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STATUS OF THE PROBLEM OF VENEREAL DISEASES AND OF VENEREAL DISEASE CONTROL PROGRAMS IN THE AMERICAS

The increase in the venereal diseases observed in countries where there are well developed data registration systems seems to be a world-wide phenomenon. The seriousness of this situation led the Pan American Sanitary Bureau to submit to the Directing Council, at its meeting in Mexico City in 1964, a study on the problem of the venereal diseases in the Americas and on the corresponding control programs (Document CD15/30) a copy of which is attached hereto (Annex 1). Information received by PASB/WHO subsequent to 1964 appears in Annexes 2, 3, 4 and 5. Annex 2 gives the number of cases and deaths, with rates per 100,000 population, by country, for the period 1961-1964. Annex 3 gives the number of cases, and rates per 100,000 population, by country, of early syphilis during the period 1957-1964. Annex 4 shows the number of cases of early syphilis and of all forms of syphilis for selected countries in 1964. Finally, Annex 5 gives the number of cases of gonococcal infection and the rates per 100,000 population, by country, for 1964.

Our knowledge of venereal disease cases is limited because of a series of factors. In many cases the patients have recourse to self-medication, to "amateur doctors", or to professional workers other than physicians, who do not report the cases known to them. Furthermore, medical practitioners only inform the health authorities of some of the cases among their patients.

To all this is added the fact that, in the case of syphilis, the various methods of classifying the disease differ, even in one and in the same country. For example, it is not always possible to compare cases of early syphilis reported by one country with those reported by others for this reason.

As a result of the regression of the venereal diseases after the discovery of penicillin, physicians and medical students witnessed the gradual disappearance of these diseases and at the same time their clinical skill in diagnosis decreased. At present, when we are faced with

a recrudescence of the venereal diseases, the problem of diagnosis is a contributory factor in our failure to detect cases.

The venereal diseases should be regarded, in every respect, as communicable diseases, which they are in actual fact, and should not be artificially separated from the others by giving them special characteristics. Epidemiological investigation, especially in syphilis, is the method of choice in the search for sources of infection and the prevention of new cases. Special techniques are used for this purpose -the investigation of contacts being particularly important- and, in view of the nature of the problem involved, call for specially trained personnel.

The venereal diseases should be diagnosed by means of clinical examination, backed up by laboratory tests and epidemiological investigation. Laboratory techniques for venereal disease diagnosis have been simplified and improved in regard to both sensitivity and specificity. Their correct application would greatly contribute to the discovery of new cases, their treatment and the prevention of the disease.

Health education, which has intentionally been left until last, is fundamental for permanent activities in venereal disease control programs.

The Directing Council, at its meeting held in Mexico City in 1964, requested the Director in Resolution XXXV (Annex 6), "to undertake a special study of the current situation of the venereal disease problem in the countries of the Americas, for the purpose of preparing a proposal for a continental program to control these diseases, and to report thereon to a future meeting of the Directing Council". For reasons of an economic nature, and because of prior commitments, it has not been possible to make the study which the Directing Council requested. Nevertheless, it is hoped to undertake it in the near future, and report to the Directing Council at the appropriate meeting.

The PASB carried on various activities in connection with the venereal disease problem in the years 1965 and 1966. In 1965, a Pan American Seminar on Venereal Diseases was held. This Seminar was sponsored by the Government of the United States of America and the Pan American Sanitary Bureau, and took place at PAHO Headquarters, in Washington, D. C. The Seminar dealt with 4 items, namely:

1. The Importance and Epidemiologic Characteristics of Venereal Disease;
2. The Importance of Case-Finding in Venereal Disease Control;
3. Clinical and Laboratory Diagnosis of Venereal Disease, and
4. Professional Education and Training.

The presentation of each item was followed by a commentary given by a specially qualified expert. The discussions resulted in the preparation of a final report containing valuable recommendations. The work of the Seminar was published in the January, February, March and April 1966 issues of the PASB Boletín. In addition, PAHO Scientific Publication 137, issued in June 1966, contains all the papers presented at the Seminar and the final report.

In 1965 the translation into Spanish was completed of the "Serologic Tests for Syphilis" (1964 edition), prepared by the Venereal Diseases Branch, Communicable Diseases Center, Atlanta, Ga., of the United States Public Health Services. It is hoped to distribute the Spanish version of this manual in the course of the present year. Special laboratory techniques for venereal disease diagnosis not included in the "Serologic Tests for Syphilis", and which were presented at the Seminar on venereal diseases in 1965, have been translated into Spanish and appear in PAHO Scientific Publication No 137.

In 1965, with the collaboration of the Venereal Diseases Branch of the United States Public Health Service, the Pan American Sanitary Bureau held 2 courses on laboratory techniques for the diagnosis of venereal diseases, in Chile. Two similar courses were held in Argentina in 1966, again with the collaboration of the Communicable Diseases Center, Atlanta, Ga.

Studies have been commenced for the preparation of a uniform system for data registration and for reporting on venereal disease control programs. A glossary of terms is also in preparation. It is hoped that as a result of future discussions with experts from the countries of the Region it will be possible to agree on the use of a single clinical classification of syphilis so as to enable comparative studies of the problem to be made.

The planning, programming and evaluation of venereal disease control programs calls for administrators in order to direct the programs in an effective, economic and rapid manner. PASB/WHO is in a position to give countries the necessary technical assistance for the training of such personnel.

Fellowships awarded by the Pan American Sanitary Bureau have helped to train personnel in various aspects of the venereal diseases and their control. In coming years, the Pan American Sanitary Bureau hopes to extend this technical assistance program.

CSP17/25 (Eng.)
ANNEX I

REVIEW OF THE STATUS OF THE VENEREAL DISEASE PROBLEM AND CONTROL
PROGRAMS IN THE AMERICAS

directing council



PAN AMERICAN
HEALTH
ORGANIZATION

regional committee

WORLD
HEALTH
ORGANIZATION



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REVIEW OF THE STATUS OF THE VENEREAL DISEASE PROBLEM AND CONTROL
PROGRAMS IN THE AMERICAS

I. IMPORTANCE OF THE PROBLEM *

The venereal diseases are truly world-wide in occurrence -- but the exact extent of the problem is unknown. Variations in morbidity reporting practices from country to country and, indeed, within countries, make it difficult to compile reliable statistics relating to the incidence and prevalence of the venereal diseases.

In the United States, where a vigorous venereal disease control program has been carried on since 1940, the figures from a recent survey of case reporting by private physicians indicate that only 11 per cent of the cases of infectious syphilis, 38 per cent of the cases of other stages of syphilis, and 11 per cent of the cases of gonorrhoea treated by private physicians during the survey period were reported to the health department.

In spite of the under-reporting problem, Guthe and Hume estimated in 1948 that at least two million cases of new venereally acquired syphilis occurred in the world annually. In terms of prevalence, they estimated that a total of 20 million cases of syphilis existed among persons over 15 years of age throughout the world. There has been a tremendous increase in the world's population since 1948. There have been similar increases in factors affecting the rate of spread of syphilis such as greatly increased mobility and migration, as well as an apparent increase in sexual promiscuity. A recent global survey conducted by the World Health Organization covering 106 countries and areas established the fact that there has been a sustained rising incidence trend of early syphilis in all regions of the world. With

* The information contained in the first part of this document has been taken from the paper "Venereal Syphilis and Gonorrhoea in the Americas" prepared by William J. Brown, M.D.; M. Brittain Moore, Jr., M.D.; James F. Donohue; and William F. Schwartz.

these considerations in mind, along with the large degree of under-reporting of treated cases, it is now conservatively estimated that at least three million cases of new venereally acquired syphilis occur throughout the world annually and that the present reservoir of syphilis, that is, prevalence, is at least 30 million cases.

Even more important than the world-wide recrudescence of acquired syphilis is the potential disability and premature mortality that can be expected to occur among persons who do not receive treatment. For example, among the millions of syphilitics throughout the world who will not receive the benefit of diagnosis and adequate treatment, it can be predicted from the Oslo study by Bruusgaard that one in 200 will become blind; one in 50 will become insane because of central nervous system syphilis; one in 25 will become incapacitated with tabes; and one in 15 will become disabled with cardiovascular syphilis. Furthermore, the Tuskegee, Alabama Study indicated that life expectancy is reduced 17 per cent by untreated syphilis and that in 30 per cent of the syphilitic patients examined at autopsy, syphilitic involvement of the cardiovascular or the central nervous system was established as the primary cause of death.

In addition to the disabling factors and premature deaths caused by the late manifestations of the disease, there is tremendous economic loss due to uncontrolled syphilis. Just to consider one factor of the economics of the disease, in the United States alone, there are at the present time 24,000 patients in mental hospitals because of psychoses due to syphilis. This poses a financial burden to the taxpayer of \$49,000,000 per year for their maintenance. In addition, it is estimated that there are 12,200 persons in the United States of America disabled with syphilitic blindness whose maintenance cost the taxpayer \$5,000,000 annually. Unfortunately, corresponding economic data for other countries of the world are not available. Syphilis must take a tremendous toll each year throughout the globe in terms of blindness, insanity, other disabilities, and death.

Gonorrhoea is even more poorly reported than syphilis. The ratio of gonorrhoea to syphilis cases admitted to clinics indicates that about four cases of gonorrhoea occur to one case of syphilis. Applying this ratio to the estimated world-wide incidence of syphilis, it is conservatively estimated that at least 12 million cases of gonorrhoea occur throughout the world each year. Although the late manifestations of gonorrhoea are not as severe and insidious as those due to syphilis, gonorrhoea does cause pelvic inflammatory diseases in females, sterility in both females and males, epididymitis, salpingitis, other serious conditions, and, on occasion, death.

In spite of the widespread occurrence of syphilis throughout the world, present case-finding techniques plus the efficacy of easily applied penicillin therapy provide adequate tools for the control of syphilis throughout the world.

As to gonorrhoea, the incidence of which has also been steadily increasing throughout the world, there have been some breakthroughs in gonorrhoea research which will make the diagnosis of gonorrhoea in the female much easier and more certain than in the past. Such progress offers hope for the eventual control of this venereal disease.

IMPORTANCE OF THE PROBLEM IN THE AMERICAS

Venereal syphilis continues to be an important communicable disease problem in all regions of the Americas. While yaws occurs mainly in the Caribbean Islands and some countries in South America, and pinta occurs in Mexico and some South American Countries, venereal syphilis is widespread throughout all three regions. Syphilis consistently ranks among the top ten notifiable diseases for American countries (Table 1).

There has been an increasing trend in the incidence of early syphilis in the Americas since 1957 (Table 2). In 1962 reported cases of all stages of syphilis per 100,000 population were 77 and 64, respectively, in Middle and Northern America as compared to 48 in South America (Table 3). Reported cases in Northern America have increased slightly. This upward trend may be due to intensified case-finding activities in the region. On the other hand, the number of reported cases of syphilis has decreased slightly in Middle and South America. This downward trend is difficult to evaluate because of lack of reports from several countries for one or more years.

Gonorrhoea also consistently ranks among the top ten notifiable disease for American countries. There has been an upward trend in reported cases of gonorrhoea in all three regions (Table 4). In 1962 reported cases per 100,000 population were 151, 140, and 111 respectively in South, Northern, and Middle America. The gonorrhoea rates are approximately three, two, and one and one-half times the syphilis rates respectively in South, Northern, and Middle America.

The other venereal diseases --chancroid, lymphogranuloma venereum, and granuloma inguinale-- are reported from all three regions of the Americas, although the numbers are not sizeable. Of some significance is the chancroid rate for South America which is approximately one-half the syphilis rate (Table 5).

II. GENERAL CONSIDERATIONS

The recrudescence of venereal diseases is world-wide. Nevertheless the syphilis morbidity per hundred thousand population in Middle America declined between 1959 and 1962 from 98.7 to 77.3 and in South America from 52.5 to 47.8. There are good reasons for believing that this decline is more apparent than real. Because of factors such as the spontaneous disappearance of the objective manifestations of primary syphilis, self-medication, treatment by healers and professional workers

other than physicians, treatments by physicians and institutions that do not report cases, etc. our knowledge of the extent of the problem is incomplete. The customs of the population and the reserve which surrounds the disease are other reasons why official services register only a meager proportion of venereal diseases patients. Improvements in diagnosis, notification, and registration of cases should lead to a gradual rise in the venereal disease rate.

The importance of venereal diseases as a public health problem and their impact on society make it necessary to organize or intensify national programs for the control of these diseases. These programs must be conducted in the light of the new concepts of venereal disease control and new techniques for case-finding and case-investigation and for diagnosis, specially the diagnosis of syphilis.

Venereal diseases must be regarded as only one of the communicable diseases for whose control national health services are responsible. Venereal disease control programs must be long-term and conducted without interruption, since past experience shows that the value of isolated campaigns is ephemeral.

New case-finding methods based primarily on the epidemiological investigation of patients and suspects, of their contacts, and of persons in the social milieu where patients and suspects are likely to be found have proved to be valuable whenever employed by experts who investigate carefully, prudently and discreetly. This necessarily implies thorough preliminary training of personnel.

The new laboratory techniques developed in recent years for the diagnosis of venereal diseases are both sensitive and specific. The diagnosis of syphilis have benefitted enormously from these new techniques.

Mention should also be made of the treatment of all the venereal diseases which has now been put on a systematic basis.

It must be emphasized that correct application is essential and that the patient must not be regarded as cured until the pertinent tests give satisfactory results.

Health education, which is an important factor in all health activities, is fundamental in venereal disease control programs. The health education part of venereal disease control programs has three basic aims:

- a) To provide a better knowledge of venereal diseases, their dangers, and their prevention.
- b) To induce the patient, or suspect, to seek treatment from a physician or medical institution. To induce the patient or suspect to notify the venereal disease control agency of possible sources of infection and of the persons exposed to the risk of infection so they can be treated.
- c) To obtain the cooperation of medical practitioners and medical institutions in undertaking coordinated activities for the control of venereal diseases. Notification of patients is a preliminary step in this direction.

The organization of a system of data registration must be the starting point for the organization of venereal disease control programs. In addition, precise objectives must be defined, a time-table of operations must be drawn up, and provision must be made for periodic evaluation. The Pan American Health Organization, recognizing the importance of venereal diseases as a health problem in the Region of the Americas, will provide Governments with all possible technical assistance, subject only to budgetary limitations.

In order to provide an opportunity for an exchange of opinions and to unify thinking about venereal diseases and about what the countries of the Region can do in this regard, a Pan American Seminar on the Control of the Venereal Diseases will be held in 1965 in the United States of America, with the collaboration of the United States Public Health Service. It is hoped that this international meeting will be the starting point of concerted action by the countries of the Region for the control of venereal diseases.

Enclosures: Tables 1, 2, 3, 4, and 5.

TABLE 1

RANK OF REPORTED CASES OF CERTAIN NOTIFIABLE DISEASES
IN SELECTED COUNTRIES OF SOUTH AMERICA, 1961

Rank "1" represents the largest number of reported cases

Disease	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Paraguay	Peru	Uruguay	Venezuela
Amebiasis			*	10	1	**	*	9		4
Ankylostomiasis		*	*	**	4	*	1	7		3
Anthrax		*	*			*			10	
Diphtheria	9		7	6		5			9	2
Dysentery, bacillary, other and unspecified	4				9	**	5	3		
Gonococcal infection	6	7	*	8	3	*	*	6	7	6
Hepatitis, infectious	10	*	*	2	**	*	*	1	*	**
Influenza	1	2	3		2	*	2	1	1	1
Leprosy		10	4			*	9			
Malaria	8	3	1		6	1	4			10
Measles	5	8	8	1	5	*	8	5	2	5
Meningococcal infections						*	*			
Paratyphoid fever	*		*	*	*	9	*	*		*
Plague		9				7				
Poliomyelitis, acute			10	9		8				
Rabies		*				10				
Scarlet fever				5		*			6	
Smallpox			9			4				
Syphilis	7	5	*	4		*	3	10	8	7
Tetanus						*	10			
Trachoma		*	*		**	*				
Tuberculosis, all forms	3	1	2	**	8	2	6	2	3	8
Typhoid fever		6	5	3	10	3		8	5	
Typhus, louse-borne						6				
Whooping cough	2	4	6	7	7	*	7	4	4	9
Yaws		*	*	**		*	*			*

* No Data Available
** Not Notifiable

TABLE 1 (Continued)

RANK OF REPORTED CASES OF CERTAIN NOTIFIABLE DISEASES
IN SELECTED COUNTRIES OF MIDDLE AMERICA, 1961

Rank "1" represents the largest number of reported cases

Disease	Costa Rica	Cuba	Dominican Republic	El Salvador	Guatemala	Haiti	Honduras	Jamaica	Mexico	Nicaragua	Panama
Amebiasis	4		*	*	*	8	*		4	*	8
Ankylostomiasis	9	*	2	3	*		*	7	5	*	2
Anthrax		**							*	*	
Diphtheria		2		*	2	10	1	6		10	5
Dysentery, bacillary, other and unspecified	5	*	3							*	
Gonococcal infection	2	10	*	7	6	3	4	1	7	4	6
Hepatitis, infectious		8	*		**		*	8		*	*
Influenza	1	3	1	2	1	2	2	3	1	2	4
Leprosy							10			*	
Malaria	3	4	4	1	3	1	3		9	1	1
Measles	6		7	6	7	7	7		3	*	9
Meningococcal infections	*		*		*						
Paratyphoid fever						*				8	
Plague											
Polioomyelitis, acute		9			10					9	
Rabies										*	*
Scarlet fever										*	*
Smallpox											
Syphilis	8	7	5	4	8	4	6	2	6	3	10
Tetanus		6	*	10		9	*			*	
Trachoma		*	8	*	*	5	*	5	8	*	3
Tuberculosis, all forms	10	1	9	5	4	5	8	10	10	5	7
Typhoid fever		5	10	9	9		9				
Typhus, louse-borne											
Whooping cough	7		6	5	5	6	5	9	2	6	7
Yaws		*			**			4	*	*	*

* No Data Available

** Not Notifiable

TABLE 1 (Continued)

RANK OF REPORTED CASES OF CERTAIN NOTIFIABLE DISEASES
IN SELECTED COUNTRIES OF MIDDLE AMERICA, 1961

Rank "1" represents the largest number of reported cases

Disease	Costa Rica		Dominican Republic	El Salvador	Guatemala	Haiti	Honduras	Jamaica	Mexico	Nicaragua	Panama
	Rica	Cuba	Republic	Salvador	Guatemala	Haiti	Honduras	Jamaica	Mexico	Nicaragua	Panama
Amebiasis	4		*	*	*	8	*		4	*	8
Ankylostomiasis	9	*	2	3	*		*	7	5	*	2
Anthrax		**							*	*	
Diphtheria	2									10	
Dysentery, bacillary, other and unspecified	5	*	3	*	2	10	1	6		*	5
Gonococcal infection	2	10	*	7	6	3	4	1	7	4	6
Hepatitis, infectious	1	8	*	*	**		*	8		*	*
Influenza		3	1	2	1	2	2	3	1	2	4
Leprosy							10			*	
Malaria	3	4	4	1	3	1	3		9	1	1
Measles	6		7	6	7	7	7		3	*	9
Meningococcal infections Paratyphoid fever	*		*		*						
Plague						*				8	
Polio myelitis, acute		9			10					9	
Rabies										*	
Scarlet fever										*	
Smallpox											
Syphilis	8	7	5	4	8	4	6	2	6	3	10
Tetanus		6	*	10		9	*			*	
Trachoma		*	8	*	*		*			*	
Tuberculosis, all forms	10	1	9	5	4	5	8	5	8	5	3
Typhoid fever		5	10	9	9		9	10	10	7	
Typhus, louse-borne											
Whooping cough	7	*	6	5	5	6	5	9	2	6	7
Yaws					**			4	*	*	

* No Data Available
** Not Notifiable

TABLE 1 (Continued)
 RANK OF REPORTED CASES OF CERTAIN NOTIFIABLE DISEASES
 IN SELECTED COUNTRIES OF NORTHERN AMERICA, 1961

Rank "1" represents the largest number of reported cases

<u>Disease</u>	<u>Canada</u>	<u>United States</u>
Amebiasis		10
Ankylostomiasis	**	**
Anthrax		
Diphtheria		
Dysentery, bacillary, other and unspecified	6	7
Gonococcal infection	1	3
Hepatitis, infectious	3	5
Influenza	**	**
Leprosy		
Malaria		
Measles	**	1
Meningococcal infections	10	
Paratyphoid fever	*	9
Plague		
Polioomyelitis, acute	9	
Rabies		
Scarlet fever	2	2
Smallpox		
Syphilis	7	4
Tetanus		
Trachoma	**	
Tuberculosis, all forms	4	6
Typhoid fever	8	
Typhus, louse-borne		
Whooping cough	5	8
Yaws	**	*

* No Data Available

** Not Notifiable

TABLE 2
EARLY SYPHILIS CASES PER 100,000 POPULATION
OVER 15 YEARS OF AGE IN THE AMERICAS

<u>Year</u>	<u>Case Rate</u>
1950	46.3
1951	33.8
1952	23.9
1953	23.2
1954	17.0
1955	12.0
1956	11.9
1957	11.7
1958	12.8
1959	14.1
1960	17.0

Source: Guthe, Thorstein, Measure of Treponematoses Problem in the World, Proceedings of World Forum on Syphilis and Other Treponematoses, Washington, D. C., September 4-8, 1962.

TABLE 3
 REPORTED CASES OF SYPHILIS WITH RATES PER 100,000 POPULATION
 IN THE THREE REGIONS OF THE AMERICAS, 1959-1962

<u>Year</u>	<u>Northern</u>		<u>Middle</u>		<u>South</u>	
	Number	Rate	Number	Rate	Number	Rate
1959	122956	63.2	63530	98.7	35586*	52.5
1960	124184	62.8	63102	95.0	36468*	52.6
1961	126979	63.1	62049	89.7	34170	48.6
1962	128682	63.9	54146	77.3	33968	47.8

* Excluding Brazil - no data for 1961 and 1962.

TABLE 4
 REPORTED CASES OF GONORRHEA WITH RATES PER 100,000 POPULATION
 IN THE THREE REGIONS OF THE AMERICAS, 1959-1962

<u>Year</u>	<u>Northern</u>		<u>Middle</u>		<u>South</u>	
	Number	Rate	Number	Rate	Number	Rate
1959	255175	131.1	75238	116.9	71040*	104.9
1960	274741	138.9	69466	104.5	75849*	109.5
1961	280675	139.4	69607	100.7	87691	124.6
1962	281514	139.8	77827	111.1	75258**	150.7

* Excluding Brazil - no data for 1961 and 1962

** Excluding Argentina - no data for 1962.

TABLE 5

REPORTED CASES OF CHANCROID WITH RATES PER 100,000 POPULATION
IN THE THREE REGIONS OF THE AMERICAS, 1959-1960

<u>Year</u>	<u>Northern</u>		<u>Middle</u>		<u>South</u>	
	Number	Rate	Number	Rate	Number	Rate
1959	1545	0.8	6836	10.6	21073	31.1
1960	1683	0.9	8595	12.9	13784*	24.3

* Excluding Paraguay and Peru - no data for 1960.

ANNEX II

SYPHILIS - REPORTED CASES AND DEATHS WITH RATES PER 100,000 POPULATION, BY COUNTRY
1961-1964

Country	Cases								Deaths							
	Number				Rate				Number				Rate			
	1961	1962	1963	1964	1961	1962	1963	1964	1961	1962	1963	1964	1961	1962	1963	1964
Argentina	4 397	5 149	6 149	6 195	20.9	24.1	28.4	28.1	...	a)302	...	...	...	1.6	...	...
Bolivia	b) 133	80	b) 90	b) 124	3.8	2.3	2.5	3.4	...	...	...	...	...	...	...	...
Brazil (c)	...	...	...	...	...	...	...	...	362	335	281	...	2.7	2.5	2.0	...
Canada	2 311	2 432	2 785	2 771	12.6	13.1	14.7	14.4	160	129	117	91	0.9	0.7	0.6	0.5
Chile	* 3 705	* 3 106	* 3 046	* 3 502	...	...	...	...	195	153	125	149	2.5	1.9	1.5	1.8
Colombia	d)10 166	d)12 232	de)9 789	e)14 992	73.9	89.6	69.2	85.8	210	195	190	199	1.3	1.2	1.1	1.1
Costa Rica	597	1 200	1 287	1 170	48.7	94.2	95.8	84.4	15	8	12	18	1.2	0.6	0.9	1.3
Cuba	482	805	1 691	1 863	6.9	11.4	23.4	25.1	134	113	114	118	1.9	1.6	1.6	1.6
Dominican Republic	12 040	10 494	7 113	12 639	382.8	322.4	210.9	361.7	121	62	59	39	3.8	1.9	1.7	1.1
Ecuador	...	...	...	f) 228	...	...	...	...	45	48	50	31	1.0	1.0	1.1	0.6
El Salvador	d) 5 984	d) 6 552	7 797	8 349	406.2	432.8	286.5	295.6	88	90	22	...	3.5	3.4	0.8	...
Guatemala	906	816	801	1 186	23.1	20.1	19.2	27.5	9	4	4	...	0.2	0.1	0.1	...
Haiti	4 944	5 201	3 405	3 172	116.4	119.7	76.6	69.7	f) 1	f) -	...	...	...	...	...	...
Honduras	2 285	d) 2 345	d) 1 619	d) 1 981	120.5	246.3	161.9	159.0	5	6	8	5	0.3	0.3	0.4	0.2
Jamaica	9 748	2 776	2 298	1 774	596.2	169.1	136.2	102.7	135	...	102	100	8.3	...	6.0	5.8
Mexico	19 254	18 219	20 066	17 697	53.3	48.9	52.2	44.6	525	497	442	487	1.5	1.3	1.2	1.2
Nicaragua	1 514	1 537	3 100	1 029	104.2	102.7	201.2	64.4	1	-	4	-	0.1	-	0.3	-
Panama	151	370	200	239	13.8	33.0	17.3	20.2	21	7	11	15	1.9	0.6	1.0	1.3
Paraguay (d, g)	1 722	1 835	1 616	2 008	144.7	150.4	146.9	182.5	28	23	31	...	3.1	2.5	3.2	...
Peru (d, h)	3 475	3 872	3 679	3 320	71.3	75.1	76.4	61.5	39	52	52	40	1.0	1.2	1.1	0.8
Trinidad and Tobago	...	327	385	e)* 371	...	36.6	41.8	...	43	41	40	35	5.0	4.6	4.3	3.7
United States	124 658	126 245	124 137	114 314	68.1	67.9	65.8	59.7	2 850	2 811	2 666	2 619	1.6	1.5	1.4	1.4
Uruguay	234	203	161	273	9.1	7.8	6.1	10.2	95	...	71	...	3.7	...	2.7	...
Venezuela (d)	9 920	9 127	9 480	9 533	196.5	172.9	171.6	165.7	154	180	150	136	2.0	2.3	1.8	1.6
Antigua	256	...	188	104	457.1	...	318.6	173.3	18	17	17	9	32.1	29.3	28.8	15.0
Bahama Islands	19	14	30	92	15.6	10.9	22.4	65.2	...	1	...	6	...	0.8	...	4.3
Barbados	*	*	*	*	*	*	*	*	28	29	27	24	12.0	12.3	11.3	9.9
Bermuda	10	5	23	12	22.2	10.9	48.9	25.0	1	1	...	2	2.2	2.2	...	4.2
British Guiana	* 334	* 415	* 800	* 236	...	...	...	...	-	-	1	...	-	-	0.2	...
British Honduras	659	648	...	790	701.1	668.0	...	767.0	-	-	1	2	-	-	1.0	1.9
Canal Zone	24	17	10	69	55.8	37.8	20.0	127.8	-	-	-	2	-	-	-	3.7
Cayman Islands	1	3	1	-	(11.1)	(33.3)	(11.1)	-	...	-	...	...	...	...	...	...
Dominica	...	55	114	77	...	90.2	181.0	120.3	...	4	6	...	...	6.6	9.5	...
Falkland Islands	-	-	...	...	-	-	-	-	-	-	-	-	-	-	-	-
French Guiana	84	98	48	54	247.1	288.2	137.1	150.0	...	...	...	...	...	...	...	...
Grenada	687	...	529	...	763.3	...	575.0	...	7	2	5	...	7.8	2.2	5.4	...
Guadeloupe	644	530	...	460	229.2	183.4	...	150.3	51	1	...	2	18.1	0.3	...	0.7
Martinique	26	9	-	357	9.0	3.1	-	115.2	-	-	...	...	-	-	...	...
Montserrat	24	-	...	11	184.6	-	...	84.6	1	-	...	-	(7.7)	...	...	-
Netherlands Antilles	*	*	*	*	*	*	*	*	4	...	...	...	2.1	...	...	...
Puerto Rico	1 180	1 056	1 401	1 581	49.0	42.9	55.6	61.3	49	36	34	38	2.0	1.5	1.3	1.5
St. Kitts - Nevis and Anguilla	28	22	12	5	47.5	36.7	19.7	8.5	2	1	-	...	3.4	1.7	-	...
St. Lucia	391	668	149	196	439.3	726.1	158.5	213.0	4	3	5	...	4.5	3.3	5.3	...
St. Pierre and Miquelon	-	-	...	-	-	-	...	-	-	-	-	-	-	-	-	-
St. Vincent	...	...	12	...	...	...	14.3	...	2	5	-	...	2.4	6.1	-	...
Surinam (h)	...	* 374	d) 259	...	...	...	...	87.8	11	6	6	10	3.8	2.0	1.9	3.1
Turks and Caicos Is.	4	1	3	-	(66.7)	(16.7)	(50.0)	-	...	...	-	...	...	...	...	...
Virgin Islands (UK)	-	-	...	...	-	-	...	...	-	...	...	...	-	-	...	...
Virgin Islands (US)	175	481	284	454	514.7	1374.3	710.0	1107.3	-	1	3	-	-	2.9	7.5	-

(a) Excluding Cordoba Province. (b) Early syphilis. (c) Death data refer to São Paulo State. (d) Reporting area, for case data. (e) Congenital and early syphilis. (f) Hospital data. (g) Area of information, for death data. (h) Districts with medical certification, for death data. (i) Including cases of yaws.

ANNEX III

Reported Cases of Early Syphilis, with Rates per 100,000 Population by Country, 1957-1964

	Number										Rate					
	1957	1958	1959	1960	1961	1962	1963	1964	1957	1958	1959	1960	1961	1962	1963	1964
Argentina	1984	1596	1975	4606	1501	...	1572	1315	10.1	8.0	9.7	22.3	7.1	...	7.2	6.0
Canada	192	205	389	461	591	783	845	817	1.2	1.2	2.2	2.6	3.2	4.2	4.5	4.2
Colombia (a)	3667	4794	5227	4629	5324	6356	9789	b)14992	30.5	39.2	41.5	34.3	38.7	46.6	69.2	85.8
Costa Rica	...	...	...	...	249	473	391	382	...	...	...	...	20.3	37.1	29.1	27.5
Dominican Republic	...	...	...	...	...	...	3573	...	...	...	...	...	...	...	106.0	...
El Salvador (c)	3171	2869	2436	2699	800	1522	2058	5346	276.7	227.3	185.0	184.1	54.3	100.5	75.6	189.3
Jamaica	...	...	...	...	...	639	679	206	...	...	...	...	...	38.9	40.2	11.9
Mexico	3203	2345	2269	1835	1971	...	...	...	10.0	7.1	6.7	5.2	5.5	...	...	...
Peru (b, d)	...	...	...	1690	2068	2388	2427	2434	...	...	...	30.2	42.4	46.3	50.4	45.1
Trinidad and Tobago	140	227	158	68	...	43	42	...	18.3	28.8	19.3	8.1	...	4.8	4.6	...
United States (e)	6576	7177	9799	16145	19851	21067	22251	22968	3.8	4.1	5.5	9.0	10.8	11.3	11.8	12.0
Puerto Rico	...	67	86	94	248	395	674	849	...	2.9	3.7	4.0	10.3	16.1	26.7	32.9

(a) Reporting area, except in 1964. (b) Including congenital syphilis. (c) Reporting area, except in 1963 and 1964.
 (d) Reporting area. (e) Civilian cases.

ANNEX IV

Reported Cases of Syphilis by Sex in Selected Countries, 1964

Country	Early syphilis			Syphilis, all forms		
	Male	Female	Ratio M/F	Male	Female	Ratio M/F
Bolivia	51	73	0.7	...	...	...
Canada (a)	571	238	2.4	1 681	1 036	1.6
Colombia (b)	7 674	7 318	1.0	...	...	...
Cuba	...	...	...	1 087	776	1.4
Jamaica	131	75	1.7	999	775	1.3
Panama (c)	...	...	...	112	88	1.3
Trinidad and Tobago (c)	25	17	1.5	209	176	1.2
United States	14 305	8 663	1.7	63 356	50 958	1.2
Uruguay (c)	...	...	...	95	65	1.5

(a) Excluding cases not known by sex: 8 from early syphilis, 54 from syphilis, all forms. (b) Including congenital syphilis.

(c) Data for 1963.

ANNEX V

REPORTED CASES OF CERTAIN NOTIFIABLE DISEASES WITH RATES PER
100,000 POPULATION IN THE AMERICAS, 1964

Area	Encephalitis, acute infectious (082)				Gonococcal infection (030-035)				Hepatitis, infectious (092)			
	1959-63	1963	1964		1959-63	1963	1964		1959-63	1963	1964	
	Median	Number	Number	Rate	Median	Number	Number	Rate	Median	Number	Number	Rate
Argentina	496	579	648	2.9	9 389	10 310	11 051	50.2	2 402	2 447	2 931	13.3
Bolivia	1	1	-	-	92	62	78	2.1	1	...	...	...
Brazil	...	a) 99	...	...	...	...	...	...	...	a) 424	...	...
Canada	b) 9	b) 57	b) 5	0.0	16 460	19 411	20 628	107.2	c) 10 077	c) 10 077	c) 8 218	42.7
Chile	90	83	120	1.4	*	* 1 392	* 902	...	249	249	618	7.3
Colombia	d) 102	d) 339	230	1.3	d) 47 229	d) 46 285	e) 41 972	240.4	*	*	...	...
Costa Rica	8	14	11	0.8	2 237	2 227	1 828	131.8	321	684	695	50.1
Cuba	26	38	32	0.4	372	787	866	11.6	554	4 659	5 249	70.6
Dominican Republic	-	-	-	-	...	14 028	17 347	502.5	...	186	2	0.1
Ecuador	...	51	f) 13	...	...	...	f) 71	...	...	...	f) 91	...
El Salvador	d) -	-	...	...	d) 3 222	4 354	2 909	103.0	d) 248	994	1 069	37.9
Guatemala	...	2	11	0.3	3 226	3 848	3 274	76.1	*	*	*	*
Haiti	4	≠	-	-	4 736	≠ 3 849	≠ 3 491	76.7	80	...	≠ 138	3.0
Honduras	8	d) 24	d) 18	1.4	4 618	d) 3 463	d) 357	28.7	...	...	d) 252	20.2
Jamaica	4	2	5	0.3	27 516	34 228	28 220	1 633.1	164	100	71	4.1
Mexico	b) 18	b) 18	31	0.1	18 882	18 784	18 367	46.3	3 025	2 961	2 940	7.4
Nicaragua	...	...	...	...	766	629	1 942	121.6	...	...	...	...
Panama	1	6	b) 8	0.7	603	649	625	51.7	...	135	185	15.3
Paraguay (d)	29	39	29	2.6	473	473	396	36.0	197	182	99	9.0
Peru (d)	53	53	151	2.8	6 852	8 086	7 978	150.5	2 333	2 451	3 211	60.6
Trinidad and Tobago	-	1	6	0.6	4 494	7 978	* 3 574	...	6	...	* 4	...
United States	g) 2 248	g) 1 993	2 002	1.0	263 708	278 289	300 667	157.1	c) 42 974	c) 42 974	c) 37 740	19.7
Uruguay	32	36	≠ 17	0.6	227	227	≠ 81	3.0	...	...	≠ 1 338	49.9
Venezuela (d)	74	b) 10 145	b) 11 540	200.6	18 800	18 910	20 652	359.0	*	*	*	*
Antigua	-	-	-	-	156	117	105	169.4	-	-	1	1.6
Bahama Islands	-	3	1	0.7	329	17	236	176.1	...	9	f) 14	...
Barbados	*	*	*	*	*	*	*	*	*	*	*	*
Bermuda	-	≠	-	-	102	≠ 138	217	452.1	5	≠ 8	6	12.5
British Guiana	...	*	*	*	* 2 382	* 5 910	* 2 114	...	...	*	*	*
British Honduras	-	1	≠	-	328	*	*	*	1	3	≠	-
Canal Zone	-	-	≠	-	67	94	280	518.5	c) 17	c) 14	≠ 13	24.1
Cayman Islands	-	-	≠	-	4	4	≠ 37	411.1	...	1	≠	-
Dominica	-	-	≠	-	...	225	≠ 281	432.3	...	6	≠ 12	18.5
Falkland Islands	-	...	...	...	10	...	...	...	2	...	...	...
French Guiana	-	-	-	-	166	129	82	227.8	...	-	-	-
Grenada	-	...	...	...	781	1 014	...	...	...	...	...	...
Guadeloupe	-	≠	-	-	2	≠	6	2.0	...	...	-	-
Martinique	-	-	≠	-	-	-	≠ 5	1.6	-	-	...	...
Montserrat	...	...	-	-	...	...	13	100.0	...	...	1	(7.7)
Netherlands Antilles	*	*	*	*	*	*	*	*	*	*	*	*
Puerto Rico	-	18	1	0.0	2 719	2 570	2 840	109.9	c) 949	c) 949	c) 1 159	44.9
St. Kitts-Nevis and Anguilla	1	-	≠	-	419	223	≠ 87	140.3	19	19	...	...
St. Lucia	-	-	*	*	1 635	716	≠ 1 093	1 188.0	...	-	...	...
St. Pierre and Miquelon	-	...	≠	-	...	...	≠ 4	(80.0)	...	...	...	...
St. Vincent	...	...	...	...	...	...	...	...	...	...	...	...
Surinam (d)	-	...	...	...	...	...	2 017	683.7	...	...	...	...
Turks and Caicos Islands	-	-	≠	-	64	95	≠ 23	383.3	-	-	≠ 1	(16.7)
Virgin Islands (UK)	...	...	...	...	...	...	...	...	...	...	...	...
Virgin Islands (US)	-	-	≠	-	95	≠ 193	263	641.5	c) 1	c) 3	...	...

- (a) Data for Federal District, States of Guanabara and Pernambuco, and capitals of 10 other states (9 other states for infectious hepatitis).
 (b) Arthropod-borne encephalitis (082.0).
 (c) Including serum jaundice (N998.5).

- (d) Reporting area.
 (e) Excluding blennorrhagic ophthalmia of newborn (033 pt.).
 (f) Hospital data.
 (g) Including post-infectious encephalitis.