

WORLD HEALTH  
ORGANIZATION

ORGANISATION MONDIALE  
DE LA SANTÉ

STATUS OF SMALLPOX ERADICATION ACTIVITIES

COUNTRY \_\_\_\_\_



1. Demographic data

1.1 Estimated population (1966)

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0-4	_____	_____	_____
5-14	_____	_____	_____
15 and over	_____	_____	_____
Total	=====	=====	=====

1.2 Population dispersion

	<u>No. of cities</u>
Estimated population in metropolitan areas over 100,000	_____
Estimated population in cities 5,000 - 100,000	_____
Estimated population in cities less than 5000 and rural areas	_____
Total	=====

1.3 Accessibility of population

1.3.1. Approximate percentage of population which can be reached by:

- a. vehicles \_\_\_\_\_%
- b. water transport \_\_\_\_\_%
- c. only on foot or by bicycle \_\_\_\_\_%

1.3.2. Proportion of population which is nomadic \_\_\_\_\_%

1.3.3. Approximate proportion of population which presently refuses vaccination because of religious or other reasons \_\_\_\_\_%

By what means can objections in these groups be overcome?

1.4 Other population or demographic characteristics which may significantly impede or assist a vaccination programme.

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2. Smallpox incidence and vaccination data

- 2.1 Annual smallpox incidence by Province/State (1948 - 1966) (Table 1)
- 2.2 Monthly smallpox incidence (1960 - 1966) (Table 2)
- 2.3 Smallpox cases by age, sex, and vaccination status (1966) (Table 3)
- 2.4 Vaccinations performed by Province/State (1965 - 1967) (Table 4)

3. Vaccine

- 3.1 Is any liquid vaccine still being used? \_\_\_\_\_  
Approximate amount (or proportion) used in 1966 \_\_\_\_\_  
in 1967 \_\_\_\_\_

3.2 Freeze-dried vaccine

- 3.2.1. Source \_\_\_\_\_
- 3.2.2. Did any of the vaccine used in 1966 or 1967 fail to meet WHO standards of potency (titre of greater than  $10^8$  pock forming units/ml)? \_\_\_\_\_  
What proportion used in 1966/1967 failed to meet these standards? \_\_\_\_\_
- 3.2.3. Did any of the vaccine used in 1966 or 1967 fail to meet WHO standards regarding stability? (Titre of greater than  $10^6$  pock forming units/ml after 30 days at  $37^{\circ}\text{C}$ )? \_\_\_\_\_ What proportion used in 1966/1967 failed to meet these standards? \_\_\_\_\_

3.3 Vaccine storage

- 3.3.1. If vaccine from abroad, have procedures been established with Customs Officials to assure immediate refrigeration of vaccine upon its arrival? \_\_\_\_\_
- 3.3.2. Is all vaccine at the central depot continuously stored at less than  $10^{\circ}\text{C}$ ? \_\_\_\_\_
- 3.3.3. Are there refrigeration facilities at all peripheral distribution points to permit storage at less than  $10^{\circ}\text{C}$ ? \_\_\_\_\_
- 3.3.4. What is maximum total length of time that vaccine is without refrigeration prior to administration? \_\_\_\_\_  
Does this ever exceed 30 days? \_\_\_\_\_

4. Vaccination activities

4.1 Please attach an organogramme of the programme and its relationships within the Ministry of Health.

4.2 Please provide a succinct outline of the general strategy of the national smallpox eradication programme indicating the phase in which your country presently is. (See attached Table 5)

4.3 Organization of vaccination effort:

4.3.1. Personnel presently engaged in vaccination activity:

Vaccinators \_\_\_\_\_

Other field staff, including recorders, drivers, etc. \_\_\_\_\_

Supervisory personnel (including medical officers) \_\_\_\_\_

4.3.2. Brief description of organization of vaccination effort  
(collecting point vaccination or house-to-house coverage;  
vaccinators working singly, in pairs or as teams; etc.)

4.3.3. Number of vaccinators directly supervised by one supervisor \_\_\_\_\_

4.3.4. Average number of vaccination performed daily by each vaccinator \_\_\_\_\_

4.4 Technique of vaccination used:

4.4.1. Method

Multiple pressure \_\_\_\_\_ Percent performed by this method \_\_\_\_\_

Scratch \_\_\_\_\_ Percent performed by this method \_\_\_\_\_

Other (specify) \_\_\_\_\_ Percent performed by this method \_\_\_\_\_

4.4.2. Usual preparation of vaccination site (i.e. water, nothing, etc.)

4.4.3. Instrument used for vaccination \_\_\_\_\_

Method of sterilization of instrument \_\_\_\_\_

4.5 Is reconstituted vaccine ever used subsequent to the day on which it is was reconstituted? \_\_\_\_\_ Under what circumstances?

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

Tally sheet (vaccinees recorded only by age, sex, primary or revaccination) \_\_\_\_\_

Family register (head of household only recorded) \_\_\_\_\_

Household roster (name of each individual recorded) \_\_\_\_\_

4.7 Age of beginning vaccination

Birth \_\_\_\_\_

3 months \_\_\_\_\_

Other \_\_\_\_\_

4.8 Contraindications to vaccination other than severe, acute illness

4.9 Special techniques employed for vaccination of particularly difficult groups such as nomads, "floating populations", etc.

4.10 Special activities related to publicity and education of the population  
(please attach samples of most effective posters, pamphlets, etc.)

5. Programme

5.1 Supervision

5.1.1. What proportion of time is spent in the field by supervisory staff checking directly on the work of vaccinators and lower level supervisors with regard to performance in fulfillment of planned vaccination schedules and proportion of successful vaccinations achieved.

- |                                     |         |
|-------------------------------------|---------|
| a. By staff at District level       | _____ % |
| b. By staff at State/Province level | _____ % |
| c. By staff at National level       | _____ % |

5.1.2. What measures are taken in the instance of unsatisfactory performance?

5.2 Assessment

5.2.1. Vaccine "take rates"

What proportion of vaccinations are checked after 7 days to determine takes? \_\_\_\_\_

If, for example, the proportion of successful primary vaccinations falls below 90 or 95% what steps are taken to determine the nature of the problem and to correct it?

5.2.2. Vaccination coverage

Is assessment of coverage achieved performed on the total population or on a sample only? \_\_\_\_\_ If coverage is less than perhaps 85% in specific population segments, such as those under 5 years or in "floating populations", what steps are taken with regard to revaccination in the area?

### 5.3 Surveillance

#### 5.3.1. Notification of cases

##### 5.3.1.1. Notification sites

How many notification sites exist in the country?

- a. Health units (i.e. hospitals, health centres, dispensaries or health posts) \_\_\_\_\_
- b. Medical practitioners \_\_\_\_\_

How many report regularly (at least monthly) whether or not smallpox cases were observed? \_\_\_\_\_

Are cases regularly reported by other specialized programmes, such as malaria, yaws, etc. (please specify mechanism for reporting)

Are reports of cases requested from teachers, village headsmen, etc?  
What steps are taken to verify these reports?

5.3.1.2. Is the age, sex and vaccination status of each case recorded? \_\_\_\_\_

5.3.1.3. What is your best estimate of the percentage of cases which are reported:

More than 90%	_____
75 - 90%	_____
50 - 75%	_____
less than 50%	_____

#### 5.3.2. Containment measures

In what proportion of cases was containment action (verification, vaccination, isolation, etc.) taken within 48 hours after notification?  
(Please elaborate as to usual procedures)

Are cases routinely investigated to determine the origin of infection?

5.3.3. Receipt and analysis of information

Are those concerned with smallpox activities immediately notified and responsible for analysis of all smallpox reports, or is this function performed elsewhere in the health structure (specify)

5.4 Legislative provisions

Is vaccination compulsory?

Is this routinely enforced: at the time of birth \_\_\_\_\_  
at the time of school entry \_\_\_\_\_  
at the time of hospital admission \_\_\_\_\_  
other (specify) \_\_\_\_\_

Is isolation of cases enforced through the time when all scabs have separated? \_\_\_\_\_

Is variolation prohibited by law? \_\_\_\_\_

6. Administration and planning

6.1 <u>Budget</u>	<u>1966</u>	<u>1967</u>	<u>1968*</u>	<u>1969*</u>
Personnel	_____	_____	_____	_____
Travel subsistence	_____	_____	_____	_____
Transport	_____	_____	_____	_____
Local costs (petrol, oil, lubricants, maintenance)	_____	_____	_____	_____
Other costs	_____	_____	_____	_____
TOTAL	=====	=====	=====	=====

" \* Best estimate

6.2 <u>Personnel</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>
No. of vaccinators or no. in vaccination team	_____	_____	_____	_____
Other staff	_____	_____	_____	_____
TOTAL	=====	=====	=====	=====

6.3 <u>Projections for the future</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
Population to be vaccinated	_____	_____	_____	_____
Vaccine requirements from: external sources	_____	_____	_____	_____
national production	_____	_____	_____	_____

6.4 In what year do you expect the last endemic cases of smallpox in your country? \_\_\_\_\_



TABLE 1  
(1948-1966 annual figures)

## TABLE I

(1948-1966 annual figures)

[illegible]



TABLE 3. NATIONAL SMALLPOX MORBIDITY REPORT (1966)

Country \_\_\_\_\_

I. ☐ Check this box if there were no smallpox cases during 1966.

II. SMALLPOX CASES BY AGE AND SEX, AND VACCINATION STATUS

Age Group	Number of cases			No. vaccinated before exposure		
	Male	Female	Unknown	Total	Vac.	Not vac.
<1						
1-4						
5-14						
15+						
Unknown						
TOTAL						

If detailed information is not available for all cases, complete so far as possible.



TABLE 5

		ATTACK PHASE (PHASE 1)	CONSOLIDATION PHASE (PHASE 2)	MAINTENANCE PHASE (PHASE 3)
ACTIVITIES	DEFINITION	Endemic areas with an incidence of smallpox of 5 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 5 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.
	VACCINATION	Systematic mass vaccination	Continuing maintenance vaccination	Continuing maintenance vaccination
	SURVEILLANCE	<u>Reporting</u> Establish prompt and regular reporting of smallpox by existing health facilities. <u>Field Investigation</u> Investigation of major outbreaks or outbreaks occurring in smallpox-free areas.	<u>Reporting</u> Extension of case detection system to assure reporting of all suspect smallpox in all segments of the population. <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.	<u>Reporting</u> Extension of case detection system to assure reporting of all suspect smallpox in all segments of the population. <u>Field Investigation</u> Each case investigated promptly as an emergency by a competent epidemiologist.
	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.