

## LEPROSY SPREAD IN URBAN AREA: PART I: Epidemiological characteristics of an endemic urban area for leprosy: the county of São Gonçalo, Rio de Janeiro state, Brazil

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**ABSTRACT** - Among the needs of deepening the epidemiological inquiry studies of leprosy diffusion in urban area, the evaluation of the Local Information System stands out as base instrument to carry out an epidemiological and operational analysis. The information system was utilized also as base to the populational planning studies. In the present paper, the achievement of the recorded cases mapping in three sanitary units in respective copyhold sectors, as well as the analysis of the specific epidemiological and operational indicators, permitted the characterization of the São Gonçalo county as urban endemic area for leprosy, the delimitation of the foci and the inquiry planning. Starting with the specific indicators, according to age, sex, clinical form in the case register date, it was verified a higher detection rate in women than in men, as well as an increase of the tendency of the tuberculoid forms. In the epidemiological inquiry conducted during 85 days, 926 dwellings were visited with interview, physical examination, anthropometric measurements and soluble antigen (SA) application. Such inquiry was conducted by a staff of health professionals and specially trained and standardized community members. The produced results confirmed that in the copyhold sectors without registered cases, no case, was found and that the domiciliary visits during the Sunday do not presented a superior productivity to the allover days of the week. The whole of the findings lead oneself to conclude that the Local Information System is a valuable instrument for the description of the endemic characteristics in this county and file a construction adequate to the planning of populational studies.

**Key words:** Leprosy. Urban area. Epidemiology. Inquiry. Contacts. Morbidity.

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### 1 - INTRODUCTION

At present nearly, 80% of the Brazilian population live in endemic area for leprosy, where prevalence rate exceeds 1 case per 1.000 inhabitants. In the state of Rio de Janeiro this rate was 2.0 per 1,000 inhabitants in December 1987.

Indicators for the continued evaluation of programme activities for Leprosy Control, as well as epidemiological indicators, are

already defined and standardized so that the analysis of such indicators can provide some knowledge on the endemic.

The Rio de Janeiro Leprosy Control Program is of vertical nature and since its implantation in 1970 the aims have been to detect cases by exclusively passive demand and provide treatment to them. In 1986, polychemotherapy was introduced in areas with the highest prevalences.

Knowing the actual number of both active and reported cases is a difficult task to perform since up to now there is no systematic removal of healed cases, deaths, and individuals who have left the area. Cases who discontinued treatment and because of many reasons could not be retrieved contribute to make the active reporting even more inflated. During this period several technical - administrative measurements have been implemented, thus interfering in the different prevalence rates for the period.

The annual detection of new cases, or reporting rate, allows us to estimate the dynamics of the endemic. Considering that this epidemiological indicator is a close estimate of incidence, the pattern for the study area can be determined. However, the influence of epidemiological factors on the established pattern cannot be distinguished from that of operational indicators.

Its is recognized that the number of cases alone does not differentiate risk factors in a population. Moreover, the delimitation of foci through space distribution of cases, rates by sex, age, degree of disability and immunological memory, transmission patterns, infection of contacts and the general population, and social factors, they all constitute epidemiological categories required for the study of leprosy spread.

The Local Information System provides data to the central level. Both the analysis using indicators and the feedback to the local level are tools for obtaining epidemiological knowledge on the area. In this first stage, the present paper investigates the source of secondary data as a basic tool for performing an epidemiological and operational analysis of two moments of leprosy diagnosis in an urban area of Rio de Janeiro. The use of this set of epidemiological indicators for the

assessment of leprosy transmission patterns will be discussed.

In addition, the information system will be used as population basis. The present paper shows productivity results of the epidemiological study undertaken in the area with the purpose of investigating household risk factors and the ability to discriminate groups originated from positive response to the skin test.

## 2 MATERIAL AND METHODS

### AREA DESCRIPTION

Located in the Metropolitan Area of Rio de Janeiro, the county of São Gonçalo has 228Km<sup>2</sup> of area, corresponding to 3.5% of its territory. It is the 10<sup>th</sup> county in geographic size and in 1988 its population was estimated in 790,000 inhabitants, with annual growth rate of 2.7%. São Gonçalo ranks 4<sup>th</sup> in number of inhabitants and 5<sup>th</sup> in population density, with 3,461 inhabitants/Km<sup>2</sup>, according to data provided by the Instituto Brasileiro de Geografia e Estatística (IBGE).

The county is divided into five districts:

- 1<sup>st</sup> district - São Gonçalo (town seat), with 4,244 inhabitants/km<sup>2</sup>
- 2<sup>nd</sup> district - Ipiiba, with 1,773 inhabitants/km<sup>2</sup>
- 3<sup>rd</sup> district - Monjolo, with 2,456 inhabitants/km<sup>2</sup>
- 4<sup>th</sup> district - Neves, with 13,833 inhabitants/km<sup>2</sup>
- 5<sup>th</sup> district - Sete Pontes, with 3,335 inhabitants/km<sup>2</sup>

The town seat is situated at 13m of altitude, 22° 49' 30" S and 43° 02' 30" W, and is 28km distant from Rio de Janeiro downtown.

The local topography consists of mountain ridges (25%), lowlands (60%) and spits of land running into the sea (15%).

The county began to be settled in 1579 by the Portuguese. In the 1920's it experienced its economic zenith, leading the country in

the production of oranges, fowls and eggs. Its industrial setup collected the country's second income at that time. There followed a period of economic exhaustion and today this is a city with peripheral features whose economy no longer markedly contributes for the economic growth of the state, showing a meaningless primary production. The secondary sector rests on the retail trade in the county's 3<sup>rd</sup> district.

Its proximity to the cities of Rio de Janeiro and Niterói, associated with poor opportunities for better work conditions, have led more and more people choosing to look for a job in other urban centers.

According to IBGE criteria(9), the resident population is exclusively urban. With regard to migratory characteristics, 46% of the population are migrants. Of these, 59% live in the county for over 10 years.

The county has 148,386 households, 11% of which are headed by women. Sixty per cent of these families have monthly income between 1 and 5 minimum wages (US\$ 60,00).

Among individuals over 5 years of age, 80,5% are enrolled in schools located in the county, of which 78% are private schools. The rate of students per teacher is 23.8.

Health infrastructure consists of 4 hospitals, 5 polyclinics, 1 health center and 4 health units depending exclusively on public resources. The ratio of 275 inhabitants per hospital beds includes those of philanthropic and private nature.

In 1980 the county had childhood mortality rate of 52/1.000 and life expectancy of 63.3 years.

The "Carlos Antonio da Silva" Health Center Niterói, the "Washington Luiz Lopes" Health Center and the "Hélio Cruz" Health Unit in São Gonçalo, are linked to the State Secretariat of Health and provide care for most leprosy patients living in São Gonçalo.

## 2.2 LOCAL INFORMATION SYSTEM LEPROSY

The study of the magnitude of the endemic in this county from 1967 to 1987 consisted in the analysis of data obtained from files kept by the three major units assisting leprosy cases in the area. Reports follow general lines which have been developed by the Leprosy Control Program, whose planning, technical rules definition, and management procedures are attributed to the State Secretariat of Health, through its Sanitary Dermatology Coordinating Committee. All activities are developed according to guidelines set up by the National Division of Sanitary Dermatology - Ministry of Health.

According to the historical overview, the first patient reported in the county dates from 1929 in Niterói, despite routine assistance at the "Hélio Cruz" Unit only began in 1951. In 1972, there were only 4 patients under treatment at the "Washington Luiz" Health Center.

In 1984, through an agreement set between the State Secretariat of Health and non-governmental agencies, the Dermatological Service of the "Washington Luiz" Health Center went through a process for new technical and administrative orientation. This project was essentially based on the implantation of polychemotherapy regimens recommended by WHO (40), associated with improvements on the information system by testing the model proposed by the Curupaiti State Hospital 3 in primary care Units. In 1988, this procedure was introduced at the "Hélio Cruz" Health Unit.

Table I shows prevalence data exclusively related to leprosy-confirmed patients living in São Gonçalo, excluding individuals with definitive discharge and those who died during the reporting period.

## 2.3 THE EPIDEMIOLOGICAL SURVEY

Considering the need for other variables with higher explanatory value for the leprosy dissemination process, a household survey

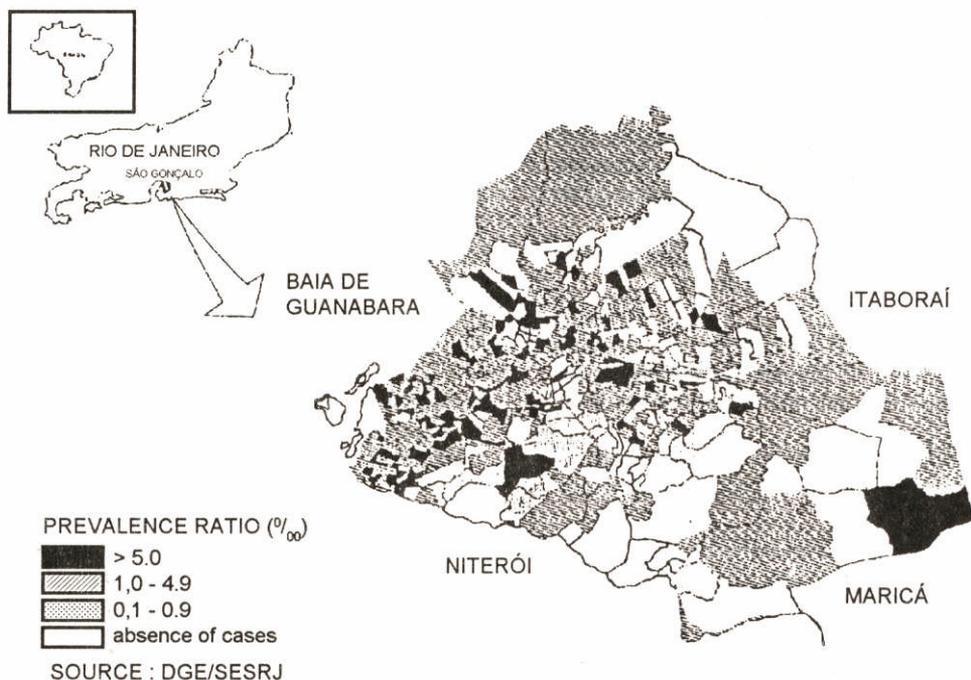
was conducted in three different groups of exposure in relation to reported cases.

An aerophotometric map (figure 1) containing the description of the census tract was used to define low, mean and high

prevalence areas. The cases were marked, yielded to the reporting made in December 1987 in streets corresponding to addresses provided by the primary care Unity were marked in this map.

**TABLE 1 - DESCRIPTIONS OF LEPROSY CASES REPORTED IN THE COUNTY OF SÃO GONÇALO - DECEMBER 1987**

GENERAL REPORTING	2131
DISCHARGE AND DEATH	281
NOT LIVING IN THE COUNTY	174
UNAVAILABLE DATA	5
ACTIVE REPORTING	1676



**FIGURE 1 - LIFE - TIME PREVALENCE OF HANSEN'S DISEASE IN SÃO GONÇALO MUNICIPALITY RIO DE JANEIRO - BRASIL - 1988**

**Participants Members:** the selection of 203 index case dwellings was made by the systematic drawing of one out of each five cases included in the nominal list of the active reporting by date of detection. The peripheral population sample was obtained selecting 203 core dwellings with no reported case of leprosy. The number of core dwellings selected at random in each tract corresponded to the overall number of dwellings within the tract. For the selection of each dwelling, one street was chosen at random and numbers were assigned to each dwelling. Then the core dwellings were picked out.

Group I consisted of index cases and their intradomiciliary contacts. These contacts are all individuals living together with the case under the same roof.

Group II included all individuals living in four adjoining dwellings in relation to each case, that is, neighboring extradomiciliary contacts.

Group III, the peripheral population, consists of all individuals living in core dwellings added by individuals living in other four neighbor dwellings.

The definition of the study groups was based on the following criteria:

- Age between 7 and 60 years
- Cannot carry any disease other than leprosy; - Should live in the same household for over 1 year;
- Cannot be pregnant at the time of study;
- Should voluntarily choose to take part in the study.

The field research was carried out by eleven staffs constituted by two nursing assistants (PMW) assigned by the Unified Health System and county dwellers appointed by town district associations. The nursing assistants administered the antigen and made anthropometric measurements, while the community members applied the questionnaire. All investigators were provided with some training that included basic notions on leprosy and techniques for antigen and

questionnaire administration. All reading and measuring devices were standardized.

At least two visits were made to each sampled household. The first visit consisted in the interview for filling the questionnaire, administering the antigen and making the dermatological examination. The second visit was made 48 hours after the previous visit with the purpose of making intradermoreaction readings, anthropometric measurements and dermatological reexamination of suspects for leprosy identified during the first visit. All suspects were led to the health center for medical examination.

Of the 406 dwellings included in the study, we knew the name and address of all 203 index cases randomly selected. A letter was sent explaining the reasons for the home visit. Each investigator received a questionnaire containing the address provided by the health units, without previously knowing whether they were going to deal with sick or healthy people (with index cases or the peripheral population). Only supervisors had a previous knowledge on such data.

The Soluble Antigen (SA) used in the study was provided by the Biomedical Institute of Venezuela. It was prepared from **M.leprae** suspension obtained from experimental lesions in armadillos and purified according to DRAPPER'S, method (IMMLEP protocol 3/79). Protein contents were determined using LOWRY'S method adjusted to 2,5 hg/ml. An intradermal injection containing 0,1 ml antigen was given at the right forearm.

Interviews were made after filling the individual "close-type question" questionnaire in which information was collected on all individuals who accepted to take part in the survey.

The dermatological examination by PMW consisted the checking of leprosy suggestive lesions through physical examination without clothes. Cases taken as suspect by the interviewing staff were led to the local health service for clinical examination by an expert.

The survey was carried out from August to November 1988 and lasted 85 days. All Individuals who failed to be found at the time of the first visit were revisited on Saturdays and Sundays during the months of October and November.

Softwares used for data processing were Epi Info and Least Means Squares curve fitting by Don McDade. The study of 2 x 2 tables association was made using Mandel-Haenszel's chi-squared.

### 3 - RESULTS

Figure 2 shows the indicators for 1967/1987, revealing an increase in prevalence from 0.76 to 2.12 per 1.000 inhabitants, as well as an increase in case detection rates from 5,23 per 1.000 inhabitants in the beginning of the period to 16.26 per 1.000 inhabitants in 1987. In São Gonçalo, 44% of new cases along the period have been reported in the past 5 years, as in the remaining counties of the states of Rio de Janeiro<sup>29</sup>.

The prevalence indicator showed annual geometrical increase of 6%, while case detection rates had an increase of 5%.

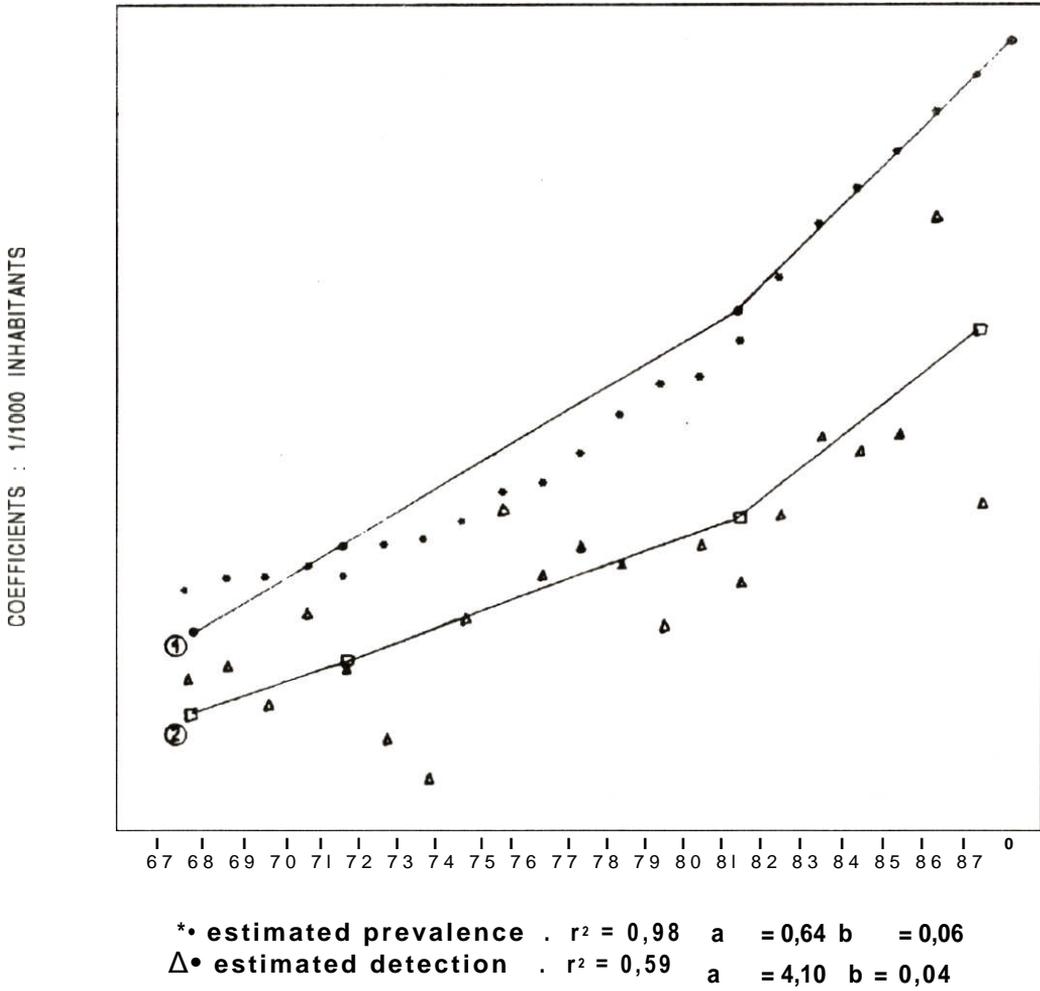
Figure 3 shows differentiated prevalences in relation to each district. In Ipiiba (2<sup>nd</sup> district) this variation is 1.27‰, and in Neves (4<sup>th</sup> district), 2.80‰. The prevalence in the county as a whole is 2.12‰.

With regard to different sex-specific prevalence reasons in each district, an overall rate of 0.99 was observed. In the district of Ipiiba, prevalence reasons diverge from the average prevalence shown by the remaining districts according to clinical form and by sex. The district of Neves shows a high prevalence of women with tuberculoid forms and men

with virchowian forms. Prevalence reasons being more than 1 for tuberculoid forms and less than 1 for lepromatous and dimorphous forms indicates that women are more commonly attacked by tuberculoid forms, while men are more likely to constitute lepromatous and dimorphous cases (table 2).

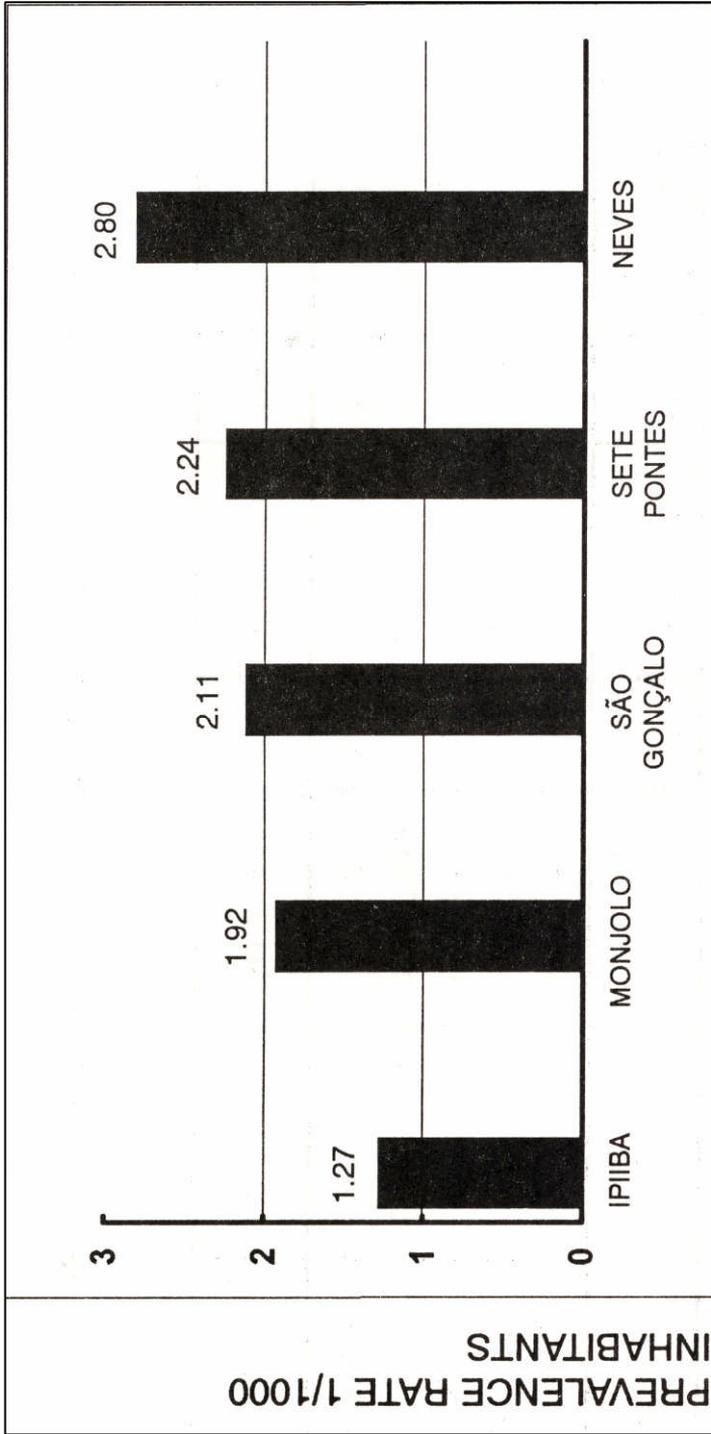
The proportion of new tuberculoid cases in relation to the overall number of cases detected in the period, excluding indeterminates cases, reaches more than 40% pointing to an invariable attack of resistant individuals (Figure 4).

Case detection rates correspond to the number of diagnosed cases or the number of cases that entered the services records - "reporting incidence" - rather than the number of new cases of disease in that year. Average detection rates, specific by age, sex and clinical form, increase with age, independently from sex and clinical form, showing its highest rates in individuals aged over 60 years. Women's average age at the time of detection was 22 years in 1967 and 52 years in 1987; this change such variation was not observed in men, whose average age remained under 40 years. Case detection rates by tuberculoid form are higher in women than in men for all age groups, excluding men aged 60 years or older (Figure 5).



fit:  $y = ae^{bt}$

**FIGURE 2 - TIME TREND OF LEPROSY**  
**in São Gonçalo**  
**Rio de Janeiro - Brasil 1967/1987**

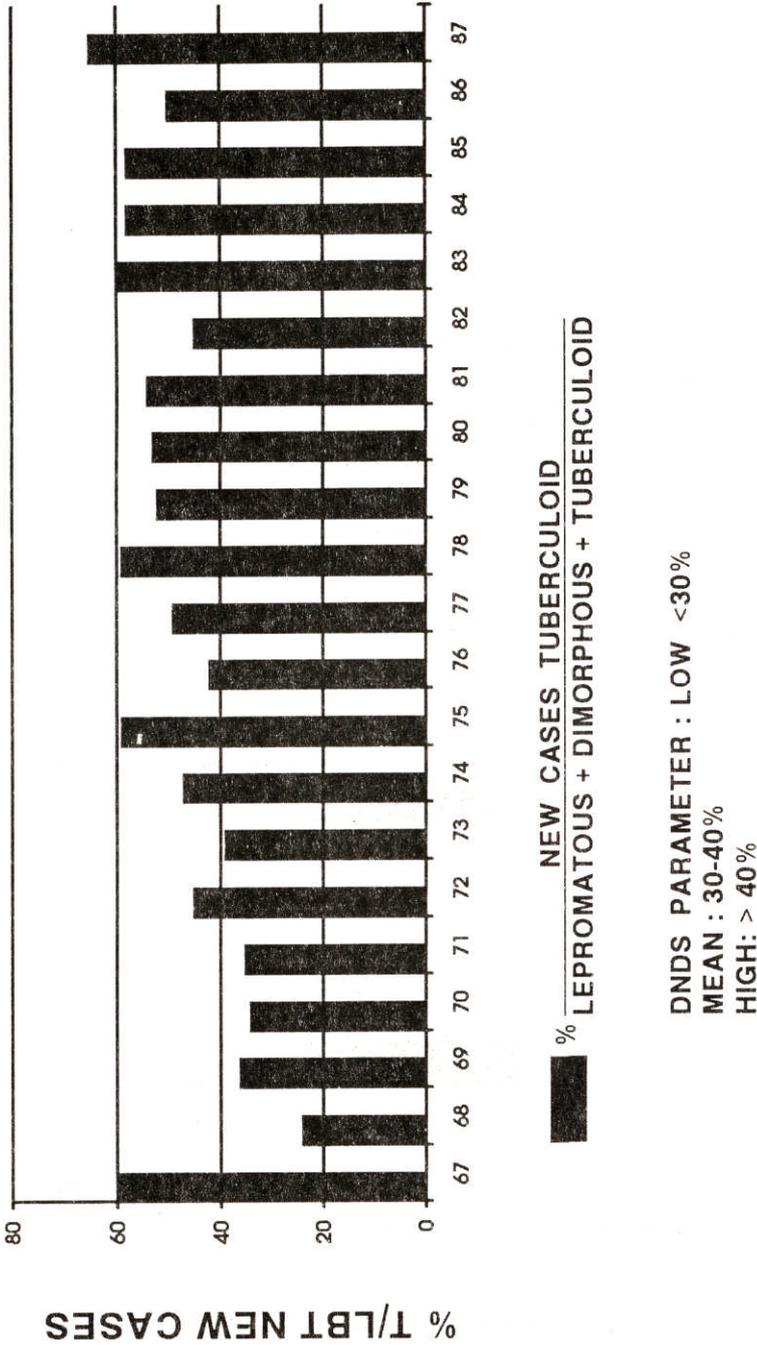


**FIGURE 3 - PREVALENCE OF CASES ACCORDING TO DISTRICTS**  
São Gonçalo - Rio de Janeiro - Brasil

**TABLE 2 - LEPROSY PREVALENCE BY CLINICAL FORM AND SEX:  
ACCORDING TO EACH DISTRICT SÃO GONÇALO  
RIO DE JANEIRO - BRASIL - 1987**

DISTRICT	MALE		FEMALE		RATIO		TUBERCULOID		RATIO		LEPROMATOUS AND DIMORPHOUS		RATIO	
	Nº CASES	RATE	Nº CASES	RATE	F/M		MALE	FEMALE	F/M		MALE	FEMALE	F/M	
SÃO GONÇALO	292	2,08	308	2,31	1,11		0,72	0,95	1,32		1,01	0,62	0,61	
IPIIBA	72	1,14	88	1,40	1,23		0,27	0,54	2,00		0,55	0,44	0,80	
MONJOLO	127	2,05	110	1,78	0,87		0,61	0,76	1,25		0,99	0,60	0,60	
NEVES	252	2,92	245	2,69	0,92		0,95	1,07	1,13		1,44	0,92	0,63	
SETE PONTES	88	2,28	89	2,20	0,98		0,57	0,80	1,40		1,09	0,66	0,60	
TOTAL	831	2,13	840	2,10	0,99		0,54	0,69	1,28		1,04	0,67	0,64	

SOURCE : SUPERINTENDÊNCIA DE SAÚDE COLETIVA/DGE/SUDS-RJ/SES-RJ.



**FIGURE 4 - PROPORTION OF NEW CASES T/LBT**  
 São Gonçalo - 1967/1987  
 Rio de Janeiro - Brasil

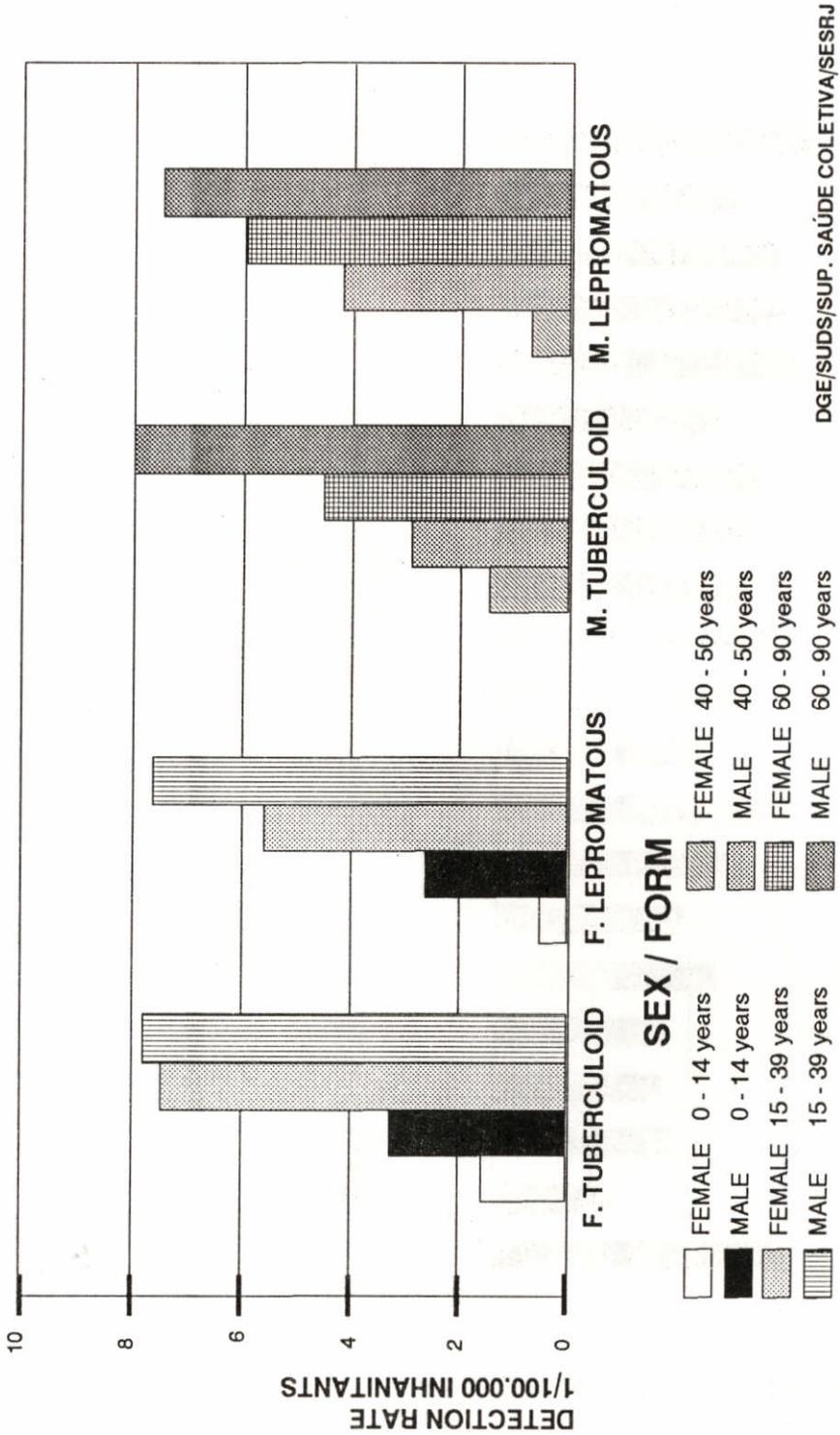


FIGURE 5 - CASES DETECTION RATES BY AGE, SEX AND FORM  
São Gonçalo 67/87 Rio de Janeiro - Brasil

Case detection rates by clinical form, given in Figure 6, show an increase of tuberculoid forms compared to virchowian and dimorphous forms, the former with speed of increasing three times that of the latter, mainly in 1975 and subsequent years. With regard to the overall period, the increase of tuberculoid forms was 9% at the year, against 3% for lepromatous and dimorphous forms.

Time trend behavior of indeterminate clinical forms also revealed an increase of 6% at the year.

The map (figure 1) shows the distribution of census tracts according to the occurrence of leprosy reported case. Among 532 tracts, 12% had no leprosy case reported. Fifty per cent of the population live in tracts with prevalence exceeds 2/1,000 inhabitants. The highest rate of patients by census tract corresponds to the lowest frequency of resident population (table 3).

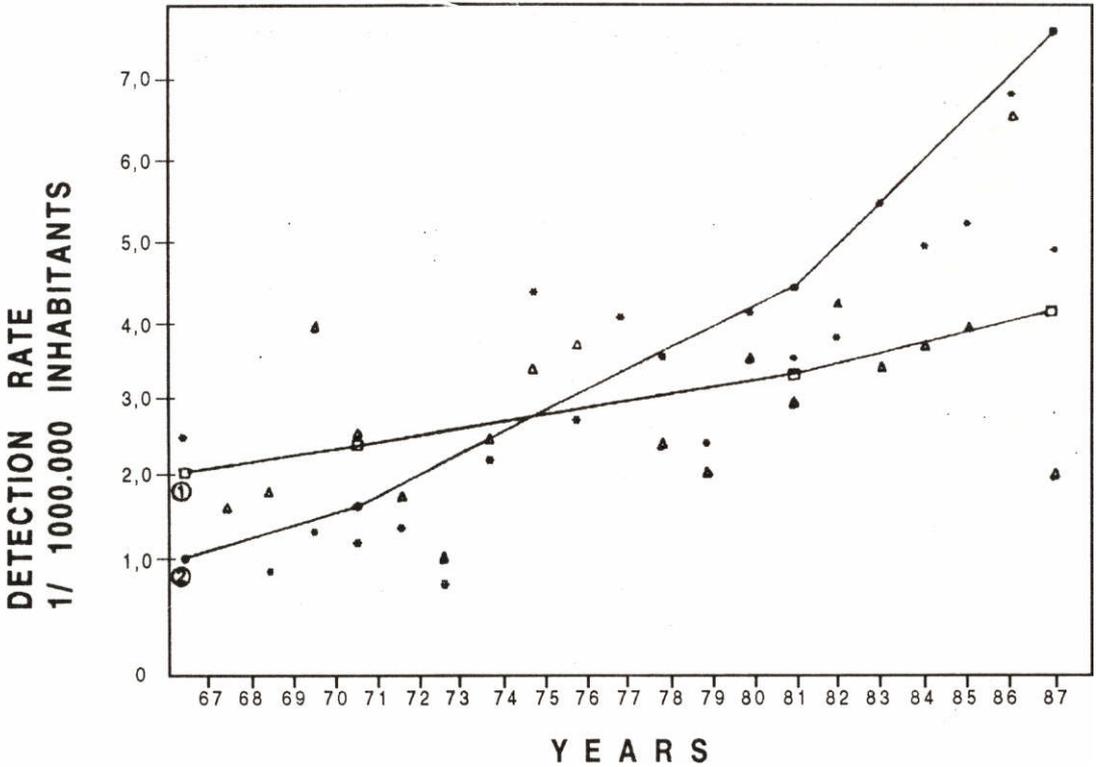
Operational results of the study of 3,540 visits to 926 dwellings show that the average number of dwellings visited by each team was 6 at the day. The productivity of such visits on Sundays was inferior to those made during the remaining days of the week (figure nº 7).

Of the 203 dwellings randomly selected as index case households, 73 had this situation confirmed by including patients identified during the household survey.

In 79 of the visited households the presence of sick people was initially denied, afterwards being confirmed by a careful investigation.

Among dwellings proposed in the sample design, 66.4% were investigated. In 3.5% the investigation was not possible because some patients gave an inaccurate or non existing address to the Health Units. By reasons of safety or difficulty of access, 16.4% failed to be investigated (table 4). Refusals in accepting the inquiring staff were 10.5% in the intra-domiciliary group, against 26.2% in all study groups (table 5).

The dermatological examination identified 260 suspects, 44 of which went to the Health Center within a period of 3 months. Five new cases have been confirmed at the health center up to now: 3 extra-domiciliary contacts (2 tuberculoid and 1 indeterminate) and 2 intra-domiciliary contacts (1 tuberculoid and 1 dimorphous). Initial case-finding rates for intra and extra-domiciliary contacts are 7.41 and 3.62 per 1.000 examined contacts respectively.



fit:  $y = ae^{bt}$   
 LEPROMATOUS + DIMORPHOUS (1)  $r^2 = 0,20$      $a = 2,01$      $b = 0,03$   
 TUBERCULOID (2)  $r^2 = 0,69$      $a = 1,07$      $b = 0,09$

**FIGURE 6 - TIME TRENDS BY CLINICAL FORM**

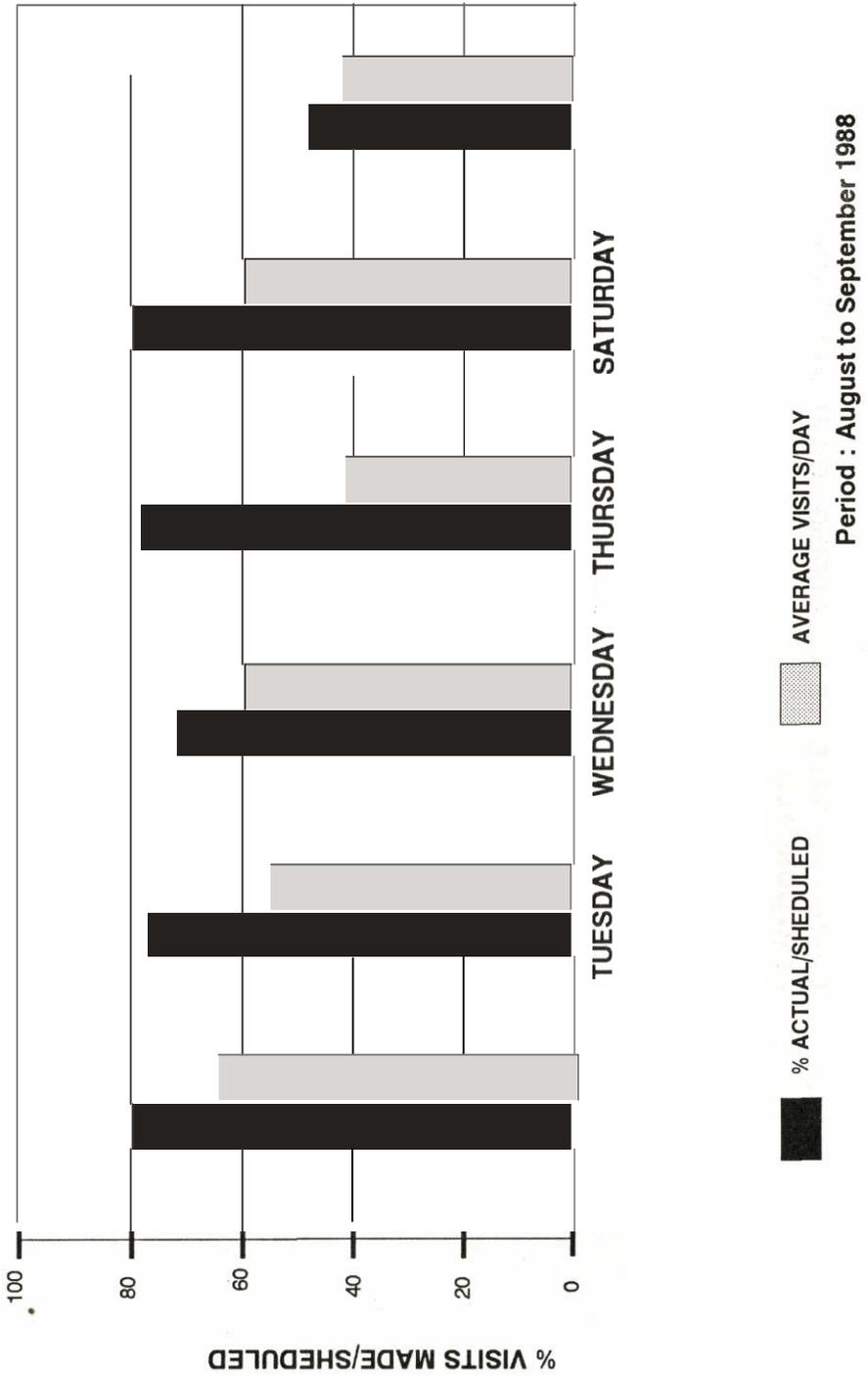
**1967/1987 São Gonçalo**

**Rio de Janeiro - Brasil**

**TABLE 3 - LEPROSY PREVALENCE ACCORDING TO CENSUS TRACT**  
**- SÃO GONÇALO -**  
**- RIO DE JANEIRO - BRASIL - 1987**

Nº OF SICK INDIVIDUALS BY TRACT	TRACT		POPULATION		CASES		INDEX OBS / EST	PREVALENCE
	Nº	%	Nº	%	OBSERVED **	ESTIMATED		
0 CASE	64	12	99654	12,4	-	209	-	-
1 CASE	113	21	166078	21,5	113	349	0,32	0,6
2 CASES	87	16	120455	15,2	174	253	0,69	1,4
3 - 4 CASES	137	27	201914	25,3	466	424	1,10	2,3
5 - 9 CASES	114	21	175404	22,2	717	369	1,94	4,0
10 e + CASES	17	3	26974	3,4	191	191	3,35	7,0
<b>TOTAL</b>	<b>532</b>	<b>100</b>	<b>790479</b>	<b>100</b>	<b>1661</b>	<b>1661</b>	<b>-</b>	<b>2,1</b>

SOURCE : \* IBGE \*\* SUPERINTENDÊNCIA DE SAÚDE COLETIVA



**TABLE 4 - Dwelling not included in study due to several motives - São Gonçalo  
RIO DE JANEIRO - BRASIL - DEZ/88**

Dwellings	INTRADOMICILIARY GROUP		EXTRADOMICILIARY GROUP		PERIPHERAL POPULATION		TOTAL	
	Nº	%	Nº	%	Nº	%	Nº	%
Visited	152	74,9	540	66,5	656	64,6	1348	66,4
Not Included								
- House Closed	11	5,4	84	10,3	197	19,4	292	14,3
- Not Found	7	3,5	52	6,4	-	-	59	2,9
- Not Searched	33	16,2	136	16,8	162	16,0	331	16,4
<b>TOTAL</b>	<b>203</b>	<b>100,0</b>	<b>812</b>	<b>100,0</b>	<b>1015</b>	<b>100,0</b>	<b>2030</b>	<b>100,0</b>

**TABLE 5 - Situation of Searched Dwellings - São Gonçalo  
Rio de Janeiro - Brasil - Dez/88**

Groups  Situation of Dwellings	INTRADOMICILIARY GROUP		EXTRADOMICILIARY GROUP		PERIPHERAL POPULATION		TOTAL	
	Nº	%	Nº	%	Nº	%	Nº	%
Complaisant with study	128	84,2	403	74,7	395	60,2	926	68,7
Refusal	16	10,5	108	20,0	229	34,9	353	26,2
Living for less 1 year	1	0,6	20	3,7	5	0,8	26	1,9
Residents wiht more than 60 years old	7	4,7	9	1,7	27	4,1	43	3,2
<b>TOTAL</b>	<b>152</b>	<b>100,0</b>	<b>540</b>	<b>100,0</b>	<b>656</b>	<b>100,0</b>	<b>1348</b>	<b>100,0</b>

#### 4 - DISCUSSION AND CONCLUSIONS

The Local Information System has shown that the county of São Gonçalo is an endemic area for leprosy, with focal distribution of cases, that is, with sharp differences of endemic level among census tracts.

Prevalence rates being steady during the studied period suggest that there is a large number of inactive patients as well as patients who have long ago discontinued treatment but have not been eliminated from records, thereby leading to a false number of patients who need treatment and generating distorted cost-benefit assessments of both control activities and space distribution of exposure sources

Age average of case at the time of detection showed a paradoxical increase considering the pattern of a spreading endemic (26,26). The observed behavior of average detection rates in age groups for both males and females can be attributed to the fact that, even becoming infected at early adulthood, individuals show long incubation periods, something that would explain they becoming ill at a more advanced age<sup>26</sup>. Such increase could also be explained by a change in the transmissibility risk in cohort groups<sup>20</sup>, which is rather unlikely because of the actual increase of rates in older age groups.

Tuberculoid form detection rates being higher in women than in man<sup>1,2,6,31</sup> during the studied period may be due to the women's demand for health services and their increased participation in the work market during the above-mentioned period, thereby making exposure possibilities being alike for both men and women.

The increase of indeterminate form detection rates points to a gradual improvement of control activities in this county.

With regard to operational indicators of the household survey, both the providing of incorrect addresses and the refusal of patients to identify themselves to interviewers

express their restricted confidence in health services, worsened by the absence of household interviewers in the routine assistance.

The new cases diagnosed during the survey are paucibacillary cases, and no chronic case has been identified in this group. Local level reports proved to be reliable concerning the distribution of cases since no prevalent leprosy patient has been found in negative census tracts.

Indicators recommended for the follow-up of control activities<sup>10</sup>, that is, reported prevalence at the end of the years, annual case detection rates, proportion of new tuberculoid cases in relation to new lepromatous, dimorphous and tuberculoid cases, and as case detection rates by clinical form, they all express an endemic pattern with spreading behavior. The indicator age average at the time of detection or case reporting indicated that the endemic moved in a reverse direction<sup>21</sup> The age of patients at the time of reporting introduced errors in the analysis<sup>28</sup> since up to now there is no longitudinal study on leprosy in Brazil that gives the age at onset.

Altogether these findings led to the conclusion that the Leprosy Program's Local Information System is a useful tool for describing the characteristics of the endemic and building adequate databases for the planning of population studies.

Refusals to answer the questionnaires express an individual choice influenced by the accumulated knowledge on leprosy, by the understanding of the research objectives, and by methodological failures, but rather a right of all individuals to voluntarily choose either to participate or not in surveys proposed in their own communities.

According to the results obtained in the present study regarding the productivity of home visits made during the week and the reliability on the local information system, the county of São Gonçalo is a suitable area for the study of risk factors of leprosy spread in population groups of an endemic urban area, whose results will be the subject of future

publications.

**Acknowledgements:**

The authors would like to acknowledge the Ministry of Health, Superintendence of Community of the Rio de Janeiro Secretariat of Health, for financing the study. The Health Institutions of the Unified Health System/RJ. The National School of Public Health of the FIOCRUZ. The Raul Follereau Foundation. Especially Professor Aduino Araújo for his supervision and support, Saúl Franco for elaborating the method. Manoel Zuniga for his criticism and suggestions, Dr- J- Convit for providing the SA, Dr. Maria Leide W.D.R. Oliveira, Professor Cláudia Travassos and Dr-Sérgio Aroucafor encouraging the elaboration

of this work, Tatiana M. Moreira and Dra. Cora Luíza de Araújo Post for the training, Maria T. Blanco for case mapping, Heloisa, Diniz, Marcela de Paula and Marilena Cardo-so Santos for the design, Ruth dos R. Amaral, Dra-Cláudia P. Valle, Dra. Pauline L. Kale, Maria Cristina Cecconi and Dr. José L. O- Côrtes of State Secretariat of Health, Marcelo Brando for translating the manuscript, the interviewing staff and community of São Gonçalo.

*RESUMO - Dentre as necessidades de aprofundamento dos estudos epidemiológicos da difusão da Hanseníase em meio urbano, destaca-se a avaliação do Sistema Local de Informação, como instrumento de base para se efetuar uma análise epidemiológica e operacional. O sistema de informação foi utilizado ainda como base para o planejamento do estudo populacional. No presente trabalho, a realização do mapeamento dos casos registrados em três Unidades Sanitárias nos respectivos setores censitários, assim como a análise dos indicadores específicos epidemiológicos e operacionais, permitiram a caracterização do município de São Gonçalo como área urbana endêmica de Hanseníase, a delimitação dos focos e o planejamento do inquérito. A partir dos indicadores específicos, segundo idade, sexo e forma clínica na data do registro do caso verificou-se uma taxa de detecção mais elevada nas mulheres do que nos homens, como também uma tendência de aumento das formas Tuberculoídases. No inquérito epidemiológico desenvolvido durante 85 dias, visitaram-se 926 domicílios, onde realizaram-se entrevista, exame físico, medidas antropométricas e aplicação do Antígeno Solúvel (AS)- Tal inquérito foi levado a cabo com equipe de profissionais de saúde e de comunitários especialmente treinados e padronizados. Os resultados produzidos confirmaram que nos setores censitários sem casos registrados não foi encontrado nenhum caso e que as visitas domiciliares durante o domingo não apresentaram uma produtividade superior aos demais dias da semana. O conjunto dos achados nos leva a concluir que o Sistema Local de Informação é um instrumento válido para a descrição das características da endemia neste município e a construção de um cadastro adequado ao planejamento de estudos populacionais.*

**Palavras-chave:** Hanseníase. Área Urbana. Epidemiologia. Inquérito. Contatos. Morbidade.

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