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EXPERIENCES IN UPPER VOLTA WITH INTER-COUNTRY COORDINATION OF CONTAINMENT ACTIVITIES

C. D'Amanda[1]

I should like to describe recent epidemiological problems of smallpox in Upper Volta which have served as a basis for modification of the reporting mechanisms.

Upper Volta is a country of some five million people, the vast majority of whom live in villages of less than 1000 persons; there are only two urban communities which approach 100,000 people. The country shares borders with six other countries. The central position of Upper Volta, between cattle producing areas in the north and cattle markets to the south, creates unique problems as large groups, associated with the seasonal movement of livestock, traverse the country on a north-south axis, passing through time-honoured market places.

During the first year of the programme, almost all smallpox patients were found along these major trade routes. During the second year, however, the pattern changed. The more recent outbreaks, the last one now over six months ago, occurred in small isolated border villages far from effective regular health facilities. Because of this pattern, the Sante Rurale's plans for the vaccination campaigns of 1969 and subsequent years have been designed first, to protect the frontier cercles and then to move the teams to the inner or central core of cercles. This new strategy could be said to be a direct result of the investigation of the outbreaks at Gani, on the Mali border, and Botou, on the Niger border.

We first became interested in Gani in May 1968 when a telegram from Mali reported smallpox on the Mali side of the frontier, which had presumably been introduced from this village. A visit at that time revealed seven cases, all in the desquammation stage. In November 1968, one of the prospective teams again reported smallpox in this area. A visit by the Medecin-Chef of the Secteur and programme personnel revealed 40 cases among non-vaccinated individuals. Twenty-three cases were in the newborn to 4 year age group and 17 in the 4 to 14 year age group. All cases were in the late desquammation to early scarring stage. The index case had come from Kouna, in Mali, and had returned thereafter recovery.

After the necessary containment procedures were taken and the team had returned to Ouagadougou, immediate notification was made to Mali, and plans were developed for a joint visit to investigate both sides of the frontier. This investigation has been previously described. By involving staff from two country programmes, foci of smallpox on both sides of the border could be investigated and, contained responsible professional staff could discuss, at the site of a major problem, methods to avoid similar occurrences in the future.

An outbreak at Botou, a small village within 3 kms of the Niger border, was first reported by telegram to the Director of the Sante Rurale in late September 1968. Within 24 hours, programme personnel investigated and found 19 cases, all in non-vaccinated persons. Nine were in the newborn to 4 year age group, 5 in the 5 to 14 group, and 5 in the 15 to 44 year age group. One death was also reported. Again it appeared that the epidemic was in a late stage. The Niger programme was notified on the same day, and within 48 hours, Niger program staff were vaccinating villages on their side of the frontier. A second visit by Upper Volta personnel 10 days later uncovered only one more patient, a three year old girl who had died two days

[1]Medical Officer, Adviser, NCDC/USAID, Ouagadougou, Upper Volta

previously. Further vaccinations were performed among people in the village who had not been vaccinated during the first visit. The combined effort at Botou represented an effective culmination of efforts undertaken over many months by Niger and Upper Volta to develop rapid communication and response.

Gratifying as these two exercises were, in both there was a serious delay in reporting. There are evident reasons for this. Of the 44 cercles into which Upper Volta divided, 26 have a border on the frontier and 18 lie in the "interior". The "interior" area comprises one third and the frontier area two thirds of the total area of the country: While 25% of the population of the country live in the interior, 75% live on the frontier. The dispensaries of the country are so distributed that one dispensary must serve 25,700 people on the frontier, while one dispensary in the interior serves only 5,900. Thus, such villages as Gani and Botou represent those in two-thirds of the country's area, and three quarters of the country's population, but they have only one third of the country's potential reporting units. While this is the situation in Upper Volta, it is not improbable that the situation is similar in other West African countries.

A vigorous effort to strengthen this network has been made in Upper Volta. A new system was initiated in January 1969. Weekly reports are sent to the Medecin Chef in each cercle from a total of 604 static and mobile health units; including itinerant leprosy staff. The reports are summariized and forwarded to the capital. This system, now three months old has already markedly improved the information available. However, even when all units report weekly, the system will not overcome the large differences in number between frontier and interior reporting units.

Other ways to increase the strength of the frontier notification network should be considered. As the cattle raisers follow the imperatives of pasture land, water, and markets and traverse frontiers at will, it would seem requisite for effective disease control to assure a prompt exchange of information, between neighbouring countries. By doing so, contiguous frontier areas can complement each other in strengthening the network of reporting sites.