



NIGER



INDEXED

Area: 1 187 000 km²

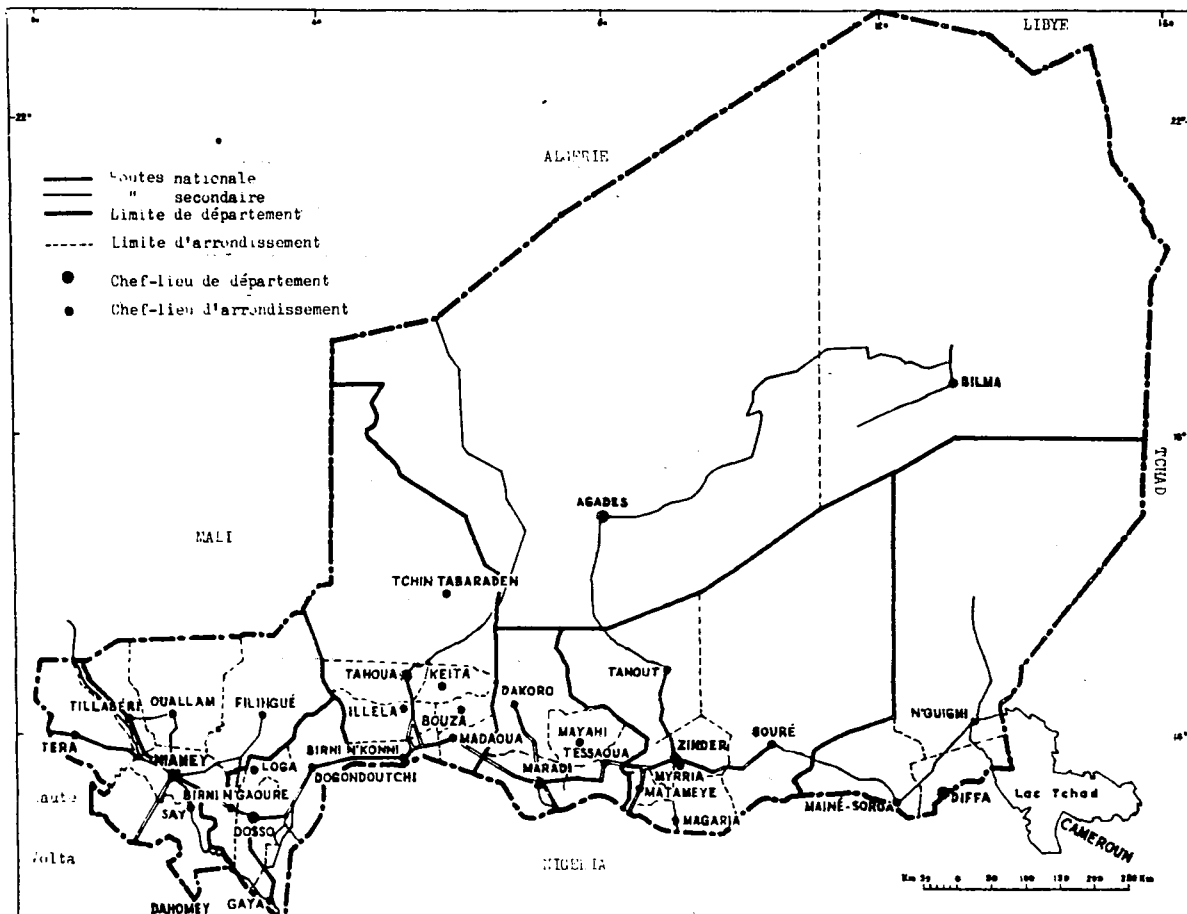
Population: 4 500 000

Population density: 4 per km²

Desert-type ecology with 250 000 nomads and semi-nomads

Medical officer currently in charge of smallpox eradication: Dr Ibrahim Alfa

Title: Director, Public Health and Mobile Medicine Service (Major Endemic Diseases Service)



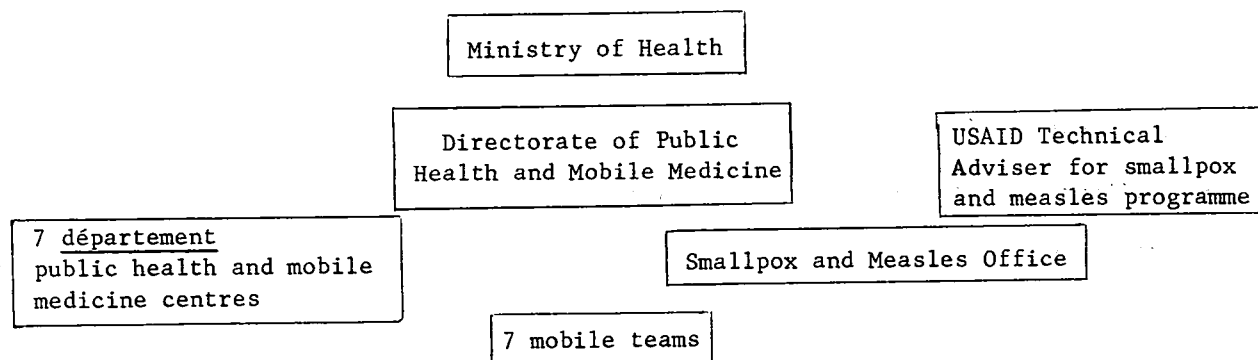
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1. PROGRAMME PERFORMANCE 1967-1971

1.1 Organization

1.1.1 Diagram of organizational structure employed for the programme:

1.1.2 Static and mobile units in service on 1 January 1968

<u>Département</u>	Hospitals	Health centres	Dispensaries	Mobile teams
Niamey	1	5	28	1
Dosso	1	3	14	1
Agadez		2	6	1
Tahoua	1	6	9	1
Maradi		4	15	1
Zinder	1	6	17	1
Diffa		3	7	1
	4	29	96	7

1.2 Vaccination programme1.2.1 Description

The smallpox eradication programme in the Republic of Niger was launched in January 1967 with the aid of WHO, USAID and OCCGE.

(a) Under the supervision of a Smallpox/Measles Office, it was carried out by the département mobile teams of the Public Health and Mobile Medicine Service. Six teams operated in parallel in their respective départements, while one team carried out checks on vaccinations.

Each team was made up of two nurses, two vaccinators (recruited for the campaign), an unskilled worker and a driver.

As part of its support for the OCCGE, USAID provided a medical adviser and an administrator/technician, vehicles and Ped-O-Jets.

WHO assisted in the campaign by supplying fuel and spare parts and paying the vaccinators' salaries.

(b) Vaccination by the mobile teams was conducted entirely by Ped-O-Jet. In the attack phase everyone was vaccinated against smallpox; children from six months to four years also received the measles vaccine.

Vaccine had been distributed by the teams to the fixed health units: 232 000 doses of scarification vaccine in 1968.

1.2.2 Smallpox vaccinations reported

Year	Vaccinations
1967	1 610 473
1968	1 166 292
1969	965 805
1970	1 193 672
1971	925 379

1.2.3 Evaluation

Primary vaccinations were not specified in the reports on the attack phase. Evaluation teams made routine evaluations (coverage and successful vaccination rate). An evaluation study showed the coverage to be 82% for the 0-4-year age-group, 90% for the 5-14-year age-group, 67% for the 15-44-year age-group and 26% for persons aged 45 and over, i.e., 74% for all age-groups. The successful vaccination rate for the 0-4 year age-group was 100%.

1.2.4 Vaccine

Dehydrated vaccine manufactured by Wyeth Laboratories Inc., United States of America for use with the Ped-O-Jet.

1.3 Surveillance programme

1.3.1 Number of units providing weekly reports

<u>Département</u>	1968
Agadez	8
Diffa	10
Dosso	18
Maradi	19
Niamey	34
Tahoua	16
Zinder	24
Total	129

1.3.2 Method of reporting

The above-mentioned units cable the Statistics Department at the Ministry directly every Monday.

(a) A weekly bulletin of "pestilential diseases" (form attached) is published immediately: meningitis, cholera, plague, smallpox, yellow fever, typhus.

(b) A monthly health information bulletin (form attached) covering 27 diseases including the "pestilential diseases" is published later.

There is therefore no separate notification for smallpox.

There is no specific nil report for smallpox, but no report is stated if the compulsory weekly telegram includes none of the 27 notifiable diseases. The "smallpox suspect" form is not used, since the case is examined by the nearest doctor before notification.

Communication with the district health centre takes place by whatever means are available: messenger, passing car, etc. All chief towns of districts have at least a radio link with the capital (police, administration).

The regularity of reporting during the years under consideration cannot be assessed since there are no records.

1.3.3 Number of cases

Year	Cases	Deaths
1965	463	51
1966	1 147	37
1967	1 187	45
1968	679	52
1969	28	2
1970	0	0

Details of the cases of smallpox that occurred in 1969 are incomplete, but some information is available.

Cases of smallpox, 1969

<u>Département</u>	<u>Arrondissement</u>	No. of cases
Zinder	Tanout	12
Zinder	Magaria	1
Zinder	Gouré	6
Niamey	Filingué	3

1.3.4 All that is available is a detailed epidemiological study of the foci. It has been stated (oral communications in the thesis by Hamadou Ousseini) that the foci never exceeded 60-100 cases and occurred throughout the entire country.

This seems likely because in places where communications are difficult the scattered nature of the population slows down the spread of the disease, whereas in places with a dense population the containment operations can get under way rapidly. As for nomads, they meet in large numbers only once a year for the traditional "cure salée". It is customary for the Major Endemic Diseases Service to take advantage of this voluntary gathering to carry out a vaccination campaign.

1.3.5 Surveys were conducted during 1968 at Téra, Ouallam, Filingué, Birni-N'Konni, Bouza, Tessaoua, Gouré.

In the Tanout arrondissement the discovery of an infected traveller led to the detection of a focus in a recently founded village: Goursema, 47 km east of Tanout. There were five cases at the height of their course and seven cases on the way to recovery. The disease had been imported from Nigeria by one of the villagers. This village of 100 inhabitants had been missed by the campaign since it had not been included in the administrative lists.

According to the available information, the last two foci noted in 1969 were at Gouré and Magaria. The six cases at Gouré occurred in the same family following variolation. Containment measures prevented any spread. The single case at Magaria occurred in a young girl in July 1969 on her return from the border area quite close to northern Nigeria.

PART 2 - SURVEILLANCE AND VACCINATION PROGRAMME 1972-1975

2.1 Surveillance programme

The surveillance programme remained the same as described above.

2.1.1 The reporting units in 1974 comprised:

<u>Département</u>	Hospitals	District medical centres
Agadez	1	2
Diffa	1	2
Dosso	1	5
Maradi	1	4
Niamey	1	6
Tahoua	1	7
Zinder	1	5
	7	31 = 38

2.1.2 Regularity of reporting:

No. of posts	(1) Which sent a telegram	(2) Which notified chickenpox	(3) No. of cases of chickenpox
1974: week 11	29	15	157
week 12	31	19	198
week 13	31	23	212
week 14	30	24	171
1975: week 11	36	33	409
week 12	36	27	436
week 13	37	30	357
week 14	34	28	336

2.1.3 Suspected cases

In 1972 a suspected case reported in the village of Illela was investigated: laboratory diagnosis proved negative.

In 1973 two samples were taken: the findings (CDC Atlanta) were herpes and chickenpox. In the first quarter of 1974 samples were taken from eight children and sent to the CDC in Atlanta. The findings were reported orally (via OCCGE) to be negative. Clinically they were cases of chickenpox, the alarm having been raised by non-medical sources. In 1975 three suspected cases at Niamey were referred to the Director of the Major Endemic Diseases Service. These were typical cases of chickenpox and laboratory examinations were considered unnecessary.

2.1.4 In 1974, 3277 cases of chickenpox were notified, with six deaths at Niamey, Magaria, Konni, and Tanout.

2.2 Vaccination programme 1972-19752.2.1 Organization

From 1972 onwards the teams responsible for the attack phase were re-established in their respective départements and have resumed their traditional programme of work: surveillance of tropical endemic diseases, vaccinations, itinerant medicine. The vaccinations comprise:

smallpox;

measles, between six months and four years;

BCG, from birth onwards.

Under this prevention programme, smallpox vaccination is given either as a primary vaccination at the age of six months, when it serves as a marker for measles vaccination, or as a revaccination every three years.

The programme of visits for each département is laid down in October and operates 20 days per month from November to June, with an interruption in the rainy season.

Visits are made once every three years: a département team covers about one-third of its territory each year.

The département health centres also perform regular vaccinations and revaccinations in the chief towns. The activities of the hospitals and dispensaries are only sporadic, and involve no routine action.

2.2.2 Vaccinations performed

Year	Mobile teams	Static units and health centres	Total
1972	775 550	179 000	954 550
1973	681 779	178 803	860 582
1974	603 947	195 311	799 258
1975 (up to 31 August)	694 955	-	694 955

2.2.3 No attempt has been made to evaluate vaccination coverage, since age at primary vaccination is not recorded. The figures given include both primary vaccinations and revaccinations.

2.2.4 Procedure: The mobile teams and the health centres use the Ped-O-Jet only. The other health units use the scarification method. The bifurcated needle has not yet been introduced into Niger.

The vaccine for the injectors is:

Manufacturer of the vaccine:

For Ped-O-Jet, John WYETH Inc. United States of America

For scarification, Institut vaccinal du Docteur Pourquoi, Montpellier

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