The burden of mental disorders is very high all over the world, as already pointed out in the previous comments of this special issue of IJE. Hopefully, the relevance of mental disorders as one of the world’s main public health priorities has started to become acknowledged. In its 2014 meeting, the World Economic Forum had mental health as one of its relevant topics (http://www.weforum.org/events/world-economic-forum-annual-meeting-2014). Last year the World Health Organization and member states approved the Mental Health Action Plan 2013, during the 65th World Health Assembly, which highlights the need for improvement in research capacity and academic collaboration on research in mental health in Low-And Middle-Income Countries (LAMIC), especially for operational research that can lead to service development and implementation. However, the challenge ahead is not simple. An investigation in 114 LAMIC in three continents showed that there is scarcity of both resources and capacity for mental health research, and that existing resources and capacity are very unevenly distributed.\(^1\) This special issue of IJE, focused on reviewing research evidence related to global mental health on its methodological aspects, aetiology, burden and impact, prevention and service evaluation, confirms how limited is the production of scientific knowledge about these topics in LAMIC.

Good quality epidemiological mental health research in LAMIC is urgently needed for several reasons. For instance, it can give better understanding about the aetiology of mental disorders, which can then lead to preventive public health actions, and it is essential to produce data that allow better estimates of the burden of mental disorders and of population needs, and to develop and test effective and feasible interventions for the management of these disorders in LAMIC. Epidemiological mental health research can also help build regional research capacity and collaboration among LAMIC. Brazil is one of the countries where epidemiological mental health research has evolved significantly in recent years. Brazilian government policies initiated some decades ago, which included efforts to develop capacity resources for research, strengthening postgraduate

---

**Commentary**

**Commentary: Epidemiological mental health research: contribution from low- and middle-income countries is essential**

Paulo Rossi Menezes

Faculdade de Medicina da Universidade de São Paulo, Av. Dr Arnaldo 455, São Paulo, SP Brazil. E-mail: pmenezes@usp.br

---


---

International Journal of Epidemiology, 2014, Vol. 43, No. 2

International Journal of Epidemiology, 2014, 301–303
doi: 10.1093/ije/dyu073
Advance Access Publication Date: 28 March 2014
training, increasing research funding through federal and state agencies and improving access to the international scientific literature allowing free access for all investigators based in Brazilian universities and research institutes, led to a significant number of groups and networks involved with epidemiological mental health research. As a result, currently Brazil is the leading country in mental health research in Latin America.\textsuperscript{2} Some of the current investigations developed there illustrate how we can gain new insight and increase knowledge to guide public health actions from mental health research from LAMIC.

Recent advances in the epidemiology of schizophrenia and other psychoses are a good example of how good quality mental health research from LAMIC is essential for better understanding of the role of environmental factors in the aetiology of mental disorders. The systematic review on the incidence of schizophrenia produced by McGrath \textit{et al}\textsuperscript{3} represented a breakthrough in the notion that the disease occurred evenly in all populations, independently of environmental and population characteristics. On the contrary, there is significant variation in the incidence of schizophrenia and other psychoses between and within populations. Since then, epidemiological research, mostly carried out in Western European countries, indicates important and consistent associations with urbanization (increasingly higher rates in urban settings, compared with rural areas) and migration status or ethnicity (some migrant groups and ethnic minorities with higher incidence rates than native populations).

These findings, and the aetiological mechanisms that must be behind them, may not apply to populations from LAMIC, where population dynamics are of a different nature. Many LAMIC are going through intense demographic changes, with a fast process of rural/urban migration within countries and concentration of the population in large urban centres, where social disadvantage and poverty are major issues. Sixty years ago about 50\% of the Brazilian population lived in rural areas, whereas nowadays more than 80\% live in urban areas, and around 50\% live in large urban centres with more than 1 million inhabitants. Based on the observations from Western European countries, one would expect high incidence rates of schizophrenia and other psychoses in Sao Paulo, one of the largest conurbations in the world with around 20 million people. Yet, a recent study yielded incidence estimates much lower than those found in large European cities,\textsuperscript{4} suggesting that distinct environmental mechanisms may be acting there. A new investigation on the epidemiology of first-episode psychosis is under way, aimed at examining the relationship between the incidence of psychosis, population density and exposure to social adversities, in a collaboration with the European network of national schizophrenia networks studying gene-environment interactions (http://www.eu-gei.eu/), and hopefully will bring new insights into the aetiology of psychoses in LAMIC.

Another example relates to the investigation of the mental health of healthcare workers. There is now evidence that effective interventions for common mental disorders that can be delivered by non-specialized health workers in LAMIC, and many of these countries are investing in creating or expanding their primary care systems in order to tackle the treatment gap in mental health care. Brazil, for example, created a new model of primary care based on family health teams, which rapidly expanded and covers now over 50\% of the country’s population, providing care to more than 100 million people through multidisciplinary teams composed of family doctors, nurses and community health workers, employing more than 300,000 healthcare workers. However, these family health teams work under considerable stress, since they have to deliver effective care to vulnerable and disadvantaged population groups, living in poverty and exposed to high levels of community violence. A small-scale investigation suggested that the mental health of these healthcare workers can be worse than the mental health of the population they care for,\textsuperscript{5} which led to a larger investigation with a representative sample of some 3000 family health workers in the city of Sao Paulo. Preliminary results suggest that common mental disorders are twice as frequent among these health workers, compared with the general population, and that exposure to community violence during their professional activity may be an important factor. Therefore, policies for integrating mental health into primary care in LAMIC must take these issues into account in order to succeed in this endeavour.

These and other ongoing projects also greatly contribute to capacity building in epidemiological mental health research, as postgraduate and post-doctoral students get involved with the planning, execution, analysis and dissemination of results of such investigations. Such capacity-building process has also benefited from interactions with investigators from centres of excellence in high-income countries, but there is still limited collaborative work among LAMIC within each region and across the globe. Some important efforts from international funding agencies engaged with global mental health have added significantly to improved collaboration between LAMIC in all regions of the world. A good example is the NIMH Office for Research on Disparities and Global Mental Health programme Collaborative Hubs for International Research on Mental Health (CHIRMH), aimed at reducing the treatment gap in LAMIC through the development of task-shifting interventions (http://www.nimh.nih.gov/about/
organization/od/globalhubs/index.shtml). Through this programme, four international research hubs were funded, involving investigators from 20 countries in Latin America, Africa and South East Asia, collaborating with centres of excellence from the USA and Europe. Other international initiatives are taking place, and we shall see significant advances in epidemiological mental health research in LAMIC in the years to come.

**Funding**

P.R. Menezes was partly funded by the National Council for Scientific and Technological Development (CNPq)-Brazil [grant number: 304838/2001-0].

**Conflict of interest:** None declared.

**References**