Mental health response capacity in primary care in Chile: A contribution to Alma-Ata*

Alberto Minoletti,1 Gonzalo Soto-Brandt,2 Rafael Sepúlveda,1 Olga Toro,1 and Matías Irarrázaval3


ABSTRACT This article identifies strategies that have contributed to the development of mental health response capacity in primary care in Chile and analyzes some lessons learned from this process. It highlights the formulation of national mental health plans, the mental health response, the gradual development of an information system, the investment of additional resources, the creation of programs and guidelines, human resources development, the positioning of mental health in integrated health service delivery networks, support for biopsychosocial child development, the family and community care model, and the strengthening of leadership and partnerships between health and human services.

Its indicators of response capacity are the increase in resources for mental health in primary care, both financial and staffing (that is, the number of professionals and the training provided to them), and the expansion of mental health treatment in primary care settings, notably the rate of people in treatment for mental illness and the support provided for child development.

The article analyzes different factors that have contributed to advances in primary care delivery of mental health services, together with some weaknesses in this process. It concludes by demonstrating the feasibility of progress toward the goals of Alma-Ata to other countries in the Region, gradually implementing substantial changes in mental health response capacity in primary care. To this end, it recommends an improvement in the quality and quantity of research in this area through methodologies that permit comparisons between countries in the Region.

Keywords Primary health care; mental health; public health; health policy.

Mental disorders are highly prevalent, representing 32.4% of years lived with disability (YLDs) and 13% of disability-adjusted life years (DALYs) in the world (1). Improving access to treatment for these conditions constitutes one of the main challenges for public health policies at the global level (2). In the Region of the Americas and the Caribbean, the Pan American Health Organization (PAHO) is addressing this challenge with an action plan that highlights increasing the response capacity of mental systems and services, underscoring the goal of “integrating the mental health component into primary care” (3). A growing body of evidence shows that the delivery of mental health services in primary health care (PHC) is effective in countries with

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different income levels, although evidence-based strategies must be adapted to their different social and cultural situations (4-6).

Since the Declaration of Alma-Ata, different PHC development models have had a major impact on a number of health indicators in many countries, even in those with few resources (7). This development has steadily created opportunities favorable to the integration of mental health into PHC. An example is Chile, which has made the transition from a PHC model centered on maternal and child programs towards a comprehensive model with a family and community health approach, seen as a basic component of the integrated health services networks (8.9). With a population of more than 17.5 million people, 73% of Chileans are registered at one of the 678 PHC centers, 20% of which are in rural areas. These have approximately 30 physicians per 100,000 registered persons, and a similar number of nurses. Moreover, there are 1,167 rural health posts (small establishments run by nurse technicians, with weekly visits by professional teams). PHC centers represent the first level of care, as well as the gateway to the health care system as a whole.

Consequently, with the development of this health system, Chile has steadily integrated mental health care into the entire PHC network. Various indicators show that in the past 20 years the country has achieved a transformation, with mental health care becoming an integral, sustainable component of the system, benefiting the entire population (10.11). Considering that this experience could be interesting to study, this special report aims to identify the public health strategies that have helped develop PHC mental health response capacity, and to analyze some lessons learned from this process that could help us to face future challenges for Chile and other countries of the Region of the Americas.

Strategies to build response capacity

Before 1990, mental health in PHC was limited to low-coverage programs for alcoholism and for prescription of tranquilizers and antidepressants. Since then, incremental strategies have been implemented to serve the population’s mental health needs, with different intensities and speeds of national and local development, according to the political commitment of the different health authorities.

As participants in this process, working in different positions within the public system, we believe that the strategies that have made the greatest contribution to increasing mental health response capacity in PHC are those summarized below.

1. Formulation of the different national mental health plans (in 1993, 2000, and 2017) (12-14) that established the central role of PHC in mental health, along with its specific functions in this area; the inclusion of a coordinated network of mental health teams as an essential component; and close coordination with specialized outpatient care teams.

2. Steady development of a health information system that guides decision-making at the national and local levels, including indicators for service management and clinical care, PHC access, and quality of care. This system, launched in the 1990s with two mental health services, has steadily incorporated all services, as well as the ICD-10 codes and diagnoses of all people receiving care.

3. Investing additional funds for mental health in PHC and including these investments in regular funding mechanisms (initial attempts to integrate mental health into PHC without additional funds, or with temporary funds, achieved limited results). Allocating specific funds to mental health since 2000 enabled program development almost everywhere in the country. Finally, by fully integrating mental health into per capita PHC financing in 2015, parity with physical health was achieved in funding mechanisms. It is expected that in the next few years it will be possible to steadily achieve parity in terms of quantity.

4. Creating programs and technical guidelines for mental health in PHC, which have evolved from isolated interventions to programs targeting specific issues (e.g., depression, domestic violence), and then to a comprehensive mental health program, as defined in 2008. The latest advance, in 2015, was to assign the same status to the mental health program as to the five major PHC programs (for children, adolescents, adults, the elderly, and women). The programs have been complemented with technical and clinical guidelines to support PHC teams’ mental health activities (Table 1).

5. Developing PHC human resources (e.g., GPs and family physicians, nurses, nurses’ aides, midwives, social workers) in health mental, through courses and training workshops promoted by the Ministry of Health or local entities. In 2016, systematic training began for PHC workers, using the Mental Health Gap Action Program (mH GAP) Intervention Guide from the World Health Organization (WHO). Another form of training is through case analyses conducted in mental health consultancies. Moreover, PHC physicians are given incentives to participate in courses and internships that include mental health training.

In addition, national public health policy defined the progressive inclusion of psychologists at all PHC centers, as well as, in recent years, the participation of these professionals in mobile teams that visit the rural health posts. These psychologists’ duties are related to clinical care and community activities. This measure has been favored by the growing number of psychologists trained in Chile over the past three decades, due to the high training capacity of Chilean universities and students’ interest in the profession.

The model of care in Chile’s national mental health plans does not include incorporating psychiatrists into the PHC teams; rather, they act as consultants, together with other specialists on mental health teams, regularly visiting PHC centers. Child, adolescent, and adult psychiatry have been listed among the medical specialties suffering shortages, and the Ministry of Health has provided funding to train a higher number and to narrow inequities in their geographical distribution.

The Ministry of Health has publicized its national mental health plans and the need to step up mental health training for health professionals at Chile’s main universities. The only change has been seen at medical schools, where the average percentage of teaching hours devoted to
### TABLE 1. Supporting documents and resources for the integration of mental health care into PHC in Chile

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Supporting documents and resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional funds for mental health in PHC</td>
<td>• Ministry of Health. Subsecretaria Redes Asistenciales. Orientaciones técnicas-administrativas de salud mental para la atención primaria [Undersecretary for Care Networks. Technical and Administrative Mental Health Guidelines for Primary Care]. 2015.</td>
</tr>
<tr>
<td>Mental health programs and technical guidelines for PHC</td>
<td>• Ministry of Health. Guía clínica tratamiento de personas con depresión [Clinical Guide to Treatment of Depression]. 2013</td>
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<tr>
<td></td>
<td>• Ministry of Health. Orientación Técnica para la detección, intervención motivacional y referencia a tratamiento para el Consumo de alcohol y otras drogas en adolescentes [Technical Guidelines for Detection, Motivational Intervention, and Treatment Referral for Consumption of Alcohol and Other Drugs in Adolescents]. 2015.</td>
</tr>
</tbody>
</table>

Table by the authors, based on information from the Ministry of Health, July 2018.

health mental rose from 2.2% in 2004 to 3.9% in 2012 (15).

6. Incorporating mental health into the integrated health services networks. This has made it possible, since the implementation of the first national mental health plan, to facilitate the integration of mental health services into the public system’s general networks, and to coordinate all components of the mental health subsystem in every health area in the country. A critical activity for coordinating specialized and PHC teams has been the incorporation of a mental health consultancy in 2000, with psychiatrists and other professionals from the specialized outpatient team making monthly visits to PHC centers, analyzing complex cases, and strengthening the capacities of the general health team. This activity helps to improve territorial coordination between the two levels, define reference criteria in both directions, build trust and alliances among all team members, and enhance response capacity to meet the population’s needs.

7. Implementation, since 2008, of a support system for childhood biopsychosocial development within PHC. “Chile Crece Contigo” [“Chile Grows With You”] includes preventive and promotional mental health programs, from prenatal to 9 years. This program delivers enhanced health care, promotion of attachment and psychomotor development, detection of social and mental health problems in the family, early interventions for childhood developmental delays or other health problems, parenting skills education, and home visits for families with high psychosocial vulnerability.

8. Establishing that the model of care in PHC is family- and community-based, and strengthening the territorial approach to enhance its confluence with the community mental health model. This finds expression in participatory diagnoses, mental health awareness-raising and education, participation in promotion programs, prevention and early detection in schools, assistance for mutual support groups, home visits, and (starting in 2016) the incorporation of local community agents into PHC teams to provide psychosocial support for high-risk children and young people.

9. Strengthening the leadership of mental health professionals in the implementation of national plans, management of services, and advocacy for greater mental health development within the public health system. This leadership is operationalized through mental health program managers at different levels in the PHC system: from the national level at the Ministry of Health, to the country’s different regional health districts, comunas (Chile’s smallest administrative subdivision), and local PHC centers. These leaders are empowered by training courses in specific skills, as well as local and national meetings to analyze the development of mental health in PHC.

10. Forging partnerships between PHC and social services, establishing different forms of coordinated joint efforts involving officials from the areas of social development, education,
protection of vulnerable children, prevention and treatment of substance abuse, justice, disability, and labor. These alliances operate at the national level and in every administrative division in Chile, including the catchment area of each PHC center.

Indicators of response capacity

Noteworthy indicators of PHC response capacity are described below.

**a) Increased resources**

The annual funding for mental health in PHC has tripled between 2008 and 2017 (Figure 1). This has made it possible to increase the number of PHC professionals and the number of hours allocated to mental health. Moreover, since 1999, the number of psychologists has risen from 120 (working at 120 PHC centers) to 2,148 (at the 678 PHC centers nationwide). This has led to an increase in the average weekly hours of psychologist time per center, from 47.3 in 2004 to 83.6 hours in 2012 (15). Although there are differences in the number of psychologist hours among the different PHC centers—not always related to the catchment area’s population—there is at least one psychologist per PHC center, both because this is legally required and due to the widespread belief that they play an essential role on health teams. Furthermore, in recent years, community agents have been incorporated to provide psychosocial support for vulnerable children and young people (24 per 100,000 target population), and the diversity and continuity of psychotropic medication has increased.

According to the WHO Assessment Instrument for Mental Health Systems (WHO-AIMS), 18.6% of PHC physicians received health mental training (at least 2 days/year), and 57.4% of PHC centers had one or more physicians with this training (15). Between 2016 and 2017, mental health training was provided to 5,776 PHC mental health staff (3.1%), e-learning on health mental issues (4.2%), and workshop on substance abuse (1.4%).

Mental health consultancies were available at 85.4% of PHC centers in 2016, with an annual average of 10.2 consultancies per center.

**b) Increase in services**

According to data from the Ministry of Health information system, the rate of people in PHC treatment for mental disorders rose from 40/1,000 to 50/1,000 between 2009 and 2016 (Figure 2); this represents 81% of the total of people treated for mental disorders in 2016 (19% were treated by specialized mobile teams). Of those in PHC treatment, 70% were women. Age distribution: 9.5% are children under 10 years old, 15.0% between 10 and 19 years old, 59.6% between 20 and 64, and 15.9% older than 64. The most frequent diagnoses are anxiety disorders (34.0%), depression (33.9%), substance use disorders (6.8%), hyperkinetic disorders (5.9%), and personality disorders (4.1%).

The annual average number of individual consultations per person in treatment ranged from 3.9 to 4.8 between 2009 and 2016. Most of these consultations were with psychologists, whose participation level rose from 34% in 2007 to 53% in 2016. Table 2 shows that the number of health mental consultations in PHC rose between 2007 and 2016; this was due to the increase in consultations with psychologists and a decline in consultations by other team members, except for physicians. In addition to individual

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**FIGURE 1. Annual funds allocated to mental health in PHC per person (2008-2017) in U.S. dollars**

*Source: Table by the authors, based on information from the Ministry of Health*

<table>
<thead>
<tr>
<th>Year (2008-2017)</th>
<th>U.S. dollars per person</th>
</tr>
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<tbody>
<tr>
<td>2008</td>
<td>1.12</td>
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<tr>
<td>2009</td>
<td>1.22</td>
</tr>
<tr>
<td>2010</td>
<td>1.80</td>
</tr>
<tr>
<td>2011</td>
<td>2.13</td>
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<tr>
<td>2012</td>
<td>2.16</td>
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<td>2013</td>
<td>2.34</td>
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<td>2014</td>
<td>2.34</td>
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<tr>
<td>2015</td>
<td>2.51</td>
</tr>
<tr>
<td>2016</td>
<td>3.20</td>
</tr>
<tr>
<td>2017</td>
<td>3.50</td>
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</tbody>
</table>

**FIGURE 2. Rate of people in PHC treatment for mental disorders per 1,000 beneficiaries of the public system (2009-2016)**

*Source: Table by the authors, based on information from the Ministry of Health*

<table>
<thead>
<tr>
<th>Year (2009-2016)</th>
<th>Number of people per 1,000</th>
</tr>
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<tbody>
<tr>
<td>2009</td>
<td>40</td>
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<tr>
<td>2010</td>
<td>39</td>
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<td>2011</td>
<td>46</td>
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<td>2015</td>
<td>49</td>
</tr>
<tr>
<td>2016</td>
<td>50</td>
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consultations, group interventions and home visits were carried out.

Studies conducted in Chile show that mental health consultancies that meet quality criteria have lower rates of hospitalization for psychiatric disorders (16) and lower rates of consultation for psychiatric emergencies (17).

The Chile Crece Contigo system increased the coverage and frequency of services between 2009 and 2016: skin-to-skin contact between mothers and infants in childbirth rose from 32.0% to 76.2%; home visits to at-risk children rose from 16,064 to 123,659, with an average of 1.3 visits per child; 82.5% of infants with delays in psychomotor development attended sessions in child development stimulation rooms at a PHC center; parental skills workshops increased from 588 to 2,011, with an average of 5.7 sessions per year, and 6.1 participants per session (18).

Critical aspects of developing response capacity

Advances in Chilean PHC’s mental health response capacity can be explained by the confluence of factors that have had relative and variable weight during the different phases of the process. Since the mid-20th century, PHC development has been crucial, with health centers covering the entire country, making it possible to reduce rates of infant mortality, malnutrition, and communicable diseases, and to then develop programs for the prevention and treatment of noncommunicable diseases. These advances have been assisted by continually improving models of governance and care.

A second noteworthy aspect is the gradual integration of mental health into PHC (overcoming the initial resistance to PHC mental health activities expressed by some teams whose approach was preponderantly biomedical), as well as learning processes focused on the most effective and feasible ways to integrate mental health into the first level of care.

Another critical factor has been the progressive development of an increasingly effective model of governance, including national mental health policies and plans that clearly define what is expected from PHC; a health information system that incorporates the registry of mental health activities in PHC, contributing to local and national decision-making; and allocation of resources for mental health in PHC that has advanced from small support funds to full incorporation into the principal general funding mechanism at this level. These governance strategies have been recognized in other countries as necessary for successfully incorporating mental health into PHC (4, 19).

Connecting the primary level with specialized mental health teams and including both in the integrated health services networks has also enabled PHC teams to develop the necessary skills for mental health care, with the confidence of having timely support in more complex situations. This connection has been achieved mainly through territorial networks of PHC centers and mental health facilities (especially community mental health centers), with mutual referral systems and patient flows, as well as mental health consultancies and broader coordination with different intersectoral networks. In recent years, the international literature has highlighted the importance of including mental health in integrated health services networks to boost response capacity (4,19), and of integrating health networks with social services (20, 21). Different authors have also pointed out how psychiatrists and other mental health professionals have contributed to integrating mental health into PHC by providing consulting services to PHC teams (4, 6,19, 21).

The PHC response capacity in mental health has also been facilitated by the research and teaching efforts of universities, in partnership with the Ministry of Health. Studies on disease prevalence, service operations, and the effectiveness of interventions (22-25) have generated useful information for decision-making. Research with local actors has also supported the development of a comprehensive evaluation framework and a system for implementing mental health in PHC that enables flexibility and adaptation to the local context (26). Several graduate courses have contributed to capacity-building in community mental health for PHC professionals. And training of community workers has led to promising experiences in community participation.

Despite the advances in PHC response capacity in mental health, Chile is far from achieving the standards of developed countries (4-6) and has been limited by certain weaknesses. Noteworthy are the insufficient allocation of mental health resources (27) and variability in response capacity nationwide, with significant differences between health areas, comunas, and PHC centers. This represents geographical inequity, with place of residence determining who has more or less access to and/or quality of care (28).

Furthermore, the absence of strategies to continuously improve PHC mental health quality means that some people receive treatments of limited intensity, or that are not sufficiently evidence-based. This is made worse by the insufficient undergraduate training in mental health offered to professional and technical staff, with only 3-4% of classroom time devoted to the subject (15). Moreover, many PHC professionals carry an excessive workload, in a labor context of high vulnerability from the viewpoint of social determinants.

In conclusion, this work contributes new knowledge about strategies that can help to develop PHC response capacity in mental health. The progressive improvement in this capacity in Chile is a process that can be explained by multiple factors, and mostly importantly: public policies for strengthening mental health in the PHC system, a territorial community-based model, empowerment of decentralized leaders in mental health management,
expansion of the portfolio of services, development of management tools and an information system, and human resources training.

At the same time, this process illustrates the need for the Chilean health system to face the challenges of coherent and equitable growth, and the need to develop mechanisms for continuous quality improvement. The Chilean process shows that it is feasible for other countries in the Region to advance towards the goals of Alma-Ata, gradually implementing substantial changes in PHC response capacity in mental health.

Despite enormous progress in the field of PHC response capacity in mental health since the Declaration of Alma-Ata, there are still many questions for researchers. Improving the quality and quantity of research, using methodologies that enable comparisons of different countries in the Region, would foster collective learning and help to address the existing challenges.

REFERENCES


Conflicts of interests. Gonzalo Soto has an institutional connection with the Ministry of Health of Chile. Matías Irarrázaval has an institutional connection with PAHO/WHO. The other authors do not declare any conflict of interest.

Disclaimer. The authors hold sole responsibility for the views expressed in the manuscript, which may not necessarily reflect the opinion or policy of the RPSP/PAJPH or the Pan American Health Organization.
Capacidad de respuesta de la atención primaria en salud mental en Chile: una contribución a Alma-Ata

RESUMEN
El presente artículo identifica estrategias que han contribuido al desarrollo de la capacidad de respuesta de la atención primaria en salud mental en Chile y analiza algunos aprendizajes de este proceso. Se destacan la formulación de planes nacionales de salud mental, el desarrollo gradual de un sistema de información, la inversión de fondos adicionales, la creación de programas y orientaciones; el desarrollo de recursos humanos, el posicionamiento de la salud mental en las redes integradas de servicios de salud, el apoyo al desarrollo biopsicosocial de la infancia, el modelo de atención familiar y comunitario, el reforzamiento de liderazgos y alianzas entre salud y servicios sociales.

Como indicadores de la capacidad de respuesta se muestran el aumento de recursos para salud mental en atención primaria, tanto financieros como en la cantidad y capacitación de profesionales, y el aumento de procesos de salud mental en atención primaria, destacándose la tasa de personas en tratamiento por trastornos mentales y las prestaciones de apoyo al desarrollo de la infancia.

Se analizan diversos factores que han contribuido a los avances de la atención primaria en salud mental, así como algunas debilidades de este proceso. Como conclusión, se muestra a otros países de la Región la factibilidad de avanzar hacia los postulados de Alma-Ata, implementando gradualmente cambios sustanciales en la capacidad de respuesta de la atención primaria en salud mental. Para este efecto, se recomienda aumentar la calidad y cantidad de la investigación en el tema, con metodologías que permitan comparaciones entre distintos países de la Región.

Palabras claves
Atención primaria de salud; salud mental; salud pública; políticas de salud.

Capacidad de resposta da atenção primária em saúde mental no Chile: uma contribuição de Alma-Ata

RESUMO
O presente artigo identifica as estratégias que contribuíram para o desenvolvimento da capacidade de resposta da atenção primária em saúde mental no Chile e analisa alguns ensinamentos tirados neste processo. Nele se destacam a elaboração de planos nacionais de saúde mental, o desenvolvimento gradual do sistema de informação, o investimento de mais verbas, a criação de programas e diretrizes, o aperfeiçoamento dos recursos humanos, o posicionamento da saúde mental nas redes integradas de serviços de saúde, a ênfase ao desenvolvimento biopsicosocial infantil, o modelo de atenção familiar e comunitária e o fortalecimento de lideranças e parcerias entre saúde e serviços sociais.

Entre os indicadores da capacidade de resposta apresentados estão o aumento de subsídios à saúde mental na atenção primária, com mais recursos financeiros e um maior número de profissionais capacitados, e o investimento nos processos de saúde mental na atenção primária, com o aumento da taxa de pessoas em tratamento por transtornos mentais e serviços de puericultura.

No artigo são examinados os fatores contribuintes para o avanço da atenção primária em saúde mental, bem como as deficiências deste processo. Em conclusão, demonstrase aos outros países da Região a viabilidade do progresso rumo aos princípios de Alma-Ata, com a implementação gradual de reformas importantes na capacidade de resposta da atenção primária em saúde mental. Recomenda-se realizar mais estudos e pesquisas de qualidade nesta área com o uso de metodologias que possibilitem uma análise comparativa entre os países da Região.

Palavras-chave
Atenção primária à saúde; saúde mental; saúde pública; política de saúde.