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WEST AFRICA
SMALLPOX ERADICATION/MEASLES CONTROL PROGRAM

SURVEILLANCE REPORT NO. 6
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- I. CURRENT SMALLPOX MORBIDITY
- II. GEOGRAPHIC DISTRIBUTION FOR SELECTED COUNTRIES, 1965 and 1966

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PREFACE

Summarized in this report is published information pertaining to the West Africa Smallpox Eradication/Measles Control Program and information received from Health officials, university investigators and other pertinent sources. Much of the information is preliminary. It is intended primarily for the use of those with responsibility for disease control activities. Anyone desiring to quote this report should contact the original investigator for confirmation and interpretation.

Contributions to the surveillance report are most welcome.

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I. CURRENT SMALLPOX MORBIDITY

A. Reported Cases, 1967

According to notifications received by the World Health Organization through February 23, 1967, 769 cases of smallpox have been reported from the 19 countries participating in the West African Smallpox Eradication/Measles Control Program during 1967. It is interesting to note that even though reports have only been tabulated through the first seven weeks of 1967, the trend of a continuing increase in reported cases over the comparable time periods for the preceding year is evident. Table 1 shows the 769 cases reported in 1967 compared with 655 for a similar time period during 1966 which is an increase of 17.4 percent. Countries that have not yet reported any cases during 1967 are not shown in Table 1.

A more detailed analysis of the 1967 data is not possible at this time as reports for February 4 to February 24 have not been received (Weekly Epidemiological Record, Numbers 6 and 7). In view of this tables showing the geographic distribution of these cases are not shown.

B. Provisional Data, 1966

Through February 23, 1967, notifications received by the WHO show a provisional total of 7,281 cases of smallpox during 1966, reported from the 19 countries participating in the Smallpox Eradication/Measles Control Program. This compares with 6,119 cases reported during the comparable time period of 1965, an increase of 19.0 percent. The numbers of cases by country are shown in Table 2.

In Dahomey 31 additional cases were reported to WHO during the interval November 9 through December 13. Of these, thirteen cases were reported from the Subdivision of Ouidah during the week, 11/30-12/6, and 7 cases were reported during the week, 12/7-12/13, from the Subdivision of Nikki. The Subdivision of Porto-Novo reported 6 cases during the same four-week interval. Figure 1 reveals a slight upward trend in reported cases.

Guinea reported 10 cases during the three-week interval 11/6-11/26 with 9 being from Kindia and 1 from Dalaba.

Niger reported an additional 95 cases during the interval 11/15-12/31. Twenty-five of these cases were reported from Tessama Cercle, thirty-seven were reported from Tera Cercle and 18 from Niamey Cercle. The remaining cases were reported from Birni N'Konni, Maradi, Magaria and Tahoua. Figure 2 shows the seasonal distribution since 1960.

In Nigeria 4,900 cases (67 percent of all cases reported from the 19 participating countries), were reported to WHO. Of these, approximately 90 percent have been reported from the Northern Region.

In Sierra Leone, during the interval 9/24-11/26, 55 cases were reported. Twenty-six cases were reported from the Eastern Province, 19 from the Northern Province and 10 from the Western Area (excluding Freetown (PA) and Bonthe (P)). Delayed reports which were filed during the last week of December accounted for 103 additional cases. One-hundred and two of these were in the Northern Province and the other in the Eastern Province.

Togo reported 13 cases from the Region des Plateaux. The time interval for these reported cases was 11/14-12/4. As seen in Figure 3 there has been a sharp decline of smallpox cases over the past five weeks.

In Upper Volta, smallpox continues to be reported from the Cercle of Dori as 7 cases were reported during the interval 8/18-12/22.

II. GEOGRAPHIC DISTRIBUTION FOR SELECTED COUNTRIES, 1965 and 1966

In several countries major changes in geographic distribution of smallpox cases occurred between 1965 and 1966. These countries were Dahomey, Mali, Niger, Sierra Leone, Togo and Upper Volta. These differences are summarized in Tables 3-8 using provisional data compiled from the WHO Weekly Epidemiological Record. Slight differences between country totals in this report and those in Surveillance Report Number 3, dated October 1, 1966, should be noted. These differences occur because the totals which appeared in Surveillance Report Number 3 were obtained from the summary issue, Weekly Epidemiological Record, Number 21 (27 May, 1966) which reflects revisions which were not shown in individual weekly reports. Since these data by geographic area are preliminary, differences in totals are not to be considered critical and will be corrected pending future WHO publications.

Attempts were made to determine if the endemic and/or epidemic areas between and within countries were contiguous. Using the maps available to us, it was noted that the political units of

some countries have undergone name changes, thus making it difficult to plot the cases on maps. Hopefully, this problem will be resolved shortly and a more meaningful geographic analysis can be presented in a subsequent report.

During 1966 smallpox epidemics occurred in Dahomey, Niger, Sierra Leone, Togo and Upper Volta. In Dahomey the Subdivision of Allada, Ouidah, and Dassa Zoume reported substantially more smallpox in 1966 than 1965 (Table 3). There continues to be evidence of an epidemic situation in the early part of 1967 with the Subdivision of Allada having reported almost half of the 1967 Dahomey cases (Table 2). (Geographic distribution is not given due to missing reports.)

In Mali a significant decrease in reported cases was evident in several Cercles. Perhaps the most noteworthy decreases were in the Djenne and Douentza Cercles of the Mopti Region. However, increases were noted in the Cercles of Nioro and San (Table 4).

In Niger the Cercles of Dosso, Niamey, Tillaberi and Tera showed substantial increases over the preceding year. Similarly, in Sierra Leone increases were noted in the Eastern, Northern and Southern Provinces. Likewise, for the Region des Plateaux in Togo, a rather large increase was apparent. Two reporting areas in Upper Volta for 1966 reported increases in smallpox, namely, Bobo-Dioulasso and Dori Cercles. The numbers of cases reported for each of these countries are shown in Tables 5-8.

Table 1. Reported Smallpox Cases in Selected Countries, West Africa 1966 and 1967

<u>Country</u>	<u>Most Recent Reporting Date in 1967</u>	<u>Number of Cases</u>	
		<u>1967*</u>	<u>1966**</u>
Dahomey	February 7	177	56
Guinea	January 28	2	1
Mali	January 27	3	9
Niger	February 14	204	243
Nigeria	January 28	370	332
Sierra Leone	January 21	4	7
Togo	January 29	8	2
Upper Volta	January 17	<u>1</u>	<u>5</u>
	Total	769	655

* Reports received by WHO through February 23, 1967. Other Program countries have not reported any smallpox cases to WHO.

** Comparable time period in 1966.

Table 2. Reported Smallpox Cases in
19 West African Countries
1965 and 1966

Country	Most Recent Reporting Date in 1966	Cumulative No. of Cases	
		1966*	1965**
Cameroon	April 31	3(r)	0(r)
C.A.R.	***	0	0
Chad	***	0	74(i)
Congo(B)	December 5	2	81
Dahomey	December 13	490	168
Gabon	***	0	1
Gambia	November 20	3	6
Ghana	December 31	13(i,r)	7
Guinea	December 11	15	55
Ivory Coast	***	0	8
Liberia	***	0	49
Mali	December 31	285	632
Mauritania	November 30	7	0
Niger	December 31	995	477
Nigeria	December 31	4900	4478
Senegal	***	0	0
Sierra Leone	December 31	293	60
Togo	December 25	200	10
Upper Volta	December 31	75	13
	Total	7281	6119

* Reports received by WHO through February 23, 1967

** Comparable time period in 1965

*** No cases reported to WHO through February 23, 1967

(i) Includes imported cases

(r) Revised

Table 3. Geographic Distribution of Reported Smallpox Cases by Reporting Area

DAHOMY, 1965 and 1966¹

Reporting Area		Year	
Cercle	Subdivision	1965	1966
Abomey	Abomey	112	35**
	Ketou	2	-
	Zagnanado	30	2**
Athiene	Athiene	-	16
	Grand-Popo	-	18
	Parahoue	-	-
Cotonou	Calavi	-	-**
	Cotonou	7	26
Djangou	-	-	-
Kandi	-	-	1
Natitingou	Kouandi	-	1
	Natitingou	-	1
	Tanguieta	-	-
Ouidah	Allada	5	145
	Ouidah	5	81
Parakou	Bembereke	-	4
	Nikki	-	29
	Parakou	-	3
Porto-Novo	Adjohon	-	22
	Pobe	1	11
	Porto-Novo-banlieue	-	33
	Sakete	-	4
Savalou	Savalou	4	2
	Save	2	2
Centre Dep. Pref.	Dassa-Zoume, Circ. Med.	-	52
Nord-Ouest Dep.	Djougou, Circ. Med.	-	2
Total		168*	490

¹ Compiled from WHO Weekly Epidemiological Record, 1965 and 1966.

* Efforts are being made to account for the difference as reported in WHO Weekly Epidemiological Record, Number 21, 27 May 1966.

** Includes Abomey-Calavi; includes Cove-Zagnanado.

Table 4. Geographic Distribution of Reported Smallpox Cases by Reporting Area

MALI, 1965 and 1966¹

Reporting Area		Year	
Region	Cercle	1965	1966
Bamako	Bamako	9	3
	Banamba	7	-
	Dioila	2	-
	Koulikoro	31	1
	Nava	27	-
Gao	Ansongo	11	9
	Dire	53	55
	Goundam	25	-
	Kidal	9	-
	Tombouctou	8	-
	Gao	-	15
Kayes	Kita	0	3
	Nioro	39	72
Mopti	Bandiagara	5	-
	Bankass	28	-
	Djenne	204	-
	Douentza	44	-
	Karo	2	-
	Mopti	9	5
	Niafunke	74	24
	Tenenkou	10	20
Sikasso	Sikasso	7	-
Segou	Masina	19	-
	San	9	78
	Segou	1	-
	Tominian	1	-
Total		634*	285

¹ Compiled from WHO Weekly Epidemiological Record, 1965 and 1966.

* Efforts are being made to account for the difference as reported in WHO Weekly Epidemiological Record, Number 21, 27 May 1966.

Table 5. Geographic Distribution of Reported Smallpox Cases by Reporting Area

NIGER, 1965 and 1966¹

Reporting Area (Cercle)	1965	1966
Agades	4	-
Birni N'Konni	5	22
Doutchi	-	1
Dogondoutchi	-	2
Dosso	35	134
Filinque	-	52
Goure	21	32
Madaoua	34	19
Magaria	21	23
Maradi	101	18
N'Guigmi	55	28
Niamey	23	186
Tillabéri	2	149
Tessaoua	103	83
Tahoua	1	13
Tera	3	127
Zinder	71	106
Total	479*	995

¹ Compiled from WHO Weekly Epidemiological Record 1965 and 1966.

* Efforts are being made to account for the difference as reported in WHO Epidemiological Record, Number 21, 27 May 1966.

Table 7. Geographic Distribution of Reported Smallpox Cases by Reporting Area

TOGO, 1965 and 1966¹

Reporting Area		Year	
Region	Circumscription and Subdivision san	1965	1966
Region des Plateaux	Nuatja	1	158
	Atakpame	-	20
Region Centrale	Niamtougou	1	2
	Pagouda	-	1
	Sokode	2	1
Region Maritime	Lome (excluding Lome(PA))	3	1
	Anecho Tabligbo	-	3
Lome(PA)	-	-	13
Region des Savanes	Sansanne Mango	3	1
Total		10	200

¹ Compiled from WHO Weekly Epidemiological Record, 1965 and 1966.

Table 6. Geographic Distribution of Reported Smallpox Cases by Reporting Area

SIERRA LEONE, 1965 and 1966¹

Reporting Area	1965	1966
Eastern Province	56	113
Western Province (excluding Freetown(PA) & Bonthe(P))	-	27
Northern Province	3	127
Lungi(Freetown Airport)	1	16
Southern Province	-	3
Total	60	293*

¹ Compiled from WHO Weekly Epidemiological Record, 1965 and 1966.

* An additional seven cases are reported but geographic distribution is not known.

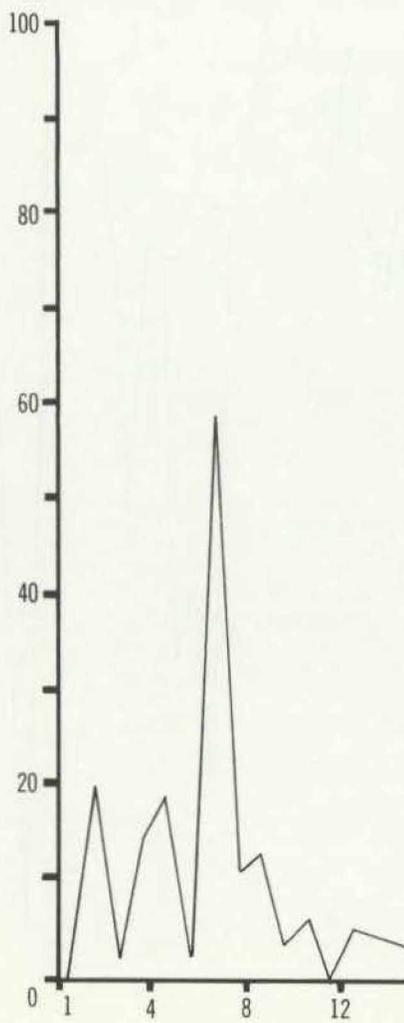
Table 8. Geographic Distribution of Reported Smallpox Cases by Reporting Area
UPPER VOLTA, 1965 and 1966¹

Reporting Area (Cercle)	1965	1966
Bobo-Dioulasso	0	40
Nouna	0	2
Ouagadougou	0	1
Ouahigonya	0	3
Po	2	3
Kombissiri	0	1
Gaoua	0	1
Dori	3	23
Koudougou	0	1
Diebougou	5	0
Boromo	1	0
Total	11*	75

¹ Compiled from WHO Weekly Epidemiological Record, 1965 and 1966.

* Efforts are being made to account for the difference as reported in WHO Weekly Epidemiological Record, Number 21, 27 May 1966.

Number of
Cases



Source: WHO Reports

Figure 1
Smallpox Cases by Week of Report
Dahomey, 1966

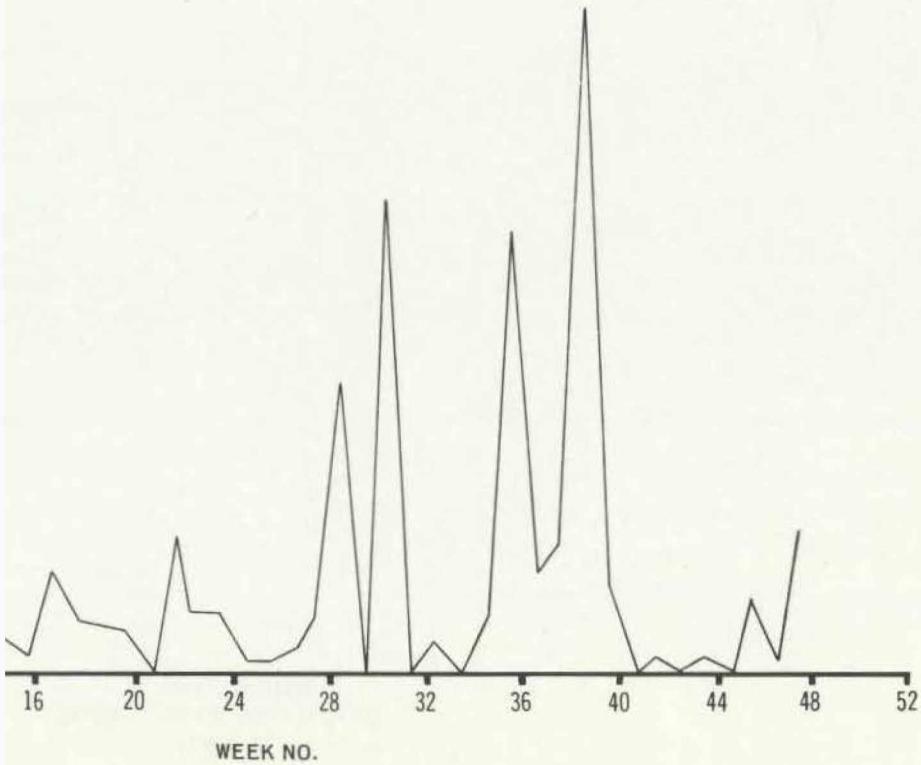
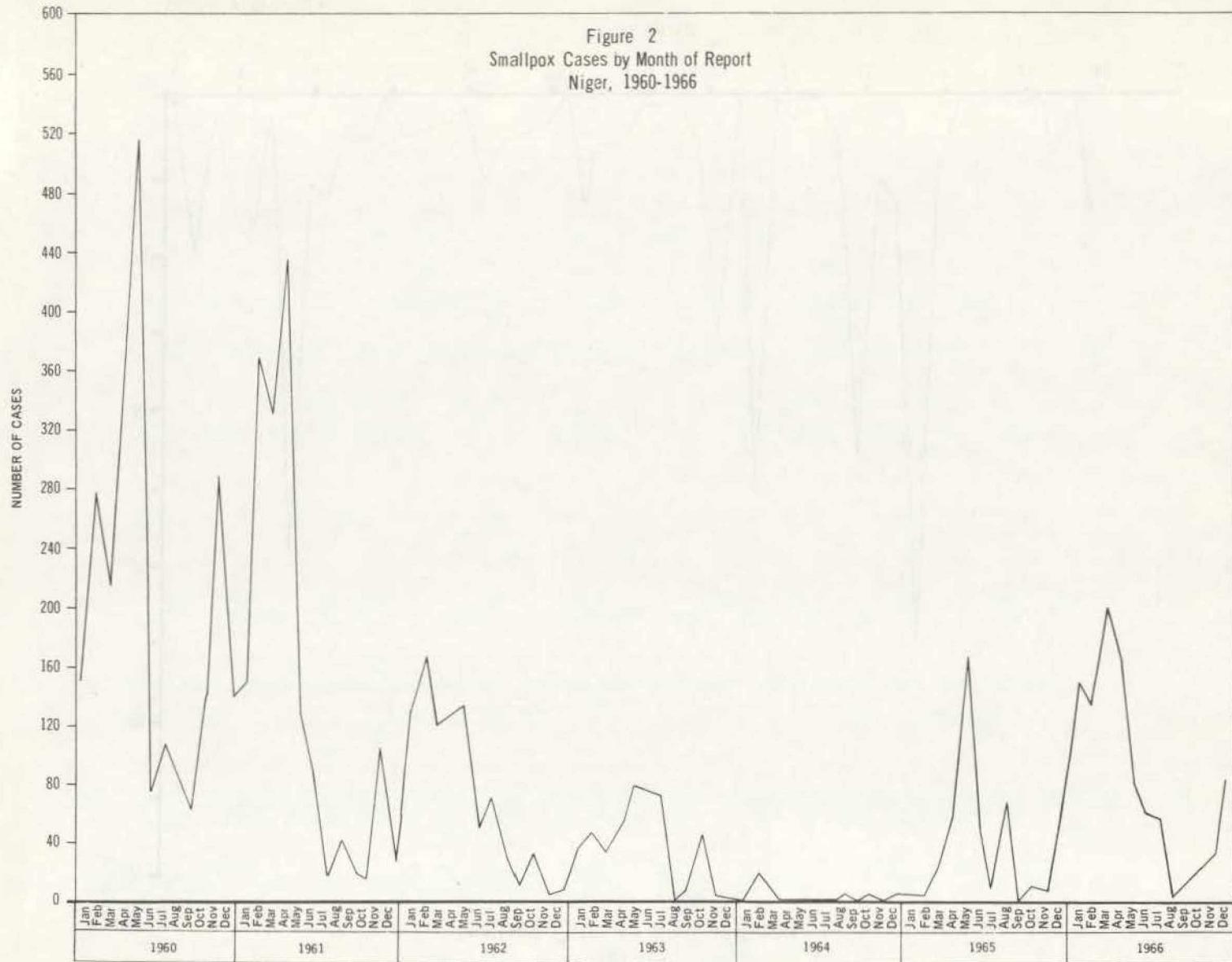
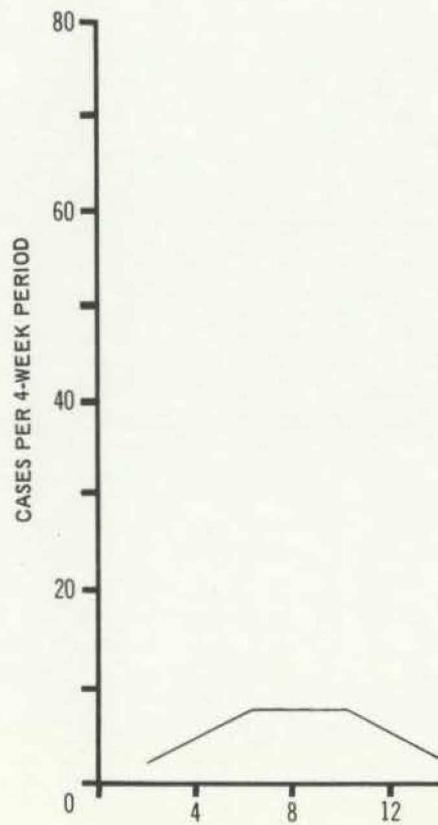


Figure 2
Smallpox Cases by Month of Report
Niger, 1960-1966

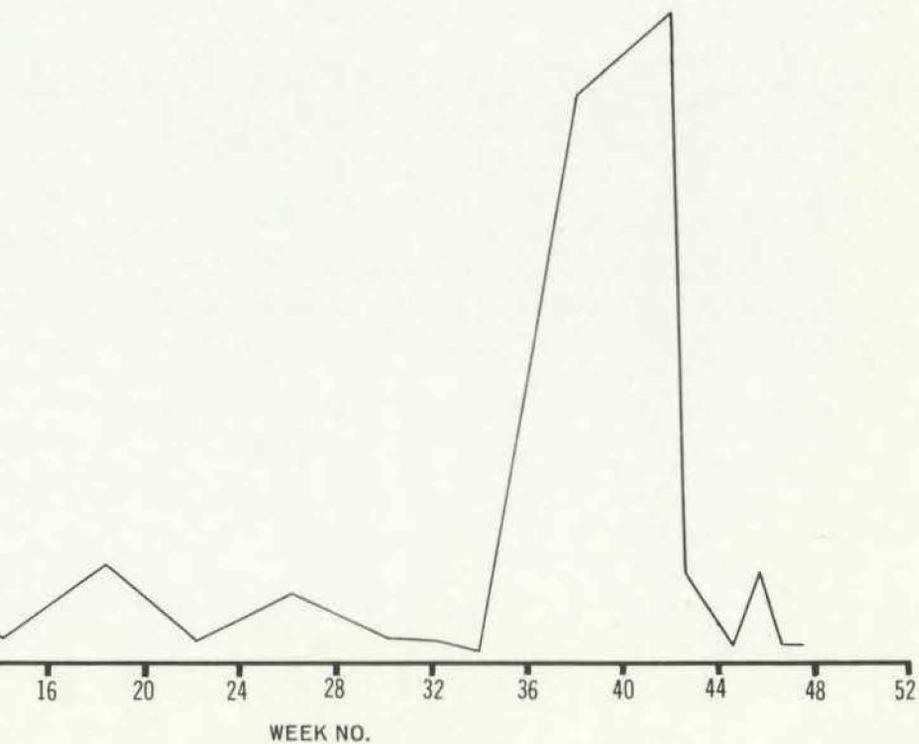


Source: Ministry of Health, Niger
and WHO Reports



Source: WHO Reports

Figure 3
Smallpox Cases by Date of Report
Togo, 1966





TEMPERATURE - TIME