

## The Brazilian health system: highlighting the primary health care reform

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### Abstract

This paper aims to describe the health system reform in Brazil, highlight the primary health care reform and the development of the Family Health Program, as well as explore future directions based on the current situation. The paper's first section provides an overview of the Brazilian Health System and a brief historical perspective of the health system reform. It sets out the principles of the health system based on its legal framework and analyses how these principles have been implemented. At the end of the first section, an overview of financial issues is provided. The second section focuses on the primary care reform and the Family Health Program. It describes the program's structural and innovative process characteristics. It further describes some of the outcomes and impacts already documented in the literature. Finally, the paper explores challenges to the health system and the program's sustainability.

*Key words: Brazil, health system, primary health care reform, family health program*

### Introduction

In Brazil, health is a constitutional right and a responsibility of the state. After the so-called "Big Bang" legislative reform of the New Federal Constitution in 1988, the National Health System and the family health program were implemented incrementally over the next 20 years [1, 2]. The Brazilian national health system (Sistema Único de Saúde or SUS) is organized on the principles of universal access, comprehensiveness, decentralization, hierarchization, and community participation. It includes public health in general and health care for individuals. Several studies have documented the significant impact of the primary health care reform and the family health program. Their achievements have been lauded in the World Health Report 2008 *Primary Health Care: Now more than ever* [3]. However, 20 years after the Brazilian health reform, or 'Sanitary Reform' as it is called, the concepts and expectations of the SUS have changed. Old unsolved challenges such as the vague private - public boundaries, a lack of resources and institutional resistance to change may remain, but they are compounded also with new challenges. Still, the principles of the SUS remain strong and can inform responses.

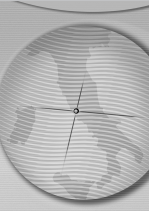
This paper aims to describe the health system reform in Brazil, highlight the primary health care reform and the development of the Family Health Program, and explore directions in the current situation. The paper's first section provides an

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### A brief description of the Brazilian health care context

A health care reform aiming at achieving equity represented an extraordinary challenge for a country the size of Brazil, with a population of more than 180 million and significant social, economic, cultural, and environmental diversity. The Federal Constitution of 1988 was enacted after years of militarism. It defined three pillars of health care reform: health as a broad concept that goes beyond the absence of disease; health care as a right of citizens and a duty of the state; and the establishment of the National Health System, the SUS [2, 4].

In Brazil, while public health is provided exclusively by the public sub-sector, individual care is provided by a public-private mix. The



public sub-sector has two segments: the SUS for the whole population and another segment whose access is restricted to public employees (civilian and military), and is financed by public resources and contributions from beneficiaries [2]. About 70% of Brazil's population gets health care from the SUS, with the remainder opting instead for private insurance or out-of-pocket payments in the private sub-sector [2, 5, 6]. Within the SUS, the majority of the primary care services are delivered by the public sector, while hospital, diagnostic, and therapeutic support are provided by both the public and private sectors [2] (Box 1).

Private sector involvement is mandated by the federal constitution. Two private sub-sectors cover the health care needs of about 25% of the population: (a) health and insurance plans with voluntary non-mandatory affiliation, financed with funds from clients directly or employers and/or employees typically in the case of group plans, which are publicly regulated by a governmental national agency; and, (b) to a much lesser extent, autonomous private services [2, 7].

Since the Alma Ata Declaration of 1978, the national public health sector has aimed for decentralization by shifting towards a primary care led health services. The democratization process in Latin America and Africa in the early 1990s reinforced the transfer of political authority to lower levels of government [8]. Brazil was one of these cases. Welch et al. (2009) states that health system reform in Latin America has been criticized for the sub-standard packages of health services provided to poor people [9]. However, as the Brazilian Health Minister stated recently: "The PHC aims for comprehensive and coordinated primary care, not selective action dressed up as traditional basic packages to poor people as has historically been recommended by Multilateral Agencies" [10]. The model targeted the poor to increase equity, though the system is not exclusively for the poor population and is equally accessible to all, since health services for poor people have always been related to poor quality service delivery in Brazil. Actually, the poor use the health care system as a whole and the rich typically use only part of it, such as expensive treatments for cancer, HIV, and rare diseases, and emergency rescue, all of which

are almost totally public. In effect, the public system serves as an indirect subsidy for the private health sector. This mechanism is now under legal inquiry. A recent decision by the Federal Supreme Court is requiring the private insurance companies to reimburse the public health care system for procedures delivered to their insured clients [11].

The whole population also benefits from the massive national vaccination campaigns and public health activities such as surveillance, food and drug inspection and control, for instance. However, an incongruity exists here wherein most of the leadership advocacy of the public health care system, including university professors, governmental employees, and the staff of public health institutions obtain their own health care from special governmental insurance programs. In the same vein, strong unions in industrial areas such as Sao Paulo advocate for their own health care insurance as part of their employees' benefits. This incongruity undermines the public health system stewardship.

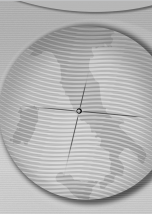
### ***The sanitary reform 80'***

The National Health System in Brazil was born out of the 1988 Constitution, consolidating and institutionalizing social advancement after the military dictatorship. It is the result of a broad social movement aiming for changes in the status quo [4, 11]. Sanitary reform took much of its momentum from the anti-authoritarian movement that characterized Brazilian politics and society at the end of the 1980s. The theoretical framework of the reform originated in the revision of the Marxist conception of the State and the development of a critical understanding of the collective health field [12, 13]. The reform process was guided by four main ideas: an ethical-normative idea of health as a human right, a scientific understanding of the social determination of health, a political idea that health is a right inherent to citizens in a democratic society, and a sanitary idea that understands health protection in a broad and comprehensive way; from health promotion and prevention, through treatment to rehabilitation [12].

The momentum opened a window of opportunity that resulted in the country's so called 'big bang' legislative reforms. The new legal framework

#### **Box 1. Brazil in numbers.**

Life expectancy (both sexes, 2006): 72 years
G N P per capita (PPP in international \$, 2006): 8700
Per capita total expenditure on health (PPP in international \$, 2005): 755
Number of physicians (per 10000 people 2005): 12
Source: World Health Statistics 2008, Available online from: <a href="http://www.who.int/whosis/data/Search.jsp">http://www.who.int/whosis/data/Search.jsp</a>



institutionalized the design and broad structure of a new health system. However, Fleury (2009) states that the institutionalization of this social movement in public policy by building it into the national legal framework generates a paradox. As the reforms were successfully institutionalized, the capacities for rupture, innovation and redesign on the part of society and the health movement in the political arena were reduced [12]. Put another way, institutionalization imposed a reduction in the libertarian and transformative characteristics of the reforms [6]. At the macro scale, the successful institutionalization of the health reforms closed a phase of formulation and opened one of implementation, missing some pieces of the puzzle along the way.

The ideas of health reform were filtered by the State bureaucracy during the ongoing process of implementation, asserts Paim (2008), and as such have been incorporated into it [4]. This incorporation was dominated by an administrative approach devoted to preserving the health care system's status quo. He developed the idea that the original social reform project was transformed by the change in context as one moved from a general social reform to a partial reform restricted mostly to the health sector. He concluded by contending that even though pro-democratic activists can call the reform an unfulfilled promise, this does not mean that the reform ended or failed. Its political agenda lives on and his study has shown that the reforms remain valid and current [4].

Although the complexity and conceptual scope of the reform is wide-ranging and some criticism of the results may be justified, the results have shown significant gains for the population's health status and access to health services.

### ***Principles and development of the National Health System***

In the last 20 years the Brazilian health care system has achieved outcomes in realizing its principles, as will be briefly examined. At first glance, universal access and decentralization have been identified as the most implemented principles. Community participation has achieved important results. However, the expected social accountability of the health system remains doubtful. Hierarchization, understood here as regionalization and coordination among services, has been reinforced since early 2000 and stressed in the current government. Comprehensiveness (*integralidade*) remains controversial since the concept itself has many meanings, as will be discussed below.

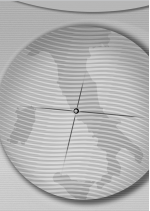
In terms of universal access the public system

offers health care services on a massive scale. In 2006 it provided nearly 2.3 billion outpatient procedures, 300 million medical consultations, and 12 million hospitalizations. 15,000 transplants and more than 200,000 cardiac operations [2]. In 2004 the country was fourth in the world in performing renal transplants and 95% of these happened in the public health care system [14], despite some 25% of the population holding private health insurance. The growth of a national primary care strategy, the Family Health Program, has demonstrated good outcomes in improving access, especially for the poor [15-17]. For instance, the last National Household Survey, done in 2008, showed that among an expected 57.6 million households, 27.5 million (47.7%) declared they were enrolled in the Family Health Program [18]. This survey showed important positive changes in access and utilization, such as 96.3% of people who sought health care in the last month before the interview received it at their first point of contact with the health system.

Nevertheless, important inequities in access among regions, income and social status persist [19-21]. For example, among women with 11 years of education or more, 90.7% had had PAP tests in the last three years. The rate among women with 1 year or less of education was 65%. These findings provide evidence for the inverse care law. Inverse care law states that the availability of medical care tends to vary inversely with the need for it in the population served, especially where market forces are strong [22]. However the gap is closing among different income groups. In 2003, 69% of the women with household incomes lower than ¼ of the minimum wage had PAP test exams, growing to 77% in 2008. Among those with household incomes higher than 5 times the minimum wage, the percentage was 94.5 and 94.9 in these two years, respectively [18].

Since the population has had access to health care another problem has arisen: the quality of the services delivered. Although this has been an issue since the reform commenced, with a massive number of health providers which exist today the problem has grown. In sum, universal access to comprehensive health care with good quality remains a problem in Brazil, even though it has been improving since the establishment of the SUS.

Decentralization, which began in the 1990s after the promulgation of the infra-constitutional legislation of the SUS, was accomplished by transferring competencies and revenues to states and municipalities, with a preferential option for the municipal or local management and stewardship of the health system. Unlike in other



countries, the movement of decentralization was not been followed by privatization of services or a loss of management and regulatory capacity on the part of the state [4]. Instead, under the management of the municipalities or local authorities, a state-wide network of health care services came into being. The decentralization happened incrementally, keeping pace by operational regulations published by the Ministry of Health [23]. One could argue that the speedy decentralization of the administrative functions as part of the big bang health reform created conflicts between states and municipalities [24]. On the other hand, the decentralization process facilitates the growth of these new institutions and ensures that municipalities now have the ability to participate directly in the political arena, which has enhanced their involvement in related negotiations and decision making processes. The negotiation of national regulations closely involves the Federal Ministry of Health, the Council of States' Health Secretariats and the Council of Municipal Health Secretariats within a tripartite commission that meets monthly. Each state also has a bipartite commission with representatives of the State Health Secretariat and the Council of Municipal Health Secretariats. Although some obstacles lie in the path of these advancements lie, such as the heterogeneous managerial capacity of the municipalities and states, conflicts and competition among levels of government and a lack of clarity about their roles [24]. These obstacles have caused an overlap of functions, fragmentation of the system and inconsistent levels of care delivered in different parts of the country.

Hierarchization has been happening with the institution of federal norms meant to force the redesign of the system in a regionalized way. In 2001 the Ministry of Health published a federal norm intended to promote the regionalization of the system. Some authors agree that the municipalisation without regionalization creates an "autarchy municipal model" that could increase cost and reduce efficiency of the system as a whole [25]. The conflicts between levels of government as described by Gomez (2008) could also make this process more difficult [24]. The last movement present in the recent government program is called health integrated network territories [26]. The idea brings together the health care system with primary care facilities as the starting point of the network, integrated with public health and health promotion programs and inter-sectorial programs based on a territorial dimension. This new approach commenced

implementation in 2009, though it faces important budgetary constraints and political conflicts.

Community participation in the public health system is required by law. However, implementation of this has been a challenge. Even though the country now has more than 5000 local health councils with 72, 184 councillors, these health councils have problems with autonomy, organization and performance [27]. The legally mandated implementation of municipal health councils is written in federal law no. 8142/1990. Their implementation has happened mostly since 1991. It is notable that the most successful years of implementation, from 1991 to 2007, coincided with a series of ministerial decisions to fund the municipalities directly. One of the prerequisites municipalities must meet to receive new cash transfers is the existence of a municipal health council. This top down imposition where cash transfer forces the implementation of health councils results in councils that merely sanction decisions already made by the government.

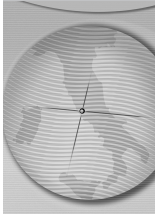
The definition of comprehensiveness is broad and unclear in the Brazilian literature [28-31]. The Portuguese word *integralidade* has also been translated to English as integrality instead of comprehensiveness.

With an unclear concept, concepts such as social determinants of health, health promotion, and primary health care are sometimes considered to be part of the comprehensiveness of the Brazilian health system. This definition challenges the boundary between the health system and the health care system, and has been creating conflicts for instance in budget allocation. Considered practically, shrinking the definition scope provides better guidance in how and where to health budget should go, for instance not using the health budget for water supply, sanitation or food security as sometimes happened in Brazil.

Although comprehensiveness is a principle of the health system in Brazil, it could be considered the most neglected and least implemented [30, 31]. Some initiatives to address it have been undertaken within the health care system, such as the comprehensive primary health care model and the health integrated network territories where intersectoral actions on social determinants of health and health promotion are designed.

### **Health System Financing**

The system is financed by various methods, though our examination here is restricted to the public system. The national health system is financed by governmental budgets based on general taxes and revenues [32]. one hundred



percent of the population is in theory covered by the public system. However, as cited before 25% opt instead for private insurance or out of pocket payments for reasons of convenience or quality expectations.

The revenue comes from municipal (23%), state (27%) and federal (50%) sources and pays for a network of public and private providers [33]. The federal contribution to health budget has been declining. It was 75% of public expenditures on health in 1980, 70% in 1987, 60% in 2000 and 45% in 2007 [33, 34]. On the other hand, the states' share of the budget has increased from 19% to 27% and that of municipalities from 22% to 28% of total expenditures from 2000 to 2007 [33]. These changes do not mean that an overall reduction in total public spending has occurred. Overall public spending in health was 2.89% of Gross Domestic Product - GDP in 2000, reaching 3.59% in 2008. However, total health expenditures in 2008 were estimated at 8% of GDP, showing that private spending exceeds public spending, even though the private subsystem covers only 25% of the population.

One notices that the financing of the Brazilian system does not match with the health system's principles of comprehensiveness and universality [35]. This presents a few challenges. That the public system is underfunded seems to be the subject of consensus [32, 35, 36]. However, we must carefully investigate the viability and efficiency of the Brazilian private sub-system as a model. If the same model were to be used for the whole population, it would cost 16% of GDP and even then only for the health care component, since public health has not been handled by the private system so far. This is an important question to answer since the Brazilian constitution establishes health as a right of the population.

In summation, the last two decades of the National

Health system's implementation has brought about some important changes. One of the most remarkable achievements has been the expansion of the Family Health Program based on Family Health Teams. Taking this into consideration, we will describe the program's development and the steps that have been taken so far (see Box 2).

### The development of PHC delivery model

The second part of this paper is dedicated to unfold some of the characteristics of the primary health care reform within the health system. The Family Health Program (FHP) was initially proposed as an addition to the Community Health Workers Program that had already been running in some states in the northeast region of Brazil [37, 38]. The FHP was first officially implemented in 1994 and was based on municipal experiences in experimenting with alternatives to traditional basic care. In its initial conceptualization, the FHP was based on ten points:

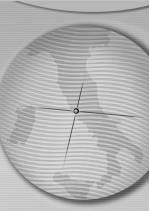
1. a focus on health protection and promotion;
2. geographically delimited areas with enrolment of the clients;
3. a basic interdisciplinary team;
4. teams living in the community where they work;
5. community participation by means of health education and promotion;
6. comprehensive and continuous care;
7. coordination with the local health system;
8. education of human resources;
9. higher salaries for personnel; and,
10. encouragement of community participation [39].

The establishment of the teams has been the responsibility of the municipalities. However, when the program begun municipalities as providers received financial resources from the federal government for the maintenance of the

#### Box 2. Primary Health care implementation process in Brazil from 1990 to 2010.

- Pre-step (early 1990s): Community Health Agent Program supervised by well-trained nurses
- First step (1994+): Introduce Family Health Program in rural and urban for populations according to the following criteria:
  - Little or no access to PHC
  - Low-income
  - Poor health indicators
- Second step (2000+)
  - Conversion of traditional model to Family Health approach (mostly in large cities)
- Third step (2007+)
  - configuration of health care network with family health teams as point of entry and follow-up

Source: adapted from Sampaio, LFR. Highlighting Primary Health Care in Brazil: The Family Health Program. PPT presentation. The World Bank State Health Policy Workshops, National Health System Resource Center, New Delhi, India. April 17, 2009.



team based on a fee-for-service compensation model. The proposal of a new organizational PHC model based on health promotion and protection using reimbursement methods like fee-for-service created a trade-off. Fee for service tends to privilege well structured activities like individual consultation with doctors and nurses instead of community or group activities and health promotion activities that depend on the wider context. It meant the new model was not compatible with the payment method and financing. Since the beginning the government has emphasized that the FHP is not a single vertical program. It is a component of a wide integrated and coordinated health delivery system with a complex network of health care services, including disease surveillance, public health, community health and health promotion.

From 1996 to 1998, five key structural innovations were put in place:

1. The fee-for-service system was replaced by *per capita* funding plus a fixed amount for each team without risk adjustments [39].
2. The Ministry of Health published the Primary Care Organization Manual with a detailed description of key priorities for the program as part of the whole health system [40].
3. It established a territory-based national information system for the program that, in spite of the gaps, was and still is an important factor for strengthening of the strategy nationally [41].
4. It created an evaluation framework with primary care indicators whereby the municipalities and states must propose annual targets for the indicators set by the Ministry of Health [42].
5. Structuring of the family health capacity-building university network began and encouraged universities to train and recruit undergraduate and graduate professionals who were better suited to the new model [43].

Other issues have also been highlighted. According to Machado (2007), the priority status of the FHP in the Ministry of Health's agenda manifested itself in the following changes until 2002: it was allotted an increased share of the total resources aimed at primary care; specific management tools that followed the example of the national information system were adopted; a specific strategy for training of human resources for PHC was adopted focused on in-service training; and distinctive assistance strategies, such as the distribution of drug kits to the teams, were implemented [23].

In 2006 the program received an important additional upgrade. The National Policy of Primary Care (PNAB) was published by the Ministry of

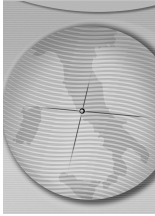
Health, amplifying the PHC concept and scope [44]. PHC was defined as a set of health actions in the individual and collective scope, comprising health promotion and protection, prevention of diseases, diagnosis, treatment, rehabilitation, and health maintenance, and constituting the first contact for the health system's users. Some funding and managerial role clarification in between levels of government was instituted after months of negotiation [44].

### ***The service provision by the Family Health Teams***

The family health units (FHU) are under the responsibility of the municipalities. In order to ensure access the PNAB recommends that one family health unit with three or four Family Health Teams (FHT) be responsible for PHC provision for a maximum of 12,000 inhabitants of the territory for which it has responsibility [44]. However, in high population density urban areas this is not always a reality. For rural areas, with low density, this number is smaller, because the teams are distributed in order to facilitate access for dispersed populations. Each FHU must be located within its territory of responsibility [44].

The FHTs are formed by at least one general practitioner or family physician (in Brazil, general practitioners graduate after six years of medical school. Family physicians pursue a family medicine residency or at least four years of practice before taking the entrance exam to join the Brazilian Society of Family Medicine), one nurse with a university degree, one nurse assistant, and sufficient community health workers to cover 100% of the enrolled population (2,400 to 4,000 people) in a geographically defined territory. They are responsible for developing nationally standardized actions and activities appropriate to each clinical-epidemiological reality [44]. There must be at least one community health worker for every 750 people and maximum of twelve community health workers for each family health team. Oral health care with a dentist, a dental assistant, or a dental hygienist can be added. Each oral health team is responsible for the population of one or two family health teams [44].

All team members in the program are required to work full-time, but this is not a reality throughout the whole country (see Table 1). According to Barbosa, (2009) only 62% of doctors and 82% of nurses confirmed they work full time nationally [45]. These professionals often work in other settings of the public health care system as well, or sometimes in private practice. Additional professionals may integrate with these teams according to the health needs



of the local population and the decision of the municipal manager in agreement with the Municipal Health Council. In 2007 the Federal Health Ministry began financing a support group of 5 professionals for every 8 to 10 family health teams, including psychologists, social workers, physiotherapists, speech therapists, paediatricians, gynaecologists, homeopathic doctors, psychiatrists, acupuncturists, and physical educators [26]. The municipal government has to find a better match for the local level needs according to the availability of professionals. Even though one can consider this an advanced initiative [46] to date an evaluation has not been presented in the literature.

In the human resources arena many tradeoffs appear. To date, researchers have not identified international immigration of the health work force to be a problem as described in many other developing countries by Kabene et al. [47]. However, internal issues have been mentioned as important barriers for the FHP such as: lack of well trained personnel for the new model; low decentralized capacity of health system management; migration from poor to rich areas of the country; high staff turnover rates, especially of doctors; difficulties attracting and keeping professionals; and resistance to changing undergraduate and graduate curricula to better train students for the new system [48].

### **Outcomes and impact of the Family Health Program in Brazil**

The outcomes and the impact of any program can be evaluated in several dimensions. We will specifically address the following based on Starfield's [49] proposed dimensions: access and

first contact, ensuring the principle of universal care of the system; innovation in the health care provision, ensuring the comprehensiveness and longitudinality of care; and the promotion of equity in health indicators.

The expansion of the program has been remarkable in terms of meeting the Ministry of Health's goals. In December 2009 the program reached 30328 teams and 234 767 community health workers covering over 100 million inhabitants in 5349 municipalities in all regions of the country [50]. One of the key components of sustainability has been public support. Studies conducted in different parts of the country comparing traditional basic units and Family Health Units show higher user satisfaction with the Family Health Units [51-53]. The coverage extension has moved closer to ensuring universal access to the health system as mandated by the Brazilian constitution.

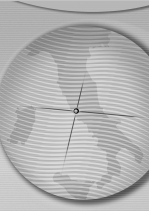
The changes to the teams' work practices have enhanced comprehensiveness by putting together primary care, public health and health promotion activities [54]. For example, about 37% of the teams made reference to the regular participation of some of their members in meetings of the Local Health Councils, while 48.7% of them claimed to investigate deaths in their territory [55]. However, quality concerns have also been raised by some researchers [56].

Studies evaluating the Family Health Program using the infant mortality rate (IMR), with ecological designs have shown its positive effects on reduction of IMR [15, 57, 58]. Even though the results are very promising at the national level, there are significant internal discrepancies between provinces and municipalities. These

**Table 1. Selected Human Resources characteristics of Family Health Team Staff, 2001 - 2008.**

	Physician		Nurse		Nurse assistant	
	2001	2008	2001	2008	2001	2008
	% FHT	% FHT	% FHT	% FHT	% FHT	% FHT
<b>PROFESSIONAL WITH LESS THAN &gt; 1 YEAR IN THE TEAM</b>	76.9	31.1	65.4	29.4	52.9	3.1
<b>WORK 40 HOURS WEEK</b>	59.9	59.1	77.8	79.6	87.4	95.9
<b>NO REGULAR CONTRACT</b>	74.6	55.1	71.4	47.1	53.9	40.7
<b>REGULAR HOME VISITING</b>	92.9	89.8	95.8	96.3	93.3	93.4

Source: adapted from Barbosa, ACQ, UFMG/MoH. Normative evaluation of the PSF ppt presentation, Brasilia, Brazil, 2009.



discrepancies suggest the need to better understand the key components of the program that are responsible for the results.

### ***Challenges in the development of PHC in Brazil***

Despite the important growth and improvement of the FHP in the last few years many challenges remain to consolidate a PHC-lead health system as an alternative to the fragmented health system model that previously prevailed. In reality, the current system, especially the private sub-sector encourages the use of high-cost, unnecessary technologies as there are no gate keepers.

The strengthening of family health as a successful national program resulted from a positive association of factors. The success of the community health workers program, the absence of a programmatic approach for medical care in the Brazilian Health reform, and the political appeal of the program are key points in the emergence of family health programs [37].

The great risk, common to Latin American health initiatives, at first was sustainability. However, this issue has been minimized because it is a national strategy that involves the Ministry of Health, the states, and the municipalities. This tripartite participation has been essential to ensure the sustainability of the proposal, even when there is a lack of continuity at the local level after municipal elections [59].

Human resources are a challenge to any health care reform, especially for PHC. The new model needs new professional skills and practices as well as social commitment that go beyond the biomedical model. Physicians, nurses and other health professionals have historically not been prepared to deal with the magnitude and breadth of these changes. It is also notable that the majority of universities in Brazil have no specific programme for the study of Family Medicine as a discipline and that the Brazilian Society of Family and Community Doctors was inactive for many years and has only in the last decade began to enrol new members. To face this challenge, the Ministry of Health lead the creation of a family health capacity-building university network, assigning specific resources to universities to deal with training of teams, in-service training of physicians and nurses, and medical and inter-professional residencies for members of the family health teams. The initiative is considered to be the biggest contribution to reforming the education of Brazilian health professionals in the 1990s [23].

Financial sustainability has also been a concern. The expansion of the system is such that many

populations are now covered who never had been before, however financial stresses have arisen. There is a dispute over resources between hospitals and PHC services. Municipalities that implement the program struggle with increased costs without a corresponding increase in federal transfer payments. Policymakers at the municipal level also complain that FHP increases secondary care needs such as laboratory tests and specialist consultation again without federal financial support. Financial difficulties are also reflected in the salaries of doctors and nurses. In 2001, 90.27% of doctors were paid more than 15 times the minimum wage, against only 26.43% in 2008 [45]. Although good in terms of improved equity, these trends could increase a shortage of health professionals as they migrate out of the public sector to more lucrative private sector work, which could endanger the possibility of truly comprehensive health care for the population in the future.

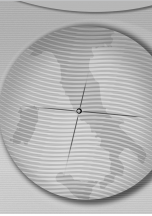
Monitoring and evaluation is another challenge. Despite the implementation of a national primary care data system that presently has over 100 million enrolled users, the country has more than 5000 municipalities that are required to efficiently manage their own PHC budgets. PHC, community health and health promotion programs and activities are very context specific and usually have low measurability. Developing strong tools to measure and increase accountability of these initiatives remains challenging for researchers and policymakers.

Besides the points listed above, La Fordia (2009) stresses five issues: (i) challenges in quality and effectiveness of care, mostly associated with the lack of clinical guidelines, (ii) problems of insertion and the role of the Family Health Program in the larger health system, with ineffective referral mechanisms, (iii) high staff turnover, (iv) lack of reliable cost information, and (v) limited resources for scaling up of successful experiences [60].

Finally it is important to highlight one challenge that is not only for the primary health care component but may be faced first in the primary care facilities. That challenge is how to attract the middle class to the public health system and make it really unified and universal instead of segmented and fragmented.

The challenges mentioned above are certainly common in many countries, from those with the highest income to the poorer ones. Overcoming them will require long-term measures that clearly demonstrate the commitment of the governments to health systems based on PHC.





## Conclusions

The Brazilian National Health System has achieved some important goals in the last two decades, the most remarkable of which is universal access to care. Some old problems such as budget constraints and lack of well trained human resources have been added to new problems such as the unclear boundaries of the public private mix, including the segmentation of the public system and quality of care. Primary care reform has been recognized as one of the most important achievements of the national health system. As a comprehensive PHC strategy that brings together primary medical care, community health, public health and health promotion, this program has challenged the boundaries of the health sector in Brazil. The program has passed through different stages of development and improvement to become one of the pillars of the national health system. The development of PHC in a middle income country with great social inequities could promote equity in access to services and also in important health indicators.

The positive outcomes of health systems based on PHC observed in high income countries are thus confirmed.

The challenges to the sustainability of PHC principles within the Brazilian Health System continue. To overcome them PHC should remain strong by renewing connections and integrating with other movements and key actors who advocate the strengthening of health systems beyond the hospital setting and high-cost technologies, and focus on the social determinants of health.

## Conflict of interest

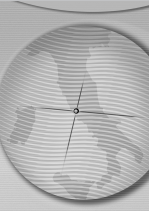
The author was the Chief National Director of the Primary Care Department in the Ministry of Health of Brazil from 2005 to 2008.

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