

EXECUTION OF SMALLPOX ERADICATION-MEASLES CONTROL PROGRAMME IN GUINEA

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Before speaking of the smallpox eradication and measles control programme in Guinea, I must give you some information of our country's geographical, political and administrative structure, which is responsible for the success achieved by our smallpox eradication programme.

Geographical, Political and Administrative Structure

The Republic of Guinea has an area of 253,870 km² and a population of 3,694,657 or 14.6 inhabitants per km². It is divided into four natural regions, (Coastal, Central, Upper and Forest), which differ from one another in relief, climate, population density, rainfall and vegetation. The tropical sudan climate is characterized by two seasons - a seven-months' cold season followed by a five-months' dry season, which is little marked in Forest Guinea but notable in Upper and Central Guinea where there are wide discrepancies of temperature at certain times of the year.

Guinea is divided into 29 administrative areas, in each of which there is a chief medical officer. The health infrastructure includes a medical care service, including a hospital service, clinics, and a maternity hospital; maternal and child health units; a special major endemic diseases department; and traditional medicine centres. Each administrative area consists of a number of arrondissements of which there are 205 in the country. Each has a rural clinic supervised by a male nurse.

On the major road arteries linking Guinea with neighbouring countries, we have set up frontier posts which are manned night and day by a male nurse specialized in health control work. His function is to record population movements, to check that all persons passing in either direction have been vaccinated, and to detect and direct to the nearest medical centre any person suspected of having a disease that is within the province of the major endemic diseases service.

The administrative structure is modelled on the political structure down to the basic cell represented by the neighbourhood, village, hamlet, or production unit. The administrative area corresponds with the political federation, and the arrondissement with the political division. We have 8,000 basic Committees, in which we have formed local revolutionary power teams corresponding both to the administrative and the political infrastructure. There are nine teams in each Committee - a health team, production team, literacy team, town planning team, etc., each of which has to play his role.

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TABLE 1 CASES AND DEATHS FROM SMALLPOX - 1940-1968 GUINEA

Year	Cases	Deaths	Vaccinations
1940	91	-	
1941	44	7	
1942	180	34	
1943	375	36	
1944	1,253	131	
1945	1,765	169	
1946	1,094	157	
1947	422	31	
1948	115	5	
1949	2	-	
1950	11	2	
1951	12	-	
1952	141	11	
1953	181	24	
1954	108	4	
1955	1,339	59	
1956	1,070	30	
1957	1,365	56	
1958	107	23	
1959	441	1	83,146
1960	176	-	9,940
1961	96	-	-
1962	2,948	335	-
1963	224	17	275,562
1964	300	13	1,050,711
1965	96	6	791,054
1966	64	3	644,235
1967	1,530	193	1,063,589
1968	289	21	1,373,656
	<u>16,439</u>	<u>1,368</u>	<u>5,296,893</u>

Table 2 Smallpox Cases Detected in Epidemiological Investigations

October 1967 to September 1968

<u>Area</u>	<u>Date of Survey</u>	<u>No. of Cases</u>	<u>Coming from</u>
Forecariah	December 1967	1	-
Kindia	February 1968	15	Sierra Leone
Dabola	" "	26	Sierra Leone
Faranah	" "	16	Sierra Leone
Faranah	March "	1	Sierra Leone
Conakry	" "	1	Sierra Leone
Mamou	May "	36	Sierra Leone
Fria	June "	20	-
Boffa	September "	20	-
Forecariah	July "	2	Sierra Leone
Conakry	August "	1	Sierra Leone

Difficulties in Determining the Source of Smallpox Outbreaks and in Conducting the Vaccination Programme

Our domestic organization, as described, facilitates early case finding of smallpox. At every level, information is communicated speedily from the base (family, village Committee) to the apex (Ministry of Social Affairs), by way of the local arrondissement and administrative area health authorities. Through health, civic and political education, our people understand the seriousness of smallpox, its fatal nature and contagiousness. For example, the village of Kalela, Banko, spontaneously organized isolation procedures when an outbreak of 26 cases of smallpox with seven deaths occurred. Additionally, our people understand the need to report to the local Committee on the state of health of any indigenous or foreign person arriving from a neighbouring country.

Despite this vigilance maintained by public participation, we sometimes have difficulty in determining the origin of smallpox outbreaks and in achieving good vaccination coverage. The principle reasons are as follows:

(1) Clandestine movements across frontiers

Some itinerant traders and families living in areas adjoining neighbouring countries, instead of following the usual international routes which are manned by a frontier post nurse, prefer to use the thousands of unsupervisable frontier paths in order to avoid customs and Security Service formalities and measures. It is difficult if not impossible to obtain epidemiological information about this type of traveller. This situation could be improved by strengthening frontier control by the Security Service, the local health authorities and the people of frontier villages.

(2) Absenteeism during general or selective vaccination operations

Under a number of circumstances, groups of people are missed during the vaccination programme.

- (a) Travellers
- (b) Agricultural workers, especially when vaccination programmes are conducted at crucial stages in the agricultural year or during herdsman's transhumance.
- (c) Entire villages may be missed when the assembly point is some distance away and the road infrastructure is poor. For example, two small villages, Haffia and Amaraya, in Sougueta Arrondissement, did not attend the vaccination centre and subsequently had an outbreak of 15 cases, in February 1968.
- (d) Lastly, people who deliberately and without good reason avoid mass vaccinations.

Certain steps can be taken to ensure better vaccination coverage. The peasant's calendar should, of course, be taken into account when programmes are drawn up. A small frontier control surveillance vaccination team may be organized by the Security Service, the local health authorities and the inhabitants of frontier villages to pick up laggards, a day or two after the main team has left. A vaccinator or a small vaccination team may be sent to remote Committees where access by vehicle is impossible. Joint vaccination programmes can be carried out on adjacent sides of the borders with neighbouring countries. Finally, and probably most important, is improved health propaganda and political-administrative co-ordination.

(3) The consequences of ignorance, sentimentalism and mistrust

Sometimes, the population remains unaware of the severity of the disease, with the result that hygienic and preventive measures in regard to an infectious person are not taken. Parents and friends frequently, out of affection for the infected person, manage to conceal him from the health authorities and take no precautions in the form of isolation measures. Some healers lead patients and their relations astray in order to profit from their credulity. Finally, in a few areas certain cult practices persist which involve seasonal initiation camps at which epidemic outbreaks occur which, if notified at all, are frequently not notified until very late.

Intensified health education, especially where there are gatherings of people, as well as a higher level of literacy should counter these problems. In addition, where smallpox endemicity is high, especially in frontier regions, the confidence of the people may be won by a qualified health official who lives in the village or groups of villages for a month or more after the teams have left;

- (4) Selective vaccination confined to a village in which one or more cases have been found

Rather than to vaccinate in a single village where cases have occurred, vaccination should be extended to neighbouring villages for preventive action to be successful.

- (5) Immediate protection of vaccination site

While engaged in case finding operations and in giving mass vaccinations, we found that vaccinated people sometimes washed the site with soft soap, or applied lemon juice or plant sap thus neutralizing the vaccination and stopping the local reaction.

When we became aware of the practice, we kept the vaccinated people in the shade near where we were working for fifteen to twenty minutes until the vaccine had had time to dry, before sending them away.

(6) Vaccination card

To obtain better coverage, all countries might be asked to make the vaccination card an official document in their territory, the production of which could be demanded at any time by the administrative authorities and the Security Service.

Usefulness of determining the origin of smallpox outbreaks

Of smallpox foci investigated between October 1967 and September 1968 in the Republic of Guinea, most originated from an outside focus, Sierra Leone (Table 2). The other foci certainly did not arise as isolated cases but there was not sufficient information to trace their origin. We believe that there is no such thing as a spontaneous outbreak of smallpox and that every outbreak can be traced to direct contact between infected and healthy persons moving from hut to hut, village to village, and country to country.

It is necessary, indeed essential, to do everything possible to determine the origin of smallpox outbreaks in order to enable the local medical, administrative and political authorities of the countries concerned to take immediately the necessary control measures. These include the early detection of new cases, their isolation and treatment and the vaccination of contacts, the patient's village and neighbouring villages.

Conclusion

My delegation believes that, if the measures recommended are adopted, and methods of investigation are employed that can determine the source of epidemic outbreaks at an early stage, we shall undoubtedly secure the final eradication of smallpox in record time.