

Call for a change in research funding priorities: the example of mental health in Costa Rica

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Suggested citation: Contreras J, Raventós H, Rodríguez G, Leandro M. Call for a change in research funding priorities: the example of mental health in Costa Rica. *Rev Panam Salud Publica*. 2014;36(4):266–9.

SYNOPSIS

The World Health Organization (WHO) Mental Health Action Plan 2013–2020 urges its Member States to strengthen leadership in mental health, ensure mental and social health interventions in community-based settings, promote mental health and strengthen information systems, and increase evidence and research for mental health. Although Costa Rica has strongly invested in public health and successfully reduced the burden of nutritional and infectious diseases, its transitional epidemiological pattern, population growth, and immigration from unstable neighboring countries has shifted the burden to chronic disorders. Although policies for chronic disorders have been in place for several decades, mental disorders have not been included. Recently, as the Ministry of Health of Costa Rica developed a Mental Health Policy for 2013–2020, it became evident that the country needs epidemiological data to prioritize evidence-based intervention areas. This article stresses the importance of conducting local epidemiological studies on mental health, and calls for changes in research funding priorities by public and private national and international funding agencies in order to follow the WHO Mental Health Action Plan.

Keywords: mental health; mental disorders; research, funding; research promotion; research policy evaluation; policy making; Costa Rica.

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The World Health Organization (WHO) has a comprehensive mental health action plan for 2013–2020 that summarizes the efforts of stakeholders and experts from 135 Member States. Its four objectives are:

1. Strengthen effective leadership and governance. This includes empowering people with mental disabilities and moving away from the purely medical model.
2. Provide comprehensive, integrated, and responsive mental health and social care services in community-based settings. This includes an emphasis on human rights, and services that include income generation, education opportunities, housing, and other social determinants of mental health required for a comprehensive response to mental health.
3. Implement strategies for promotion and prevention in mental health. This encompasses suicide prevention and measurable indicators, such as 20% increase in service coverage for severe disorders and a 10% reduction of the suicide rate by the year 2020.
4. Strengthen information systems, evidence, and research. This includes generating new knowledge through research that addresses local scientific questions, thereby enabling policies and actions founded on evidence and best practices (1).

Furthermore, the mental health system must include the following indicators: prevalence of mental disorders; identification of major risk and protective factors for mental health and well-being; coverage of policies and legislation; interventions and services; health; and social and economic outcome data (2).

COSTA RICA CONTEXT

Costa Rica is a middle-income and politically stable country in Central America with a population of 4.4 million. Its strong investment in a public universal health care system, sanitation, and public education during the past century has contributed to health indicators comparable to those of developed countries, a very low illiteracy rate, and an economy rated by the World Bank as upper middle-income. Costa Rica has markedly reduced the impact of nutritional and infectious diseases in the last 50 years, has an infant mortality rate under 15 per 1 000, and a life expectancy of 75 years.

Over 90% of the health care facilities in Costa Rica are operated by the Caja Costarricense del Seguro Social (Costa Rican Social Security Fund; CCSS), which provides public and universal coverage and is supported by compulsory contributions from all Costa Rican workers and employers (3). Nonetheless,

CCSS is burdened by a transitional epidemiological pattern and population growth, along with increased needs generated by immigration from economically and politically unstable neighboring countries. Consequently, the proportional burden of chronic disorders, such as congenital malformations, genetic illnesses, cancer, cardiovascular diseases, and mental disorders, has substantially increased. Although specific evidence-based policies have been in place for other chronic disorders for several decades, mental disorders have not been included.

This work highlights the importance of conducting local epidemiological studies on mental health and their role in forming public health interventions. It provides a discussion of current research initiatives and proposes a change to divert more research funding toward mental health.

MENTAL HEALTH IN COSTA RICA

No epidemiological studies on mental disorders have been conducted in Costa Rica in the last 35 years (4). The studies conducted by Adis-Castro and his group between 1968 (5) and 1984 (6), although flawed by different diagnostic categories and non-representative population samples, showed a prevalence of alcoholism of 10%–14%; psychotic symptoms, 1%–3%; depressive personality, 5%–7%; and anxiety, 16%–26%. Other indicators also suggest that mental disorders are a burden in Costa Rica. Violent deaths (suicide, homicide, and traffic accidents) are the third cause of mortality, and the first among young adults. Costa Rica is situated in one of the most violent parts of the world. The violence is mostly drug-related and has permeated the whole area. Drug and alcohol consumption and abuse are on the rise; 22% of Costa Ricans are at risk and 4% have alcohol-dependence (7). Growing indexes on extreme poverty, domestic violence, school desertion, poor waste management, inexistent urban planning, and an inefficient public transportation system, among others, indicate negative effects on health and wellbeing (8).

Additionally, data from the CCSS suggest that mental health disorders have not been a priority, notwithstanding the known disability and suffering caused by these conditions. According to the Evaluation of the Costa Rican Mental Health System, the country invested only 3% of the total health budget in mental health and 70% of this investment went to inpatient facilities (9). The rate of specialists in psychiatry per 100 000 inhabitants is only 3.7, similar to the rate Mexico (1 to 5 depending on rural or urban area), but less than the United States of America and Canada. Additionally, the distribution per population density is not homogeneous. Some areas outside main cities have one or fewer psychiatrists per 100 000 inhabitants (9).

Contreras and Raventós (10) summarized the opinions of policymakers, researchers, clinicians, and patient organizations in Costa Rica during a workshop on mental health services in 2011. The conclusions of

this workshop were: mental disorders are generally treated by psychiatrists who work in the two specialized psychiatric hospitals; time per patient is short and specialist referrals are difficult to obtain; access to new drug protocols and non-pharmacological therapies, such as psychotherapy, is limited; trained community-level non-specialized health personnel is lacking, which delays accurate diagnosis and treatment; and few interventions are conducted on mental health promotion, prevention, or rehabilitation.

During the last decades, assessments of mental health in Costa Rica have been conducted with statistical data from different institutions, e.g., the Ministry of Health, CCSS, the Ministry of Public Education, mental health hospitals, the National Institute of Statistics and Census, and others. Both WHO and the CCSS acknowledge that epidemiological data is necessary to improve health services for mental disorders (10, 11).

In order to remedy the absence of an explicit mental health policy in Costa Rica, the Ministry of Health convened a diverse group of experts from the public and private sectors to meet regularly during the course of 2012 to develop the 2013–2021 National Policy on Mental Health (12). During these sessions, indirect indicators of prevalence, disability, quality, and quantity of mental health services and treatment, and environmental and biological determinants were discussed. Due to the lack of local studies, the Policy was also based on results from other countries; in fact, most low- and middle-income countries (LMIC) define their health policies, interventions, and programs using data generated in high-income countries (13, 14). However, since other countries' results cannot be directly extrapolated to the local setting, an additional priority of the Policy was to conduct an epidemiological study that would determine more precisely the prevalence, disability, comorbidity, and sociodemographic correlates for mental disorders in Costa Rica. The WHO-Composite International Diagnostic Interview (CIDI), which has proven useful for epidemiological studies by non-clinical personnel, provides diagnosis according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) and the International Classification of Diseases, 10th edition (ICD-10) with a confidence of 85%–95% for most disorders, even in different cultural settings (15, 16). Studies done in Guatemala and Mexico have shown that the instrument can detect differences even in similar contexts, supporting the need to conduct local assessments in each country and setting (17).

CHANGING PRIORTIES FOR MENTAL HEALTH RESEARCH FUNDING

Mental disorders are complex conditions influenced by the interaction of biological, environmental, lifestyle, and socioeconomic factors. It is now widely accepted that the burden of mental illness and its disabilities represents a challenging concern for public health systems in LMIC, a situation that needs answers from the research community. Epidemiological

studies on mental health are needed to understand risk factors and the burden of disease so that evidence-based policies can be enacted (14). In 2004, the WHO-sponsored Mental Health Study was published with results on 14 of the 30 participating countries, and showed that mental disorders are highly prevalent and constitute disabling conditions that frequently are not diagnosed or treated (18). According to WHO (19), less than 70% of its Member States have mental health programs; in LMICs only 1% of the health budget is dedicated to mental health; and over 30% of the years lived with disability are caused by mental disorders.

The Mental Health Atlas 2011 (20) shows that the gap between available resources and the burden of neuropsychiatric disorders is larger in low-income countries than in high-income ones. It estimated that neuropsychiatric disorders contribute to 26.3% of the burden of disease in Costa Rica. No data was available for two crucial indicators: number of people with mental disorders treated by primary health care, and interventions (psychopharmacological and psychosocial) delivered by primary health care to people with mental disorders. The system lacks information on number of people, age, gender, diagnosis, and activities conducted to promote mental health in the primary care setting (21). One of the priorities defined by WHO during the General Assembly in May 2013 was the implementation of a set of global actions that include research on the nature, determinants, and treatments for these disorders (1).

WHO has developed assessment instruments to collect essential information on the mental health system of Member States. In Costa Rica, this information is provided by the Ministry of Health based on statistical information from health providers. Epidemiological studies will ensure accuracy of the data presented in these reports. However, funding for epidemiological studies is limited and difficult to obtain. The overall investment in science and technology in these countries is low, usually under 0.5% of the Gross National Income (22), and these studies are expensive endeavors for national agencies. Most international agencies do not include mental health research in their priorities, exclude middle-income countries such as Costa Rica, or have a very limited budget for these studies.

The WHO Mental Health Action Plan established a specific goal to measure the global impact of its fourth objective (strengthen information systems, evidence, and research for mental health). The goal is to have 80% of the countries collect and report mental health indicators every 2 years through their national health and social information systems (1). If mental health is to be considered a global health priority, as put forth by the World Health General Assembly last year, local and international organizations should allocate the necessary resources to study the state of mental health in each country. Resources are needed for epidemiological studies on which to implement an evidence-based and active surveillance system for mental health. This will allow Member States to integrate mental health into the routine health information system, periodically reporting and using core mental health data to improve health

services and promotion and prevention strategies. It is crucial to develop a prioritized research agenda for mental health, improve research capacity, and strengthen collaboration between national, Regional, and international research centers.

Epidemiological studies in mental health will provide a better view of the current mental health situation in Costa Rica. Such research will reduce bias obtained through statistical data. More accurate data is necessary for reporting to WHO and will lead to better planning and distribution of existing resources. Improved data quality and reporting would not only make sense to possibly alleviate some of the economic burden of mental disorders, but most importantly, to improve the wellbeing of the population overall, to protect human rights, and to diminish the suffering endured by those directly affected, as well as that of their families and communities.

Conflict of interest: None.

SINOPSIS

Solicitud de un cambio en las prioridades de financiamiento de la investigación: el ejemplo de la salud mental en Costa Rica

El Plan de Acción sobre Salud Mental 2013–2020 de la Organización Mundial de la Salud (OMS) insta a sus Estados Miembros a que fortalezcan el liderazgo en el ámbito de la salud mental, garanticen las intervenciones de salud mental y asistencia social en los entornos comunitarios, promuevan la salud mental y fortalezcan los sistemas de información, e incrementen los datos científicos y las investigaciones sobre salud mental. Aunque Costa Rica ha invertido mucho en salud pública y ha reducido con éxito la carga de enfermedades nutricionales e infecciosas, su modelo epidemiológico transitorio, el crecimiento de la población y la inmigración desde países vecinos inestables han desplazado la carga de morbilidad hacia los trastornos crónicos. Aunque existen políticas en vigor dirigidas a los trastornos crónicos desde hace varios decenios, no se ha incluido en ellas a los trastornos mentales. Recientemente, cuando el Ministerio de Salud de Costa Rica elaboró una Política Nacional de Salud Mental para el periodo del 2013 al 2020, se hizo evidente que el país necesita datos epidemiológicos para priorizar las áreas de intervención con base en pruebas científicas. Este artículo subraya la importancia de llevar a cabo estudios epidemiológicos de ámbito local sobre salud mental, y solicita cambios en las prioridades de financiamiento de la investigación por parte de los organismos de financiamiento públicos y privados, nacionales e internacionales, con objeto de cumplir con lo que establece el Plan de Acción sobre Salud Mental de la OMS.

Palabras clave: salud mental; trastornos mentales; investigación, economía; promoción de la investigación; evaluación de políticas de investigación; formulación de políticas; Costa Rica.

REFERENCES

1. World Health Organization. Comprehensive mental health action plan 2013–2020. Available from: http://apps.who.int/iris/bitstream/10665/89966/1/9789241506021_eng.pdf Accessed on 10 October 2014.
2. Choi BC. The past, present, and future of public health surveillance. *Scientifica* (Cairo). 2012;2012:875253.
3. Organización Panamericana de la Salud. Perfil de los sistemas de salud Costa Rica. 2009. Available from: www.paho.org/cor/index.php?gid=87&option=com_docman&task=doc_view.
4. Echeverri P. Propuesta de un modelo de recolección de datos desde la vigilancia epidemiológica incorporando los factores psicosociales y epidemiológicos a partir del análisis estadístico de los primeros ingresos atendidos en el Hospital Nacional Psiquiátrico durante el 2008 [MS dissertation]. San José: Universidad de Costa Rica; 2008.
5. Adis Castro G. Prevalencia de problemas de salud mental en Costa Rica. San José: Universidad de Costa Rica; 1968.
6. Adis Castro G, Casas G. Estudio sobre la existencia de recursos de psiquiatría en hospitales y clínicas. *Revista Costarricense de Psicología*. 1984;8238:5.
7. Instituto sobre Alcoholismo y Farmacodependencia, Costa Rica. Consumo de drogas en Costa Rica: Encuesta Nacional. San José, Costa Rica: IAFA; 2010.
8. Barquero P, Leandro M, Sotela G. Determinantes socioambientales de la salud mental. In: *Estado de la Cuestión en Salud Mental*. San José: Universidad de Costa Rica. [In press].
9. Organización Panamericana de la Salud. Informe de la evaluación del sistema de salud mental en Costa Rica. San José: OPS; 2008.
10. Contreras J, Raventós H. Foro sobre salud mental 2011, conclusiones y pasos futuros. *Acta Med Costarric*. 2013;55(3): 132–8.
11. Caja Costarricense del Seguro Social. Informe en la especialidad de psiquiatría de la red de servicios de salud. San José, Costa Rica: CCSS; 2010. (Document ASS-347-2010).
12. Ministerio de Salud. Política nacional de salud mental, 2012–2021. San José, Costa Rica: MSP; 2012.
13. Patel V, Prince M. Global mental health: a new global health field comes of age. *JAMA*. 2010;19;303(19):1976–7.
14. World Health Organization Global Forum for Health Research, Mental Health Research Mapping Project Group. Mental health research priorities in low- and middle-income countries of Africa, Asia, Latin America and the Caribbean. *Br J Psychiatry*. 2009;195(4):354–63.
15. Wittchen HU. Reliability and validity studies of the WHO—Composite International Diagnostic Interview (CIDI): a critical review. *J Psychiatr Res*. 1994;28(1):57–84.
16. Wittchen HU, Essau CA, Hecht H, Teder W, Pfister H. Reliability of life event assessments: test-retest reliability and fall-off effects of the Munich Interview for the Assessment of Life Events and Conditions. *J Affect Disord*. 1989;(1):77–91.
17. López-Soto V. Encuesta nacional en salud mental. Guatemala: Universidad de San Carlos; 2011.
18. World Health Organization World Mental Health Survey Consortium. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *JAMA*. 2004;291(21): 2581–90. Accessed on 21 November 2014.
19. World Health Organization. Mental Health Legislation and Human Rights. 2003. Available from: http://www.who.int/mental_health/policy/services/essentialpackage1v5/en/ Accessed on 21 November 2014.
20. World Health Organization. Mental Health Atlas, 2011. Available from: http://whqlibdoc.who.int/publications/2011/9799241564359_eng.pdf Accessed on 21 November 2014.
21. Lopez A. Global trends in death and disability from injuries: findings from the Global Burden of Disease and Injuries Study. *Inj Prev*. 2012;18(Suppl 1):A1.
22. Laras JF. Abandono político y económico restringe ciencia y tecnología, 2013. Available from: www.nacion.com/vivir/Abandono-politico-economico-restringe-tecnologia_0_1366063420.html Accessed on 14 September 2013.

Manuscript received on 31 May 2014. Revised version accepted for publication on 26 August 2014.