EPI Newsletter

Expanded Program on Immunization in the Americas

Volume II, Number 3 IMMUNIZE AND PROTECT YOUR CHILD June 1980

Country Operations

EPI in the English-Speaking Caribbean, 1979

Introduction

All 19 countries and territories in the English-speaking Caribbean (see Figure 1) continued to intensify and improve delivery of their immunization services during 1979. Routine immunization against diphtheria, whooping cough, tetanus and poliomyelitis is given in all these countries and territories, while eleven of them also offer BCG, and eight offer measles immunization.

Each country and territory has identified a program manager in charge of EPI planning and implementation who was in position throughout 1979.

An EPI workshop on planning, management and evaluation was held in St. Kitts from 5 to 14 December 1979 for participants from eight Caribbean countries and territories. PAHO/WHO staff from Washington, Geneva, Barbados, and Trinidad were also present at this course.

A better understanding of the importance of the vaccine cold chain and maintenance has helped to assure that more vaccines are administered in potent and effective conditions. However, much remains to be done to continue improving the cold chain at all levels of the national programs, and to achieve minimum acceptable immunization coverage among children in the target age groups and expectant mothers.

The basic objectives towards which the EPI is working in the Caribbean can be summarized as follows:

- To increase as rapidly as practicable the proportion of susceptibles who obtain immunization services as part of the regular health care system at the community and family levels.
- To provide effective immunization against tetanus to expectant mothers, as a continuous routine service.
- To obtain from all Ministries of Health an active commitment to the Expanded Program on Immunization as a priority in health planning and budgeting.

ization Coverage

The goal of the EPI is to provide immunization services to all children by 1990. The immunization coverage in children by age one will serve as an indicator of progress towards this goal.

Figure 1 presents the available 1979 data for 13 Caribbean countries and territories, regarding the immunization coverage in children by age one with DPT and polio vaccines. The summary table below presents the number of countries and territories having different levels of coverage with DPT and polio vaccines for the year 1979.

TABLE I

% of Coverage	No. of Country and Territories *	
	DPT	POLIO
< 25	4	6
25 - 49	6	5
50 - 74	3	2
75 +	0	0
Total	13	13

* Data not available from six countries and territories: Turks and Caicos Islands, Montserrat, Bermuda, Saint Lucia, Trinidad and Tobago, and Jamaica.

As can be seen from the above table, immunization coverage is still below 50 percent in the majority of countries and territories for which information is available.

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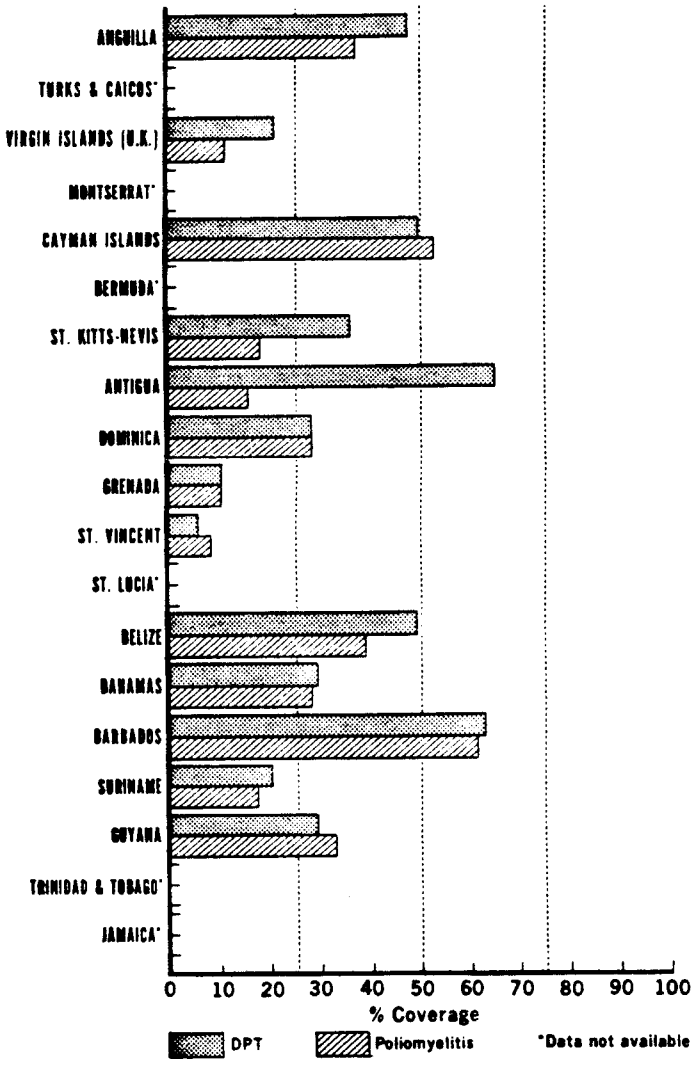
Figure 1. Immunization coverage at one year of age, by countries and territories. English-speaking Caribbean area, 1979.



Revolving Fund

The PAHO Revolving Fund for the purchase of vaccines has been of significant help in improving EPI operations in the Caribbean. Use of the Fund has enabled countries to receive timely deliveries of vaccines from approved and reliable laboratories, on easy and inexpensive economic terms. Furthermore, countries are reminded to assess and submit their annual vaccine requirements in advance so that supplies are always in stock for program requirements.

Grenada and Suriname are the most recent countries in the area to become participating members of the Revolving Fund. With the addition of these two new members, 15 of the 19 countries and territories in the English-speaking Caribbean now participate in the Fund. There is a possibility that Jamaica may also decide to use the Fund, depending on the outcome of internal administrative discussions currently taking place. The remaining countries and territories which are not members of the Revolving Fund are: Bermuda, British Virgin Islands, and the Republic of Trinidad and Tobago.

Delivery of vaccines through the Fund to the English-speaking Caribbean area has been satisfactory. Adequate advance information was provided regarding arrival times of vaccines so that arrangements for immediate collection and storage were made possible. On only one occasion in 1979 did a vaccine shipment not arrive as scheduled, having been lost in transit by the carrier. The Ministry of Health of the Republic of Trinidad and Tobago came to the rescue by providing an emergency supply of the required vaccines to Barbados. This enabled the Barbados program to continue until a new consignment of vaccines was made available at the carrier's expense. At that time Barbados returned, with thanks, the vaccines they had received from Trinidad.

Cold Chain

Greater awareness of the importance of the cold chain has resulted in improved storage facilities, methodology and routine monitoring of vaccine storage temperatures. Packing and distribution of vaccines from central to peripheral levels have also improved. However, major problems still exist. Some countries do not have adequate freezing facilities (-10°C to -30°C) at their central stores and, therefore, are obliged to send their polio and measles vaccines to commercial stores. This entails additional handling of the vaccines to and from the commercial store, causing more risk of exposure to ambient temperatures and sunlight, extra cost of transportation, lack of control of the vaccines when in the commercial store, and the inevitable inconvenience of supplying these vaccines to peripheral units from the commercial store.

A number of refrigerators at peripheral levels are old and unsatisfactory for proper storage of vaccines. They require frequent repairs to keep them working. Even then, some do not produce optimal temperatures for the storage of vaccines.

Electric power cuts have been occurring in some countries. Indications are that the intervals were not long enough to damage vaccines in storage. Nevertheless, there is cause for concern and alternative arrangements should be made for storage of vaccines in case of prolonged power cuts. Of concern also is the fact that power usually comes back intermittently and with voltage fluctuations after a power cut. This has damaged some refrigerators.

Temperature monitoring is inadequate. Only a few countries are equipped with thermometers to monitor their vaccine storage temperatures in the morning and afternoon, and this is done mainly at the central vaccine stores.

All countries and territories have been improving their vaccine cold chain within the limits of their resources. In this connection, 14 countries and territories have received assistance in the form of vaccine carriers, refrigerators and freezers to improve their cold chain in 1980 through a grant from the U.S. Agency for International Development (USAID).

Editorial Note

The above report was presented by the PAHO EP Technical Officer who serves the English-speaking Caribbean area, during the recent EPI training workshop course on planning, administration and evaluation held in Trinidad and Tobago from 9 to 13 June 1980. EPI Program Managers from 17 countries and territories in

English-speaking Caribbean area participated in ..s course. The following recommendations were presented along with the report:

1. Countries and territories should consider the establishment of an immunization coordinating committee by the Chief Medical Officer. It should include the Program Manager, Epidemiologist, Deputy Epidemiologist, Pediatrician, Statistical Officer, Health Education Officer, and Medical Officer in charge of Maternal and Child Health Care. This committee (which could be the same as the one responsible for MCH care) should meet once a month, or as they may decide, to review reports and activities as well as to provide direction and support to the national immunization program. Some countries have already established such committees.

2. The possibility of providing emergency electric supply to all national central vaccine stores should be explored. This may be possible through a standby generator or by linking the power supply line of the vaccine store to the emergency supply of the general hospital or any other source which may be available.

3. Those countries and territories which have no facility for freezing vaccines in their central stores should endeavor to make this available. The practice of sending polio and measles vaccines to commercial storage facilities is unreliable, and over a long period of time becomes more expensive as storage ..ges have to be paid continuously. In addition, daily temperature monitoring and control of the ..accines become difficult or impossible.

4. Greater attention should be paid to assuring the basic preventive maintenance of refrigerators and freezers, such as: regular defrosting, proper leveling, and the location and positioning of appliances.

5. Temperature of refrigerators and freezers should be monitored morning and afternoon with a proper thermometer. A record of these temperatures should be kept on or near each appliance. Any break-down, power failure or excessively high temperature for vaccine storage should be noted and reported to the responsible authority for corrective action to be taken.

6. Each health unit (health center, clinic or dispensary) where immunization is done on a regular basis should estimate its annual target population for immunization at the beginning of each calendar year. In this way, coverage at each level of the program can be calculated by dividing the number of immunizations performed by the target population of children to be immunized.

7. More emphasis is required on a standard reporting format in each country and prompt reporting to the Program Manager at the end of each month through a well defined and efficient procedure.

. Health education activities should be increased to ncourage mothers to bring their children for immunization at the optimum age. They should be told where and when to take their children for immunizations, as well as what reactions may occur afterwards.

9. Community involvement through health education should assist in improving immunization coverage, particularly in remote areas. More attention should, therefore, be given to this strategy in order to expand and maintain coverage in all areas, but particularly in remote areas and those of difficult accessibility.

Evaluation of Immunization Status of One-Year Old Children in Recife, Brazil

Introduction

Pursuant to the methodology adopted at the Second Regional Course for Managers of the Expanded Program on Immunization, held in Lima, Peru in the first half of January 1979, the Epidemiology, Statistics and Information Division of the Public Health Service Foundation (Fundaçao SESP) scheduled a tentative evaluation of immunization coverage in children one year old in the city of Recife. Its purpose was to ascertain the number of vaccinations administered for immunization against poliomyelitis (3 doses), combined diphtheria-tetanus-pertussis (2 doses), measles, and tuberculosis (1 dose).

Since it was impossible to obtain from the Brazilian Institute of Geography and Statistics Foundation (FIBGE) a listing of the census sectors of the city showing the number of homes with the corresponding location sketches, technical assistance was requested from the Pan American Health Organization, in order to prepare a scheme of sampling for collection of the basic data indicated above.[1]

Methodology

A systematic sample of 64 city blocks--organized in 32 pairs for purposes of estimating sampling errors--was selected, using an updated plan of Recife.

The average number of homes per block was 39.4, which was fairly close to the original estimate and corresponded to a reasonable number of homes to be surveyed by one person in the space of one working day. Three sectors, however, included more than 130 dwellings and therefore received special handling. In only a few instances was a return visit to the area necessary to improve the quality of the data obtained.

The heads of households with children one year of age (i.e., between 12 and 24 months, less one day, from the date of birth) were interviewed. When there was no one at home at the time of the interviewer's visit, information was obtained from neighbors. Only when no information could be obtained were these dwellings classified as not responding (NR). There were a total of 56 such instances.

Based on an estimated population of 1,423,014 for the city of Recife in 1979 and assigning 5 inhabitants to each dwelling, the number of homes was computed as 284,603. Applying the proportion of 2.77%--determined by the 1970 census--for children one year of age, the

[1] Dr. Jacques Noel Manceau, formerly Chief of the Statistical Methodology Unit, PAHO, participated in this technical assistance.

number of children in that age group was estimated as 39,147, i.e. a coefficient of 0.14 children per household. The actual coefficient revealed in the sample was 0.11. This apparent discrepancy may be explained by the fact that the proportion indicated at the time of the 1970 census was for urban areas of the entire State of Pernambuco, where most of the cities undoubtedly have a higher proportion of children than in the capital.

The evaluation survey started on June 17, following training of 45 volunteers, most of whom were supplied by the Pernambuco Health Secretariat and the Public Health Service Foundation (Fundaçao Serviços de Saúde Pública--FSESP). The trained interviewers started their assignment in the afternoon of that same day, despite an uninterrupted heavy downpour of rain which meant that work had to be continued throughout the following day.

By noon of the third day, all the information had been tabulated and the initial results were reported to representatives of the Health Secretariat and FSESP at a group meeting.

Results

The survey covered 2,520 households including 286 children one year of age. It was not possible to determine the immunization status of 9 of these children, resulting in their classification as "unknown." Of the remaining 277 children, 205 (74%) had vaccination certificates: 154 (55.6%) had been given BCG vaccine; 155 (56%) had received three doses of polio; 167 (60.3%) had had their second dose of DTP; and 121 (43.7%) had been vaccinated against measles. This data is shown in Tables I and II. Of the 233 children who had received a first dose of polio, 79.1% went on to receive a second dose, while this percentage dropped to 66.5% for the third dose. It was ascertained that 81.1% of the children who had the first dose of DTP also received their second dose.

If the 9 children whose immunization status was not determined were considered to have received the vaccines, coverage would increase slightly, raising the figures to 57% for BCG, 57.3% for the third dose of polio, 61.5% for the second dose of DTP, and 45.5% for measles immunization (see Table III).

If the same 9 children were considered as not having been vaccinated, the resulting variation, expressed as twice the standard deviation, was substantially similar for all the vaccines (± 7% except for measles, where it was ± 5%. Part of this discrepancy was due to the inclusion of 13 children who did not receive this shot, either because they had already had measles or because it was contraindicated medically (± 6%).

Table III includes the "unknown" group in the first column as though all of the children (286) had been vaccinated, and in the second as though they had not (277), thus showing coverage in both cases--optimal in the first instance, and more realistic in the second.

TABLE I

Number Vaccinated and Not Vaccinated in a Sample of Children One Year of Age, by Type of Vaccine and Proof of Vaccination, (Immunization Certificate) Recife, Pernambuco--June 1979

VACCINE	WITH CERTIFICATE			WITHOUT CERTIFICATE			TOTAL		
	Vaccinated	Not Vaccinated	TOTAL	Vaccinated	Not Vaccinated	TOTAL	Vaccinated	Not Vaccinated	TOTAL
BCG									
Intradermal	134	71	205	20	52	72	154	123	277
Polio									
1st dose	195	10	205	38	34	72	233	44	277
2nd dose	164	41	205	21	51	72	185	92	277
3rd dose	138	67	205	17	55	72	155	122	277
DTP									
1st dose	182	23	205	24	48	72	206	71	277
2nd dose	152	53	205	15	57	72	167	110	277
Measles	110	95	205	11	61	72	121	156	277

Note. Does not include 9 children whose immunization status could not be determined.

TABLE II

Percentage of Those Vaccinated in a Sample of Children One Year of Age, by Type of Vaccine and Presentation (or Absence) of Proof of Immunization. Recife, Pernambuco - June 1979

VACCINE	WITH CERTIFICATE	WITHOUT CERTIFICATE	TOTAL
BCG			
Intradermal	65.4 (134)	27.8 (20)	55.6 (154)
Polio			
1st dose	95.1 (195)	52.8 (38)	84.1 (233)
2nd dose	80.0 (164)	29.2 (21)	66.8 (185)
3rd dose	67.3 (138)	23.6 (17)	56.0 (155)
DTP			
1st dose	88.8 (182)	33.3 (24)	74.4 (206)
2nd dose	74.1 (152)	20.8 (15)	60.3 (167)
Measles	53.7 (110)	15.3 (11)	43.7 (121)

Conclusion

Considering the brief planning period for the Recife operation, plus the adverse weather conditions and particularly the lack of more current data, the operation is believed to have accomplished its objective and the results are reasonably consistent with what could be expected of the multiple immunization program for this area. Assuming these results to be, on the whole, probably better than the State's data, the city is still far from attaining a satisfactory immunization level to protect children against diseases that can be controlled by such means. More concerted efforts must be made to provide better protection for this susceptible population.

This experience has paved the way for other evaluations that will be tested under various conditions in Brazil so that they can be made applicable to any future situation. An evaluation is now in the advanced stages of planning for a small city in the southern part of the State of Bahia, to be followed by another in a large city that will be selected in due time.

TABLE III

Estimated Maximum and Minimum Percentages of Immunization of Children One Year of Age, by Type of Vaccine Recife, Pernambuco - June, 1979

VACCINE		COVERAGE Maximum (%) (1)	Minimum (%) (2)
BCG Intradermal		57.0	53.8
Polio	1st dose	84.6	81.5
	2nd dose	67.8	64.7
	3rd dose	57.3	54.2
DTP	1st dose	75.2	72.0
	2nd dose	61.5	58.4
Measles		45.5	42.3

(1) Considered as vaccinated the 9 children whose immunization status could not be determined.

(2) Not considered as vaccinated the 9 children whose immunization status could not be determined.

SOURCE: Boletin Epidemiologico, Fundação Serviços de Saúde Pública, Divisão de Epidemiologia Estatistica e Informação, Vol. XI, No. 17, Semanas 33 e 34, 1979.

Cold Chain

Thermometer for Refrigerators

One of the many problems in the EPI Cold Chain is to monitor the temperatures at which the EPI vaccines are stored. In order to assure that proper instruments are available for the daily monitoring of the temperature of the refrigerators being used for the storage of vaccine, a thermometer has been designed for the Expanded Program on Immunization.

The EPI thermometer, pictured above, is designed for use in refrigerators that are found in the health centers. The thermometer is of liquid crystal joined to a paper backing wth a strip of foam and is water ant.

The thermometer is activated by peeling off the strip of white paper adhered to the back of the thermometer. The thermometer can then be directly mounted on a block of material that can be of plastic, cardboard, or wood, which can then be placed on a shelf of the refrigerator.

Samples of this thermometer will be distributed to all countries, and national EPI managers are being asked to evaluate its usefulness for the daily monitoring of the temperature of the refrigerators being used to store vaccines.

Summary of Tests on Vaccine Cold Boxes and Hand Carriers

The varying health systems, demographic conditions and geographical characteristics found from one country to another lead to different cold chain requirements. Each country's cold chain system needs different types or combinations of equipment to fit its needs in adequately conserving vaccines at a temperature not exceeding +8°C.

One of the problems facing countries in their efforts to expand national immunization programs is the lack of suitable passive containers for transporting vaccines between the different links of the cold chain.

Testing by WHO on 27 types of passive containers has identified those most suitable for use in the EPI cold chain. Two types of tests were performed on the containers. First, performance tests were carried out at +32°C and +43°C on containers fully loaded with vaccine and ice packs in order to measure their "cold life"—the time it takes for the internal temperature to rise to +10°C.

The second test consisted of dropping the fully loaded containers on each face, edge and corner from a height of one meter. These drop tests revealed that most cold boxes require heavier hardware in the fastenings of the lid. It was also shown that lids which have been designed to overlap or fit within the walls of the box when closed are superior to those which do not have this feature.

Performance tests disclosed an unexpectedly low cold life for some containers at +43°C. This is due to a righ rate of heat leakage through the lid or seal of the container, resulting in a large internal temperature difference.

Table I gives a summary of the test results for the 27 containers. A review of this table shows that, within the different categories, certain containers cannot be recommended. These are denoted by the circled values.

When choosing cold boxes and vaccine carriers, the cold life requirement should be doubled to allow a safety margin for emergencies and to allow for multiple openings of the containers.

The complete WHO report, entitled "Summary of Vaccine Cold Box and Hand Carrier Testing: Consumers' Association: United Kingdom," may be obtained on request to PAHO/WHO. Please quote WHO document number EPI/CCIS/79.5 when making your request.

TABLE I: SUMMARY OF TESTS ON VACCINE COLD BOXES AND HAND CARRIERS

KEY:

* 0 Destroyed; 1 Heavy damage; 2 Damage; 3 Superficial damage; 4 Unmarked

** P Polystyrene foam; U Rigid urethane foam; V Vacuum

NA = Not applicable; ND = Not determined; ☐ = Not recommended

CATEGORY (liters)	VOLUME & WEIGHT: Net vaccine stora capacity (liters)	VOLUME & WEIGHT: Weight fully loaded (kgs.)	VOLUME & WEIGHT: External dimensions (cms.)	INSULATION: Type **	INSULATION: Thickness (mm.)	ICE-PACKS: No. icepacks E = excluded	PERFORMANCE 32°C: Time to rise to +10°C (hours)	PERFORMANCE 43°C: Time to rise to +10°C (hours)	Drop test rating *	COST US$ INCL. ICEPACKS: Indicative unit cost	COST US$ INCL. ICEPACKS: Cost per cold life hour at +43°C	Model	Manufacturer (Country)
A LESS THAN 2	1.5	4	29.5 x 27 x 26	U	32	4	58	45	3	9	0.20	EPI/PF/1.5	Polyfoam Corporation (Philippines)
	1.7	4	23.5 x 23.5 x 33	U	40	4	48	34	3	14	0.41	Vac. Car. 3504	King Seeley-Thermos (USA)
	1.9	4	29 x 29.5	U	40	4	36	8	3	13	1.62	Vac. Car. 2L	Schlueter Mfg. Co. (USA)
	0.4	5	24 x 41.5	V	NA	3	ND	☐ 9	ND	240	☐ 26.67	LR3	Union Carbide UK (UK)
B 2.1 - 5	4.0	7	32 x 38	U	30	6E	23	11	3	14	1.27	Roundabout	Coleman International Division (USA)
	2.9	12	39 x 39 x 37	U	80	6E	89	58	2	NA	NA	Type D(1)	Masa Jaya Abadi (Indonesia)
	3.6	14	45 x 44	V	NA	5	ND	☐ 9	ND	516	☐ 57.30	LR26	Union Carbide UK (UK)
	2.8	4	21 x 31	V	NA	4E	14	☐ 7	☐ 0	26	3.7	Theos 602H	Standardwerke (Switzerland)
C 5.1 - 10	10.0	20	56 x 33 x 40	U	85	14E	88	71	2	34	0.50	Snowlite	Coleman International Division (USA)
	8.1	28	56 x 50 x 49	P	110	12	120	83	1	100	1.2	Gnat I	P. K. Verma (India)
	9.0	31	56 x 50 x 49	U	110	12	170	123	2	320	2.6	NBL 1/B	National Bacteriological Labs. (Sweden)
	9.7	33	56 x 50 x 49	U	110	13	130	74	1	240	3.2	Gnat III	P. K. Verma (India)
	6.6	10	50.5 x 23 x 27	U	30	4	39	☐ 0	☐ 0	95	NA	Transtemp 512	Dynatech Products AG (Switzerland)
	6.0	8	46 x 41 x 28	P	80	2	☐ 0	☐ 0	☐ 0	40	NA	Transtemp 106L	Dynatech Products AG (Switzerland)
	7.5	23	51 x 51.5 x 52.5	U	100	7E	105	67	2	NA	NA	Type C (2)	Masa Jaya Abadi (Indonesia)
D 10.1 - 20	20.0	50	71 x 56 x 50	U	110	24	183	160	2	342	2.14	NBL 1/A	National Bacteriological Labs. (Sweden)
	19.8	29	46 x 49 x 47	U	50	14E	53	26	1	64	2.46	Type (5)	Lembaga Afiliasi (Indonesia)
	11.0	28	43.5 x 43.5 x 60	U	60	10E	75	50	1	252	5.04	EPI/AMP/60	Iffa Credo (France)
E 20.1 - 30	21.0	50	51 x 58.5 x 75	U	110	23	174	132	3	230	1.32	NBL 2/A	National Bacteriological Labs. (Sweden)
	24.0	43	55 x 53 x 75	U	120	13E	179	132	3	222	1.68	Vaccold	Huurre Ureta Oy. (Finland)
	27.0	54	70 x 45 x 55	U	70	21E	ND	83	3	384	4.63	Cont. Frigor.	ACFT Louis Zhendre (France)
	21.0	39	58 x 58 x 59	U	100	20E	74	53	2	NA	NA	Type B (3)	Masa Jaya Abadi (Indonesia)
F OVER 30	35.8	62	63.5 x 63 x 61	U	100	32E	204	130	1	153	1.18	Box No. 7	P. T. Swahasta Jaya (Indonesia)
	33.1	50	61 x 65 x 63	U	100	26E	132	104	1	95	0.9	Type (6)	Lembaga Afiliasi (Indonesia)
	31.0	51	83 x 62 x 50	U	100	19E	157	140	3	173	1.24	Type 20L	Savopak Oy. (Finland)
	33.4	48	62 x 64 x 61.5	U	100	26E	164	89	2	NA	NA	Type A (4)	Masa Jaya Abadi (Indonesia)
	55.0	36	62 x 52 x 76	P	80	4	41	11	☐ 0	83	7.5	Transtemp 1079	Dynatech Products AG (Switzerland)

Reported Cases of EPI Diseases in the Americas

NUMBER OF REPORTED CASES OF MEASLES, POLIOMYELITIS, TETANUS, DIPHTHERIA AND WHOOPING COUGH
FROM 1 JANUARY THROUGH THE LAST PERIOD REPORTED IN 1980
AND FOR THE COMPARABLE PERIOD IN 1979, BY COUNTRY

COUNTRY	DATE OF LAST REPORT	MEASLES		POLIOMYELITIS		TETANUS		DIPHTHERIA		WHOOPING COUGH	
		1980	1979	1980	1979	1980	1979	1980	1979	1980	1979
ARGENTINA	09 FEB	491	666	3	2[a]	18	29	17	9	3,221	2,219
BAHAMAS	28 JUN	422	502	--	--	3	1	--	--	7	--
BARBADOS	21 JUN	22[b]	3	--[b]	--	5[c]	4	3[b]	9	--[c]	1
BOLIVIA	14 JUL[d]	...	1,507	...	363	...	62	...	21	...	621
BRAZIL	09 FEB	3,369	2,780	178	108	119	137	191	266	2,306	1,911
CANADA	14 JUN	8,229	17,614	--	2	...	...	31	40	958	1,011
CHILE	03 MAY	1,979	5,293	--	--	...	...	84	113	374	124
COLOMBIA	23 MAR	1,530	3,968	17	157	118	...	60	66	1,651	2,457
COSTA RICA	28 JUN	647	979	--	--	5	15	--	--	481	88
CUBA	10 MAY	2,013	4,747	--	--	4	6	--	--	32	81
DOMINICA	24 MAY	--	177	--	--	1	1	--	--	1	--
DOMINICAN REP.	02 FEB	832	650	--	2	11	8	29	27	23	117
ECUADOR	12 APR	610	1,510	1	1	25	24	3	5	354	580
EL SALVADOR	28 JUN	1,154	8,197	3	1	34	65	--[e]	--	237	473
)A	21 JUN	41	1	--	--	--	--	1	--	--	--
GUATEMALA	14 JUN	1,439	2,232	36	17	37	26	5	1	701	609
GUYANA	31 MAY[b]	358	--	...	...	...	...	1	2	...	...
HAITI	03 MAY	39	189	4	--	51	21	4	--	35[f]	14
HONDURAS	21 JUN	2,413	2,527	3	173	13[g]	15	1	1	1,033	1,145
JAMAICA	17 MAY	15	69	--	--	2	7	4	1	8	12
MEXICO	08 MAR	4,826	3,895	170	132	100	106	1	2	740	826
NICARAGUA	28 JUL[d]	...	48	...	--	...	--	...	--	...	164
PANAMA	31 MAY	1,029	2,842	--	--	16	9	--	--	327	132
PARAGUAY	24 MAY	190	99	6	7	69	65	2	1	462	283
PERU	24 MAY	2,890	1,009	31	25	42	57	48	27	1,646	5,825
SURINAME	28 JUL[d]	...	1	...	1	...	...	...	1	...	...
TRINIDAD & TOBAGO	14 JUN	153[b]	291	--[c]	--	12[c]	14	--[c]	--	6[c]	18
U.S.A.	05 JUL	11,852	10,807	7[h]	20[i]	31	29	2	59	587	659
URUGUAY	31 JAN	44	14	--	--	2	1	--	--	47	30
VENEZUELA	28 JUN	4,817	12,340	--	18	...	...	8	1	921	722

[a] Source: "Poliomyelitis in the Argentine Republic," Report of the Ministry of Social Welfare, Secretariat of Public Health, February 1980.

[b] Source: CAREC Surveillance Report, June 1980.

[c] Data through 24 May 1980.

[d] Data not available for 1980. Data for 1979 through last epidemiological week in July.

[e] Data through 3 May 1980.

[f] Data through 2 February 1980.

[g] Data through 31 May 1980.

[h] Five paralytic cases.

[i] Seventeen paralytic cases.

-- No cases

... Data not available

Epidemiology

Surveillance Guidelines

From 17-19 June 1980 a technical group met in Washington, D.C. to review and discuss a draft of the Surveillance Guidelines for the Expanded Program on Immunization which are under preparation by PAHO. This technical group was composed of epidemiologists from Member Countries and PAHO staff members with experience in immunization programs and the surveillance of communicable diseases, and one member of the EPI Global Advisory Group. The guidelines are now in the final stages of preparation and will be ready for distribution by October 1980.

For the purpose of the Expanded Program on Immunization, surveillance is information for action, that is, the collection and analysis of data on cases and vaccination coverage, and the use of these data to improve actions designed to reduce morbidity and mortality from the target diseases. Proper surveillance will help in planning programs and subsequently measuring the impact of the control measures on the reduction of the target diseases.

The Surveillance Guidelines for the EPI will be presented in five sections. Sections one through four will provide general background information on the diseases under discussion (diphtheria, tetanus, pertussis, measles and poliomyelitis). These sections include a description of each disease and its epidemiology and information on the vaccines, and laboratory diagnosis.

Section five will provide health workers with an outline of suggested actions to be undertaken at the local, regional and central levels of the health system, based on an evaluation of the basic data needed for program implementation.

It is expected that these guidelines could be adapted by the various countries to meet any stage of a health system's development, and that the actions outlined for the local level could be performed by auxiliary personnel. These guidelines will also complement the EPI Operational Manual and the EPI Training Modules which are being utilized in the National EPI Workshops.

Vaccines

The Importance of Testing Vaccines

All current evidence points to the fact that, of all the vaccines that are used in the Expanded Program on Immunization, the live viral vaccines are most vulnerable due to their much lower stability. Because of this there exist a number of logistical situations where it is necessary to verify the potency of these vaccines. Fortunately, the assay of the virus infectivity (potency) is a test that can be undertaken without much difficulty in a laboratory that is equipped to do routine diagnostic virology.

Recognizing these facts, the 84th Meeting of the Executive Committee, which met in Washington, D.C. from 23-27 June 1980, in Resolution X, urged Member Governments to strengthen their respective laboratories where vaccines can be tested. Over the past two years nineteen virologists from various countries in Latin America have received training in the testing of viral vaccines and it is expected that these countries will commence the operations of national control laboratories.

PAHO will provide technical support and a limited supply of essential reagents to those countries wishing to start control activities. With reference to this matter, EPI Program Managers should contact those trained virologists and discuss the possibilities of implementing national control operations.

Until such time as the national control laboratories are operational, countries can use the Regional Reference Laboratory in Mexico City. In such a case, it is important that all viral vaccines to be tested be sent to the Regional Laboratory through the PAHO Country Representative in Mexico City. The vaccine samples should be accompanied by a note explaining the circumstances that prompted the request and giving information on the vaccine, together with a label from the vaccine bottle and, if possible, the insert literature found inside the vaccine package. The cooperation of all EPI Program Managers in observing the above procedures will greatly facilitate the management of the work in the testing laboratory.

The EPI Newsletter is a periodic publication prepared by the Expanded Program on Immunization (EPI) of the Pan American Health Organization, Regional Office for the Americas of WHO. Its purpose is to create a flow of ideas and information concerning immunization programs in the Region in order to facilitate a sharing of problems and solutions.

Editor: Dr. C. A. de Quadros
Assistant Editor: Mr. P. Carrasco
Editorial Assistant: Ms. K. Fitch

Contributors to this issue:

Mr. Henry C. Smith, PAHO
Dr. C. H. Tigre, PAHO
Dr. G. Tawil, PAHO

Expanded Program on Immunization
Pan American Health Organization
525 23rd St., N.W.
Washington, D.C. 20037
U.S.A.