

THE SURVEILLANCE SYSTEM AND METHODS USED TO IMPROVE REPORTING

III. NIGER

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INTRODUCTION

Long before the Republic of Niger became independent, ever since the concept of surveillance was introduced into the territories of French-speaking West Africa, Niger has always notified, in accordance with the procedures of WHO, all cases of disease subject to compulsory notification. These notifications are made by telegramme, not only to Geneva, Paris and Dakar, but also to all neighbouring countries. However, it must be frankly admitted that, as a consequence of the size of Niger and the weakness of its public health infrastructure, these notifications have not always been made in good time.

After the Republic of Niger became independent, the administration was completely reorganized. In order to prevent epidemics, the principle was laid down that, from the smallest village up to the canton, every case of certain diseases of an epidemic character, such as meningococcal cerebrospinal meningitis (which is particularly lethal in Niger), measles and smallpox must be notified within 24 hours. In spite of dispensaries and medical centres, smallpox remained endemic throughout the territory of Niger for ten years until a new system of surveillance was introduced, thanks to the establishment of a special bureau for the Campaign against Smallpox and Measles.

TRENDS IN SMALLPOX INCIDENCE

Smallpox has always been a serious public health problem in Niger. Between 1956 and 1968, 12,301 cases were reported, an average of 1,028 cases per year (Table 1). The number of reported cases of smallpox declined from 1,187 in 1967 to 679 cases in 1968 (Table 2). Only seven cases of the disease have been reported in the first two months of 1969, as compared with 233 in 1968 and 464 in 1967 during this same period. These figures speak for themselves.

In 1967, 1,610,473 vaccinations were carried out, as compared with the target of 1,500,000, and in 1968, 1,166,292 vaccinations, as compared with the target of 1,000,000. Thus 79.80% of the population of Niger has been vaccinated against smallpox during the first two years of the programme. The campaign is being continued in 1969, and 205,786 vaccinations have already been carried out during the first two months.

EPIDEMIOLOGIC INVESTIGATIONS

Whenever a case of smallpox, or a focus of the disease, is reported, an epidemiological investigation is immediately undertaken by a team which travels as soon as possible to the place concerned. The information obtained by means of such investigations has enabled us, not only to bring the existing foci rapidly under control, but also to prevent the appearance of new cases.

In 1968, investigations were carried out at Tera, Ouallam, Filingué, Birni-Konni, Bouza, Tessaoua and Gouré.

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The effectiveness of epidemiological investigations was illustrated recently in the elimination of previously unrecognized endemic focus in the village of Kokaram (200 km north of Zinder). On 22 February 1969, a case of smallpox was reported to us from the village of Garin Kafata, 250 km south of Kokaram, near Dungass. The case was that of a 33 year old man who became ill five days after having returned from his native village. The population of both the villages of Kafata and Kokaram were immediately vaccinated.

Improved methods have been studied constantly and put into practice, since we have not been satisfied with staying in the office. Instead of simply sending vaccine to the medical officers in charge of the medical centres when they notify cases, we have visited the places concerned to check the diagnoses. An epidemiological investigation has been carried out in respect of each case of smallpox notified; the population of the village or group concerned has been vaccinated, and a mobile team sent immediately to vaccinate the population of the region in order to prevent the disease from spreading. Neighbouring countries have been warned so as to enable them to take the necessary precautions on their frontiers, i.e., to carry out vaccination in the frontier zones.

#### NOTIFICATION SYSTEM

Instead of a week being allowed to elapse before cases of smallpox are notified from the medical centres, we have asked every medical officer in charge of a medical centre to notify cases of the quarantinable diseases, in particular smallpox, within 12 hours after notification has been received from the villages. Since the beginning of the campaign, the most rapid means of communication have been used: telephone, telegraph, police force, army. We can say very proudly that thanks to these methods, smallpox in the Republic of Niger will soon be eradicated. A system for maintaining the level of immunity, however, must be established.

Table 1 Cases, Deaths, Vaccinations in Niger 1956-1968

	Cases	Deaths	Vaccinations
1956	665	40	426 211
1957	797	61	606 676
1958	508	48	687 076
1959	1 149	109	907 401
1960	2 408	137	1 001 715
1961	1 740	91	122 088
1962	1 083	74	321 060
1963	445	27	535 990
1964	30	4	586 703
1965	463	51	317 740
1966	1 147	37	300 501
1967	1 187	45	1 610 473
1968	679	52	1 166 292

Table 2 Cases, Deaths, Vaccinations in Niger 1968, by Month

	Cases	Deaths	Vaccinations
January	168	9	87 153
February	65	0	159 639
March	58	2	124 959
April	212	30	148 937
May	69	6	139 493
June	83	1	64 249
July	10	1	21 412
August	0	0	102 094
September	0	0	27 725
October	4	0	19 395
November	1	0	155 775
December	9	3	155 561
Total	679	52	1 166 292