

FIVE YEARS OF HANSENIASIS CONTROL ACTIVITIES IN THE CAPE VERDE ISLANDS BASED ON THE OMSLEP SYSTEM.

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ABSTRACT — After some general informations about the use of the OMSLEP System in the National Hanseniasis Control Program of the Republic of Cape Verde the author presents some operational and epidemiological indices produced by the System, adding a short evaluation of the Program and of the use of the System.

Key words: Hanseniasis. Cape Verde. Epidemiology. Control. OMSLEP system.

1 INTRODUCTION

For a long while now, it has been common remark that informations available on epidemiological patterns of Hanseniasis in different countries are too often incomplete and not comparable.

This felt need led, in 1978, to the formulation of the OMSLEP "recording and reporting" System.

The System has already been described elsewhere by its authors^{1,2} It consists basically of Individual Patient's Forms — "I.P.F.s" — for the collection of data concerning the case detection and follow-up.

These data enter annual Detection and Statistical Forms -- "AD.F.s" and "A.S.F.s".

The data are recorded as to give a picture of the situation of case-finding and holding, and to produce epidemiological and operational indices, relevant to decision-making within a Control Program.

2 OMSLEP IN CAPE VERDE

Cape Verde is one of the 16 countries where the OMSLEP System has been undergoing trial since 1978.

The National Hanseniasis Control Program was opened by the local Ministry of Health and Social Affairs in 1978, and covers the whole country, with 899 registered patients in 1982, as shown in the Table.

Since 1978 the OMSLEP forms constitute the Ministry's Central Hanseniasis Register.

All the materials were translated into Portuguese (the Country's official language) and printed locally, as shown in Figures 1,2 and 3.

The I.P.F.s are filled and updated once a year, according to the clinical records kept at peripheral level.

It was stated that the information should be collected at the furthest periphery by multi-purpose health workers with the minimum of specific training¹.

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In fact, in Cape Verde, only the first requirement is being fulfilled, as the Individual Forms are filled directly by the Hansenologist in charge of the Program, on occasion of his periodical supervision visits.

Also, the same specialist processes manually the Forms and computes the data to fill the AD.F. and A.S.F.

3 PROBLEMS AND REMARKS

Fitting the clinical data into the I.P.F., computing and calculating the indices do not present special difficulties. Experience has shown that, with manual processing, the biggest practically manageable amount of I.P.F.s is about 120. Bigger batches involve too high risk of error in reading and computing.

This calls for a careful division of the territory into suitable areas.

A problem in the use of the System arose from "rescued" cases: ancient patients, lost to control and re-entering the Register. To keep the new patients' figures as unbiased as possible, a new, specific column had to be introduced into the ADF., n° 10 c.

Another problem comes from cases shifted along the classification spectrum: moving from one Type to another, they can originate contrasts between the totals of A.S.F. column 4 of one year and those of A.S.F. column 1 in the following year.

The solution might be found adding a "Reclassified off 'column to the A.S.F. — "Off register" section.—, and another, "Reclassified in", to the AD.F., as it is done for transferred cases.

For local use, it was found useful to add to the System a specific Annual Off Register Form (Figure 4), which enables to follow the dynamics of the Register, by Type and year of registration of the patients.

4 DATA AND INDICES

Using the data collected by the System between 1978 and 1982, it is possible to analyse the Cape Verde Hanseniasis Control Program by operational and epidemiological rates.

Some of the data are unfortunately incomplete or missing, due to the misgivings of the relatively young Program: specially serious is the incompleteness of bacteriological informations. It was only in the 2nd semester of 1982 that the Program started relying on a proper laboratorial support.

For all definitions concerning the following data, see the ones given by Lechat *et al* in the System's presentation¹.

4.1 Operational Indices during Case-Finding

4.1.1 Type of Disease

$$\frac{\text{Number of newly registered L. patientes} \times 100}{\text{Total number of new patients}}$$

"This rate should be constant if early detection is taking place"¹.

1978: 14.7% 1979: 13.3% 1980 : 21.6%
1981 :20.9% 1982: 7.1% Accordingly,
early detection is not yet fully

attained.

4.2 Mode of Detection

The detection rate per mode of detection, taking into account the number of people examined, can assess the efficacy of different case-finding methods.

$$\frac{\text{Number of patients detected per mode of detection}}{\text{Number of people examined per mode of detection}} \times 1000$$

LORETTI, A. Five years of hanseniasis control activities in the Cape Verde Islands based on the OMSLEP system

1978: not calculated	1978: 46.6%
1979: not calculated	1979: 64.7%
1980 : not calculated	1980 : 67.7%
1981 : Contact Survey, 22.10/00; Selected, 1.40/00; Mass, 10.40/00.	1981 : 79.1%
1982 : Contact Survey, 27.20/00; Selected, 2.90/00; Mass, 7.40/00.	1982: 83.9%

Although incomplete, the data show the higher efficacy of Contact Surveys.

Also interesting the relatively good output of Mass Surveys, usually carried out in hyperendemic areas and/or neighbourhoods.

The indice shows an objective improvement, mainly due to the expansion of the structure of distribution of treatment.

4.3 Disabilities

<u>Number of new patients with disabilities</u>	x 100
Total number of new patients	
1978: 22,8%	
1979 : 18.4%	
1980 : 32.4%	
1981: 14.9%	
1982:15,5%	

Albeit with fluctuations, the Disability Rate Is decreasing, and indicates an encouraging trend toward earlier detection.

4.5.2 Treatment Defaulting Rate

<u>Number of patients defaulting from treatment ;</u>	x 100
Total number of patients assumed to be treated	
1978: 1.5%	
1979 : 1.5%	
1980 : 2.4%	
1981 : 2.7%	
1982 : 1.7%	

The slight, but alarming increase of this Rate in 1980 and 1981 wxs possibly due to certain cuts in the staff, which affected the Program right at the moment when it was undergoing the effort of enlarging the treatment network. In 1982 the situation had already inproved.

4.4 Contacts

<u>Number of new contact patients x 100</u>
Total number of new patients

1978 : 84.6%
1979 : 63.3%
1980 : 68.6%
1981 : 58.2%
1982 : 52.4%

The data reflect, of course, which case-finding methods were more practiced in the different years, but still they point out to the relevance of Contact Surveys as case-finding activity.

4.5 Operational Indices after Case-Finding

4.5.1 Treatment Attendance Rate

<u>Number of patients treated regularly</u>	x 100
Total number of patients assumed to be treated	

4.5.3 Rate of Release from Treatment

<u>Number of patients released from treatment</u>	x 100
Total number of treated patients	
1978: 16.4%	
1979: 16.1%	
1980: 9.8%	
1981 : 9.1%	
1982 : 10.2%	

During the first years of the Program, previously treated patients could be released from treatment. In 1982, the Rate shows also a number of more recent cases being released.

4.5.4 Prevalence

$\frac{\text{Total number of patients in the area}}{\text{Population of the area}} \times 1000$

- 1978 : 23 o/oo
- 1979: 2.7 o/oo
- 1980: 2.7 o/oo
- 1981: 2.8 o/oo
- 1982: 2.9 o/oo

The Assessed Prevalence Rate is gradually approaching the one estimated by the author as the real in the Country.

4.6 Epidemiological Indices

4.6.1 Incidence

The System suggests, at this point, to rather take into account the Detection Rate.

$\frac{\text{Number of patients detected per year}}{\text{Population of the area}} \times 10000$

- 1978 : 4.6 o/000
- 1979 : 33 o/000
- 1980 : 1.3 o/000
- 1981 : 2.3 o/000
- 1982 : 2.7 o/000

The Detection Rate is a reliable indicator of Incidence only if one takes into account the "residual prevalence" discovered at the beginning of Control activities, and the fluctuations due to different intensity of Case-finding in different in early diagnosis indicated by the lowering Lepromatous and Disability rate among new cases, it can be said that we are approaching the real Incidence Rate.

4.6.2 Age

$\frac{\text{Number of new patients under 15 years}}{100 \text{ Total number of new patients}}$

- 1978 :36.8%
- 1979 : 40.8%
- 1980 :32.4%
- 1981 :49.3%
- 1982 : 56.0%

The fair proportion of under-15s among the new cases indicates persistence of transmission of the disease: the effectiveness of Control measures is not yet satisfactory.

In Cape Verde, this age group accounts for 42.6% of the whole population: a better indicator can be found in the age-specific Incidence Rate, which in 1982 was 3.6 o/000, and confirmed what stated above.

4.6.3 Clinical Status

$\frac{\text{Number of patients becoming inactive during the year}}{\text{Number of patients active at the beginning of the year}} \times 100$

- 1978 : not calculated
- 1979 : not calculated
- 1980 : not calculated
- 1981 : 23.9%
- 1982 : 29.6%

Inactivity is defined mainly on clinical grounds, according to WHO definitions, and the data are to be taken within the limits and with the possible bias imposed by the incomplete laboratorial informations.

4.6.4 Relapse

No relapse has been observed in so far. Another possible indicator of the efficacy of treatment can be found in the Reactivation Rate.

$\frac{\text{Number of patients reactivated during the year}}{\text{Number of patients inactive at the beginning of the year}} \times 100$

1978 : not calculated
 1979 : not calculated
 1980 : not calculated
 1981 : 12.8%
 1982: 5.1%

Still maintaining the reserves expressed above, the Rate is encouraging.

In Cape Verde, the application of combined treatment for out-patients in the field is still in Its planning phase.

5 CONCLUSIONS

Entering now in its 6th year of activity, the Cape Verde National Hanseniasis Control

Program shows some encouraging results and trends, and still suffers from some constraints and inadequacies.

In our experience, the OMSLEP System *has* proved to be a most satisfactory tool .The System allows a fair follow-up of the single case (by the I.P.F.), and provides a good collection of data for permanent evaluation of activities.

In use since the start of the Program, the System has provided a simple and flexible built-in mean of monitoring an re-appraisal of policies.

Presently, it is under study the possibility of adapting locally the System for analogous use in other Public Health Programs.

The adaptation should be feasible and of undoubtful interest.

TABLE 1 — Cape Verde: number of hanseniasis patients in the register, 1978 - 1982, by type.

Type/year	1978	1979	1980	1981	1982
I	64	88	89	91	92
T	168	203	204	216	241
B	179	199	210	221	251
L	268	282	294	304	307
NC*	8	9	11	10	8
Total	687	781	808	842	899

CENTRE/DISTRICT:
 PROVINCE:
 COUNTRY:

ASF - ANNUAL STATISTICS FORM (TOTAL NUMBER OF REGISTERED CASES) YEAR 19.....

	1. Total patients registered at end of previous year		2. Newly registered current year		3. off register			4. Total patients reg. end current year	
Indeterminate I									
Tuberculoid TT									
Borderline BT BB BL									
Lepromatous LL									
Not classified NC									
Total									

	5. clinical stat.				6. bact. status		7. treatment				8. attendance at treatment					9.	10.		
	Active	Inactive treated	Inactive under surveillance	Unknown	Positive	Negative	Unknown	MT. S.	MT. O.	C.T.	A.T.	Other	Regular	Irregular	Out of control			Unknown	Reaction
Indeterminate I																			
Tuberculoid TT																			
Borderline BT BB BL																			
Lepromatous LL																			
Not classified NC																			
Total																			

FIGURE 3
 Annual Statistical Form (English Version, WHO Original)

Mapa Estatístico Anual (M.E.A.)

A N O

	3. FORA DE REGISTO				2. CASOS NOVOS REGISTADOS DURANTE O ANO CORRENTE	1. TOT. PACIENTES EM REGISTO NO FIM DO ANO PRECEDENTE	5. ESTADO CLINICO				6. Estado Bacteriológico				7. TRATAMENTO				8. ATENDIMENTO AO TRATAMENTO				9. REACÇÃO	10. NOVA INACAPACIDADE	
	FALLECIDO	ALTA DEFINITIVA	EMIGRADO	TRANSFERIDO			ACTIVO EM TRATAMENTO	INACTIVO EM OBSERVAÇÃO	DESCONHECIDO	POSITIVO	NEGATIVO	DESCONHECIDO	M. T. ESTANDAR	M. T. OUTRA	T. COMBINADA	T. ALTERNATIVA	OUTRO	REGULAR	IRREGULAR	FORA CONTROLE	DESCONHECIDO				
INDETERMINADA																									
TUBERCULOIDE																									
DIMORFA																									
LEPROMATOSA																									
NÃO CLASSIFICADA																									
TOTAL																									

Annual Statistical form (Portuguese Version)

	1. Mode				2. Total number of cases who got off register during the year	3. Sex	4. Age		5. Year of registration							6. clinical status	
	Dead	Cured	Left area	Transferred			Male	Female	0 - 14	15 +	Up to 1960	1961 - 65	1966 - 70	1971 - 75	1976 - 80	1981 - 85	Activity
Indeterminate																	
Tuberculoid																	
Borderline																	
Lepromatous																	
Not Classified																	
Total																	

FIGURE 4
Annual Off-Register Form (English Version)

ANO

MAPA ANUAL DOS CASOS SAÍDOS DE REGISTRO

	Modalidade de saída do registro				Total, casos saídos de registro durante o ano.	Sexo	Idade	Ano de entrada no registro							Estado clínico		
	Falecido	Alta definitiva	Emigrado	Transferido				Masculino	Feminino	0 - 14	15 +	Até 1960	1961 - 65	1966 - 70	1971 - 75	1976 - 80	1981 - 85
Indeterminada																	
Tuberculose																	
Dimorfa																	
Lepromatosa																	
Não classificada																	
Total																	

FIGURE 4
Annual Off-Register Form (Portuguese Original)

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RESUMO — Após algumas informações gerais sobre o uso do Sistema OMSLEP no Programa Nacional de Controle da Hanseníase da República do Cabo Verde, o Autor apresenta alguns indicadores operacionais e epidemiológicos produzidos pelo Sistema, alai de acrescentar uma breve avaliação do Programa e do uso do Sistema.

Palavras chave: Hanseníase. Cabo Verde. Epidemiologia. Controle. Sistema OMSLEP.

REFERENCES

1 LECHAT, M.F.; MISSON, C.B.; WALTER, J. *OMSLEP recording and reporting system for leprosy patients*. 2.ed. Bruxelas, WHO Collaborating Centre for the Epidemiology of Leprosy, 1983.85p.

2 LECHAT, M.F.; MISSON, C.B.; WALTER, J.; SEAL, K.S.; SANSARRICQ, H. An information system for leprosy control (OMSLEP recording and reporting system) *Mt. J. Lepr.*, 48(1): 51-61, 1980.

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