid discrimination of HIV carriers

Colombia

- A series of identified population needs were not translated into national health policies.
- Benefits of caffeinated coffee on concentration and learning ability
- Increase in substance use in young pregnant women in Colombia
- Lack of a critical mass of mental health professionals in Colombia
- Mental health programme for the elderly and academic programmes in psychogeriatrics
- National study on mental health has not resulted in policy changes, even when supported by WHO.
- Need for prevention programmes
- Need to develop legislation-supported prevention and treatment programmes, using information from national studies on population mental health
- Need to change both the attitude of the groups that work with epilepsy issues, and the clinical management that is being performed in general hospitals and neurology services
- Prevalence of eating disorders in Colombian university students (1997)
- Screening of mental disorders in intensive care units

Costa Rica

- Diagnosis and treatment of schizophrenia and bipolar disorder in Costa Rica
- Genetics of bipolar disorder in Costa Rica
- Need to emphasize prevention and follow-up at community level
- Prevalence of mental disorders in primary care settings in Central America (1990)
- Urgency to manage alcohol consumption behaviours at early ages

Dominican Republic

- Mental health issues are not attended to
- Need for support programmes and resources for the management of substance use and abuse in public and private sectors
- Need to identify children at high risk of mental disorders in the population

Ecuador

- Community action programme on suicide prevention, based on research results on suicide in childhood and adolescence
- Evaluation of the role of educational factors and self-esteem on the prevalence of eating disorders in adolescents
- Need to expand the programme for children with high psychoneurosensory risk to all provinces of Ecuador
- Psychological and social support for migrant families
- Need to treat anxiety from a holistic perspective

Honduras

- First comprehensive research on psychiatric morbidity in Honduras
- Need to incorporate mental health monitoring in patients with renal insufficiency
- Serious problems with access to treatment, with no translation into policies or administrative practices

Mexico

- Awareness on depression and Alzheimer's patients
- Demonstration that early psychosocial interventions positively impact on the rehabilitation of schizophrenic patients
- Efficacy of psychological intervention in the management of anxiety disorders
- Evaluation of care in chronic degenerative illnesses
- Findings on the situation and physical and mental health needs of the elderly living in poverty
- Findings on violence during engagement, and maltreated males
- High prevalence of depressive episodes in Mexico
- Increase in alcohol abuse, without changes in legislation about this matter
- Lack of health services to support the first episode of psychotic event, to optimize timing in diagnosis and treatment

- Limited access to social security health services among elderly adults living in poverty
- Need for early detection of mental disorders
- Need for specific programmes for the detection of mental health problems in women who have experienced domestic or sexual violence
- Need for training programmes for general physicians on depression and anxiety disorders
- Need to redesign the treatment of nicotine-dependent hospitalized psychotic patients
- Studies on the opinion of the community regarding domestic violence in Sonora, Mexico
- Study on the prevalence of mental disorders in the Mexican Institute of Social Security, for the establishment of health priorities
- The need for mental health programmes in cases of disaster
- The value of parental and institutional training to prevent abuse and negligence in child care
- Need to use the scale validated for HIV prevention in adolescents in other Mexican states and abroad
- Urgency to implement educational campaigns on substance abuse due to social isolation, and for HIV prevention

Panama

- Need for friendly environments in public health services for adolescents and children
- Need for surveillance system for prevention of suicide, based on epidemiological information
- Use of valid sources of information on mental health

Peru

- Application of data on rehospitalization of chronic psychotic patients in the Peruvian social security health system
- Care of patients with suicidal behaviour
- Impact on public health
- Inverse correlation of depression and AIDS symptoms in HIV patients, importance of social support
- Lack of consideration of individual parenting styles/practices, regional prevalence or access to services on comprehensive mental health assessment
- Need for prevention and treatment programmes to diminish the occurrence of mental disorders resulting from substance use
- Need for prevention programmes for children and treatment programmes for special populations
- Need to direct support to groups exposed to trauma and violence
- Need to expand the coverage of mental health care

- Need to identify and treat obsessive-compulsive symptoms in psychotic patients
- Need for modifications of legislative issues for therapeutic communities
- Need to promote the search for co-morbidity in general and psychiatric practice
- Prevalence of alcohol and drug abuse and addiction
- Programmes directed at decreasing the influence of peer group behaviour on the prevalence of smoking among school students
- Rehabilitation programme for women who have experienced violence or trauma
- Report of terrorism-associated violence and trauma issued by the *Comisión de la Verdad*
- Role of iron in child intellectual development
- Several findings of the National Institute of Mental Health at the regional level
- Several proposals to the Ministry of Health to be included in national policies
- Studies linking nutrition with cognitive development, for the consequent formulation of breakfast or other food-support programmes
- Urgency to promote institutional continuity for the success of implementations
- Validation of mental health screening scales in Peru

Venezuela

- Epidemiological studies on depression and anxiety
- Lack of services capable of supporting demands related to the treatment of dementias
- Mental health programmes are generally interrupted for political or economic reasons.
- Need for multidisciplinary training in psychiatry residency programmes
- Demonstrated smaller secondary effects of atypical antipsychotics
- Undernourishment in adolescents with eating disorders

Africa A

1. Policy, programme, advocacy or practice resulting from the evidence of research findings

Botswana

- Research findings impacted on the Botswana National Policy for mental health. Specifically, the government became aware of the shortfalls in the provision of audiological services to the community and a proposal is being made for funding to address these shortages.
- Research led to the construction of a mental hospital.

Egypt

- The integration of mental health care programmes in primary health care and increased training for primary health care providers
- The rehabilitation of intellectually disabled people

- Training for primary health care physicians on mental health issues
- The addition of two antidepressant drugs to the essential drug list of primary health care facilities
- The development of quality assurance standards for mental health care in primary health care
- Directing government funds towards community-based treatment as opposed to hospital treatment for mental disorders

Malawi

- Use of assessment tools that have been validated for use in Malawi
- National Drug Control Policy

Mozambique

- Research was reported to have impacted on Mozambique mental health policy and strategy.

South Africa

- Department of Health's Standard Treatment Guidelines for Common Mental Health Conditions
- Improvement of quality of service to psychiatric patients in Lentegeur hospital
- Mental Health Care Act
- The South Africa Association for the Scientific Study of Mental Handicap
- Department of Health's norms for mental health services
- The South African Dental Association has been increasingly interested in getting its members involved with treating nicotine dependence among their patients.
- Smokeless tobacco (snuff) use in South Africa has gained prominence among tobacco control advocates such as the National Council Against Smoking and the Cancer Association of South Africa.
- Avoiding inappropriate antidepressant
- Regulations on the availability of papsak (cheap wine) by the Department of Economic Affairs in the Western Cape
- Gun control regulation
- Provincial protocol for management of early onset psychotic disorders based on preliminary findings of ongoing project
- Mental health service needs in South Africa
- Child abuse awareness programmes in secondary schools
- Expansion of provincial funding for treatment of drug abuse and plan for new treatment centre
- Decision by United Nations Office on Drugs and Crime
- Integration of mental health into general health care

Swaziland

- Respondents reported that the decision to locate psychiatric centres in the main towns of Manzini and Mbabane was an instance of research influencing policy.

Uganda

- Psychiatrists are being posted to regional hospitals to provide specialist mental health services and to conduct the training of primary health care workers in districts.
- The high prevalence of post-traumatic stress disorder in northern Uganda has led to the establishment of a Mental Health Unit and Trauma Centre at the National Teaching Hospital.

Zambia

- Research findings impacted on the creation of an anti-stigma programme.
- Research findings on the life of mental patients detained in prisons resulted in commencement of occupational therapy services/activities.

Zimbabwe

- Drugs used in the treatment of epilepsy at the primary care level were added to the essential drug list.
- Recommendations made to the Ministry of Construction on accessibility needs of people with disabilities

2. Research evidence that should have influenced policy, programme, advocacy or practice but has not done so

Botswana

- Although researchers have shown the benefits of counselling and life skills training along with the need for mental health services in Botswana, the state does not fund or give priority to these initiatives in terms of services, research or funding.
- Despite research in the area, children with hearing impairment are not identified early in Botswana and therefore no early intervention programmes are in place.

Egypt

- Research on forensic psychiatry failed to convince politicians to upgrade the legislation concerning mental health.
- Sex education programme for mentally disabled children
- Mental health determinants affecting prevalence of mental disorders
- More promotion to increase coverage and utilization rates of mental health services

Malawi

- Respondents reported that the results of the Rapid Assessment on HIV failed to impact on policy.

Mozambique

- The 2003 Community Epidemiological Study did not impact on policy, nor did the data collected by the Mozambique network on drug use.

Namibia

- A study of the perceived impact of a relative's mental illness on the income of family members did not lead to decentralization and integration of the mental health service with the existing health services, in order for treatment to be received as close to home as possible.

South Africa

- Employment equity
- MMR (measles, mumps and rubella vaccine)/autism debate
- Extremely high rates of postpartum depression and the possibility of intervening
- Heuristic that was generated to be used in training mental health professionals to conduct child custody assessments
- Publication on the judicial process involving the testimony of rape survivors with mental retardation
- Implementation of community health services in Gauteng
- Traditional healers
- High rates of mental disorder diagnosis and low rates of treatment
- Policy briefing on heroin use increase in Cape Town and Gauteng province
- Resilience in war victims
- The need for training district health managers in mental health
- Work which addresses challenges facing men and reduces their potential to engage in violence

Uganda

- Despite evidence of the magnitude of the problem of alcohol and substance abuse, adoption of the National Alcohol and Substance Abuse Control Programme was delayed.

Africa B

1. Policy, programme, advocacy or practice resulting from the evidence of research findings

Nigeria

- Promulgation of alcohol policies and other substance abuse prevention policies
- Provision of after-care (rehabilitation) for discharged drug addicts
- Education of vulnerable groups on the negative effects of drug abuse
- Use of psychiatric screening questionnaire to enhance psychiatric case identification, and treatment of psychological disorders by general practitioners

Asia A

1. Policy, programme or practice resulting from the evidence of research findings

Cambodia

- Improved mental health programmes and services
- Development of mental health policy
- Development of drugs and other forms of treatment
- Increased government funding for mental health
- Acquisition of equipment and facilities

China

- Institutionalization of mental health tests in workplace/schools
- Improved mental health conditions
- Conduct of training/seminars for mental health
- Community-based managed mental health programme
- Development of mental health policy

Fiji

- Improved efforts and campaign against drugs and substance abuse
- Community-based managed mental health programmes
- Development of mental health policy

Indonesia

- Improved mental health programmes
- Improved efforts and campaign against drugs and substance abuse
- Institutionalization of mental health tests in workplace and schools/universities
- Increased government funding for mental health programmes

Lao People's Democratic Republic

- Development of mental health policy

Malaysia

- Community-based managed mental health programme
- Development of mental health policy

Papua New Guinea

- Development of mental health policy

Philippines

- Conduct of training/seminars for mental health
- Improved mental health conditions
- Institutionalization of mental health tests in workplace and schools/universities
- Improved efforts and campaign against drugs and substance abuse
- Development of mental health policy
- Community-based managed mental health programme
- Improved mental health programmes and services
- Development of drugs and other medical treatment

Samoa

- Improved efforts and campaign against drugs and substance abuse

South Korea

- Implementation of community-based mental health programmes
- Development of mental health policy

- Conduct of new mental health research
- Acquisition of new facilities and equipment
- Development of drugs and other forms of treatment

Thailand

- Community-based managed mental health programme
- Development of new mental health policy

Tonga

- Development of new mental health policy
- Conduct of new research on mental health

Viet Nam

- Community-based managed mental health programme
- Improved mental health condition
- Improved mental health programmes and services

2. Research evidence that should have influenced policy, programme, advocacy and practice but has not done so

Cambodia

- Research on existing mental health policy
- Research on mental health drugs, cure and treatment

China

- Role of community-based managed efforts in mental health
- Studies on families and mental health
- Research about depression
- Research on substance abuse and alcoholism
- Research on psychiatric patients and mental health institutions
- Research on growth groups and counselling

Fiji

- Understanding of cognitive levels and intelligence quotient

Indonesia

- Studies about families and mental health
- Studies on group growth and counselling
- Research on social problems and discrimination

Malaysia

- Research on psychiatric patients and mental health institutions
- Research on social problems and discrimination

- Ethics
- Research on mental health drugs, cure and treatment

Micronesia

- Research on substance abuse and alcoholism
- Ethics

Papua New Guinea

- Study on psychiatric patients and mental health institutions

Philippines

- Research on substance abuse and alcoholism
- Research on mental health policies in the Philippines
- Research on psychiatric patients and mental health institutions
- Research on HIV sexual counselling

Republic of South Korea

- Studies about mental health and families
- Research about depression
- Research about suicide

Thailand

- Studies on families and mental health
- Research about depression
- Research on mental health policies in the country
- Research on substance abuse and alcoholism
- Research on cognitive levels and intelligence quotient
- Research on psychiatric patients and mental health institutions
- Research on social problems and discrimination
- Research on HIV sexual counselling
- Research ethics
- Research on mental health drugs, cure and treatment

Tonga

- Research on substance abuse and alcoholism

Viet Nam

- Research on existing mental health policies in the country
- Mental health related morbidity studies

Asia B

1. Policy, programme, advocacy or practice resulting from the evidence of research findings

Bangladesh

- The result of a project on the effects of psychosocial stimulation on the development and behaviour of malnourished children in Bangladesh was presented to UNICEF and they used it in their Early Childhood Development Program.
- A child mental health service has been started in Dhaka Shishu Hospital with an organized multidisciplinary team.
- Approval of a drug addiction unit in the National Institute of Mental Health by the Government of Bangladesh.
- Research data led to the creation of a post for a psychiatrist in prison hospitals at the district level.
- Multidisciplinary child development and child protection services have been established in major public hospitals in Bangladesh since 1997, based on evidence published in research papers.

India

- It was found that people come forward for treatment if treatment is readily available. Hence regular rehabilitation camps are being held for addicts in the community.
- The government of Bihar has made a policy decision to introduce the regular practice of yoga in all 82 prisons in Bihar.
- Health Administration has undertaken a programme for rehabilitation of opium addicts in the high prevalence area of Northeast India.
- Development of suicide prevention programme for Karnataka, advocacy and specific interventions in India
- Assessment tools that were developed for an illiterate population in India have been translated and used by both clinical and research groups in India, leading to improved detection and diagnosis of dementia.
- A permanent geriatric clinic is likely to be started at the All India Institute for Medical Sciences, New Delhi.
- Research on 'social awareness training' is now being published in the form of a training manual and training of trainers programmes have been launched.
- The inclusion of maternal mental health as part of WHO's 2005 activities on maternal and newborn health
- Indian Council of Medical Research set up a task force recently to study inborn metabolic disease and to establish a nationwide pilot programme for newborn screening. More private practitioners are following newborn screening in Hyderabad.
- A systematic review on yoga for epilepsy and psychological treatments for epilepsy has led to the start of randomized clinical trials. A multi-centre study of early epilepsy and single seizures (MESS study) to be published shortly is likely to have impact.
- The policy of further stay for long-stay patients in government mental hospitals is based on the finding in the paper 'A census of long-stay patients in good mental hospitals in India'.

- Based on follow-up of juvenile bipolar subjects, it was evident that relapses were very common within two years of index episodes. Based on this observation, prophylaxis is being initiated in all children with first bipolar episode.
- Following a dementia case identification study and qualitative study of caregivers of patients affected by dementia, the local panchayat (village council) helped to set up a dementia clinic at the Primary Health Centre.
- A tool for recording life events in armed service personnel (life event scale) was developed, used widely among service personnel.
- Research on disability helped to gain recognition for psychiatric disability and then helped in the development of instruments to measure this disability.
- The NICE (National Institute for Clinical Excellence) Guidelines in the United Kingdom used the results of a systematic review in their position statement on electroconvulsive therapy (ECT).
- The 1995 Disability Act was drafted with the inclusion of people with mental illness. In addition, a social welfare scheme was started for people with chronic mental illness.
- A group reported an improvement in antenatal care, birth practices and child nutrition through a rural child health programme to prevent mental disability in children.
- Several groups and networks were also working on issues related to child mental health (e.g. child sexual abuse).
- A framework is being established for rehabilitation of mentally ill people, setting guidelines for social justice and criteria for quality assurance. Another focus is home-based mental health care.
- The District Mental Health Program (DMHP) was initiated for providing mental health services at the primary health care level. This was based on the knowledge generated in epidemiological studies demonstrating the burden of mental disorders in primary care. These findings also led to a study on urban mental health problems and service needs which are expected to provide inputs for expansion of the DMHP to urban areas. The DMHP has now become an integral component of India's national mental health programme.
- Bapu Trust India, an NGO, is involved in conducting and implementing mental health research pertaining to women. Their community-based rehabilitation of trauma victims and care in the prison population was reportedly influenced by research and advocacy of professional associations. Findings of mental health research and needs identification led to the establishment of a once-a-week mental health clinic in Babu Jagjivan Ram Hospital, Delhi.
- To reduce stigma, the mental health hospital in Shahdara, Delhi was renamed the Institute of Human Behaviour and Allied Sciences.
- University administrators mentioned that findings from research conducted in India have been used in the formulation of the international classification of diseases, both diagnostic guidelines and diagnostic and clinical care versions.
- Research findings were incorporated in the formulation of the National Mental Health Program and the Mental Health Act (MHA), 1987.

Nepal

- Mental health is considered to be integral to the existing primary health care system.
- Generated awareness among local people and led to requests to give public lectures and school talk programmes.
- A university-based researcher published a study on prevalence of alcohol dependence in the small town of Dharan. This led local NGOs to request that the author give public lectures and participate in discussions about the problem. This, in turn, led to a community-based alcohol and drug awareness campaign in the town's schools.

Pakistan

- Mental Health Research and Development Forum (MHRDF) formed at Aga Khan University in Pakistan.
- A programme of supervised drug management has been started for schizophrenia patients in Pakistan.
- Programme to integrate mental health in primary health care by the Ministry of Health; for example, the National Action Plan for Non Communicable Diseases includes mental health.
- After seeing the effects of counselling on anxious and depressed women many NGOs have asked for training of their personnel in counselling skills.
- A protocol has been developed between the departments of psychiatry and emergency medicine regarding the management of patients with functional chest pain.
- A Mental Health Ordinance was formulated in 2001, based on research evidence and advocacy by groups of mental health professionals. The ordinance repealed the Lunacy Act of 1912, which used to be the official document related to the legal rights and responsibilities of people with mental illness.
- The Government of Pakistan adopted a model of care based on the findings of a randomized controlled trial on the effect of counselling by minimally trained community women in reducing levels of anxiety and depression in women in semi-urban communities who are dealing with psychological problems in the aftermath of a natural disaster (October 2005 earthquake).

Sri Lanka

- Research on medically unexplained symptoms that took place for over 15 years
- The tsunami gave us an opportunity to highlight the possibility of traumatized people presenting with multiple complaints. We are now conducting one-day training sessions throughout the Ministry of Health for doctors to manage their patients based on evidence from our research.

2. Research evidence that should have influenced policy, programme, advocacy or practice but has not done so

Bangladesh

- Child psychiatry and clinical psychological services need to be incorporated in all child development centres of Bangladesh.

- Sex education, life skills development, drug abstinence education not yet included in middle school curriculum in mainstream education in Bangladesh.
- Study findings show that parents are the main perpetrators in cases of child abuse and neglect. So a policy for positive parenting needs to be established.

India

- Findings on the relative importance of different electroconvulsive therapy (ECT) stimulus variables have not yet resulted in the re-standardization of ECT devices in the country.
- Yogic practices develop positive attitude and appropriate personality transformation, but no concerted effort has been made to introduce them in schools.
- Bipolar disorders cause equivalent burden to caregivers as does schizophrenia, and should also be given priority by policy-makers.
- The LoC (the Line of Control) area in Kashmir, because of high stress, is associated with a high suicide rate, but this has not resulted in any major change at the policy or programme level.
- Mental health care can be provided at sub-centres and primary health centres by health workers if they are trained in identification, referral and counselling at the community level. That improves overall quality of health services, but has not been implemented.
- Most infertile couples face significant problems in areas of psychosocial functioning, and need appropriate intervention and counselling. But this is yet to become a regular practice in most centres.
- Referral of persons who attempt suicide to the psychiatry department before discharge in all government medical colleges in Kerala
- The conclusions of the study on the impact of riots on children's minds was sent to government officials and a suggestion regarding giving proper educational inputs for avoiding future conflicts was given. However, it is not clear whether there has been any official response to this.
- Need for starting school mental health programmes
- A study on community mental health brought out many issues which should have influenced national policy but the current policy-makers either do not care or are influenced by other lobbies.
- The beneficial role of regular moderate physical exercise in alleviating depression and dementias
- We have shown that women community health workers can be trained to identify cases of dementia in the community. The government should equip the existing outreach services to provide care and support to old people with disability.
- A consistently higher level of depression was found in non-institutionalized elderly persons than institutionalized ones. An intervention programme for the non-institutionalized elderly may be designed and institutions for the elderly established not far from their area of residence.
- Clinical trials of Centbutindole, a new antipsychotic developed by Central Drug Research Institute, have not brought the drug to the market because the Council for Scientific and Industrial Research delayed its approval.

- Routine screening for postpartum depression in maternal and child health (MCH) programmes as recommended by findings on postpartum depression.
- Risk of malformations in the children of persons with epilepsy has been found to be reduced if a low dose of anti-epileptic drugs is prescribed, preferably in monotherapy, and always with folic acid in the pre-conception period.
- Dementia (moderate and severe) does exist and care institutions are needed.

Nepal

- Substitution therapy for drug users.

Pakistan

- In a study diacetylmorphine (heroin) was the main causal agent in accidental overdose among young males. Methods should be adopted to maintain a strict ban on keeping, trafficking and marketing of these narcotics.
- Results of published studies (randomized controlled trials and qualitative) on the benefit of counselling by minimally trained community counsellors needs to be replicated more widely and incorporated in the training manuals for community health workers.
- Research on factors leading to poor mental health in women recommended social change (i.e., reduction in social inequity and ensuring social justice), but maintaining the status quo suits the policy-makers.
- Advocacy and practice in the clinical setting to identify and properly manage patients with medically unexplained symptoms using basic cognitive behaviour therapy techniques.

Sri Lanka

- Rising rates of self-harm among children.
- Close connection between men's alcohol use and self-harm among men themselves and among their wives and children.

Appendix 2: Project teams

Brazil

Principal Investigator: Jair de Jesus Mari

Contact address: Departamento de Psiquiatria, Universidade Federal de São Paulo (Unifesp), Rua Botucatu 740 – 3o andar – Vila Clementino – 04023-900, São Paulo – SP – Brazil – Phone/Fax: +55 11-50847060, Email: jamari@attglobal.com

Project team:

Denise Razzouk, Maria Tereza Bonilha Dubugras, Jerônimo Gerolin

Nigeria

Principal Investigator: Oye Gureje

Contact address: Department of Psychiatry, College of Medicine, University of Ibadan, Ibadan, Nigeria. Phone: +234 2-2410146, Fax: +234 2-2410146, Email: ogureje@comui.edu.ng

Project team:

Lola Kola, Woye Fadahunsi

Peru

Principal Investigator: Guido Mazzotti (deceased) / Carla Gallo

Contact address: Laboratorios de Investigacion y Desarrollo, Universidad Peruana Cayetano Heredia (UPCH), Honorio Delgado 430, Lima 31, Peru. Phone: +51 1-319 0032, Fax: +51 1-319 0000 Ext 2416, Email: galloc@upch.edu.pe

Project team:

Peru: Fabián Fiestas, Ursula Ochoa, Inés Bustamante, Giovanni Poletti, Abel Sagástegui, Silvana Sarabia; Argentina: Sergio Rojtenberg; Bolivia: Fernando Garitano-Zavala, Nils Noya; Colombia: Jorge Téllez; Costa Rica: Henriette Raventos; Ecuador: Carlos León Andrade; Honduras: Américo Reyes; México: Carmen Lara; Panamá: Isabel Riaño; Dominican Republic: César Mella; St. Kitts & Nevis and Grenada: Stan Kutcher and Sonia Chehil (based in Canada); Venezuela: Edgard Belfort
Advisors: Renato Alarcón (USA), Duncan Pedersen (Canada), Sergio Aguilar-Gaxiola (USA)

Philippines

Principal Investigator: Exaltacion E Lamberte

Contact address: DLSU Social Development Research Center, De La Salle University, 2401 Taft Avenue, Manila, 1004, Philippines. Phone: +63 2 524-46-11 loc. 402 and 550, Fax: +63 2 850 8459, Email: lambertee@dlsu.edu.ph

Project team:

Avelita V Lapitan, Cecile C Pascasio, Loyd Brendan P Norella, Ian Jayson R Hecita

South Africa

Principal Investigator: Leslie Swartz

Contact address: Department of Psychology, University of Stellenbosch, Private Bag X1, Matieland, 7602, South Africa. Phone: +21 8083461, fax: +21 8083584, Email: lswartz@sun.ac.za

Project team:

Kathleen McDougall, Alison Breen, Carol Legg, Margie Schneider

South Asia

Principal Investigator: Vikram Patel

Contact address: Sangath Centre, Porvorim, Goa, India 403521.

Phone: +91 982 213 2038, Fax: +91 832 241 1709, Email: vikram.patel@lshtm.ac.uk

Project team:

India: Vailana Castellino, Kishori Mandrekar and Smita Naik; Bangladesh: Omar Rahman, Moinuddin Khan; Nepal: Suraj B Thapa, Nirupama Basnet; Pakistan & Afghanistan: Murad M Khan, Haider Naqvi; Sri Lanka & Maldives: Athula Sumathipala, Sisira Siribaddana, Suwin Hewage

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EVIDENCE & KNOWLEDGE



Monitoring Financial Flows for Health Research 2006: The changing landscape of health research for development

Andrés de Francisco and Stephen Matlin (eds.)
2006, 95 pages (English). ISBN 2-940286-42-6

The first decade of the 21st century may be seen as a turning point in history: there are new actors, resources and funding channels to improve human health in low- and middle-income countries. The Global Forum for Health Research regularly tracks the world's resources for health research. The 2006 report describes new funds and initiatives for health research globally, providing estimates of the resources available and the patterns of ill-health for 2003, as well as projections of these patterns in 2030. It also examines the vital roles that the public sector across all countries must play in supporting health research, creating an enabling environment and strengthening research capacities to meet the present and future challenges. Target audiences: decision-makers and health research sponsors.



Research Issues in Sexual and Reproductive Health for Low- and Middle-Income Countries

Andrés de Francisco, Ruth Dixon-Mueller, Catherine d'Arcangues
2007, 68 pages (English). ISBN 2-940286-50-7

An estimated 529 000 women died during pregnancy and childbirth in the year 2000, mainly from preventable causes and almost all in low- and middle-income countries. This illustrates the enormous gap between the sexual and reproductive health status in poor and in rich countries. This publication identifies gaps, priorities and multidisciplinary approaches in research that aims to provide evidence for improving the quality, availability and use of sexual and reproductive health information, products and services among currently underserved populations in low- and middle-income countries. It proposes a rights-based framework for analysing and filling gaps in our knowledge of sexual and reproductive health problems as they are experienced by men, women and adolescent girls and boys on an individual level, in interpersonal contexts, through the life course. Target audience: readers engaged in a collective process of formulating a global priority research agenda.

TOOLS FOR ACTION



Learning from Experience: Health care financing in low- and middle-income countries

Diane McIntyre
2007, 76 pages (English). ISBN 2-940286-53-1

This report reviews health care financing in low- and middle-income countries and offers a framework to assess the performance of a health care financing system and make it more equitable, efficient and sustainable by optimizing the three main functions of health care financing: revenue collection, pooling of funds and purchasing. To facilitate drawing from the experience of other countries, the publication presents a range of country case studies that highlight some of the factors that have contributed to the successful set-up and implementation of these functions. A user-friendly fold-out table summarizes at a glance international experience in the performance of these functions in terms of feasibility, equity, efficiency and sustainability.

An executive summary is provided in Chinese, English, French, Portuguese and Spanish. Target audiences: policy-makers, those providing technical support to policy-makers, researchers and students.



The BIAS FREE Framework: A practical tool for identifying and eliminating social biases in health research

Mary Anne Burke and Margrit Eichler
2006, 64 pages (English). ISBN 2-940286-43-4

The BIAS FREE Framework is an integrative tool to identify and remove biases in health research that derive from any social hierarchy. This publication focuses on the application of the Framework to gender, race and ability biases in the area of health research. However, much of the Framework's power lies in its ability to be applied to all types of biases, any kind of research involving human beings, as well as to legislation, policies, programmes and practices. It is, therefore, an essential tool for getting at the roots of social inequalities and producing clear and objective research reports and articles as well as funding proposals for decision-makers. Target audiences: students, researchers and policy-makers.



Application of Burden of Disease Analyses in Developing Countries: Implication for policy, planning and management of health systems

Adnan A. Hyder, Li Liu, Richard H. Morrow, Abdul Ghaffar
2006, 64 pages (English). ISBN 2-940286-41-8

To date, there has been rather scant literature on the application of burden of disease (BoD) measures in low- and middle-income countries. This publication demonstrates the practical value of evidence-based decision-making through the collection and application of measures of BoD, such as DALY, QALY and HEALY in 11 developing countries. Reviewing the results of a series of seven case studies supported by the Global Forum for Health Research over a period of several years, it shows how BoD measures may be used in setting priorities and highlighting inequities. The review points to the continuing need for an internationally agreed summary measure that adequately addresses equity issues. Target audiences: researchers, national planners and policy-makers.



The Combined Approach Matrix: A priority-setting tool for health research

Abdul Ghaffar, Andrés de Francisco, Stephen Matlin (eds.)
2004, 68 pages (English). ISBN 2-940286-26-4

From the perspective of responding to health research needs that are largely unmet, priority setting is as critical as conducting the research itself. This publication aims at helping institutions at the national, regional and global levels to set evidence-informed priorities in health research. It describes the Combined Approach Matrix, a tool that enables the collection, organization and analysis of the information needed to help set research priorities. It thereby ensures that more health research is conducted on the most important and often most neglected areas of diseases and the multi-faceted determinants of health. Target audiences: researchers and health managers.

Order online: www.globalforumhealth.org

Key publications of the Global Forum for Health Research

POLICY BRIEFINGS



Why Health Research?
Research for Health: Policy briefings (series) vol. 1
2006, 12 pages (English). ISBN 2-940286-47-7

Countries that have invested consistently in the broad spectrum of health research are now advancing rapidly in health and in economic development. In many countries, however, the benefits of health research are not optimized due to low investments, absence of a culture of evidence-based decision-making or lack of capacity. This joint publication (Global Forum for Health Research and Council on Health Research for Development) briefly provides unfinished and new research agendas, new trends in health research, the components of good health research systems, the need for national health research and systems, and what countries and research sponsors can do to make research for health work. Target audiences: decision-makers and health research sponsors.

VOICES FROM STAKEHOLDERS



Report on Forum 10: Combating disease and promoting health
2007, 68 pages (English). ISBN 2-940286-48-5

The Forum meeting of the Global Forum is a premier annual event worldwide in health research for development. Forum 10 took place in Cairo, Egypt, in November 2006, bringing together some 550 key stakeholders to address issues, best practices and gaps in global research for health. The report summarizes presentations made at Forum 10 in the areas of sexual and reproductive health, neglected diseases research, determinants of health, communications and health research, innovation and health systems. It comes with a user-friendly CD-ROM that features the final meeting documents. Target audience: readers with an interest in health, research and development.



Global Forum Update on Research for Health (3): Combating disease and promoting health
2006, Pro-Brook Publishing. 160 pages (English). ISBN 2-940286-44-2

The third volume of the Global Forum Update on Research for Health is devoted to current challenges in combating disease and promoting health and how health research can help tackle them. Leading institutions and public health professionals from across the world cover topics ranging from combating infectious and chronic disease and promoting health to building research capacity in low- and middle-income countries and preventing violence and road traffic injuries. Target audience: readers with an interest in health, research and development.



Young Voices in Research for Health: Winners of the Forum 10 essay competition for the under-30s
2006, 120 pages (English). ISBN 2-940286-45-0

What are the concerns of young voices in research for health? The Global Forum for Health Research and *The Lancet* have published 32 shortlisted essays from their first jointly sponsored essay competition for the under-30s. Entries were invited from young professionals working in or interested in the broad spectrum of health research pertaining to the overall theme of Forum 10: combating disease and promoting health. Target audience: young researchers.

ABOUT THE GLOBAL FORUM



2006 Review: Innovating for better health
2007, 28 pages (English). ISBN 2-940286-52-3

This review of the Global Forum's activities in 2006 highlights its innovative and comprehensive approaches to health research, recognizing the complex and multi-sectoral origins of factors that determine people's health. It presents the initiatives, networks, partnerships, collaborations, commissioning of studies, publications and workshops the Global Forum has been leading or supporting to make a difference to global health. Target audience: readers with an interest in health, research and development.

MAGAZINE SUPPORTED BY THE GLOBAL FORUM



RealHealthNews
The magazine of real action and research for health for the poor

Published quarterly in electronic and printed form, 32 pages per issue (English). Editor: Robert Walgate

RealHealthNews is about real evidence, real research and real interventions that can change people's lives in low- and middle-income countries for the better. It is editorially independent and supported by the Global Forum for Health Research. The Global Forum's web site www.globalforumhealth.org features the full print magazine, extended versions of selected stories and interviews, plus additional articles and reflections. Target audience: policy-makers at all levels, including those in health and finance ministries, whose decisions influence health research financing.

AVAILABLE ON CD-ROM

- Publications 2000-2006
- Forum 10



FORTHCOMING PUBLICATIONS

- **Monitoring Financial Flows for Health Research 2007**
- **Global Forum Update on Research for Health (4):** Equitable access: research challenges for health in developing countries.
- **Health Partnerships Review.** This landmark publication will describe the current state of research on public-private partnerships for health, with opinions and best practice from actors from the public, private and civil society sectors.
- **Mental Health: Mapping of research capacity in low- and middle-income countries.** World Health Organization-Global Forum for Health Research *Mental Health Research Mapping Project Group*.
- **Young Voices in Research for Health 2007**

Order online: www.globalforumhealth.org

Publications Feedback Questionnaire

Dear Reader,

We value your comments on the publication "Research capacity for mental health in low- and middle-income countries", so as to be able to improve future publications and their distribution.

Publication Outreach

1. How did you become aware of *Research capacity for mental health* (check all that apply)?

- Received it by mail
- Via www.globalforumhealth.org
- Downloaded from another web site (*please specify which one*): _____
- Publication was recommended to me
- Via a listserv (*please specify which one*): _____
- At a conference (*please specify which one*): _____
- Other means (*please specify*): _____

2. Have you shared *Research capacity for mental health* with others?

- Yes With whom? _____ No Why not? _____

3. How do you usually obtain Global Forum publications (check all that apply)?

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4. What other activities do you suggest to improve the outreach of Global Forum publications?

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- CD-ROM Why? _____

Publication Characteristics

6. How often do you read Global Forum publications?

- Whenever there is a new publication available
- Occasionally
- Never

Please turn over for page 2

7. Which impact do you anticipate *Research capacity for mental health* may have on your work (check all that apply)?

- I am more aware of research gaps
- I have initiated health research for the poor
- I have shifted research priorities
- I have increased resources for health research for the poor
- I have used the publication for training/teaching
- No impact
- Other (please specify): _____

8. In general, how useful do you find: For your own work For sharing with others

- | | | |
|--|--------------------------|--------------------------|
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Accurateness	1	2	3	4	5
Clarity (structure and layout)	1	2	3	4	5
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Please return this sheet by fax to **+41 (0)22 791 43 94** or mail to

Monika Gehner
Head, Publications and Information
Global Forum for Health Research
1-5 route des Morillons
CH-1211 Geneva 2 - Switzerland
Email: info@globalforumhealth.org
www.globalforumhealth.org

Thank you for your interest.

This report provides an account of the current status of mental health research in 114 low- and middle-income countries (LMICs) of Africa, Asia and Latin America and the Caribbean.

The scale of the study makes it the first systematic attempt to confirm the pressing needs of improving research capacity in mental health. Thus, the report enables evidence-based decision-making in funding and priority setting in the area of mental health research in LMICs.

The Global Forum for Health Research and the World Health Organization strongly request all policy-makers, programme managers and funders of research for health, at national and global levels, to place mental health high on their agendas.

An executive summary is provided in Chinese, English, French, Portuguese and Spanish.

“ **This report highlights the weak research structures and the lack of connection between mental health decision-makers and researchers in LMICs. It gives nine key recommendations for the development of research for action.** ”

Professor Lars Jacobsson, Department of Clinical Sciences, Division of Psychiatry, Umea University, Sweden