

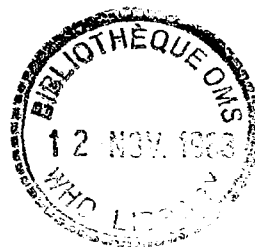


WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTÉ

INDEXED

SMALLPOX ERADICATION SEMINAR

Kinshasa, 19-26 November 1968



STATUS OF SMALLPOX ERADICATION ACTIVITIES

COUNTRY KENYA

1. Demographic data

1.1 Estimated population (1967)

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0-4	<u>907 000</u>	<u>906 000</u>	<u>1 813 000</u>
5-14	<u>1 309 000</u>	<u>1 334 000</u>	<u>2 643 000</u>
15 and over	<u>2 574 000</u>	<u>2 646 000</u>	<u>5 220 000</u>
TOTAL	<u>4 790 000</u>	<u>4 886 000</u>	<u>9 676 000</u>

1.2 Proportion of population which is nomadic 5 %

2. Smallpox incidence and vaccination data

2.1 Annual smallpox incidence by Province/Region (1958-1967) - (Table 1)

2.2 Monthly smallpox incidence (1964-1968) - (Table 2)

2.3 Smallpox cases by age, sex and vaccination status - 1967 - (Table 3)

2.4 Vaccinations performed by Province/Region (1966-1968) - Table 4)

3. Vaccine

3.1 Liquid vaccine

Amount of liquid vaccine still being used (% of total) - 1967 100%
1968 90% but freeze-dried
from 1 October 1968

3.2 Freeze-dried vaccine

<u>Sources (producers) - 1968</u>	<u>Amount</u>
<u>Medical Research Laboratory</u>	<u>261 000 doses</u>
<u>P.O. Box 30141</u>	
<u>Nairobi</u>	

3.3 Vaccine storage

- 3.3.1 All vaccine at the central depot continuously stored at less than 10°C
 Yes No
- 3.3.2 Adequate refrigeration facilities in the interior of the country to permit storage at less than 10°C
 Yes No
- 3.3.3 All vaccine used less than 30 days after removal from refrigerated storage
 Yes No

4. Vaccination

4.1 Personnel engaged in vaccinations:

- 4.1.1 Vaccinators 400⁺⁺
 Other field staff, including recorders, drivers, etc. Approx. 300⁺
 Supervisory personnel (paramedical) Approx. 125
 Supervisory personnel (medical officers) Approx. 45
- 4.1.2 Organization of vaccination effort
 House to house; Collecting points
 Vaccinators working alone; at times
 Vaccinators working in teams
 Other _____ Varies from district to district
- 4.1.3 Number of vaccinators directly supervised by one supervisor to district
- 4.1.4 Average number of vaccinations performed daily by each vaccinator or team 200
- 4.1.5 Vaccination targets by Province/Région, 1968-1970 - (Table 5)

4.2 Technique of vaccination used now:

- | | Percentage performed
by this method |
|--|--|
| 4.2.1 Multipuncture (bifurcated needle) | <u>30%</u> |
| Ped-O-Jet | _____ |
| Other (specify) <u>Scratch method (up to now)</u> | <u>70%</u> |
| 4.2.2 Usual preparation of skin before performing vaccination, (i.e. water, nothing, etc.) | <u>Water</u> |
| 4.2.3 Method of sterilization of vaccination instrument | |
| <input type="checkbox"/> Boiling <input checked="" type="checkbox"/> Flaming <input type="checkbox"/> None | |

* These are employed as Health Assistants, but carry out vaccination amongst other public health duties.

+ This figure includes Medical Assistants and Dressers who assist in vaccination only during outbreaks.

4.3 Reconstituted vaccine used only on the day on which it is reconstituted

Yes No

4.4 Method for recording of vaccinations (please attach sample of sheets used for recording of vaccinations)

Tally sheet (vaccinees recorded only by age, sex, vaccination status)

Yes No

Other registry system (specify) _____

4.5 Youngest age for beginning vaccination

Birth Yes
Three months _____
Other _____

4.6 Contra-indications to vaccination other than severe, acute illness

No Yes - specify Skin diseases and pregnancy

5. Programme

5.1 Supervision

5.1.1 Proportion of time spent in field by supervisory staff checking directly on the work of vaccinators and lower level supervisors Normally

- (a) By staff at Territory/District level 15 %
- (b) By staff at Regional/Provincial level 10 % 100% during
- (c) By staff at National level 5 % outbreaks

5.1.2 Measures taken when vaccinator performance is unsatisfactory (e.g. reprimand, suspension, dismissal) Reprimand

5.2 Assessment

5.2.1 Vaccine "take rates"

Proportion of primary vaccinations in 0-4 year-old children which are checked after seven days to determine takes 10 %

Steps taken when the proportion of successful primary vaccinations falls below 95%

- 1. Repetition
- 2. Check vaccination technique
- 3. Check potency of vaccine

5.2.2 Vaccination coverage

5.2.2.1 Vaccinations performed in each village or area are compared with population estimated to be in area (e.g. village register, census data, other)

Yes No

5.2.2.2 Assessment of coverage regularly performed in a sample of the population

but at the present Yes time not regularly performed.

When coverage in the 0-4 or 5-14 year age-group is less than 85%, the following steps are taken: Necessary steps will be undertaken during our forthcoming mass vaccination.

5.3 Surveillance

5.3.1 Notification of smallpox cases

5.3.1.1 Notification sites

- (a) Number of sites which may notify cases of smallpox (e.g. hospitals, health centres, health posts, dispensaries) 41
(b) Number which report at least every two weeks whether or not smallpox cases were observed 41
(c) Other specialized programmes which report cases (e.g. malaria, yaws, etc. - specify) No
(d) Other persons or groups who have been requested to notify cases (e.g. teachers, village headmen, etc. - specify) Teachers, Headmen, Administrative Officers, etc.

5.3.1.2 Proportion of cases for which age, sex and vaccination status are recorded 100%

5.3.1.3 Best estimate of the percentage of cases which are reported

Table with 2 columns: Percentage range and Count. Rows: More than 90%, 75-90% (X), 50-75%, Less than 50%.

5.3.2 Case investigation and containment measures

Case investigation - containment teams ("fire-fighting" teams) have been established in each Province/Region

Yes No

Proportion of cases in which containment action (verification, vaccination, isolation, etc.) taken within 48 hours after notification 100%

Proportion of cases routinely investigated to determine the origin of infection 100%

5.4 Legislative provisions

Vaccination compulsory: Yes During outbreaks No

Enforcement of compulsory vaccination is carried out:

at the time of birth (if born in hospital) x

at the time of school entry x

at the time of hospital admission No

Other (specify) International travel

Isolation of cases enforced through the time when all scabs have separated

Yes No

Variolation prohibited by law

Yes No

6. Year in which the last endemic cases of smallpox are expected to occur 1968

7. Describe briefly (two pages) the administrative organization and method of execution of the programme with organizational chart. Discuss specifically with reference to component activities in Table 6. (Attach samples of posters and pamphlets being used in programme.)

Apart from routine vaccinations we have at the present time no organization in Smallpox Eradication. However, a WHO assisted Project (Kenya 41) is due to start in this country as soon as the necessary project equipment has arrived in Kenya.

2.1 Annual Smallpox Incidence
Incidence annuelle de la variole

TABLE 1
(1958-1967 annual figures)

TABLEAU 1
(1958-1967 chiffres annuels)

Province (or major administrative area) Province (ou autre grande subdivision administrative)	Number of cases Nombre de cas									
	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967
COAST PROVINCE						-	3	3	-	-
EASTERN PROVINCE						8	32	47	6	12
CENTRAL PROVINCE						3	11	37	4	5
RIFT VALLEY PROVINCE						110	95	114	58	15
NYANZA PROVINCE	After independence					75	51	21	68	98
WESTERN PROVINCE	Après l'accession à l'indépendance					25	45	17	14	18
NORTH-EASTERN PROV.						1	1	2	1	3
NAIROBI CITY						27	35	35	8	2
COAST PROVINCE	42	3	54	7	-					
SOUTHERN PROVINCE	51	45	14	35	19					
CENTRAL PROVINCE	158	44	25	165	16					
RIFT VALLEY PROVINCE	335	132	22	26	10	Before independence				
NYANZA PROVINCE	110	59	15	34	37	Avant l'accession à l'indépendance				
NORTH FRONTIER DIST.	6	5	4	9	1					
NAIROBI CITY	33	28	17	13	12					
TOTAL	735	316	151	289	95	249	273	276	159	153

2.2

TABLE 2 - Smallpox Incidence by month or four week period

TABLEAU 2 - Incidence de la variole par mois ou période de quatre semaines

YEAR ANNEE	Jan. Jan.	Feb. Fév.	Mar. Mars	April Avril	May Mai	June Juin	*	July Juil.	Aug. Août	Sept. Sept.	Oct. Oct.	Nov. Nov.	Dec. Déc.	Total
Weeks Semaines	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29-32	33-36	37-40	41-44	45-48	49-52	
1964	32	6	12	16	21	21	20	25	24	8	11	44	33	273
1965	29	44	22	14	19	19	24	26	20	14	17	19	9	276
1966	1	13	50	40	15	6	8	1	4	1	3	9	8	159
1967	7	8	6	5	1	9	5	1	1	4	32	48	26	153
1968	29	10	10	4	7	3	3	9	3	-	-	-	-	78
TOTAL	98	81	100	79	63	58	60	62	52	27	63	120	76	939

* Use this column only if reporting by four week periods

* N'utiliser cette colonne que si les chiffres correspondent à des périodes de quatre semaines

2.3

TABLE 3. CASES BY AGE, SEX AND VACCINATION STATUS - 1967
TABLEAU 3. CAS DE VARIOLE PAR AGE ET SEXE, ET PAR ETAT DE VACCINATION - 1967

I. Check this box if there were no smallpox cases during 1967.
 Cocher cette case s'il n'y a pas eu de cas de variole en 1967.

II. SMALLPOX CASES BY AGE AND SEX, AND VACCINATION STATUS
 CAS DE VARIOLE PAR AGE ET SEXE, ET PAR ETAT DE VACCINATION

Age Group Groupe d'âge	Number of cases - Nombre de cas			
	Male Sexe Masculin	Female Sexe Féminin	Unknown Sexe non précisé	Total
< 1	5	5	-	10
1-4	13	19	-	32
5-14	14	22	-	36
15+	26	15	-	41
Unknown Age inconnu	N/A	N/A	-	34
TOTAL	58	61	-	153

Number vaccinated before exposure Nombre de vaccinés avant l'exposition		
Vac. Vaccinés	Not vac. Non vaccinés	Unknown Antécédents vaccinaux inconnus

If detailed information is not available for all cases, complete as far as possible.
 En l'absence de renseignements détaillés sur tous les cas, remplir la formule dans toute la mesure du possible.

TABLE 4 : TABLEAU 4

VACCINATIONS PERFORMED⁽¹⁾ : VACCINATIONS PRATIQUÉES⁽¹⁾

Province (or major administrative area) Province (ou autre grande subdivision administrative)	Population (estimate for 1966) Nombre d'habitants (chiffre estimatif pour 1966)	1966			1967			1968 ⁽²⁾		
		Primary vaccination	Revaccination	Total	Primary vaccination	Revaccination	Total	Primary vaccination	Revaccination	Total
		Primovaccination	Revaccination	Total	Primovaccination	Revaccination	Total	Primovaccination	Revaccination	Total
CENTRAL PROVINCE	1 568 800									
EASTERN PROVINCE	1 646 800									
COAST PROVINCE	826 600									
RIFT VALLEY PROV.	1 858 200									
NYANZA PROVINCE	1 778 100	480 027	1238 637	1718 664	463 970	714 569	1178 539	242 635	474 922	717 557**
WESTERN PROVINCE	1 164 100									
NORTH EASTERN P.	296 800									
NAIROBI CITY	429 000									
TOTAL	9 568 400									

(1) If data regarding primary and revaccinations are not specifically available, please provide information as to total vaccinations performed.

Si l'on ne possède pas de renseignements précis concernant les primovaccinations et les revaccinations, indiquer le chiffre total des vaccinations pratiquées.

(2) January through June - janvier à fin juin.

** These figures are incorrect because quite a number of returns were never received. We consider ourselves as having carried out far more vaccinations than shown above. / Ces chiffres ne sont pas tout à fait exacts, un assez grand nombre de relevés ne nous étant jamais parvenus. Nous estimons que le nombre des vaccinations pratiquées est bien supérieur à celui qui est indiqué.

4.1.5

TABLE 5 : TABLEAU 5

VACCINATION TARGETS : VACCINATIONS PREVUES

Province/Region	Number of vaccinations planned - Nombre de vaccinations prévues						
	1968 Total	1969					1970 Total
		Jan.-Mar. Jan.-Mars	April-June Avril-Juin	July-Sept. Juil-Sept.	Oct.-Dec. Oct.-Déc.	Total	
WESTERN PROVINCE				1 000 000	500 000	1 500 000	
NYANZA PROVINCE		500 000	1 000 000			1 500 000	
CENTRAL PROVINCE							1 500 000
COAST PROVINCE							
EASTERN PROVINCE		Routine vaccination				500 000	
NORTH-EASTERN PROVINCE		Vaccination systématique					
RIFT VALLEY PROVINCE							2 000 000
NAIROBI CITY							
TOTAL		500 000	1 000 000	1 000 000	1 000 000	3 500 000	3 500 000

TABLE 6

	ATTACK PHASE (PHASE 1)	CONSOLIDATION PHASE (PHASE 2)	MAINTENANCE PHASE (PHASE 3)	
DEFINITION	Endemic areas with an incidence of smallpox of five or more cases per 100 000 population per year and with less than 80% of all segments of the population showing scars of primary vaccination.	Areas with an incidence of smallpox of less than five cases per 100 000 and in which over 80% of all segments of the population show scars of primary vaccination.	Areas free from endemic smallpox for more than two years but geographically situated in an endemic continental area, presently Africa, Asia or South America.	
ACTIVITIES	VACCINATION	Systematic mass vaccination.	Continuing maintenance vaccination.	
	SURVEILLANCE	<p><u>Reporting</u> Establish prompt and regular reporting of smallpox by existing health facilities.</p> <p><u>Field investigation</u> Investigation of major outbreaks or outbreaks occurring in smallpox-free areas.</p>	<p><u>Reporting</u> Extension of case detection system to assure reporting of all suspect smallpox in all segments of the population.</p> <p><u>Field investigation</u> All cases and outbreaks promptly investigated epidemiologically to establish source of infection and unreported cases. Investigation forms submitted for every case.</p>	<p><u>Reporting</u> Extension of case detection system to assure reporting of all suspect smallpox in all segments of the population</p> <p><u>Field investigation</u> Each case investigated promptly as an emergency by a competent epidemiologist.</p>
	LABORATORY	Establish techniques and methods for the submission and examination of specimens for confirmation of diagnosis.	Specimens studied from all isolated cases and representative samples from each outbreak.	Specimens studied from every suspect case.
	CONTAINMENT	Localized, intensive vaccination in community where cases or outbreaks occur. Isolation of cases if feasible.	Vaccination and observation of case contacts. Isolation of cases and appropriate disinfection. Localized, intensive vaccination in community.	Vaccination and observation of case contacts. Isolation of cases and appropriate disinfection. Localized, intensive vaccination in community.