Unequal Advances in the Coverage of Psychosocial Care Centers in Rio Grande do Sul, Brazil, From 2009 to 2010

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Abstract
The Centers for Psychosocial Care (CAPS) are mental health services and community open the Unified Health System (SUS). With the advancement of public mental health in the reorientation of a care model that for decades was reduced to the supply of beds in psychiatric hospitals, generating segregation and exclusion of patients with mental disorders. Considering Ordinance of the Ministry of Health GM/MS No. 336 of February 19, 2002, laying down the rules and guidelines for the organization of services that provide mental health care. This objective of this study was to determine whether there was an increase in the coverage of CAPS in the state of Rio Grande do Sul, Brazil, from 2009 to 2010.

Keywords
mental health services, public health care service coverage, assessment of health care services.

Introduction
Mental health care systems cover only 36% of the population of low-income countries but 92% of high-income countries. In addition, outpatient mental health care facilities are 58 times more common in high-income compared with low-income countries (Mental Health Atlas 2011, 2011); in Brazil, the coverage rate of community-based mental health care services is 0.94 per 100,000 inhabitants (Brazilian Institute of Geography and Statistics, 2009). Recently, greater emphasis has been placed on assistance and problem-solving abilities among basic health care networks. In Canada, primary care services assist 50% of mental health problems, and the more severe cases are referred to secondary health facilities, where community-based mental health care services are located (Brazilian Psychiatric Association, 2011). Nevertheless, community-based assistance is not a panacea for severe mental disorders. In some developed countries, such as the United Kingdom, community-based assistance has proved not to be a viable alternative to hospital-based assistance for severely ill patients who are unable to lead independent lives, despite the use of long-term biological and psychosocial therapies. Due to the limitations in the problem-solving abilities of the community-based assistance model, the World Health Organization (WHO) recommended keeping open the possibility of in-hospital residence for patients who require intensive care. Nevertheless, 20 years after the “community care” model was adopted, one third of patients with severe mental disorders were readmitted to hospitals within 1 year (Brazilian Psychiatric Association, 2011).

This situation becomes even more complex given that certain developed countries, such as the United States, which does not have a universal public health care system, and where 46.3 million people were estimated to have no health coverage in 2008 (including both illegal immigrants and American citizens who earn more than $50,000 USD per year), have special government-funded programs, such as Medicare, which is devoted to people older than 65 years of age, and Medicaid, which is intended for the low-income population. In the United States, most citizens (or their employers) purchase their own health insurance. This industry is subject to a wide variety of rules and costs, whereas the uninsured population is only treated for free in the case of emergencies. This health care system has been criticized for being expensive and inefficient. In 2007, the United States spent US$2.2 trillion (~16.2% of its GDP) on health care.

In Brazil, Centers for Psychosocial Care (Centros de Atenção Psicossocial [CAPS]) are devoted to patients with severe and persistent mental disorders to stimulate their social and family integration. Since 1986, mental health care services have been established in São Paulo gradually to consolidate and reduce hospitalizations, as well as to facilitate change in the national health care model. CAPS were defined as “local or regional healthcare units assigned to a specific population that offer intermediate care between outpatient treatments and hospitalization” (Department of Health, Secretary of Health Services, Department of Health, Secretary of Health Services, Department of Health, Secretary of Health Services).

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Table 1. CAPS Coverage Index Per 100,000 Inhabitants Compared Across Health Care Regions in RS (2010).

| Adequacy/health care region | Population 2009 | Population 2010 | 2009 | 2010 |
|----------------------------|----------------|----------------|------|------|
|                            | n (%)          | n (%)          | Existing | Expected | CI | Existing | Expected | CI |
| 4306 Passo Fundo           | 604,907 (5.54) | 591,705 (5.53) | 3     | 6     | 0.5 | 2        | 5.92     | 0.34 |
| 4314 Santa Rosa            | 228,685 (2.10) | 226,933 (2.12) | 2     | 2.3   | 0.87 | 2        | 2.27     | 0.88 |
| 4311 Erechim               | 221,139 (2.03) | 215,124 (2.01) | 2     | 2.2   | 0.9  | 2        | 2.15     | 0.93 |
| 4315 Palmeira das Missões  | 165,193 (1.51) | 161,508 (1.51) | 0     | 1.7   | 0    | 1        | 1.62     | 1    |
| 4301 Porto Alegre-01       | 3,639,992 (33.35) | 3,535,168 (33.06) | 18   | 36.4  | 0.49 | 38       | 35.36    | 1.07 |
| 4316 Lajeado               | 371,078 (3.40) | 363,964 (3.40) | 3     | 3.7   | 0.81 | 4        | 3.64     | 1.1   |
| 4305 Caxias do Sul         | 1,065,756 (9.76) | 1,076,801 (10.07) | 10   | 10.7  | 0.94 | 12       | 10.77    | 1.11 |
| 4319 Frederico Westphalen  | 209,863 (1.92) | 202,753 (1.97) | 1     | 2.1   | 0.48 | 3        | 2.03     | 1.48 |
| 4308 Cachoeira do Sul      | 204,898 (1.88) | 200,264 (1.87) | 2     | 2     | 0.98 | 3        | 2        | 1.5   |
| 4302 Porto Alegre-02       | 766,765 (7.03) | 756,344 (7.07) | 10   | 7.7   | 1.3  | 12       | 7.57     | 1.59 |
| 4307 Bagé                  | 182,282 (1.67) | 182,579 (1.71) | 3     | 1.8   | 1.65 | 3        | 1.83     | 1.64 |
| 4304 Santa Maria           | 554,335 (5.30) | 537,806 (5.03) | 10    | 5.8   | 1.73 | 9        | 5.38     | 1.67 |
| 4318 Osório                | 343,819 (3.15) | 341,119 (3.19) | 5     | 3.4   | 1.45 | 6        | 3.41     | 1.76 |
| 4310 Alegrete              | 468,055 (4.87) | 465,038 (4.35) | 8     | 5.3   | 1.51 | 9        | 4.65     | 1.93 |
| 4309 Cruz Alta             | 157,479 (1.22) | 152,070 (1.42) | 1     | 1.3   | 0.75 | 3        | 1.52     | 1.97 |
| 4317 Ijuí                  | 227,035 (2.08) | 222,771 (2.08) | 4     | 2.3   | 1.76 | 5        | 2.23     | 2.24 |
| 4303 Pelotas               | 871,025 (7.98) | 845,135 (7.90) | 17    | 8.7   | 1.95 | 19       | 8.45     | 2.25 |
| 4312 Santo Ângelo           | 295,970 (2.63) | 289,689 (1.71) | 4     | 2.3   | 1.72 | 7        | 2.9      | 2.42 |
| 4313 Santa Cruz do Sul     | 335,766 (3.08) | 327,158 (3.06) | 7     | 3.4   | 2.08 | 10       | 3.27     | 3.06 |
| Total                      | 10,914,042     | 10,693,929     | 110   | 109.1 | 1.15 | 150      | 106.97   | 1.58 |

Source. Department of Health/DATASUS, and the SIA.

Note. CAPS = Centers for Psychosocial Care [Centros de Atenção Psicossocial]; CI = coverage index; APS = Psychosocial Care Center [Centro de Atenção Psicossocial]; DATASUS = Informatics Department of the Unified Health System; SIA = Outpatient Information System (Sistema de Informações Ambulatoriais); SUS = Unified Health System (Sistema Único de Saúde). Insufficient ≤ 0.90; adequate = 0.90 to 1.20; surplus ≥ 1.20; Porto Alegre-01 = 24 municipalities including the state capital; Porto Alegre-02 = 42 municipalities.

Method

The health care coverage indicators per 100,000 inhabitants for the 19 administrative regions of RS were calculated, and the coverage index (CI) was estimated as the ratio between the observed and expected coverage on a regional basis. The data for these estimates were collected from the National Register of Health Service Providers (Cadastro Nacional de Estabelecimentos de Saúde [CNES]), and the population data were collected from the website of the 2010 Census provided by the DATASUS, which the Department of Health made available. The expected number of CAPS for each region was calculated using the following equation: Number of CAPS/100,000 inhabitants. The CI was calculated as the ratio of observed CAPS over expected CAPS as a function of the regional population. Coverage was analyzed by comparing the Coverage Index that corresponded to 2009 and 2010.

Results

In 2009, 43.55% of the population of RS resided in municipalities with coverage indices below expectations (Gonçalves et al., 2010), whereas the global state index was numerically adequate (110 observed units vs. 109 expected units; Table 1). Thus, this index does not reflect the extreme health care inequality across...
several regions. However, the number of CAPS increased by 36.36% between 2009 and 2010, and the number of low-coverage areas decreased from seven to two (Figure 1).

CAPS covers 41.26% and 37.75% of the populations of Passo Fundo and Santa Rosa, respectively (the regions with the least health care coverage). These coverage areas are approximately 50% smaller than the average (64.28%). The GDP of these areas, 4.41% in Passo Fundo and 1.57% in Santa Rosa, are two to four times smaller than the average (8.25%).

Discussion

Although the data indicate advances in statewide CAPS coverage, these results cannot confirm whether mental health care assistance improved (Paim, Travassos, Almeida, Bahia, & Macinko, 2011). Other indicators, such as service productivity, coverage by specialized health care professionals, quality of care, adequacy of care to the target-population, and connections to the general health care network must be investigated to achieve a more precise assessment.

The annual worldwide patient assistance rate per 100,000 inhabitants is 384; however, this rate varies dramatically by region, including 80 in Africa to 1,926 in Europe. Official estimates are not yet available in Brazil, due to a national health information system that records the procedures performed within its psychosocial care network but does not correlate these data with the patients, due to the lack of a national citizen identification system.

The proportion of health care professionals with a high level of education in CAPS is 67.85% for the RS but varies between 50 and 87.5 ($\sigma = 8.19$; Gonçalves et al., 2010). The proportion of health care professionals with a high level of education in

Figure 1. Health care regions georeferenced by the index of Centers for Psychosocial Care coverage per 100,000 inhabitants in Rio Grande do Sul, December 2010.
Passo Fundo is similar to the state average (68.42%) and ranks 19th overall. Similarly, the region of Santa Rosa exhibits the second lowest CAPS Coverage Index, and the proportion of health care professionals with a high level of education in CAPS is 70.0%, which is slightly above average.

In these two regions there is a high index of professionals working, but they do not observe the minimum number by specialty according to the ordinance that defines CAPS types. Besides that, depending on the diagnosis, the patients need treatment/monitoring of different specialties.

Unexpectedly, institutions exist in Passo Fundo and Santa Rosa to train health care professionals, including schools of medicine, nursing, and other health care professions. Therefore, these trained professional are not incorporated into the local CAPS network.

Conclusion

Within the SUS, regionalization has been used to achieve decentralization since the ratification of the 1988 Constitution, and this strategy has played a crucial role in organizing the services of the health care networks that guarantee universal access to comprehensive care (Ledjerman, 2010).

The data analyzed in the present study showed an increase in the RS CAPS Coverage Index; however, this coverage is still insufficient to meet the requirements of all of the state’s regions. Although RS ranked third with regard to CAPS coverage nationwide in 2010, the global coverage indicator is severely limited because it does not reflect the quality or effectiveness of health care.

Therefore, the present study suggests that the state and its counties analyze different geographic areas, given that two regions were identified to have unmet needs with regard to mental health care. Furthermore, there were inequalities within the mental health care network that affected the regions with below-average GDPs such that they reduced the state’s ability to offer care to their populations and fulfill the purpose of CAPS. We also identified the need to use precise indicators, such as readmission rate, which has recently been used to assess the quality of community-based assistance, rather than the quality of hospital-based assistance according to Candiago’s (2012) dissertation.

Declaration of Conflicting Interests

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