WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTÉ

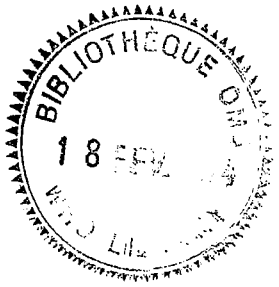
SE/WP/74.4

ENGLISH ONLY

INDEXED

INTERNATIONAL ASSESSMENT OF SMALLPOX ERADICATION IN INDONESIA

15-26 April 1974



The Establishment of an Effective Reporting System for Smallpox in Indonesia[1]

by

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Introduction

When the first waves of Indonesia's big smallpox epidemic swept across the country with devastating speed in 1947, the health structure, which was poorly organized, understaffed and struggling with innumerable problems, was ill-prepared to face this disaster.

An effective coordinating body, which could provide guidance in surveillance and reporting activities, did not exist. Consequently, surveillance and reporting procedures were inadequate and their importance was generally not fully recognized.

The first serious attempts to organize surveillance and reporting procedures began in 1968. SEP seminars were held to find a practical and workable solution for our many problems. It had become obvious that the solution for our smallpox problem did not lie, as was formerly believed by many, in mass vaccination campaigns, but in the systematic search for and meticulous follow-up of smallpox cases. Understandably, this called for more effective surveillance and reporting techniques. The need for reliable and up-to-date reports was badly felt since they would play an important role in determining our strategy in our fight against smallpox.

This paper summarizes the writer's experience during one year as the surveillance medical officer for smallpox in Indonesia and his attempts to improve the existing reporting system.

Results

Before 1968, uniformity in reporting procedures did not exist. There were no standard reporting forms. Although the provincial health services were expected to report every week to the CDC, only a few complied. Complete reports of past years are not available at the CDC as, due to careless filing, many reports have been lost.

In 1968, it was still not possible to obtain a steady flow of good reports. However, improvement was apparent. The number of reports increased and their quality, though still far from perfect, improved considerably. The number of missing reports was still high. Again, however, many reports for 1968 were lost at the CDC due to carelessness and no serious attempts were made to complete these reports. Feed-back reporting to enhance understanding between reporter and receiver was not done.

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[1] Extracted from WHO/SE/71.30, pages 112-116.

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In 1969, particularly during the last months of the year, our reporting system improved considerably. At national level, increasing efforts were made to promote good reporting. In order to fill the gaps of missing reports, a table was prepared by weekly periods of all cases and deaths reported during the year. This table was sent to all provincial health services with the request that it be submitted to the CDC after any errors had been corrected and missing reports obtained. Most of them responded. All provinces and regencies of Java now used the new standardized reporting forms. At national level reports were received with ever increasing frequency and regularity. Their quality and reliability improved markedly.

When the final report for 1969 was prepared, only 110 out of the 1378 (26 provinces, 53 weeks) reports were missing (7.9%).

In 1970, all provinces, with a few exceptions, report regularly. Missing reports are rare. However, beyond the control of the reporters, a small number of reports are still unaccountably lost.

To give an idea of progress in the completeness and speed of reporting, two corresponding periods of time in 1969 and 1970 may be compared for eight provinces. On 17 September 1969, a table was prepared of the reported cases for the first 35 weeks of that year. The same was done on 15 September 1970. In 1969, 138 reports out of the 280 (8 x 35 weeks) were missing (49.3%), while in 1970 only 15 reports (5.4%) were missing (Table 1).

A comparison in speed of reporting between 1969 and 1970 is presented in Table 2. In 1970, a maximum delay of three weeks in receiving reports is observed, while in 1969, the delays range from one to 21 weeks to no report at all.

At national level the Surveillance Unit now possesses good files and most information, whenever requested, can be produced within a matter of minutes. The incoming reports are carefully controlled. Delays in reporting are checked, and if necessary, the province concerned is sent a reminder by mail or telegram. A delay of not more than one week for Jakarta, two weeks for the provinces in Java and three weeks for the outer islands is permitted.

Since 12 May 1970, the CDC's Surveillance Unit has issued a weekly report as a feed-back to all provincial health services. These reports are also sent to WHO. In the past, only the number of cases and deaths of the preceding week and the regencies where these cases had occurred were reported. The new reports give a complete summary of the entire smallpox situation of the country.

Discussion

Years of frustration and failure in our early smallpox control activities had left a persistent mark on our attitude towards this disease. One had simply become accustomed to its continued presence and had reluctantly accepted it as just another burden that had to be carried. People had come to believe that nothing could be done about it, and the health worker, demoralized by too many failures, gradually had become indifferent.

No explanations are needed to understand how difficult it was to change this negative attitude. Many regency medical officers, already overburdened with innumerable equally pressing problems, failed to, or rather, preferred not to recognize the importance of the SEP. In many instances the CDC has had to involve itself directly by sending teams of trained young physicians and paramedical health workers into the field. Their task in the field has been to work with local health officials as their counterparts in case-finding, tracing and in other containment actions and, in the office, to provide assistance in improving administration. Emphasis has always been put on reporting procedures and explaining their importance. Thus, techniques have quickly improved in the field as well as in the office.

On a higher level the Project Director for the SEP and his staff pay frequent visits to the provincial health services to discuss their smallpox problems and to secure their cooperation in the programme. Whenever possible, the CDC field workers meet at the CDC once every month to report achievements and to plan the future activities. Occasionally, all regency physicians with smallpox problems gather at the office of the provincial health services to discuss their problems.

This example of hard work and determination displayed by the CDC's field workers has not failed to bring results. Local health officials soon improved their techniques and have taken pride in their achievements. Reports have improved considerably in reliability, and are sent with increased frequency.

To keep all procedures as simple as possible, the data required were brought down to an absolute minimum:

(1) the number of cases and deaths
(2) the age-groups
(3) the names of infected subdistricts and villages
(4) the source of infection.

These reports are sent weekly by the regency medical officer to the provincial health services and, exceptionally, a copy is also sent to the CDC. The provincial health services in turn report to the CDC every week.

Difficulties in obtaining a steady flow of good reports still exist. Factors which are often mentioned as reasons for late and poor reporting are the following:

(1) communication problems
(2) lack of personnel
(3) poor administration
(4) uncooperative attitude of the population
(5) lack of sufficient funds
(6) lack of collaboration and understanding between health officials - population - local civil authorities.

Communication problems

One look at the map of Indonesia will soon convince anybody that these problems are, to say the least, considerable. The number of isolated areas where postal service and other means of communication are poor, is indeed great, and to expect reports from these areas to arrive in time at higher levels, would appear unreasonable. However, every avenue for sending reports has been utilized. Some kind of link, however weak, always exists between any isolated area and the "outer world". The smaller a community, the easier it is to find reliable relations: businessmen, sailors, bus drivers, couriers of local civil and military authorities, to mention a few. Using the right approach it has been possible to involve these people in our reporting system so that they are willing to take our reports to the nearest place where postal service is more adequate.

Lack of personnel

In many instances the so called lack of personnel is not real. Very often it turns out that the number of personnel is quite sufficient. Improvement of the organization and supervision of personnel results in more effectively functioning health services.

Poor administration

Very often poor administration was the real problem. Frequently, no particular person was responsible for reporting; many persons attempted to do the job - often incorrectly - and, when errors occurred, no one could be held accountable. A concise job description was the solution to this problem.

Uncooperative attitude of the population

As the educational level of Indonesia's population is still very low, many are still ignorant of the basics of disease mechanics and, in many parts of the country, smallpox is still considered to be some sort of sacred disease. With the right approach through village and religious leaders, school teachers and other members of the community who are held in high esteem, much was achieved. Schoolchildren have been particularly helpful in volunteering important information leading to case detection.

Lack of sufficient funds

Perhaps one of the most serious problems was the lack of sufficient funds. Unfortunately very little could be done about it. However, it was possible to overcome a considerable part of this problem by carefully selecting priorities and by planning a well thought out strategy.

Lack of collaboration and understanding between health officials - population - civil authorities

Our attempts to build an efficient surveillance and reporting system undoubtedly depended a great deal on our ability to secure and maintain a good relationship with the population and civil authorities. A workable collaboration between all three parties was established. Of importance was the involvement of the health worker himself in the local social life and his participation in all major events, particularly in meetings routinely held among village heads. In this manner he made sure that smallpox problems were always discussed.

SUMMARY

Before 1968, Indonesia had no efficient surveillance and reporting system. When the SEP was initiated in 1968, the need for reliable and up-to-date reports was badly felt.

In 1969, reporting improved considerably, particularly during the last months of the year, and, in 1970, even greater improvements have been noted both in the speed and completeness of reporting. Although there have been many problems and obstacles, most of these have been able to be overcome successfully. Frequent and close contact between SEP staff and health workers at all levels as well as civil authorities and others have been of major importance.

TABLE 1. NUMBER OF MISSING REPORTS FOR THE FIRST 35 WEEKS FOR EIGHT PROVINCES IN 1969 AND 1970

Province	1969	1970
1. Sulawesi Selatan	5	1
2. Sumatra Atjeh	35	5
3. Sumatra Barat	19	3
4. Sumatra Djambi	21	1
5. Sumatra Lampung	10	-
6. Sumatra Riau	28	1
7. Sumatra Selatan	9	1
8. Sumatra Utara	11	3
Total	138	15

TABLE 2. NUMBER OF MISSING REPORTS AFTER THE LAST REPORT RECEIVED FOR 1969 AND 1970

Province	1969	1970
1. Sulawesi Selatan	5	1
2. Sumatra Atjeh	35	3
3. Sumatra Barat	1	3
4. Sumatra Djambi	21	1
5. Sumatra Lampung	10	-
6. Sumatra Riau	2	1
7. Sumatra Selatan	10	1
8. Sumatra Utara	11	3
Total	95	13