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Utilization of the Family Health Program in metropolitan regions: a methodological approach

ABSTRACT

OBJECTIVE: To present the methodological approach used to define the profile of health services utilization by the population enrolled in the Family Health Program.

METHODS: Three patterns of services utilization accessed by the population were considered: residual, partial and full. These patterns were identified based on the range of actions of the Family Health Program that are accessed by the population. An enquiry was conducted in 2006 with two-stage sampling in an area characterized by high levels of social exclusion in the city of São Paulo, Brazil. In the first stage, 960 people participating in family health teams were drawn and classified by the community-based health agents as "full use" or not of the health services. In the second stage, 173 drawn subjects were then classified according to the patterns of services utilization.

RESULTS: Subjects were classified as full users (16%), partial users (57%) and residual users (26%), and had different social and demographic characteristics. There was a selective and focused utilization of the services offered by the Family Health Program. Being male, having a level of schooling above the fifth grade of elementary school, having a paid job and accessing medical care systems implied lower adhesion to the services, even though the study focused on regions with few options of healthcare services. Even in areas of high social exclusion and low offer of health services, 25% of the enrolled population did not use the services offered at the Family Health Units, receiving only home visits.

CONCLUSIONS: Methodologies that are capable of capturing distinct patterns of health services utilization by the population may contribute to improve services evaluation.

DESCRIPTORS: Family Health Program. Health Services, utilization. Health Services Accessibility. Health Care (Public Health). Health Surveys. Primary Health Care.

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INTRODUCTION

Given its importance in the Brazilian health policies scenario, mainly in primary health care, the *Programa Saúde da Família* (PSF - Family Health Program) has been the object of several studies. However, few investigations perform a breakdown of the utilization profile of these services considering the entire enrolled population. The option that prevails is to conduct inquiries into users of *Unidades de Saúde da Família* (USF - Family Health Units). Thus, it is assumed – without empirical evidence – that when a service is offered, it is used by the entire enrolled population.

Another dimension that needs to be incorporated into research studies that focus on the PSF are the innovations in the offer of services enabled by the Family Health strategy. After all, a central element of this strategy is the offering of services beyond the individual medical visit, such as health promotion and prevention activities.

The objective of the present study was to present the methodological approach used to identify the profile of health services utilization by the population enrolled in the Family Health Program.

METHODS

The methodological approach described here refers to the research study *"Avaliação do PSF pela população residente em áreas metropolitanas por meio de instrumento de coleta de dados informatizado"* (Evaluation of the PSF by the population living in metropolitan areas by means of a computerized data collection instrument), carried out by the Centro de Estudos de Saúde Contemporânea, the Master's Program in Collective Health of Universidade Católica de Santos and by the Preventive Medicine Department of Faculdade de Medicina of Universidade de São Paulo. The existence of three patterns of services utilization was considered, which are related to the PSF's range of activities:

- residual users: a portion of the population that only receives the visit of the *Agente Comunitário de Saúde* (ACS - Community-based Health Agent), but does not attend the USF and does not participate in community-based activities;

- partial users: a portion of the population that, besides receiving the visit of the ACS, attends the USF for individual medical visits but does not participate in group and community-based activities;

- full users: a portion of the population that attends the USF and participates in group and community-based activities.

The larger research study aforementioned was carried out in the state of São Paulo, in the cities of São Paulo, Praia Grande and Santo André (Southeastern Brazil), in the period from 2004 to 2006. In the case of São Paulo, given the existence of distinct patterns of implementation of the PSF according to social and spatial exclusion, the study included dwellers assisted by family health teams from two administrative districts located in areas of high and low social exclusion.[2] In the present paper, we selected some of the results obtained in the area marked by the highest degree of social exclusion of the city of São Paulo to illustrate the potential of this approach. It is supposed that in high social exclusion areas the USF are the main health resources, due to the low offer of public and private services. In this way, the methodology is tested in the region that is most favourable to the full utilization of the PSF services.

To evaluate the enrolled population's perception regarding the activities of the family health teams, the sampling plan considered distinct patterns of utilization of the offered services, enabling the identification of differences related to socioeconomic profile and to services evaluation and utilization.

To obtain samples for the population subgroups that illustrate the three utilization patterns, two-stage sampling was used. In the first stage of the study, 960 people were drawn from the *Sistema de Informação da Atenção Básica* (SIAB – Basic Care Information System), which contained the records of 3,779 dwellers. By consulting the ACS, the drawn people of this first sample were classified into two strata. The people whom the ACS considered as belonging to the "full use" group were placed in the first stratum (164 people), and those who, in the opinion of the ACS, would not belong to that group were placed in the second stratum (719 people). The other 77, although still enrolled, did not live in the catchment area anymore.

In the second stage of the sampling process, 120 and 130 people were drawn in each one of the strata. The sampling fractions were the following:

First stratum $\qquad f_1 = \dfrac{960}{3779} \cdot \dfrac{120}{164} \cdot \dfrac{1}{5.38}$

Second stratum $\qquad f_2 = \dfrac{960}{3779} \cdot \dfrac{130}{250} \cdot \dfrac{1}{21.77}$

The interviews were conducted in the drawn people's homes by trained interviewers, who used an electronic support to capture the data on the spot (palmtop computer). Based on the information provided by the interviewees, it was possible to classify them into the groups "full utilization", "partial utilization" and "residual utilization".

The rate of non-answer was of 32.5% in the first stratum and of 29.2% in the second, totalling 29.8% in the overall sample. In the two strata, refusal totalled approximately 11%. The other losses occurred because some of the drawn people were not located at the addresses indicated in the SIAB. Eventually, 173 people were interviewed.

Weights were introduced in the data analysis to compensate for the different selection probabilities used in the two strata, determined by the inverse of the sampling fractions. The existence of differences between the three groups of users was verified by means of the Bonferroni test of multiple comparisons, considering data weighting and using the software Stata, version 9.

The research project was approved by the Committee for Ethics in Research of Universidade Católica de Santos.

RESULTS

Of the interviewees, 46 were full users, 92 were partial users and 35 were residual users. The major part of the full users (37 people, 80%) belonged to the first stratum.

Considering the sampling fractions, the composition of the enrolled population was: 57.3% of partial users (CI 95%: 48.6;65.5), 26.5% of residual users (CI 95%: 19.4;35.2) and 16.2% of full users (CI 95%: 11.3; 22.6).

As regards to socioeconomic characteristics (Table), there were differences between the three groups. Despite the reduced sample sizes, it was possible to verify that the residual and full groups differed in almost all the evaluated characteristics. When the residual and partial groups were compared, the differences between the estimated percentages were no longer statistically significant for some characteristics. Comparing the partial and full groups, we identified a statistically significant difference only for "used another health service in the last 12 months".

The full users also utilized other health services, while the residual and partial ones did not in the same proportion.

DISCUSSION

One of the advantages of the two-stage sampling is the possibility of privileging the inclusion in the sample of individuals which characteristics of interest that are rare.[1,3,4] Despite producing some failures, low application cost tracking instruments can be used in the first sampling to classify the elements according to a "suspicion" of the presence of the characteristic of interest.

In the present study, the interview with the ACS used in the screening process proved to be a quick and economic form of identifying people who made "full use" of the health service. The majority (80%) of the people of this group found in the sample derived from the first stratum. In addition, the ACSs were requested to identify people who would belong to the "full use" group, without specifying the period of such use. However, in the inquiry, only the last 12 months were considered. Consequently, some of the people placed in the first stratum were subsequently classified as "partial or residual use".

In the two-stage sampling, the selection probability in the second stage depends on the data collected in the first one. The draw of sub-samples with distinct selection probabilities leads to the use of weights in the data analysis, introduced to compensate for these probability

Table. Population characteristics according to the pattern of health services utilization. São Paulo, Southeastern Brazil, 2005.

Socioeconomic characteristic	Type of utilization (%)		
	Residual	Partial	Full
Being male*,**	75.7	46.0	30.1
Being illiterate or having studied up to the 5th grade*	36.3	56.6	74.2
Having a paid job*,**	54.6	20.6	16.4
Being affiliated to private medical care systems and health insurance**	25.2	7.8	9.6
Used another health service in the last 12 months*,***	52.9	63.4	86.4

* Difference between residual and full
** Difference between residual and partial
*** Difference between partial and full

differences, causing an increase in the sampling error in case the overall enrolled population is considered.[3] Even with this decrease in the estimates' precision, costs are reduced with the use of two-stage sampling. In the present study, it was an efficient way of sampling the individuals who belonged to the "full use" group (16% of the enrolled population). A home inquiry in this situation would have a higher cost.

Ensuring the possibility of obtaining appropriate estimates for this group of people has an important meaning, as it constitutes the portion of the population that uses what could be classified as the full PSF, with promotion and protection activities. The resulting information may identify constraining and potentializing elements so that these activities effectively reach the entire population.

Results indicate that the use of samples of users who effectively attend the USF with the purpose of outlining the profile of services utilization of the enrolled population is probably inadequate in metropolises. There is a selective and focused utilization of the services offered by the PSF. Being male, having a level of schooling above the fifth grade of elementary school, having a paid job and accessing medical care systems imply lower adhesion to the services, even though the study focused on regions with few options of healthcare services. Even in areas of high social exclusion and low offer of health services, 25% of the enrolled population do not use the services offered at the USF, receiving only home visits.

From the health system perspective, the present methodology enables the revelation of important aspects, such as the selective utilization of services offered by the PSF according to the socioeconomic profile.

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