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REPUBLIC OF LIBERIA
EXPANDED PROGRAMME FOR IMMUNIZATION
(MINISTRY OF HEALTH & SOCIAL WELFARE)

Ref. No. MH&SW-EPI/9041/'81
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MEMORANDUM

Remark Weeks

FROM: Mr. Mark Weeks
Operations Operation

TO: Mr. Charles Witten
Acting Health Officer/USAID

SUBJ: Quarterly Report - July
Expanded Program on Immunization
AID 698-0410.26
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DATE: July 20, 1981

In June EPI conducted the national workshop which had been in planning since January 1981. Forty-one health workers from all counties and territories attended, including Inservice Education personnel who will be involved with local-level EPI training and Physician assistants, who will assume the role as the EPI supervisor for the clinics in their areas. Staffing was composed of members from EPI, Inservice Education and Health Education. Participants received intensive training in the EPI technical information (i.e. cold chain management, vaccine administration and planning vaccination schedules), and also were presented with methods and techniques in planning and presenting an Inservice program to prepare them as instructors for EPI training in their respective areas. In general the workshop went well; participants were enthusiastic and much interest in EPI was generated. It is now up to EPI and Inservice Education, which has been very supportive of EPI training, to continue the initiative through assisting the counties with their training activities. The workshop consumed the majority of the AID project training funds for year I ($5,716).

During May a vaccination coverage survey was conducted in Nimba County.

Two hundred and ten children ages 13 months to 24 months in 30 villages were selected randomly according to EPI/WHO protocol. Results are given in Table I. Only 30% of the children were found to have a health record card; consequently these figures probably underestimate actual coverage. (Except for a BCG scar, a child can be considered vaccinated only if he/she posses a record of a vaccination). Only 12% were found to have had a measles vaccination. DPT I was slightly better (15%); however, only 3% were found to be adequately vaccinated with three injections. Polio was similiar, 11% for polio I, 1% for polio I-III. BCG vaccination coverage was found somewhat better through the presence of scars (41%).

Results of the Nimba County survey are similiar to those of the Monrovia survey in February 1981. Coverage for record cards and measles was slightly better in Nimba County. (see Table II).

Although these results are discouraging, future surveys should reveal a marked improvement with the added initiative of the EPI staff and with the acquisition of record cards ("Roadway to Health Cards"). In May the Program began acquiring Road to Health Cards through local printing and a donor agency; however, the quantity is still far below what is needed. We hope that the Road to Health Cards ordered through USAID will arrive in time to benefit the Program within the life of the project.

During the quarter more attention was directed towards the Monrovia clinics. EPI and Family Health staff visited all clinics to initiate efforts towards improving vaccination coverage in the city. The major problems noted were maintenance of cold chain equipment and knowledge about vaccine storage. Consistant visitation by EPI staff should bring improvement; unfortunately the coverage survey and the workshop diverted our attention from the clinics. Plans are to resume clinic visits during the forthcoming quarter.

Two of the four EPI mobile teams in Montserrado County were eliminated. These teams were assigned to unpopulated areas and were not cost efficient. The team was assigned to various clinics throughout the county as vaccinators.

At the end of this quarter the Program is faced with a shortage of measles vaccine. Only 5,000 doses are on hand. The shortage has occurred due to delay in delivery by UNICEF.

A shipment is due in August; the previous shipment was late and below the amount requested. The vaccine ordered through USAID will alleviate this problem. Hopefully, USAID will expedite our order.

Requests from the Ministry for all project commodities have been delivered to USAID. Considerable delay resulted from obtaining cost information from the U.S.A. and from the USAID staff in processing and placing orders. Most commodities requested by the Ministry in January and April had not been ordered by the end of this quarter. The seven Project vehicles ordered in January have arrived, but have not been deployed.

During the forthcoming quarter several members of the EPI Central Office staff will receive advanced training. The cold chain technician will attend a WHO workshop. The Montserrado Team leader, whom we plan to use as an Assessment Team Leader, will take the WHO/EPI mid-level management course. The Director will receive advanced epidemiologic training through SHDS in August.

The EPI/MOHSW budget (FY 81-82) will remain the same as last year. With rising fuel (gasoline and kerosene) and maintenance costs, the Program will be even more financially constrained. In an attempt to reduce spending for kerosene, the Program has begun to distribute kerosene from Monrovia where the cost is much less than upcountry. - We have not had time to evaluate this system to determine if it is more cost efficient. Offsetting factors are transportation costs and reliability of stock management.

During June I reviewed the morbidity/mortality from the Ministry, JFK and Phebe hospitals, and the data collected in October 1980 by Harry Hull, M.D., Regional SHDS Epidemiologist. As measles and tetanus are generally considered to be the more accurately diagnosed among the EPI diseases, the review centered upon these two diseases. Prior to 1976 morbidity/mortality data in Liberia was collected only in Montserrado County and from a few sentinel hospitals upcountry. Since 1976 there have been added efforts toward improving reporting countrywide.

As shown in Figures 1 and 2, and Table 3, reported measles cases in 1980 is double that reported in any year since 1975. Tetanus morbidity, which is usually neonatal tetanus in Liberia, appears to be decreasing from a high of 749 cases in 1977 to 307 cases in 1980. Deaths, however, have increased from 86 in 1977 to 136 in 1980 (see figure 3, Table 4).

Although these data are not encouraging, a part of the increase in measles cases may actually be due to improved reporting rather than an increase in incidence. Since the country-wide reporting system is fairly new, it will be several years before reported disease incidence can be utilized as an accurate measuring divice for evaluation. Also there is much delay in receiving reports from the Ministry. We do not yet know this year's trend for measles and tetanus, but January figures for measles indicate/continued increase.

Admissions for measles at JFK and Phebe hospitals show a similiar trend. Measles appears to be increasing; however, as I have been able to retrieve complete data for 1979 and 1980 only, there are insufficient data for inferences (see figure 4). Similiarily, the data for tetanus cases and deaths at JFK and Phebe are too incomplete to determine a trend (see figure 5).

Annual vaccination totals since the Program's beginning in 1978 for measles and tetanus toxoid vaccines are illustrated in figure 6. Measles vaccinations decreased in 1980 due to a vaccine shortage; however, by May of this year EPI has already passed the 1980 total (29,627 vs. 34,776). Tetanus Toxoid vaccinations continue at a high level.

The Program is scheduled to be evaluated by a SHDS/WHO team in February 1982. At this point the Program is in a good position to receive a favorable report. Many health workers are talking about EPI after our increased training efforts and there have been anecdotal reports of visible increased vaccination activity in some areas. Our biggest weakness is the cold chain beyond Monrovia. Many refrigerators are not in operation due to poor maintenance and a lack of spare parts. Very few clinics are recording daily temperatures to document proper storage. If the Program can improve upon these factors, it should do well in February and will have made significant progress towards achieving its goals.

TABLE I

MINBA COUNTY VACCINATION COVERAGE SURVEY,
CHILDREN 12 MOS.-24 MOS, MAY 1981.

	NUMBER:	PERCENT OF TOTAL
Total Interviewed	210	-
Vaccination card	63	30%
BCG (scar)	86	41%
Polio I	23	11%
Polio II	7	3%
Polio III	2	1%
DPT I	31	15%
DPT II	17	9%
DPT III	6	3%
MEASLES	25	12%
Fully Immunized	0	0

TABLE 2

COMPARISON OF NIMBA COUNTY AND MONROVIA VACCINATION COVERAGE RATES

	NIMBA CO. 5/81	MONROVIA 2/81
Total Interviewed	210	215
Vaccination cards	30%	21%
BCG (scar)	41%	52%
Polio I	11%	18%
Polio II	3%	8%
Polio III	1%	5%
DPT I	15%	16%
DPT II	9%	18%
DPT III	3%	4%
MEASLES	12%	9%
Fully immunized	0	4%

TABLE 3

MEASLES CASES AND DEATHS, LIBERIA 1975-1980

YEAR:	CASES:	DEATHS:
1975	597	80
1976	2209	61
1977	3588	123
1978	3705	124
1979	3243	96
1980	6567	162
1981(Jan).	723	17

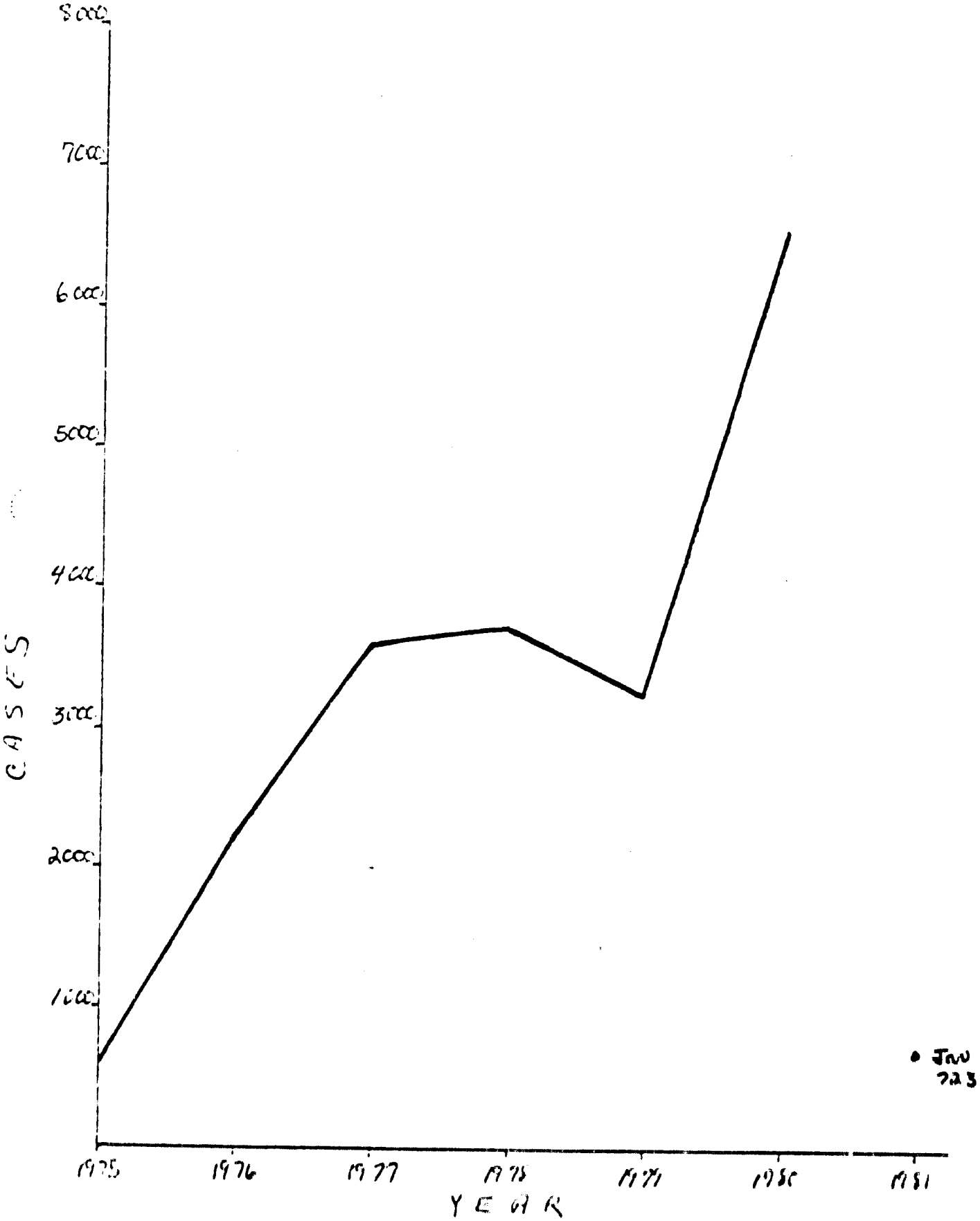
TABLE 4

TETANUS CASES AND DEATHS, LIBERIA 1975-1980

YEAR:	CASES:	DEATHS:
1975	255	170
1976	640	172
1977	749	86
1978	373	107
1979	313	101
1980	307	136
1981 (Jan).	14	12

Figure 1

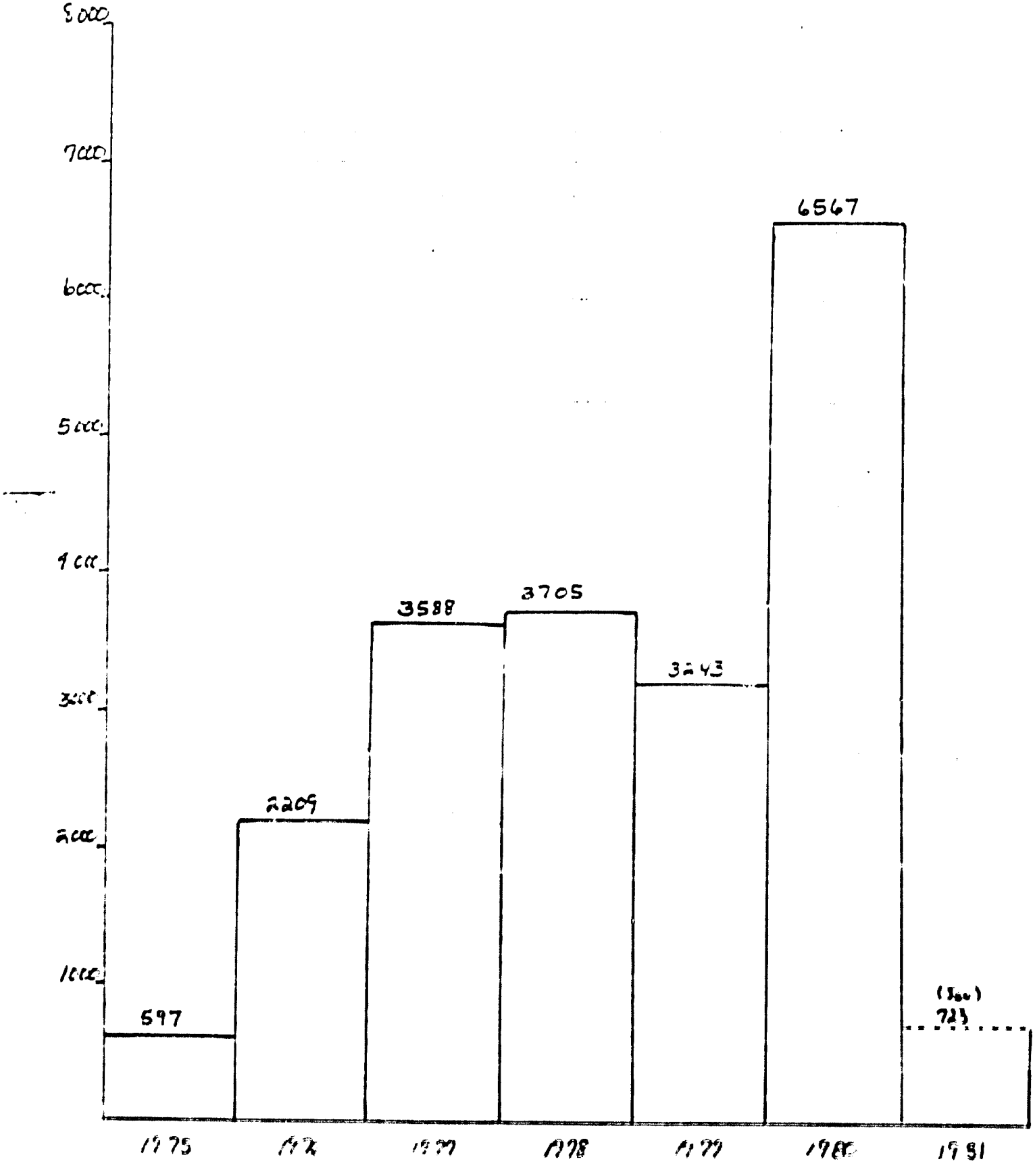
MEASLES CASES, LIBERIA
1975- 1981.



DATA SOURCE: Annual [illegible]

Figure 2

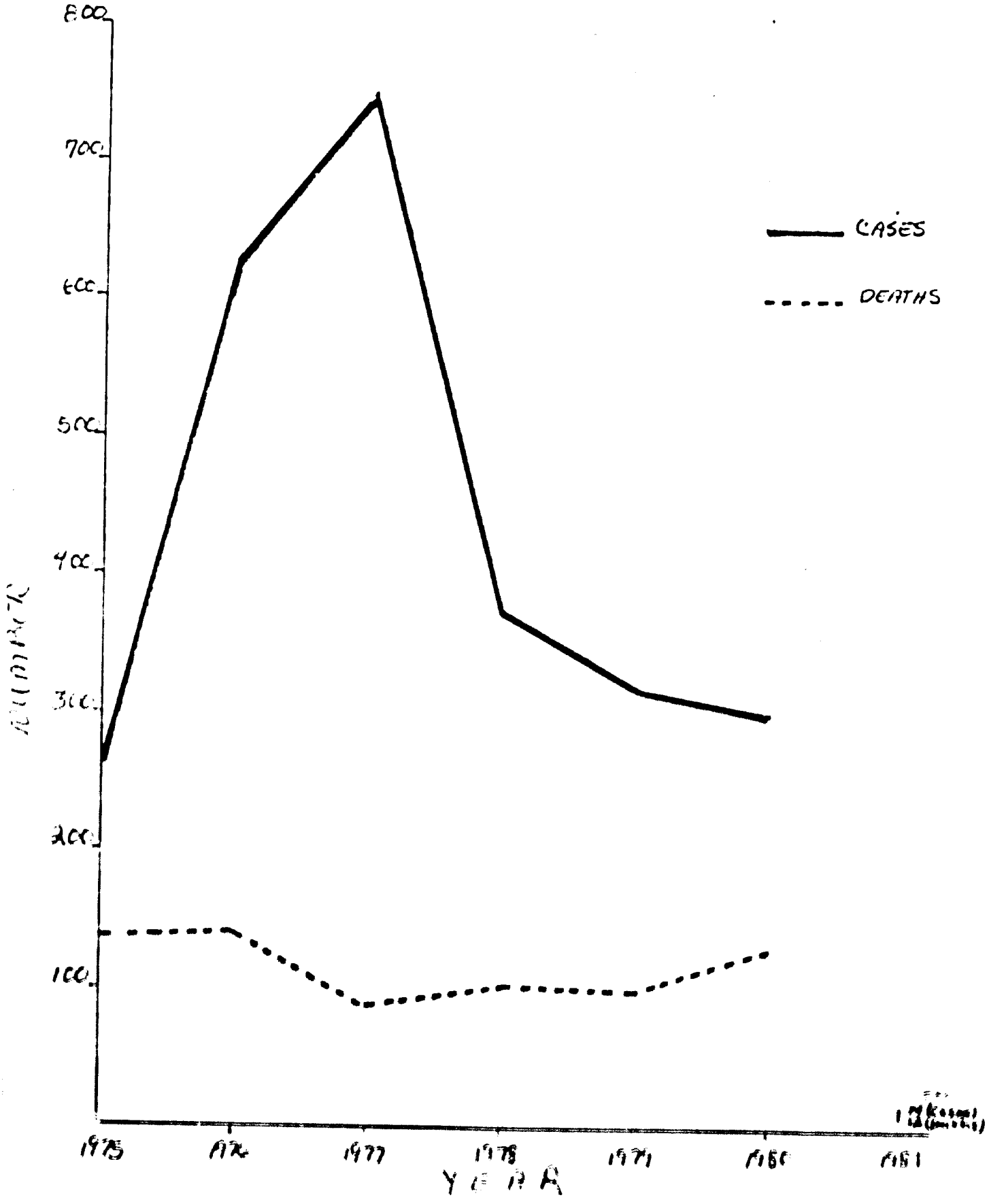
MEASLES CASES, LIBERIA
1975 - 1981.



DATA SOURCE: Bureau of Research, Planning and Development, MOH.

Figure 3

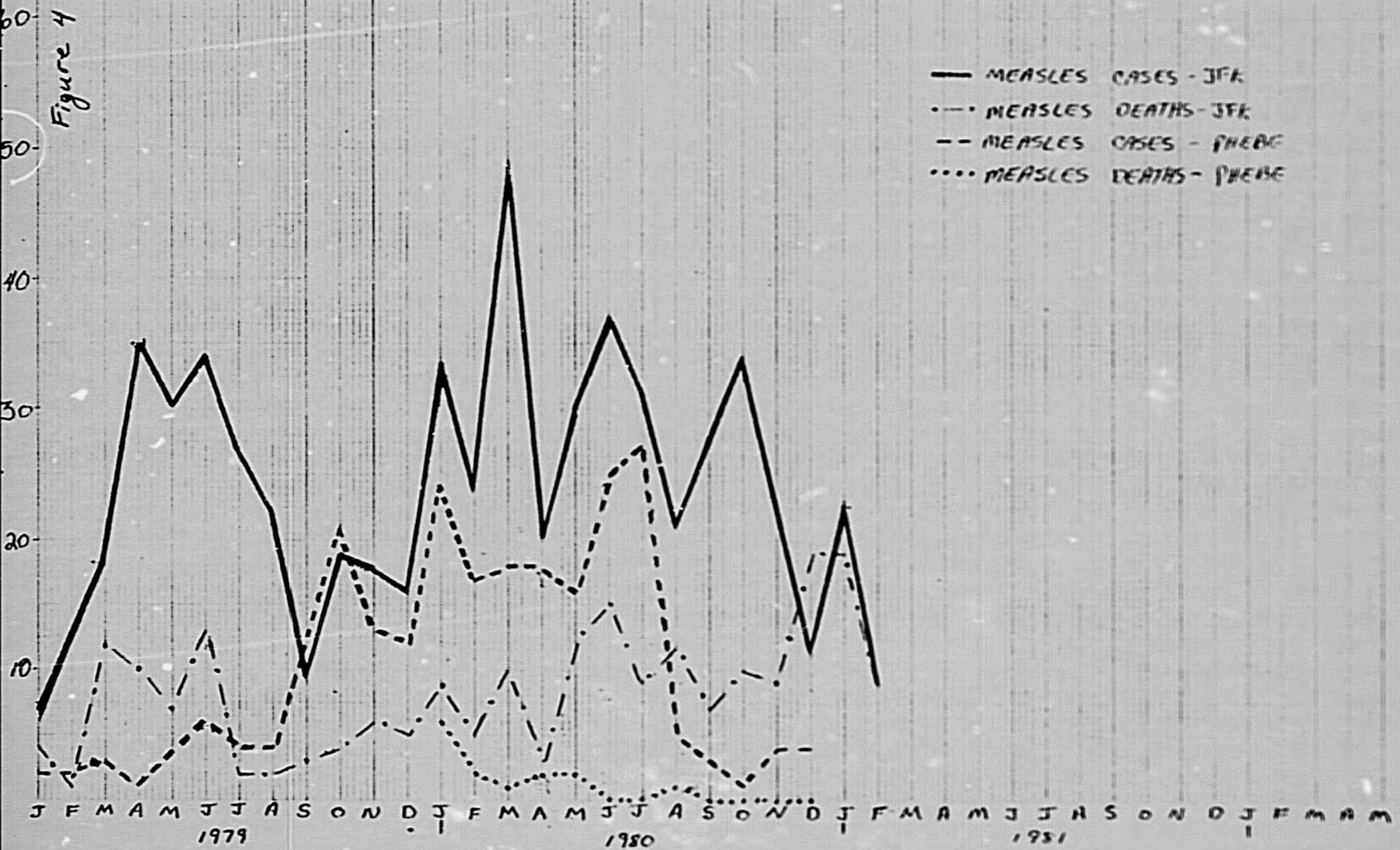
TETANUS CASES and DEATHS, LIBERIA
1975 - 1981.



[illegible] Ministry of Health, Research and Development, [illegible]

INPATIENT MEASLES CASES + DEATHS By MONTH of Admission - JFK + PHEBE HOSPITALS, 1979 - Present.

Figure 4

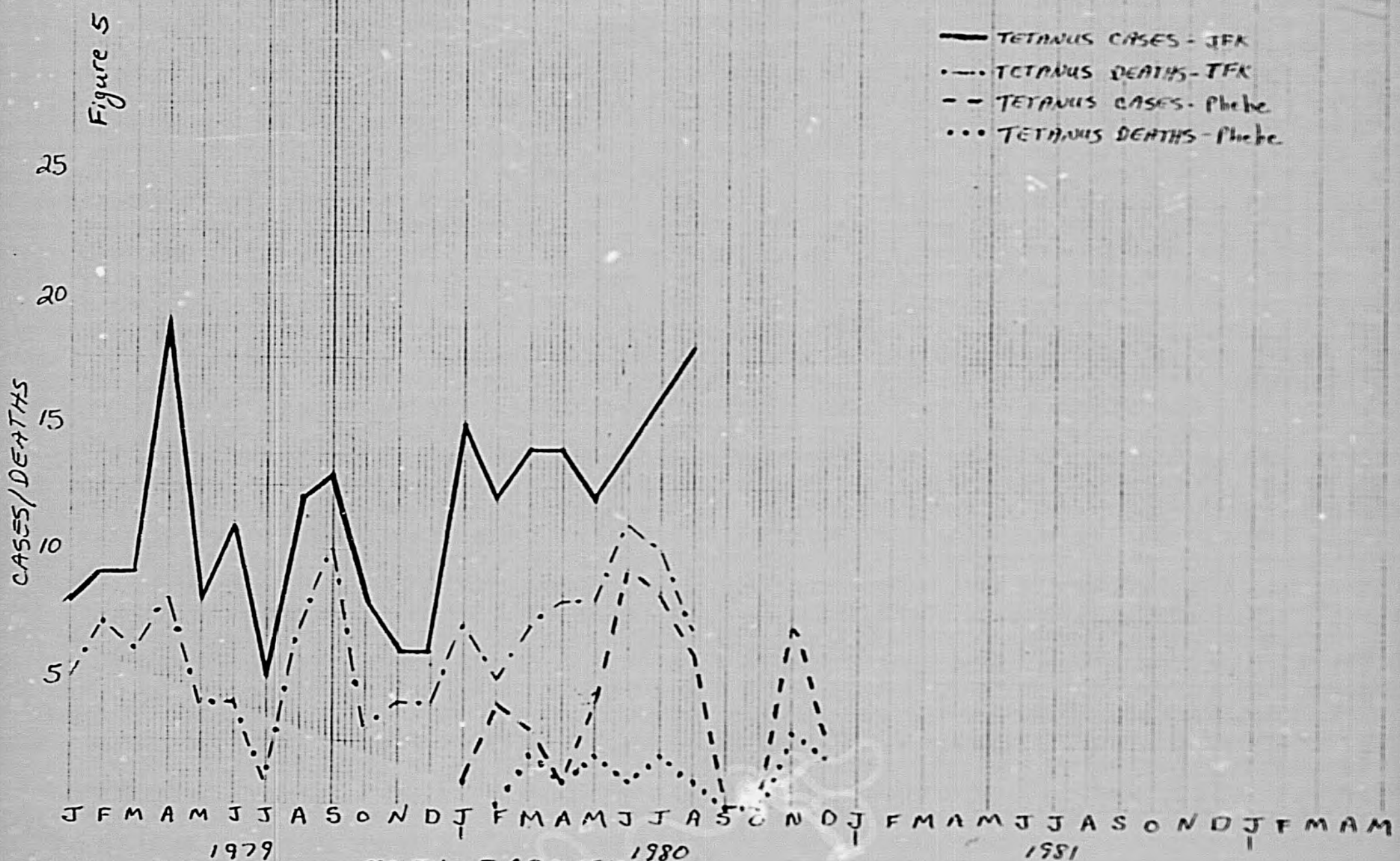


DATA SOURCE: JFK + PHEBE HOSPITALS

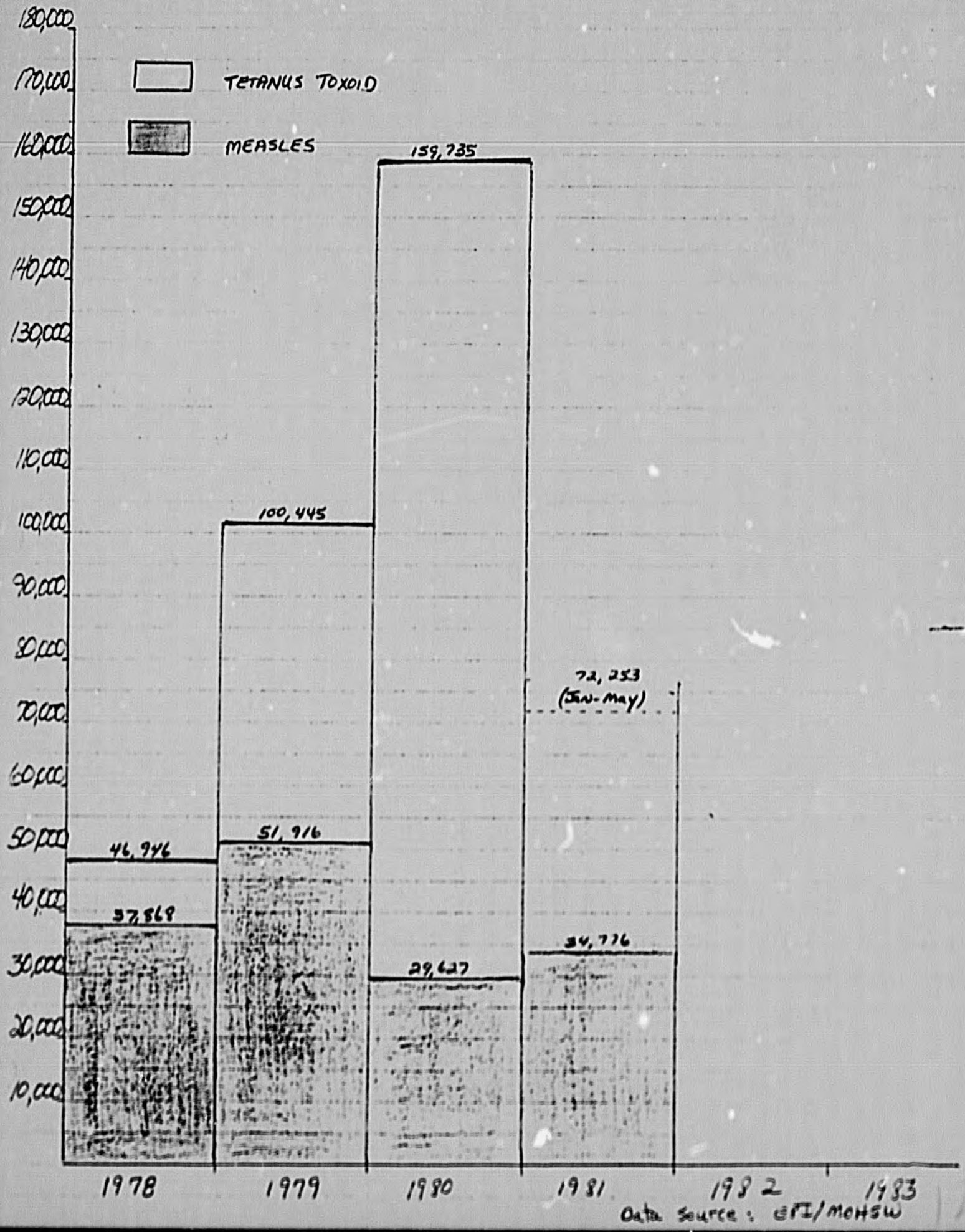
INPATIENT TETANUS CASES + DEATHS By Month of ADMISSION - JFK + PHEBE HOSPITALS -

1979 - Present

Figure 5



DATA SOURCE: JFK + PHEBE Hospitals

Figure 6

MEASLES + TETANUS TOXOID VACCINATIONS GIVEN IN LIBERIA 1978 - Present.