11 Has the distribution of public health services become more equitable? Reflecting on the case of São Paulo

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Health is a basic human right and a responsibility of the State, guaranteed through social and economic policies that aim to reduce the risk of illness and other problems and by universal and equal access to the facilities and services that promote, protect and recuperate it. (Federal Republic of Brazil. 1988 Constitution, Article 196).

Persisting inequalities

Brazil has a public health system that was set up in 1930, with the creation of the Ministry of Health, and grew in strength in the 1960s with the creation of the National Institute for Social Security (INPS), which was substituted for the National Institute for Medical Assistance and Social Security (Inamps) in 1977. However, from the end of the 1970s different studies began to be presented by researchers in the field of public health, managers of the public health system, users associations of these services and international agencies pointing to significant distortions in the distributive profile of the resources allocated in the area of health. On the one hand, during the mid-1980s, it was already a recognized fact that 40 percent of public resources for health went towards financing complex medical procedures, whilst basic services were not a priority. On the other, only those workers who were in formal employment, and thus had all the requisite working papers, had the right to the services provided by Inamps, whilst those who worked in the informal sector, and thus did not pay direct taxes, were not entitled to these services. Furthermore, there was a significant inequality in the distribution of resources between the different regions of Brazil. For example, the Southeast region, the richest and most developed area in Brazil, had 43.79% of the population but received 59.28 percent of the resources in 1986 (Souza, 2003).

With the aim of changing this situation, the Unified Health System (SUS), a public health system with universal and unconditional coverage, was set up in Brazil towards the end of the 1980s. The SUS constitutes an innovative model for the nationwide provision of public health services and facilities, incorporating new forms of management aiming at the decentralization and democratization of the Brazilian health policy. In its original conception, it was envisioned that the SUS would integrate the branches of preventative and curative medicine, as well as public and private services, in a single national system.

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1 This paper presents partial results of the research “Transformations in the distribution of public health services in the municipality of São Paulo”, carried out by the Centre of Metropolitan Studies/Brazilian Centre of Analysis and Planning, Cebrap, with the support of the Foundation for Research Support of the State of São Paulo and the Citizenship Development Research Centre/Institute of Development Studies at the University of Sussex.
It is worth noting that the implementation of this system during the 1990s went against the tendency of the reform of the Social Welfare State in the 1980s, which came in the wake of increasing fiscal and demographic pressures. The Welfare State reforms agenda defended only the implementation of assistance programmes deemed essential – such as basic education, primary health care, distribution of basic food baskets – designated for poverty-stricken members of the population (Carneiro Junior, 2000). In this context, the organization of the SUS required a great deal of effort, on the one hand in breaking away from the model upon which the Brazilian health system had been structured – centralized, privately-operated and access to which required participation in the formal work market. On the other, it involved confronting the restrictions set up by an international and national political and economic context which did not favour the institution of universal social policies.

As argued by Cornwall and Shankland (2007), the impetus that led to the creation of the Brazilian SUS grew out of a conjunction of elements. First, there was the democratization of political and societal institutions in the post-dictatorship period and a strong political commitment from social movements and left-wing parties to the provision of publicly-funded services to all Brazilians. Second, we can point out the successful mobilisation by the movimento pela reforma sanitária (movement for health reform) that was supported by Christian grassroots communities, intellectuals, students and public health physicians and workers and gathered momentum and influence over the course of the 1980s. Third, there were innovative institutional experiments, which will be discussed through the article, which provided the inspiration for mechanisms for popular involvement, accountability and decentralization within the SUS architecture. These factors were decisive to sustain a compact between state and citizens which could ensure the political sustainability of the SUS.

In order to advance the SUS, a variety of programmes and management strategies were adopted during the 1990s. The results of studies which aimed at analyzing the impact of these initiatives at the turn of the new millennium show that whilst the mechanisms put into action by the SUS have significantly increased access to health services, the distributive profile of this access has not changed greatly. Marques and Arretche (2004), analyzing the distribution of public health services throughout Brazil, observed that:

Whilst the per capita average production of outpatient clinics in Brazilian municipalities rose from 7.5 in 1997 to 9 in 2000, the standard deviation remained the same (4.5). That is to say, access increased, but inequality in the production of outpatient clinics across the municipalities remained the same. Home visits by municipal outreach programme agents were practically non-existent in 1997 and leapt to a national average of 1.2 in 1999. Although higher in volume, home visits were still largely concentrated to richer areas in 1999 (…). The production of high-complexity services increased, but only in a few leading municipalities, thereby further concentrating the offer of such services (…). Federal transfers to reimburse hospital service providers increased – especially for high-complexity services. However, the distribution of services did not change and the provision of services remained unchanged.
Coelho and Pedroso (2002) through their analysis of the distribution of public services in São Paulo, in 2001, point out that:

The offer of primary appointments, which in the conception of assistance by the SUS should be distributed relatively homogeneously throughout the municipality, continues to be highly concentrated in the central districts, where the most educated segment of the population with the best indices of income and health are to be found (...) [T]he same situation was found when analyzing the number of hospital admissions used by inhabitants in each health district, as well as the cost of such admissions. There is a positive correlation between them and the average number of years of schooling and the income of the person responsible for the house (...) Analysing this data together shows that we are still a long way from achieving an adequate provision of basic health and hospital care for the poorest members of the population in the municipality of São Paulo.

These findings follow in the same vein as the analysis presented by the World Development Report 2004, “Making Services Work for the Poor”, that highlighted how service provision is skewed in favour of the better off. Furthermore, the report illustrates that it is difficult to change such a distributive tendency, even though there is, as has been briefly set out above and will be discussed in greater detail in the next section, a deliberate effort by agents, both from within and without the government, to change this situation.

Whilst the situation is a long way from being ideal, it is nevertheless possible to identify a reduction in the inequalities in the inter-regional distribution of public health resources if a comparison is made between the pre- and post-SUS situation.

Table 1. Inamps vs. SUS: Reduction in Inequalities in the Regional Distribution of Resources for Health Assistance, by Region, 1986–2001.

<table>
<thead>
<tr>
<th>Regions</th>
<th>% of Resources</th>
<th>% of Population</th>
<th>Relative Increase (Resources)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-West</td>
<td>5.02%</td>
<td>6.81%</td>
<td>6.78% 6.85% 35.66%</td>
</tr>
<tr>
<td>Northeast</td>
<td>18.10%</td>
<td>27.08%</td>
<td>28.82% 28.12% 49.61%</td>
</tr>
<tr>
<td>North</td>
<td>2.27%</td>
<td>6.42%</td>
<td>5.48% 7.62% 182.82%</td>
</tr>
<tr>
<td>Southeast</td>
<td>59.28%</td>
<td>44.16%</td>
<td>43.79% 42.62% -25.51%</td>
</tr>
<tr>
<td>South</td>
<td>15.14%</td>
<td>15.52%</td>
<td>15.12% 14.79% 2.51%</td>
</tr>
<tr>
<td>Brazil</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00% 100.00%</td>
</tr>
</tbody>
</table>


In the same vein, in a recent work Coelho and Silva (2005) followed the distribution of public health services in the municipality of São Paulo between 2001 and 2005. They came up with results that confirmed the already recognized fact that the highest levels of consumption were concentrated in the richest and most educated areas, which also had the best epidemiological indicators.
Nevertheless, they also pointed out a new fact, that the consumption of services was increasing at a greater rate in the poorest sub-municipalities, as well as the fact that there has been a reduction in the disparity between the consumption of services across the sub-municipalities with the best and worst indices of income, education and health.

In the next section, data is presented which shows the distribution of public health services in the Municipality of São Paulo and the changes that have been taking place in this distribution. In the third section we aim to identify the mechanisms that have contributed towards improving the access of the poorest groups and regions to health services. Finally, we conclude with a brief note about the capacity of survival of a system like the SUS which is committed to providing complete and universal health coverage.

**Changes on the horizon?**

The city of São Paulo, which has a population of over 10.5 million, is conspicuous for sharp social inequality and unequal access to public services (CEM, 2002). As in other Latin American mega-cities, the poorest areas are located on the outskirts. Wealthier areas, concentrated in the city centre, receive more public services and have the largest number of facilities, while poorer areas have the lowest levels of access to them. To counter these trends, the city was subdivided in 2001 into 31 sub-municipalities, political administrative regions, the so-called “subprefeituras”, with the aim of fostering decentralization and citizen participation. The population of these sub-municipalities varies from 134,204 to 630,202, and their Intra-Municipal Human Development Index (IMHDI) varies from 0.65 up to 0.91².

Map 1. São Paulo’s Sub-municipalities by Municipal Human Development Index.

![Map 1](image)

In order to facilitate the description of the intra-municipal distribution of health services the city’s 31 sub-municipalities were grouped into four quartiles according to their ranking in the Municipal Human Development Index (MHDI).

² The MHDI is constructed for each sub-municipality from the following variables: the per capita household income, the household head’s average number of schooling years, the illiteracy rate of those aged 15 years and over (data provided by the Demographic Census of the IBGE) and the population’s life expectancy (provided by the Fundação Seade/SP).
The percentages of SUS users were calculated for each sub-municipality and thereafter the consumption rates for primary appointments and for hospital admissions in the 31 sub-municipalities.

It is important to clarify that the SUS-user is a citizen without a private health insurance, who uses the public health system. The share of such users is important for the analysis of differences in health consumption, over time and space. According to Neri and Soares (2002), in Brazil, among the poorest 10 percent of the population, around 2.8 percent have some kind of private health plan, a figure that reaches 74 percent for the wealthiest 10 percent. In São Paulo’s case 54 percent of total population use exclusively SUS services. The differences in distribution measured here are between poor people living in different areas of the city, rather than between poor and non-poor as such.

Table 2 presents the distribution of SUS users in the Municipality of São Paulo (54 percent of the total population) according to the MHDI and the Health Index. The table shows that sub-municipalities with the worst socio-economic and health indicators have the highest concentration of SUS users.

Table 2. Population of SUS users/MHDI and Health Index – Municipality of São Paulo, 2005.

<table>
<thead>
<tr>
<th>Sub-municipalities’ MHDI</th>
<th>Population 2005</th>
<th>Infant Mortality Coefficient (for every 1,000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1A/B* 100(1)μ</td>
<td></td>
</tr>
<tr>
<td>Quartiles MHDI</td>
<td>Total (A)</td>
<td>SUS users (B)</td>
</tr>
<tr>
<td>1st. quartile 0.67</td>
<td>3,182,238</td>
<td>2,032,940</td>
</tr>
<tr>
<td>2nd. quartile 0.7</td>
<td>3,022,108</td>
<td>1,742,488</td>
</tr>
<tr>
<td>3rd. quartile 0.75</td>
<td>2,789,864</td>
<td>1,472,689</td>
</tr>
<tr>
<td>4th. quartile 0.85</td>
<td>1,905,348</td>
<td>703,656</td>
</tr>
<tr>
<td>São Paulo 0.74</td>
<td>10,899,560</td>
<td>5,862,873</td>
</tr>
</tbody>
</table>


3 In conducting our analysis, we have used an estimate of the population of the city of São Paulo per sub-municipality, based on the growth rate for 1991–2000, according to data provided by the IBGE Demographic Census of 2000. Next, we applied to this population an estimated proxy of the population using the SUS in each sub-municipality. The SUS user population estimate was calculated by the CEInfo by statistic inference based on data extracted from the Pesquisa de Condições de Vida (Research on Living Conditions) of 1998 (Fundação Seade/SP) and from the 2000 Demographic Census (IBGE).

4 Since there is no information to allow identification of the beneficiary of a given appointment, we have assumed a plausible premise that this kind of service tends to be produced in a decentralized fashion and consumed locally.

5 The Health Index is generated by the Municipal Department of Health of São Paulo, varying from 0 to 1, such that lower figures are associated with the worst epidemiological cases and vice-versa. The indicators used to calculate the Index are as follows: the infant-mortality coefficient, premature mortality due to chronic non-infectious diseases, the coefficient for tuberculosis and the coefficient for death from external causes. Pearson’s correlation between the Health Index and the sub-municipalities HDI: 0.842* (significant with 99 percent confidence).

6 The proportion of SUS users is negatively correlated with the sub-municipalities HDI. Pearson’s correlation: 0.967**.
The areas with the best socio-economic and epidemiological indicators have on the other hand been providing more SUS-funded primary appointments. The number of primary appointments/year per SUS user in São Paulo rose between 2001 and 2005 from 1.32 to 1.76, a value close to that recommended by the Ministry of Health, of two appointments per person per year. However, the average for more deprived sub-municipalities was 1.50, which significantly contrasts with 2.12 appointments per year in the wealthier sub-municipalities.

In the case of hospital admissions there was also a sharp rise in the number of SUS inpatients, which hit 847 admissions for every 10,000 SUS users in 2005, up from 714 in 2001. In this case, once again we verify that consumption was concentrated in centrally-located sub-municipalities, which presented the highest admission ratio, with 1,073 admissions for every 10,000 SUS users in 2005 which, again, significantly contrasts with the admission rate of 648 admissions in the poorest sub-municipalities.

The finding, however, that the consumption of health services is concentrated in territories with higher Municipal Human Development and Health indices, should not necessarily be construed as the capturing of the SUS by the wealthy who, in fact, rely primarily on private services. Rather, what the data suggest is that access to health services differs depending on whether the poor live in Jardim Ângela (the area with São Paulo’s lowest MHDII) or in Pinheiros (highest MHDII). In this case, the physical network of public services, which is concentrated in older and more central regions, is in itself one of the main factors accounting for the gaping intra-municipal differences in the distribution of health services. In other words, an important consumption determinant is linked to components intrinsic to the offer of services, which remain concentrated in the more privileged areas.

To better understand the distributive tendency, it is more important to consider the variation of the consumption of these services over the period (2001–2005), rather than the levels of consumption per se. Below, Chart 1 shows that in the case of primary appointments there was a significant increase in the offer of these services in the sub-municipalities in the first and second quartiles (the poorest) of MHDII. It should also be noted that the number of appointments offered across the four quartiles is becoming closer.

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7 In the case of hospital admissions it is possible to identify the address of those admitted, thereby confirming that the procedures were consumed by the residents of a particular sub-municipality. Pearson’s correlation coefficient between admission rate and sub-municipalities’ MHDII: 0.616** (significant with 99 percent confidence). A detailed description of the distribution of hospital admissions according to the quartiles is presented in Chart 2 in the Appendix.

8 The standard deviation in the level of primary appointments across the sub-municipalities, classified by quartile, decreased from 0.88 in 2001 to 0.29 in 2005, which points to an increasing homogenization in the distribution.
Chart 1. Number of Primary Appointments per Year per capita.

![Chart 1](https://example.com/chart1.png)


Chart 2 shows, in the same way, that the number of hospital admissions grew above all in the first and third quartiles and the disparity between the levels of admission in the sub-municipalities in the fourth quartile (the best located) and those of the first (the worst positioned) decreased.

Chart 2. Ratio of Consumption of HA per Year per 10 thousand SUS users.

![Chart 2](https://example.com/chart2.png)

As already mentioned, this data illustrates that, whilst there was a significant expansion in the offer of health services between 2001 and 2005, the distributive profile remained inequitable: the highest levels of use are to be found in the richest areas with the best epidemiological indicators in the municipality of São Paulo. The good news to be highlighted is that there is some evidence, feeble though it may be, that this pattern might change. A higher increase in the consumption in the poorest sub-municipalities and a narrowing of the consumption gap across sub-municipalities with the highest and lowest MHDIs may result in the reversal of the current distributive trend. If this trend reversion continues, we might witness, in the medium term, the emergence of a more equitable distribution pattern of public health services between locations. Thus, it might be assumed that a more equitable distribution of financial resources and of the sub-municipalities’ services will eventually lead to a reduction in the geographic inequalities hindering access to the public health system.

In the next section, the results described above will be discussed with respect to the health policies implemented in the 1990s and the first years of the new millennium with the aim of identifying factors that contributed to improving the access of the poorest to health services.

*Mechanisms put in place by the SUS*

**Decentralizing resources from the federal government to the municipalities**

The SUS is financed by minimum percentages of the federal, state and municipal revenues that must be invested in health activities and services\(^9\). Since 1998 federal fiscal transfers for basic care have been automatic and calculated in per capita terms\(^10\). This system of automatic transferal substituted the system that had operated up until that time, which awarded the states according to the predicted production of medical-assistance. Apart from creating incentives for the maximum use of medical procedures, this mechanism also entrenched the existing inequalities, as a result of the fact that it rewarded municipalities and states that were already well equipped and had a higher level of production. The automatic transfers, for their part, afforded a greater degree of autonomy to the municipalities and promoted the decentralization of health resources, affecting a number of municipalities that had not previously received federal funding. This new mechanism promoted a significant inter-regional transferal of resources from the richest to the poorest regions in the country. This is so because the health system is financed, above all, by budgetary resources, whose basis for collection is directly proportional to the wealth of each region. According to the Ministry of Health:

> From the middle of the 1990s, the Ministry of Health has been strengthe-ning the system of automatic transfers, (…) [which] prioritizes attention

\(^9\) Such percentages were specified in the Constitutional Amendment and they should gradually increase year by year to reach the figure of 12 percent for the States and 15 percent for the Municipalities.

\(^10\) Per capita public spending on health has fluctuated around USD100. According to Vianna (2003) in 1996 spending reached USD151.
on health, investing the mayor with the role of manager of the Universal Health System (SUS) and establishes plans of action for health in accordance with the local reality (Ministry of Health, 2003:13).

This system enabled the implementation of various programmes by the federal, state and municipal governments, such as: the Minimum Primary Care Transfer, the Family Health Programme and the Community Health Worker Programme. These programmes sought to underscore the health policy’s redistributive character and to promote greater balance between the offer of basic and complex services. As a result, the number of teams responsible for the Family Health Programme and Community Health Worker Programme soared from 328 in 1994 to 3,500 in 1999; furthermore, they increased their coverage from 1.1 million to 12.1 million people (Arretche and Marques, 2002).

As noted in the previous section, the results of these efforts can be clearly seen in the municipality of São Paulo, with an increase in the number of primary appointments. In the case of the Family Health Programme 72 percent of the appointments offered were concentrated in the poorest sub-municipalities (1st and 2nd quartiles). There was also a reduction in the differences between access to primary appointments, which can be seen in the relatively higher growth of consumption in the regions with the worst MHDIs.

With respect to the hospital system, it should be noted that greater autonomy was given to the municipalities that participated in the modality of “full management”. Apart from having greater authority over the management and administration of municipal public hospitals, they also gained the prerogative to hire, audit and pay the providers of private hospital services. The municipality of São Paulo began to carry out this modality of management from 2002 and the increased autonomy may have contributed to a more equitable distribution of hospital admissions.

These mechanisms are the result of a long process of discussion and negotiation about how to make progress with respect to the decentralization of health policy. This process relied upon an important strategic induction by the federal government through the formulation and implementation of its own regulatory mechanisms, and also, as various studies have pointed out, the strengthening of the administrative and institutional capacities of the federal government itself (Arretche, 1996, 2004; Levcovtiz, et al., 2001). As highlighted by Arretche:

> The success of the decentralizing reforms of the State are based on a selective expansion of the functions of central government, and more specifically, on the strengthening of its administrative and institutional capacities with respect to the carrying out and regulation of sectoral policies implemented by the sub-national governments and the very process of decentralization itself (Arretche, 1996: 62).

The author also emphasizes that such a role represented by the federal government is even more important in countries marked by relevant inter-regional disparities, as is the case in Brazil.
Intra-municipal decentralization and social participation

To properly understand the changes in the geographical distribution of services in São Paulo, it is also necessary to take into account the process of decentralization of health policy that took place under the auspices of the municipality over the period 2000–2005. In the year 2000, Eduardo Jorge, who was then Secretary of Health, started the process of decentralizing the health services through the creation of 41 health districts. As mentioned above, the city council also began to decentralize power with the creation of 31 sub-municipalities that incorporated the health districts. The aim of decentralization was to promote more autonomous local politics, creating new decision-making processes, facilitating the practices of social control and the democratization of management.

The conception of decentralization instigated by the Secretary of Health was similar to that expressed by Arretche, that is, with a strong role for the Municipal Administration in organizing the process; in defining the norms for the transferal of resources and formulating the municipal health policy, as well as in coordinating the activities of local health councils.

In this process, priority was given to the delivery of basic services, which contributed decisively towards a more balanced distribution of services between the sub-municipalities. Another element of the decentralization process that should be highlighted is the emphasis given to the creation of district health councils and unit health councils, located in health facilities. The creation of these councils followed the agenda of the Brazilian health reform programme, which saw decentralization as part of a wider strategy of democratization and the incorporation of new social actors in the management of the health system (Levacvitz, et al., 2001). In this way, in each sub-municipality, a local health council as well as a large number of unit health councils were created. They were set up in two years, involving the mobilisation of over 2,500 people to participate in at least one-monthly meetings.

The local health council of the sub-municipality consists of 24 effective and 24 substitute councilors, half of whom represent civil society and the other half, the government, service providers, and health workers. These councils made it possible to make more democratic the discussions over what to fund with public money and for whom, as well as the quality and adequacy of the services being provided (Coelho, et al., 2005). The councilors that represent civil society reported themselves as representatives of: popular health movements; health units; religious associations; neighbourhood associations; unions; civil rights groups; participatory fora; movements for the homeless; landless peasants movements; community or philanthropic groups; disabled persons associations, or as non-affiliated representatives (Coelho, 2006).

From this process emerged a network of councils distributed throughout the municipality, covering both central and peripheral areas, as well as rich and poor ones. It is difficult to identify the impact of these processes on the distribution of services, but the interviews carried out with the councilors presented a group of participants who had a variety of socio-economic profiles as well as political orientations and that were strongly committed to the SUS (Coelho, 2004a, 2004b). This experience may have led to the democratization of the debate and to broader evaluation of health policies and facilities contributing to an improvement in the performance of the system.
To sum up, from the point of view of this analysis, it is important to highlight the relevance of Federal automatic transfers for the financing of the basic health programmes; of the greater autonomy given to the municipalities that participated in the modality of “full management”; the intra-municipal decentralization and of social participation. All of these factors combined may have led to a process, which, as was seen in the previous section, has contributed towards promoting greater equality in the public health system. As part of the research programme it will be necessary in future work to indicate in a more systematic way what the effective contribution was of each of these processes – the form of financing, decentralization and social participation – upon the identified improvements in distribution.

**Backing the SUS**

The institution of the SUS represented an important act in two ways. Firstly it broke away from the model upon which the Brazilian health system had previously been structured – centralized, focused on curative medicine and with access restricted for the majority of services to those in the formal jobs market. Secondly, it promoted a health policy supporting universal coverage, in the international and national political and economic context of the 1980s and 1990s, which was characterized by increasing fiscal and demographic pressures and the defense of a focus on the poorest beneficiaries as well as on the restriction of services to basic needs.

In this paper the capacity of this system to promote equality and favour access of the poorest to health services was discussed. The effort was not to evaluate the system’s capacity to adequately deal with the needs of the SUS users, but rather to verify whether there is a progressive tendency in inverting the distribution, which until today favours poor residents of the richest areas before poor residents of the deprived areas.

Examining the combination of indicators presented in this paper, it seems reasonable to suggest that it is possible to work towards equality, prioritizing the necessities of the neediest members of the population without losing sight of a universalist social policy. In this way it is possible to avoid drawing a line between the “poorest” – and, therefore, the recipients of the benefits – from the simply “poor”. In the case of Brazil, apart from being highly arbitrary, it would deny assistance to a huge section of the population whose financial situation is only a little better than that of the “very poor”, but who would nevertheless have to spend a substantial part of their limited income on health costs.

It is also worth noting that whilst the health policy is universal, in practice a major proportion of those who can pay for private health care do so. This becomes clear when analyzing the percentage of SUS users, calculated at around 65 percent for Brazil (IPEA, 1998) and 53 percent for the city of São Paulo (Coelho and Silva, 2005). Another point that should be highlighted is that a universal health system is more likely, at least in principle, to be supported by the population as a whole – be that so because it avoids the discrimination and stigmatization of those who are the target of the selective processes, which leads to a weak support of the health policy by the general public; or because it maintains the promise of equal and dignified treatment for all citizens.
References


Appendix

Table 1. SUS Primary Appointments – Municipality of São Paulo 2001–2005.

<table>
<thead>
<tr>
<th>Sub-municipalities’ MHDI</th>
<th>Number of appointments</th>
<th>Number of appointments</th>
<th>Relative Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2005</td>
<td>Per SUS user</td>
</tr>
<tr>
<td>Quartiles</td>
<td>MHDI</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>1st. quartile</td>
<td>0.67</td>
<td>1,557,294</td>
<td>0.87</td>
</tr>
<tr>
<td>2nd. quartile</td>
<td>0.70</td>
<td>1,966,803</td>
<td>1.19</td>
</tr>
<tr>
<td>3rd. quartile</td>
<td>0.75</td>
<td>1,803,175</td>
<td>1.23</td>
</tr>
<tr>
<td>4th. quartile</td>
<td>0.85</td>
<td>2,140,380</td>
<td>2.83</td>
</tr>
<tr>
<td>São Paulo</td>
<td>0.74</td>
<td>7,467,652</td>
<td>1.32</td>
</tr>
</tbody>
</table>


1 Percentage of the population using the SUS in the sub-municipalities.
2 A detailed description of the distribution of primary appointments according to the quartiles is presented in Table 1 in the Appendix.
Table 2. SUS Hospital Admissions – Municipality of São Paulo 2001–2005.

<table>
<thead>
<tr>
<th>Sub-municipalities’ MHD Ratio of HA-2001</th>
<th>Ratio of HA-2005</th>
<th>Relative Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Ratio to 10 thou SUS users</td>
</tr>
<tr>
<td>1st. quartile</td>
<td>0.67</td>
<td>103,088</td>
</tr>
<tr>
<td>2nd. quartile</td>
<td>0.70</td>
<td>126,817</td>
</tr>
<tr>
<td>3rd. quartile</td>
<td>0.75</td>
<td>93,628</td>
</tr>
<tr>
<td>4th. quartile</td>
<td>0.85</td>
<td>81,73</td>
</tr>
<tr>
<td>São Paulo</td>
<td>0.74</td>
<td>405,263</td>
</tr>
</tbody>
</table>