The use of social indicators to implement the health surveillance model*

A UTILIZAÇÃO DE INDICADORES SOCIAIS NA OPERACIONALIZAÇÃO DO MODELO DE VIGILÂNCIA DA SAÚDE

LA UTILIZACIÓN DE INDICADORES SOCIALES EN LA OPERACIONALIZACIÓN DEL MODELO DE VIGILANCIA DE LA SALUD

Rosemara Melchior Valdevino Silva[1], Lislaine Aparecida Fracolli[2]

ABSTRACT

The purpose of this study was to characterize the coverage area of the Butantã subdistrict, based on compound indicators that represent the categories *autonomy, quality of life, human development and equity*; and discuss the adequacy of using said categories to execute Health Surveillance in this territory. This is a descriptive, exploratory study, with a quantitative approach, with data obtained through identification of public domain data banks with information about health and social indicators, as well as the indexes of social inclusion/exclusion used to build the categories *autonomy, quality of life, human development and equity*. The results show that the compound indicators allowed for the unveiling of the inequalities in health and life conditions in the territory. The Raposo Tavares and Rio Pequeno districts showed the worst indexes of social inclusion/exclusion in the Butantã sub-prefecture, configured as the districts with the highest social exclusion.

KEY WORDS

Population surveillance.
Social indicators.
Diagnosis of health situation.
Social inequity.

RESUMO

Este estudo objetivou caracterizar a área de abrangência da subprefeitura do Butantã a partir dos indicadores compostos que representam as categorias *autonomia, qualidade de vida, desenvolvimento humano e eqüidade*; e discutir a adequação da utilização dessas categorias para a operacionalização da vigilância da saúde nesse território. Trata-se de um estudo exploratório e descritivo, com abordagem quantitativa, cujos dados foram obtidos por meio de identificação de bancos de dados de domínio público, com informações relativas a indicadores sociais e de saúde, bem como os índices de exclusão/inclusão social utilizados para a construção das categorias *autonomia, qualidade de vida, desenvolvimento humano e eqüidade*. Os resultados apontam que os indicadores compostos permitiram revelar as desigualdades nas condições de vida e saúde presentes no território. Os distritos de Raposo Tavares e Rio Pequeno apresentam os piores índices de exclusão/inclusão social na subprefeitura do Butantã, configurando-se como os distritos que mais apresentam exclusão social.

DESCRITORES

Vigilância da população.
Indicadores sociais.
Diagnóstico da situação em saúde.
Iniqüidade social.

RESUMEN

Este estudio tuvo como objetivo caracterizar el área de influencia de la municipalidad de Butanta, a partir de indicadores compuestos que representan las categorías *autonomía, calidad de vida, desarrollo humano y equidad*; y discutir la adecuación de la utilización de esas categorías para la operacionalización de la vigilancia de la salud en ese territorio. Se trata de un estudio exploratorio y descriptivo, con abordaje cuantitativo, cuyos datos fueron obtenidos por medio de la identificación en bancos de datos de dominio público, con informaciones relativas a indicadores sociales y de salud, así como los índices de exclusión/inclusión social utilizados para la construcción de las categorías *autonomía, calidad de vida, desarrollo humano y equidad*. Los resultados apuntan que los indicadores compuestos permitieron revelar las desigualdades en las condiciones de vida y salud presentes en el territorio. Los distritos de Raposo Tavares y Río Pequeno presentan los peores índices de exclusión/inclusión social en la municipalidad de Butanta, configurándose como los distritos que más presentan exclusión social.

DESCRIPTORES

Vigilancia de la población.
Indicadores sociales.
Diagnóstico de la situación en salud.
Inequidad social.

*Extracted from the thesis "Análise da utilização de indicadores sociais na operacionalização do modelo de Vigilância da Saúde: um estudo de caso", School of Nursing, University of São Paulo, 2007.

[1] Nurse. Student of the Masters program in Collective Health Nursing. Professor of the Centro Universitário São Camilo. São Paulo, SP, Brazil. rosemelchior@terra.com.br [2] Nurse. PhD. Professor of the Collective Health Department at School of Nursing, University of São Paulo. São Paulo, SP, Brazil. lislaine@usp.br

Portuguese / English: www.scielo.br/reeusp

Received: 04/24/2007
Approved: 11/21/2007

INTRODUCTION

The conception of the health-disease process has increased considerably, from more connections with death and disease (negative approach) to conceptions linked to the quality of life of a given population, a social product (positive approach). Health is then understood *[...] as the expression of quality of life, resulting [...] in the state of health and its consequences, based on its actions on the determinants*[1].

The theory of social production postulates that, except for untouched nature, everything that exists is a product of human action on society. This theory supports the concept of situation, in which a social actor, such as the rational man, retrieves the totality of reality, aiming at overcoming the restrictive concept of economic production, incorporation other productions as well: political, organizational, cognitive, ideological, and cultural, among others, as social productions.

A society will always have a health reserve, expressed in a state of health,

> [...] which could accumulate or deplete itself according to the social game. This state of health is an instant in the health/disease process, and therefore is in permanent mutation, improving or deteriorating, in its different moments, according to their reproductive dynamics and according to the positive or negative determinations for health[1].

Therefore, a society can either accumulate health, improving the state of health, or deplete health, producing diseases socially.

Health understood as a social product implies in the social construction of new health practices, named health surveillance, whose concept is *an organized form of social response to health problems, having the positive concept of health and the social paradigm of the social production of health as its references*. It will *organize the healthcare work processes in view of inter-sectorial operations, articulated by different intervention strategies*[1].

Health surveillance practices should be focused on inter-sectoriality, *[...] based on the articulation of government actions on concrete problems and concrete people, identified in concrete territories and transformed into political demands*. Therefore, health surveillance, in harmony with a positive conception of health, is presented as the sanitary practice of a new paradigm, the social production of health[1].

The proposal of health surveillance in Brazil originated with the sanitary reform processes of the 1970s and the ideals that promoted the implementation of the Single Healthcare System – *Sistema Único de Saúde (SUS)* in the 1980s. This brought new forms of interpreting health, aiming to transcend multi-causality and promote articulation between the health-disease process and its determiners and conditioners, attempting to comprehend health-disease as a process determined by the processes of social production and reproduction[2]. It started due to the need to increase epidemiologic surveillance actions, in the sense of contemplating health problems and the conditions of life in all of their dimensions[3].

Health surveillance, increasing the methods of traditional epidemiologic surveillance, takes considerable distance when it links the control of risks and aggravations to regionalized and democratized processes of priority definition and intervention and monitoring strategies. Also, the same happens when it incorporates surveillance objectives that are broader than the traditional aggravations of obligatory notification, such as issues regarding nutrition, environmental health, mental health, relations between health and labor, violence, among others[4].

Health surveillance corresponds to

> a healthcare model that incorporates and overcomes the current models, implying in the redefinition of the object, the means of work, the activities, the social and technical relations [...][5]

synthetically presenting seven characteristics:

> a) intervention in health problems (damages, risk and/or determiners); b) emphasis on problems requiring continuous attention and monitoring; c) operationalization of the concept of risk; d) articulation between promotional, preventive and curative actions; e) intersectorial work; f) actions across territory; g) intervention, in the form of operations[5].

In the health surveillance proposal, territory is an important key concept, and its conception goes beyond outlining a geographic space, as it is a setting where the relations of life and work of a given population occur. As such, demographic, socioeconomic, political-cultural, epidemiological and sanitary information is needed about a given territory, which will permit identifying and analyzing the problems, the epidemiological profiles and the health necessities of the population groups in order to define the healthcare priorities with inter-sectoriality, integrality and equity in mind[6].

There is a consensus that the techniques available to monitor the health situation and conditions of life are considered insufficient – reasons why the need to enhance them with the development of new techniques and strategies of information collection is discussed. These will permit usage by local healthcare systems.

Traditionally used health indicators do not reflect the health situation of a given population clearly.

> [...] the study of the conditions of life and its impact on the healthcare situation of the population in general, and social groups in particular, has received crescent attention in the field of collective health – either in order to improve theories and methods that could support the studies of inequali-

ties and inequities in the health-disease process or to build surveillance systems that allow for decision-making in the scope of the Healthcare Policies[8].

Nowadays, concerns are related to the conceptual and methodological improvement of more specific instruments to quantify and qualify the conditions of life and health and other dimensions of the social reality. Therefore, a varied portfolio of social indicators can be built, greatly contributing to unveil historical inequities in Brazil[9].

The choice of consensus indicators to measure problems and evaluate results is shown to be an adequate form to involve social actors in studies and projects intended to influence public policy making[10].

The utilization of compound indicators could yield a chart of the conditions of life of certain social groups, and serve as a starting point to analyze the health situation of these groups, with the consequent description of the epidemiologic profiles.

Compound indicators are also named synthetic indicators or social indexes. They are built with the agglutination of two or more single indicators, referring either to the same or to different dimensions of the social reality. The HDI – human development index – is an example of compound indicator or social index, elaborated according to the combination of simpler indicators related to the areas of health, education and income. The formulation of compound indicators is usually chosen by their synthesizing capacity in situations where a general evaluation of the conditions of life or socioeconomic levels of different social groups is necessary[9].

The utilization of compound indicators would permit evidencing social inequities existing in the city of São Paulo[11].

The choice of the compound indicators that are part of the Map of Exclusion/Inclusion[11] aimed to disclose the social inequalities existing in the administrative districts of the Butantã subprefecture.

The Map of Social Exclusion/Inclusion permits verifying the social reality of the territories in a region, establishing a comparative relation between a part and the whole, and examining the presence of social exclusion/inclusion. The map represents a methodology of geo-referenced analysis for the territories of a city by means of variables that measure the level of human development, equity, quality of life and autonomy. It produces knowledge about the *place of the data* and builds compound indexes of social exclusion/inclusion (IEX), symbolized by negative and positive decimal scores. With these scores, the districts were ranked according to the negative or positive distancing from the inclusion standard. This measurement compares the distance that the city builds between the best and worst conditions of life. In the case of the city of São Paulo, these indexes were produced for all 96 districts[11].

The compound social exclusion/inclusion index was built from the following categories [11]:

1. Category – Autonomy: comprising the variables family income, employability and situation of indigence.

2. Category – Quality of life: comprising the variables number of people per household, availability of daycare institutions for children aged 0-3 years old, availability of kindergarten schools for children aged 4-6, availability of elementary schools for children aged 7-14.

3. Category – Human development: comprising the variables level of instruction of family heads, district longevity rate and potentially lost years of life and homicides

4. Category – Equity: comprising the variable families headed by women.

The operationalization of the health surveillance proposal, understood as an inter-sectorial healthcare model, could occur with the use of social indicators, put in practice by means of the following categories: autonomy, quality of life, human development and equity. These indicators would provide knowledge about the reality of life of the social groups, providing the healthcare teams with instruments for healthcare surveillance[2].

These indicators would permit an approximation with the profile of social reproduction of the different social groups or the different districts, which would result in the construction of the epidemiologic profile. Thus, these indicators could help in the discrimination of the most vulnerable social groups.

This research is expected to contribute to the implantation process of the healthcare surveillance model in the districts of the Butantã subprefecture, particularly aiming to identify indicators to provide the healthcare teams with instruments to apprehend social inequalities that, at least, determine the health-disease profiles of the population in this territory.

OBJECTIVES

- Characterize the coverage of the Butantã subprefecture with the utilization of compound indicators representing the categories *autonomy, quality of life, human development and equity*.

- Discussing the adequacy of the categories *autonomy, quality of life, human development and equity* for the operationalization of health surveillance.

METHOD

This is a quantitative, exploratory and descriptive study. It sought to analyze the adequacy of the categories autonomy, quality of life, human development and equity for the practice of health surveillance.

The study setting was the healthcare district of Butantã, which corresponds to the Butantã subprefecture in the city

of São Paulo. The Butantã subprefecture is formed by the administrative districts of Butantã, Morumbi, Raposo Tavares , Rio Pequeno and Vila Sônia. The total area of this subprefecture is 56.1 Km², which corresponds to 3.75% of the total area of the city of São Paulo. The estimated population for 2005 was 377,351 inhabitants

The study had the following stages: 1) identification and selection of the social exclusion/inclusion indexes used to build the categories *autonomy, quality of life, human development and equity*; 2) organization and distribution of the indicators and categories of analysis, according to a specific territorial unit – the administrative districts of the Butantã subprefecture, in this case, and 3) analysis of these indicators according to their technological pertinence for health surveillance.

The data were analyzed quantitatively and descriptively in order to characterize the administrative districts regarding social exclusion/inclusion. In this process of analysis and description of the data, we attempted to identify the differences among the districts of the Butantã subprefecture and the adequacy of the selected social indicators for the operationalization of health surveillance.

RESULTS AND DISCUSSION

The figures and tables presented below intend to illustrate the ranking, i.e., the positive or negative distancing from the inclusion standard in the region of Butantã and its administrative districts (Butantã, Morumbi, Raposo Tavares and Vila Sônia). To allow for comparisons, the city districts considered most and least distant from inclusion were included.

Category – Autonomy

The autonomy category was put in practice through the variables employability, family income and situation of indigence.

Table 1 shows that the Vila Sônia district is the region with the worst situation, with a score of 0.29, i.e. less than three out of 10 inhabitants have jobs within the district. The Butantã and Morumbi districts are within the inclusion standard, which means that job demand in the area is one position for each inhabitant, approximately.

Table 1 - District social exclusion/inclusion index for job offers per inhabitant aged 14-69, according to administrative districts. São Paulo, SP - 1997.

Ranking	District	Population aged 14-69 years	Total amount of jobs in 1997	Index	IEX
1	Cidade Tiradentes	107,489	19,076	0.18	-1.00
20	Vila Sonia	60,102	17,648	0.29	-0.87
36	Rio Pequeno	74,261	28,966	0.39	-0.76
42	Raposo Tavares	59,968	24,629	0.41	-0.73
73	Butantã	41,673	50,377	1.21	0.02
80	Morumbi	31,020	50,534	1.63	0.08
96	Sé	17,628	144,506	8.20	1.00

Source: Social Exclusion/Inclusion Map 2000[11]

Table 2 presents the IEX of the homeless population living in the Butantã districts. Certainly, the highest concentrations of homeless will occur in places with homeless shelters, such as Moóca. In this index, the Vila Sônia and Rio Pequeno districts have the worst conditions, with the highest count of homeless people, which represents the extreme end of social exclusion and the utopia of the social production of health.

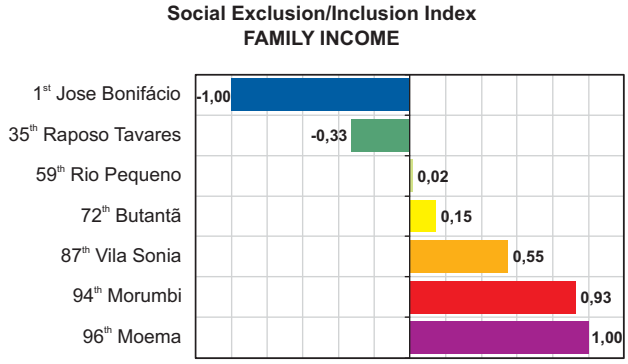
Table 2 - District social exclusion/inclusion index for the homeless population, according to the administrative districts. São Paulo, SP - 1997

Ranking	District	Homeless people living on the streets	Homeless people living in shelters	Total	%	IEX
1	Mooca	61	1,000	1,061	12.19	-1.00
44	Vila Sonia	14	-	14	0.16	-0.01
49	Rio Pequeno	11	-	11	0.13	-0.01
51	Butantã	10	-	10	0.11	-0.01
76	Raposo Tavares	3	-	3	0.03	0.00
87	Morumbi	1	-	1	0.01	0.00
96	Vila Curuça	-	-	0	0.00	0.00
	MSP	**5.013**	**3,693**	**8,706**	**100.00**	

Source: Social Exclusion/Inclusion Map 2000[11]

Homeless population consists of people for whom some of the basic social institutions – private property, family, market – no longer provide the usual strategies for survival. Certainly, the higher the social inequality in a country, the more it affects the quality of life and health of the population in general, and the individuals and their families in particular.

The calculation of the family income social exclusion/inclusion index (IEX) used the approximate value of one-third of the highest income of the city as a standard, which represents 14 times the minimum wage[11]. The highest family income (Figure 1) is found in the Morumbi district, nearly equal to the index found for the Moema index, the district with the highest income of the city. It can be observed that only the Raposo Tavares district in the Butantã subprefecture has exclusion indexes, i.e., family income below the inclusion standard.



Source: Social Exclusion/Inclusion Map 2000[11]

Figure 1 - District social exclusion/inclusion index according to family income - São Paulo, SP - 2000

Inequalities in the conditions of life, due to differences in social reproduction processes, i.e. the standards of work and consumption, will reflect in the health situations of the population[8]. Therefore, income and work are essential aspects to generate conditions that will produce health.

In the autonomy category, the districts of Raposo Tavares, Rio Pequeno and Vila Sônia showed social exclusion indexes in the indicators employability and income, which are directly related with the acquisition of goods in both quantity and quality to satisfy basic necessities (food, housing, clothing, education, leisure, etc), which will reflect in the social production of health, i.e., the accumulation of health.

Category – quality of life

The following variables were selected for this category: number of people per household, availability of daycare institutions for children aged 0-3 years old, availability of kindergarten schools for children aged 4-6, availability of elementary schools for children aged 7-14 and availability of basic healthcare units - *Unidade Básica de Saúde (UBS)* for the population.

For the population density IEX (Table 3), only the Butantã and Vila Sônia districts are in a situation of inclusion. However, this indicator did not assess the number of rooms in the households. This could change the results, especially in the Morumbi district, with a family income that is much higher than the inclusion standards. The Raposo Tavares district is in the worst situation for this category.

Table 3 - District social exclusion/inclusion index for the population density rate, according to the administrative districts. São Paulo, SP - 1996

Ranking	District	Number of households in 1996	Total population	Population density	IEX Population density
1	Lageado	31,484	129,729	4.12	-1.00
33	Raposo Tavares	23,051	87,209	3.78	-0.41
34	Rio Pequeno	26,582	99,428	3.74	-0.34
37	Morumbi	10,347	38,550	3.73	-0.31
51	Vila Sonia	22,412	79,320	3.54	0.00
72	Butantã	16,926	53,520	3.16	0.28
96	República	22,654	49,666	2.19	1.00
	MSP	**2,778,558**	**9,839,066**	**3.54**	

Source: Social Exclusion/Inclusion Map 2000[11]

Correspondence addressed to: Fulano de Tal da Silva
Rua Onon Onon de Tal, 27 - Jardim Flores
CEP 00000-000 - São Paulo, SP, Brasil

All districts in the Butantã subprefecture had a negative IEX for the availability of vacancies in daycares (Table 4), which shows a deficit situation. The Raposo Tavares district had the worst exclusion index.

Table 4 - District social exclusion/inclusion index for availability of vacancies in daycares per child aged 0-3 years, according to the administrative districts. São Paulo, SP - 2000.

Ranking	District	Private Daycares	Municipal Daycares	Total vacancies	% total coverage	Population aged 0-3 years	Deficit in public vacancies	% Deficit in public vacancies	IEX for daycares
1	Marsilac	0	0	0	-100.00	731	-292	-100.00	-1.00
55	Raposo Tavares	219	976	1,195	-82.09	6,673	-1,693	-63.43	-0.64
70	Vila Sonia	147	871	1,018	-77.28	4,480	-921	-51.40	-0.53
73	Rio Pequeno	176	1,333	1,509	-76.40	6,393	-1,224	-47.87	-0.49
78	Morumbi	447	435	882	-54.40	1,934	-339	-43.77	-0.45
91	Butantã	240	623	863	-54.46	1,895	-135	-17.81	-0.20
96	Bela Vista	156	1,105	1,261	-50.33	2,539	89	8.80	1.00
	MSP	**17.105**	**81.022**	**98.338**	**-84.60**	**638,653**	**-174.439**	**-68.28**	

Source: Social Exclusion/Inclusion Map 2000[11]

Nowadays, Brazilian law determines that daycares are part of the educational system, but the educational policy defines daycares as educational institutions without the characteristics of a school. *[...] the daycare assumes, jointly with family, the upbringing of the child, the transformation of the natural being into a social being, a citizen*[12]. The offer of vacancies in daycares can be a protecting factor for families and children due to its social importance, noting the following advantages: a safe place for children; satisfaction of alimentary needs and possibly preventive healthcare[13].

Table 5 illustrates the levels of educational exclusion for children aged 4-6 years, noting that all districts of the Butantã subprefecture lack public vacancies. The Morumbi district has the worst index, where this age range is observed to receive formal education in private schools, mostly.

Table 5 - District social exclusion/inclusion index for the education of children aged 4-6 years, according to the administrative districts. São Paulo, SP - 2000.

Ranking	District	Municipal schools	Private schools	Total	Total children aged 4 to 6	%Municipal coverage	% Private coverage	Deficit/ Surplus	% Deficit/ Surplus	IEX EMEI
1	Marsilac	0	0	0	540	0	0	-540	-100.00	-1.00
21	Morumbi	387	1,106	1,493	1,508	25.66	73.34	-1,121	-74.34	-0.74
65	Vila Sonia	1,925	456	2,381	3,483	55.27	13.09	-1,558	-44.73	-0.45
70	Rio Pequeno	2,873	928	3,801	4,931	58.26	18.82	-2,058	-41.74	-0.42
76	Raposo Tavares	3,195	307	3,502	4,721	67.68	6.50	-1,526	-32.32	-0.33
82	Butantã	1,296	1,278	2,574	1,704	76.06	75.00	-408	-23.94	-0.24
96	Lapa	2,419	779	3,198	1,868	129.50	41.70	551	29.50	1.00
	MSP	**215,034**	**74,139**	**289,173**	**479,674**	**44.83**	**15.46**	**-264,640**	**-55.17**	

Source: Social Exclusion/Inclusion Map 2000[11]

Data in table 6 show that the Butantã district in the Butantã subprefecture has the best availability of vacancies in elementary school, while Raposo Tavares has the worst, although within the inclusion standard.

Table 6 - District social exclusion/inclusion index for elementary education of children aged 7-14 years, according to administrative districts. São Paulo, SP - 2000.

Ranking	District	Total children aged 7-14 years	Enrolled students	Deficit	% Deficit	IDI Elementary education	IEX Elementary education
1	República	3,646	868	-2,778	-76.19	36.53	-1.00
18	RaposoTavares	14,273	14,738	465	3.26	34.18	0.01
23	Vila Sonia	10,899	11,737	838	7.69	80.66	0.03
36	Rio Pequeno	15,270	17,286	2,016	13.20	138.49	0.05
88	Morumbi	4,553	7,249	2,696	59.21	621.15	0.20
93	Butantã	5,852	11,329	5,477	93.59	981.78	0.32
96	Pari	1,655	6,461	4,806	290.39	3046.22	1.00
	MSP	**1,435,665**	**1,730.420**	**294,755**	**20.53**		

Source: Social Exclusion/Inclusion Map 2000[11]

The provision of care by basic healthcare units - *Unidade Básica de Saúde (UBS)* is estimated at 1:20,000 inhabitants. For the category UBS coverage (Figure 2), the Morumbi district has the worst situation, being out of the inclusion standards, while the remaining districts are in a better situation.

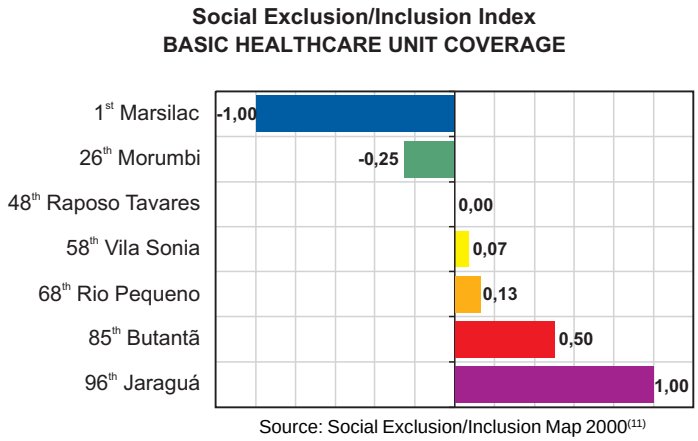


Figure 2 - District social exclusion/inclusion index according to Basic healthcare unit coverage, according to the administrative districts - São Paulo, SP - 1999

In the category quality of life, the Raposo Tavares districts has the worst indexes overall. Health is understood *[...] as an expression of the quality of life*[1] and the same author points to the fundamental need to build compound indicators of the quality of life in health surveillance, which *assume the interaction of several factors in the determination of the quality of life of a given city by combining different references in the city description*, as well as the quality of life of its inhabitants[1].

Human development

For the human development category, the present study considers the indicators referring to the level of instruction of the head of the family and longevity.

Table 7 illustrates the educational development IEX for the family heads, an index comprising the educational rates (no education, 1-3 years of education, 4-7 years of education, 8-14 years of education and more than 15 years of education) using the 4-7 years of education range as inclusion standard. The Raposo Tavares and Rio Pequeno districts are below the inclusion standard for the educational development of family heads.

To assess longevity, the percentage of inhabitants aged 70 or older in the district was considered. Table 8 presents the longevity IEX for the districts of the Butantã subprefecture. Again, it can again be observed that Raposo Tavares and Rio Pequeno have the lowest longevity rates and remain furthest from the inclusion standard.

Table 7 - IEX educational development of family heads, according to the administrative districts. São Paulo, SP – 2000

Ranking	District	IEX no education	IEX 1-3 years of education	IEX 4-7 years of education	IEX 8-14 years of education	IEX more than 15 years of education	Soma	IEX educational development of the family head
1	Marsilac	-1.00	-1.00	0.00	0.00	0.01	-1.99	-1.00
29	Raposo Tavares	-0.40	-0.59	0.00	0.55	0.08	-0.35	-0.17
37	Rio Pequeno	-0.41	-0.50	0.00	0.53	0.22	-0.16	-0.08
62	Vila Sonia	-0.24	-0.34	0.00	0.53	0.45	0.39	0.27
71	Morumbi	-0.20	-0.26	0.00	0.16	0.89	0.59	0.41
79	Butantã	-0.10	-0.15	0.00	0.59	0.59	0.93	0.64
96	Jardim Paulista	0.00	0.00	0.00	0.51	0.95	1.46	1.00

Source: Social Exclusion/Inclusion Map 2000[11]

Table 8 - Longevity IEX, according to the administrative districts. São Paulo, SP - 2000

Ranking	District	Total amount of people	People over 70 years old / 1996	%	IEX
1	Cidade Tiradentes	162,653	1,830	1.13	-1.00
30	Raposo Tavares	87,209	2,099	2.41	-0.34
36	Rio Pequeno	99,428	2,915	2.93	-0.07
46	Morumbi	38,550	1,488	3.86	0.11
52	Vila Sonia	79,320	3,414	4.30	0.17
68	Butantã	53,520	3,234	6.04	0.41
96	Jardim Paulista	89,261	9,18	10.29	1.00

Source: Social Exclusion/Inclusion Map 2000[11]

The homicide rates in 1999 were higher in the Morumbi and Rio Pequeno districts. The current data about homicide rates show that the Raposo Tavares district has the highest rates[11-14].

The increasing process of social exclusion contributes to increased violence in urban areas, pointing to the existence of intra-urban differences regarding violence, where the highest rates are found in the regions that concentrate the groups with the least favorable socioeconomic conditions[15].

Category – Equity

The equity category was measured according to the indicator number of families headed by women. In Map 95, by the same author, the equity IEX was built with two variables: the number of women who were heads of families and the number of illiterate women who were heads of families[11].

Table 9 presents the IEX of female heads of families in the Butantã subprefecture. It should be noted that the Butantã district was the only one characterized in a situation of exclusion, i.e. a rate that was lower than the inclusion standard. The other districts had inclusion levels that were higher than the standard. To build the IEX of women who were heads of families, the percentage of 28.34% of female heads of families was considered as the standard. According to the author,

> the districts with higher rates were considered in situations of exclusion, being monoparental homes associated to the femininization of poverty and reduced wages for female workers[11].

Table 9 - District social exclusion/inclusion index for women who were heads of families, according to the administrative districts. São Paulo, SP - 1996

Ranking	District	Permanent housing in 1996	Total of female family heads	% Women	IEX
1	Santa Cecília	27,970	11,728	41.93	-1.00
31	Butantã	15,286	3,985	26.07	-0.1
46	Rio Pequeno	26,068	6,258	24.01	0.0
49	Raposo Tavares	21,776	5,188	23.82	0.0
51	Vila Sonia	20,383	4,796	23.53	0.08
81	Morumbi	9,986	2,021	20.24	0.38
96	Marsilac	1,833	247	13.48	1.00
	MSP	**2,708,845**	**660,422**	**24.38**	

Source: Social Exclusion/Inclusion Map 2000[11]

Overall, the Raposo Tavares district, followed by Rio Pequeno, are the places with the worst social exclusion/inclusion indexes within the Butantã region, being configured as the districts with the greatest social exclusion.

By analyzing some health indicators, such as infant mortality, early mortality due to stroke and diabetes mellitus, new cases of tuberculosis, it can be observed that the Raposo Tavares and Rio Pequeno districts again have the worst indicators[14-16].

CONCLUSIONS AND FINAL CONSIDERATIONS

The indexes of social exclusion/inclusion attempt to show the inequities in the conditions of life that are consequences of differences in social production and reproduction processes reflected in the situation of health of the population, i.e. the accumulation of health or disease.

In this study, the utilization of compound indicators permitted focusing on the several contexts of the territory, yielding knowledge about the *place where the data come from*[11]. It is understood that health problems have multiple determinants. Therefore, a proposal to put in practice health surveillance should predict the recognition of the district territory or the area covered by a single healthcare unit, according to the logic of relationships between conditions of life, health and access to healthcare actions and services, which implies a process of selection and systematization of demographic, socioeconomic, political-cultural, epidemiological and sanitary data.

The compound indexes of social exclusion/inclusion (IEX) represent four broad fields that give meaning to social inclusion areas: autonomy, quality of life, human development and equity. These indexes can contribute to the elaboration of health diagnoses in the perspective of health surveillance, due to monitoring conditions of life that produce health by achieving basic standards of inclusion.

The distance between the levels of exclusion and inclusion in a given territory can be established through compound indexes. As such, the necessary acknowledgement of the situations that are configured as social inequities in health, i.e. the differences produced by the social insertion of the individuals, can be feasible with the use of methodologies that identify the singularities and the heterogeneity present in the territory. These are based on approaches that acknowledge the real distance between the forms of inclusion and exclusion produced in a society, favoring the construction of diagnoses for the situation of health or epidemiological profiles, with a view to putting health surveillance in practice.

The socioeconomic differences that permeate the districts of the Butantã subprefecture indicate and reinforce the need to develop and implement local public policies that could have great effects in the improvement of the conditions of life for the population found in a situation of social exclusion, which would make the accumulation of health possible.

REFERENCES

1. Mendes EV. Uma agenda para a saúde. São Paulo: Hucitec; 1996.
2. Bertolozzi MR, Fracolli LA. Vigilância à saúde: alerta continuado em saúde coletiva. Mundo Saúde. 2004;28(1):14-20.
3. Brasil. Ministério da Saúde. Fundação Nacional da Saúde. Unidade de Vigilância Epidemiológica: Relatório Final. In: Anais do Seminário Nacional de Vigilância Epidemiológica; 1992 dez. 1-14; Brasília, BR. Brasília: Centro Nacional de Epidemiologia; 1993. p. 15-34.
4. Ayres JR. Norma e formação: horizontes filosóficos para as práticas de avaliação no contexto da promoção de saúde. Ciênc Saúde Coletiva. 2004;9(3):583-2
5. Teixeira CF, Paim JS, Vilasbôas AL. SUS: modelos assistenciais e vigilância da saúde. Inf Epidemiol SUS. 1998;7(2):7-28.
6. Mendes EV. Distrito sanitário: processo social de mudanças das práticas sanitárias do SUS. São Paulo: Hucitec; 1995.
7. Teixeira CF. Promoção e vigilância da saúde no contexto da regionalização da assistência à saúde no SUS. Cad Saúde Pública. 2002;18 Supl:S153-62
8. Barata RB, organizadora. Condições de vida e situação de saúde. Rio de Janeiro: ABRASCO; 1997.
9. Jannuzzi PM. Indicadores sociais no Brasil: conceitos, fontes de dados e aplicações. 3ª ed. Campinas: Alínea; 2004.
10. Akerman M. Examinando elementos que possam influenciar a formulação de políticas em estudos que utilizaram indicadores compostos: o chão contra o cifrão. Ciênc Saúde Coletiva. 2000;5(1):115-23.
11. Sposati A, coordenadora. Mapa de exclusão/inclusão social da cidade de São Paulo/2000: dinâmica social dos anos 90 [CD-ROM]. São Paulo: PUC-SP; 2000.
12. Veríssimo MLR, Fonseca RMGS. Funções da creche segundo suas trabalhadoras: situando o cuidado da criança no contexto educativo. Rev Esc Enferm USP. 2003;37(2):25-34.
13. Santos LES, Resck ZMR, Carneiro VG. A creche e o contexto social. Nursing (São Paulo). 2003;6(59):42-5.
14. Fundação Sistema Estadual de Análise de Dados (SEADE). Informações dos distritos da capital [texto na Internet]. São Paulo; 2006 [citado 2006 dez. 10]. Disponível em: http://www.seade.gov.br/produtos/imp/distritos/
15. Gawryszewski VP, Costa LS. Homicídios e desigualdades sociais no Município de São Paulo. Rev Saúde Pública. 2005;39 (2):191-7.
16. São Paulo. Secretaria Municipal de Saúde. Painel de monitoramento: objetivos, metodologia e alguns resultados [texto na Internet]. São Paulo; 2006. [citado 2007 fev. 7]. Disponível em: http://www2.prefeitura.sp.gov.br/secretarias/saude/painel_monitoramento/0002

Correspondence addressed to: Rosemara Melchior Valdevino Silva
Rua Eng. Jorge Oliva, 491, apto 42, Bloco 02 - Vl. Mascote
CEP 04362-060 - São Paulo, SP, Brazil