



INTERNATIONAL ASSESSMENT OF SMALLPOX ERADICATION IN INDONESIA

INDEX

15-26 April 1974

Assignment Report  
on  
Smallpox Eradication, Indonesia\*  
by

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CONTENTS

	<u>Page</u>
1. Purpose of assignment . . . . .	2
2. Existing situation and current problems . . . . .	2
3. Activities undertaken . . . . .	3
3.1 North Sumatra . . . . .	3
3.2 Aceh . . . . .	4
3.3 South Sulawesi . . . . .	5
3.4 Maluku . . . . .	6
3.5 Jakarta municipality . . . . .	7
3.6 West Kalimantan . . . . .	7
3.7 West Java . . . . .	8
3.8 North Jakarta . . . . .	9
4. Final comments and recommendations . . . . .	9
4.1 Surveillance of smallpox . . . . .	9
4.2 Introduction of smallpox to Indonesia . . . . .	10
4.3 Certification programme . . . . .	10
4.4 National offices . . . . .	10
4.5 Simultaneous smallpox-BCG immunization programme . . . . .	10
4.6 Final programme review and assessment . . . . .	10
4.6.1 Representatives participating in final review . . . . .	11
4.6.2 Time schedule for final review . . . . .	11
4.6.3 Briefing procedure . . . . .	11
4.6.4 Documents required . . . . .	11
4.6.5 Preparation of report . . . . .	11
4.7 Additional antigens for immunization . . . . .	11
4.8 Administrative problems . . . . .	12
5. Acknowledgements . . . . .	12

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## ANNEXES

1. Schedule of visits and discussions . . . . .	13
2. Status of surveillance of smallpox, Indonesia, selected provinces and municipalities . . . . .	16

## 1. PURPOSE OF ASSIGNMENT

The writer spent the period from 4 to 31 August 1973 in Indonesia as a short-term consultant under WHO project Indonesia 0081, to assist the national authorities, in close collaboration with the WHO Team Leader and Technical Officer of the project, in the further development of the smallpox eradication project, with particular emphasis on strengthening the surveillance and suspect smallpox case evaluation elements of the project. Communications with the Chief of the Smallpox Eradication Unit in Geneva and briefing with WHO Regional and Indonesian national representatives defined four specific objectives:

- (1) To review the present smallpox surveillance activities in selected provinces, to determine whether, with reasonable confidence, smallpox eradication may be said to have been achieved. If the information does not permit this conclusion, to define additional measures to be taken;
- (2) To provide an additional stimulus for provincial and local staff in surveillance efforts, despite the absence of any confirmed cases of smallpox for more than one year;
- (3) To increase the awareness of provincial health authorities of the possibility of importation of smallpox from highly endemic areas within the Indian sub-continent, and
- (4) To discuss in general terms the possibility of a final review and assessment of the Indonesian smallpox eradication programme, scheduled for April or perhaps July 1974.

## 2. EXISTING SITUATION AND CURRENT PROBLEMS

Detailed discussions were held with WHO staff in Indonesia and national authorities. Despite the apparent improvement in smallpox surveillance activities, no confirmed cases had been identified since January 1972, when the most recent cases were observed in West Java. In addition to conventional techniques, a well publicized reward of 5000 rupiahs had been offered for each confirmed case of smallpox identified. However, so far, although numerous suspect smallpox cases had been reported, none had been confirmed to be smallpox.

The provinces of Indonesia have been classified, on the basis of prior smallpox experience, into: Group 1 (provinces with cases known since 1970), Group 2 (provinces adjoining Group 1, and where the disease could have been present), and Group 3 (provinces where no cases have been identified for at least five years, and the probability of smallpox is considered unlikely).

A systematic certification of freedom from smallpox is planned for the 12 Group 1 provinces, and had been initiated in some areas. This involved both the civil authority and the health service representative signing a document certifying that each individual village or area within their jurisdiction is free from smallpox. This scheme will be completed in March 1974 and, in most provinces, earlier. It involves 12 of 26 provinces, 158 of 288 kabupatens, 1711 of the total 3155 kecamatans and 24 641 of the 47 500 villages in the country.

A health education campaign is planned, for February 1974, utilizing radio, newspapers and other media. Efforts will be focused on assuring freedom from smallpox. The reward offered for identifying cases will be publicized during this campaign.

### 3. ACTIVITIES UNDERTAKEN

After initial discussions and a review of all the available information in Jakarta with national and WHO staff (detailed schedule in Annex 1), visits were scheduled to selected provinces. These provinces were chosen to represent Group 1 areas, where smallpox had been recognized most recently, and Group 2 areas, with smallpox in the past but no evidence of the disease in recent years. One example of Group 3, an area in which there had been no recent smallpox and there was no reason to suspect disease, was included to evaluate the surveillance activities in this group of areas. In Indonesia there are now 12 Group 1 provinces, seven in Group 2 and seven in Group 3.

All field work was conducted with Dr G. Cuboni, WHO Smallpox Eradication Project Team Leader, and Dr Njoman Kumara Rai, Director, Indonesia Smallpox Eradication Programme.

The area considered and conclusions reached in each may be recorded as follows:

#### 3.1 North Sumatra

In this province representatives of 11 regencies and six municipalities are responsible for disease reporting and surveillance. The general impression gained is that the overall operation has been improved substantially during the two years since the earlier evaluation (P. F. Wehrle, 1-31 July 1971). Weekly disease-reporting was complete from all 17 areas for Week 30 at the time of visit (at Week 32). Encouragement for the reporting of any suspect cases and their disposition was initiated in 1971, and emphasized in 1972. A guide for procedures regarding the reporting of suspect cases was issued on 24 March 1973 by national headquarters.

As a result of these efforts regarding suspected smallpox cases, 14 of the 17 reporting units had filed one or more reports, and reports from eight were complete for each month during January-June 1973. Of the reports received, 30 of the 60 (or 50%) indicated suspected cases; these reports included the notification of 176 patients. Subsequent investigations resulted in the review of the information concerning 320 patients, 170 of whom were found to have varicella, and the remaining miscellaneous diseases, predominantly diseases of the skin, other than smallpox. Thirty-two samples for laboratory examination were obtained and the results were reported to the province staff.

Numerous inquiries were made on the basis of additional possible rumours of smallpox cases; none were discovered. The health centre and hospital visits yielded information regarding other illnesses, as well as areas of possible smallpox occurrence. In the provincial hospital, there were no rumours of suspected smallpox cases. Tetanus cases in childhood (30-50 per year) were approximately twice as frequent as neonatal tetanus. Diphtheria was a more frequent cause of death than pertussis, although pertussis (955 cases in 1962-64) occurred at least four times as frequently, and was not diagnosed in infants under one year of age unless older siblings had obvious clinical pertussis.

It is interesting that Professor Jo and his colleagues have assembled data on five cases considered possible post-smallpox vaccinia encephalitis, observed in Medan during eight years (1962-70). These were in infants from eight to 18 months in age and followed vaccination by from two, four, four, five and seven days respectively. Two were fatal; three had residual neurological problems. These data will undoubtedly be presented at the Indonesian Paediatric Congress, scheduled for July 1974 in Surabaya.

Comment:

Problem areas requiring future attention are as follows:

- (1) Reports of suspected cases should be received regularly from all 17 jurisdictions. In areas filing no reports, efforts must be made to learn the reason for the failure to report.
- (2) In some regency-to-province weekly reports, not all areas of the regency have been included; thus, avoidable gaps are left in the assurance of freedom from smallpox and incomplete surveillance action may be indicated.
- (3) There is a lack of proper office management. Although, there has been considerable improvement over the situation two years ago, for example, there were numerous misfiled reports, both weekly and monthly, and also other documents. The refrigerator used for vaccine storage was not properly maintained, and the kerosene supply was exhausted.
- (4) Data regarding the type or types of smallpox vaccine and the number of doses given in North Sumatra between 1962 and 1970, should be readily available since reports of vaccinia encephalitis will stimulate considerable discussion about possible termination of smallpox vaccination, and both national and WHO personnel should be prepared to respond to any questions.

3.2 Aceh

Eight regencies and two municipalities represent the 10 areas reporting smallpox incidence to provincial headquarters. Weekly communicable-disease incidence reports were reviewed; all reporting units were represented, and the information was complete. Although monthly surveillance summaries were complete for six of the 10 areas, and the two remaining had each filed two or more reports, it was apparent that the mechanism of filing suspect reports regarding surveillance activities was not yet clear.

From surveillance and suspect reports it appeared that only four of the 10 areas had undertaken suspect case investigation, and in these the notifications involved six reports including a total of 17 suspect cases. The subsequent investigations resulted in the identification of only two additional cases. All but one of the cases were varicella; none was smallpox. A meeting with the entire provincial smallpox supervisory staff was held to clarify this problem and to explain the final certification plan. During this meeting and during the subsequent visit to Sabang it became apparent that more suspect case evaluation had been done than had been reported to provincial headquarters.

Since Sabang represented a free port and is only four or five days' sailing time from Chittagong, the surveillance and quarantine procedures were evaluated. The register for the three most recent years indicated that the following numbers of ships had visited this port:

Year	Foreign flag	From "Infected Port"*	Total ships
1969	81	56	1 114
1970	99	49	1 212
1971**	97	51	671
1972	52	287	714

\* Ports with cholera or smallpox. None with plague or yellow fever.

\*\* Tax introduced on merchandise entering Indonesia via Sabang.

All ships entering the port are checked by the quarantine officer. The identification and crew roster, as well as the passenger roster, are checked. The records appeared to be clear and complete. Evidence of enforcement was a small Japanese freighter which had been held in custody since a crew member left the ship prior to quarantine clearance and no yellow flag was observed on entering the harbour.

In addition to Sabang, two other ports of limited importance were noted. These are Singkil, where only two or three ships from Japan arrive each month, and the port of Langsa, where a regular ferry service to Singapore and Penang, as well as shipping is maintained. The latter includes three to five ships per month from various countries. Quarantine activities are served by the harbour officials, and the physician is available as required.

Since only 17 000 people live on Sabang Island and there are only two physicians, smallpox surveillance is easily accomplished, and many suspected cases have been evaluated, although not reported to Province Headquarters (due to a misunderstanding). Vaccine storage is adequate, although the refrigerator operates only from 18.00 to 06.00 h, as electricity is not available during the day.

Other diseases are tetanus (2-3 cases per year, one or two in newborn infants), pertussis (30 per year, in only the 2-5-year age-group) and typhoid (1-2 suspected cases each). No diphtheria has been reported in Sabang.

Field trips were conducted, one in Banda Aceh city and another in a rural area, to check on the suspect smallpox case evaluation system. In one instance seven cases of varicella, and in the other, three cases of varicella among adults were recorded. Appropriate samples had been obtained for laboratory confirmation.

Comment:

Aceh appears to have a well organized surveillance programme, with excellent leadership. The meeting held with the communicable disease (smallpox) supervisors should clarify the method for proper documentation of what appears to have been done in the field.

3.3 South Sulawesi

As in North Sumatra, there was evidence of improved organization and of a much more systematic approach toward the goal of smallpox eradication than was evident two years earlier. All 23 regencies were reporting smallpox incidence on a weekly basis, and a search of the records indicated that most reports were complete. Reports had not been properly filed since Week 19 (visited in Week 33), but they appeared to have been reviewed, and only 45 out of 713, or 6%, were not located.

Records of surveillance in the form of monthly reports of suspected smallpox cases from the regencies were often lacking. Only 51 of 138 expected, or 37% of those required, had been received. Of the regencies, only five of the 23 had filed regular monthly statements indicating the presence or absence of suspected smallpox cases. Thirty of the 51 reports, or 59%, indicated suspected cases resulting in evaluation.

The systematic search is proceeding satisfactorily. Of the 169 total kecamatans, 121 have been searched with negative results. Of the remaining 48, a plan was developed at the meeting for completion of 45 in September. Thus only three, all in Pangkep and representing offshore islands, will remain. These will, it is hoped, be completed, depending on the availability of a boat, by 1 January 1974.

As in North Sumatra, meetings have been held regarding the signed statements from civil and health authorities attesting to freedom from smallpox for each of the villages. These statements are expected to be complete for the province by the end of the year.

During the visits, the writer heard rumours of the occurrence of smallpox some two years earlier in a remote area, Mamuju, in the northwestern section of South Sulawesi, and it was found that this area had never been searched. Mountains and jungle have limited the travel to that area. An estimated 3000 individuals live in the area where the disease was described.

Comment: Areas requiring further attention are as follows:

- (a) The systematic survey should be completed in accordance with the schedule developed during the visit.
- (b) Careful search of the Mamuju area should be undertaken in due course. Since according to "a" rumour, the disease had occurred two years earlier, and an estimated period of two or three weeks would be required for an adequate search, this search has been scheduled as a part of the systematic search, with participation of the WHO Team Leader and a representative of the national headquarters staff.
- (c) Improvement is needed in the suspected smallpox case reporting mechanism. Few regencies are reporting regularly. It is reassuring to note, however, that, of those reporting, most appear to be evaluating the suspected cases.

### 3.4 Maluku

The most recent case of smallpox was recognized in 1956, an importation from South Sulawesi. None has been reported since. There is no system of weekly reporting from the five regencies to provincial headquarters, and no weekly report has been sent from provincial headquarters in Ambon to national SEP headquarters since Week 41 of 1972, nearly a year before the present visit.

No monthly smallpox surveillance forms have been received from the regencies. Surveillance is done on an informal basis in the course of evaluation of yaws and leprosy, but it has not been documented. The most recent suspected case of smallpox, actually varicella, was in 1970 and was evaluated by Dr Arbani from national headquarters and by Dr Louhemapessy. No suspected cases of smallpox have been seen among the population of 1.2 million since that time, and no materials for laboratory study have been collected from any patient. For smallpox there is no mechanism for regular reporting and evaluation, as there is for cholera and leprosy, perhaps because of the greater incidence of these latter diseases.

There are nearly 1000 islands in this province, about two-thirds of which are inhabited, and communications have been developed, by telegraph or radio telephone, with most of the larger islands. A hospital ship, now under repair, is owned by the provincial government. This ship makes approximately six trips per year to reach the major islands. The frequency and duration of its trips to the regencies are limited both by the budget and by weather conditions.

Quarantine action is taken only at Ambon and Ternate. Since these are the only international ports, and most shipping is via Java or South Sulawesi, this level of activity seems appropriate.

There were 46 664 routine primary vaccinations in 1970, 33 186 in 1971 and 43 824 in 1972 (including ages 1 and 1+ years), and the number of births is estimated to be 49 000 each year. A simultaneous BCG-smallpox vaccination programme has been started, and no problems have been encountered. This experience with BCG and smallpox vaccine is similar to that in South Sulawesi, North Sumatra and Aceh.

Comment:

Freedom from smallpox is likely to continue, primarily because of isolation and relatively small population units. If smallpox should be introduced, it is likely to be discovered because of the multiple health programmes conducted by the provincial Communicable-disease Control Service. The leadership seems strong and effective.

(a) Weekly smallpox reports from the provinces to national headquarters should be started promptly, the initial one to cover Weeks 1-33.

(b) Monthly records of cases suspected of being smallpox should be forwarded from the regency to provincial headquarters to provide some assurance that at least some surveillance is in effect in some of the islands.

(c) Occasional laboratory samples should be collected from patients whose diagnosis is in doubt, from varicella cases in persons 14 years of age or more or persons without vaccination smears, and also from varicella outbreaks should deaths occur. Containers were provided to SEP staff for this purpose.

### 3.5 Jakarta Municipality

Although this province is one of those most likely to have persistent smallpox, and cases may be introduced via the harbour, the present surveillance efforts leave much to be desired. Weekly reporting was complete from province to national headquarters through Week 31, although the five regencies (districts of the Municipality) had reported irregularly, and these reports were complete only through Weeks 29, 30, 11, 22 and 21 respectively. Thus it was clear that the nil reports received regularly from municipality headquarters were not based on sound information.

Of even greater concern is the fact that one-third of all suspect case reports and half of all suspect cases evaluated were from the south region, the area least likely to have smallpox as a problem. There have been no reports of suspect cases in the northern regency of the Municipality, despite the fact that this represents the harbour area and has a large population of low-income and indigent people living in poor and crowded housing.

No rumours of possible smallpox were discovered. The former Director of Communicable-disease Control has recently returned from special training in epidemiology, and it is hoped that surveillance action in this important area will improve.

#### Comment:

(a) Regular weekly reporting from each of the five regencies should be established promptly.

(b) Efforts should be made urgently to evaluate the situation in the northern regency.

(c) Representatives of the Municipality, the National Headquarters and WHO should visit each of the five reporting centres to indicate the need for reporting possible suspect smallpox cases and for a systematic method of documenting the apparent absence of smallpox in Jakarta.

### 3.6 West Kalimantan

Review of the smallpox notification and surveillance activity at provincial headquarters indicated that of the 224 weekly reports (seven regencies for each of the first 32 weeks) expected thus far, only 17 (or 8%) were missing. All regencies were reporting with reasonable regularity. The weekly reports from provinces to national headquarters were current.

Formal surveillance reports had been filed regarding suspect smallpox cases from only two of the regencies; each had filed a single report. One was concerning a single suspect case, with final diagnosis of varicella in January 1973, whilst the other was a nil report from another regency for April 1973. No province-to-headquarters surveillance reports had yet been filed. Despite this apparent lack of documented surveillance action, the staff was aware of suspected smallpox cases. A field trip was made to evaluate the surveillance action, and a visit paid to the most recent patient, who had both yaws and varicella with secondary bacterial infection of the varicella lesions. Appropriate laboratory specimens had already been obtained and forwarded for laboratory assistance, since the skin lesions were atypical due to the multiple infections.

It is of incidental interest that the health centres of Pontianak (population 218 000) serve as suspect smallpox referral centres, as does the hospital. Of the five health centres, two have a physician on the staff, and nurses and midwives staff the others. The 13 polyclinics have only nurses as staff. In 1973, through June, 437 cases of pertussis, three of diphtheria and no tetanus cases were seen in the health centres. Tetanus patients and most of the diphtheria patients would go directly to the hospital. Measles is considered a serious problem.

Comment:

There is obviously much more surveillance activity in progress than the records indicate, and the health programme is under capable and effective leadership.

- (a) In September there will be a meeting of all regency representatives. The need for documenting surveillance action will be explained and the method used described.
- (b) Provincial smallpox staff must make exploratory evaluations at intervals, to assure that the regency staff is properly evaluating the suspect cases.
- (c) Laboratory containers were supplied, and provincial staff were encouraged to forward to national headquarters samples from any suspected cases where diagnosis is uncertain.

3.7 West Java

The smallpox surveillance mechanism in this province has been improved considerably since the review in 1971. Dr Soleh and his associates have improved the reporting mechanism. Regular weekly reporting for all regencies was noted, and only 5% of the reports were missing or delinquent. All regencies had filed four or more monthly suspect smallpox reports during the first six months of 1973, and from 20 of the 24 regencies regular monthly reporting of suspect cases was recorded. It was of some concern that only nil reports were filed for Kod. Bogor and Sukabumi, and for Kabupaten Ciamis. Only a single suspect smallpox case was recorded in the first six months of 1973 for Kabupaten Bekasi and Kod. Cirebon. This fact appeared unusual, since each of the remaining 19 regencies reported from three to 222 suspect cases, with a median number of 13 during the six-month period.

The certification programme is proceeding reasonably well, and meetings with or without statements from civil and health authorities have been held in 123 of the 387 kecamatans in the Province. Plans were made for the remaining 264, which it is hoped will be certified as smallpox-free by the civil and health authorities in each kecamatan and desa before January 1974. Some administrative problems remain.

Because of the special concern over the problems encountered in 1971 and early 1972 with regard to identification and control of a smallpox outbreak in Kabupaten Tangerang, the regency immediately on the western edge of Jakarta, a special review was made. A total of 150 smallpox cases from this regency were recorded in 1971, although the presence of smallpox was not recognized until December of that year. An additional 10 cases occurred in January 1972, and three additional cases elsewhere were traced back to this endemic area.

Although weekly reports had been regularly forwarded from Tangerang to province headquarters, and there were records of 44 suspected smallpox cases (34 of which were found to be varicella and 10 other diseases) records within the regency were not so clear. Only six of the 17 kecamatans within the Regency had noted suspected smallpox cases from April through December 1972, and three had recorded no suspect case evaluations in 1972 or 1973 through 30 June 1973, despite the possibility of persistence of infection in this area. Of these three, Ciledug was selected for case-finding, since it was surrounded on three borders by kecamatans reporting smallpox during 1971-72; yet no cases had been reported from kecamatan. The others, Krondjo and Cikupa, were to be checked by regency and provincial staff.



Although several cases of varicella were easily located, no smallpox cases were found in Ciledug, nor were there any rumours about any cases.

Comment:

Although substantial gains in surveillance have been made, selective improvement may be made in the following areas:

- (a) Efforts are needed to find a method, if possible, of locating and reviewing suspect smallpox cases in at least five of the regencies. Of these, Kabupaten Bogor and Sukabumi and Kabupaten Ciamis should be checked very soon owing to the total absence of evidence of case evaluation.
- (b) The certification programme will require timely attention during late 1973, since administrative relationships may require clarification as to areas of responsibility, if complete coverage is to be attained.
- (c) Tangerang Regency, because of the relatively recent problem with smallpox, requires additional attention in selected kecamatans as noted above, and samples should be checked for verification of the certification programme, said to have been completed in 232 out of 237 (or 98%) of the desas.

3.8 North Jakarta

A visit was made to ascertain the extent of surveillance because of the absence of records of suspected smallpox case evaluations in the central health headquarters of Jakarta Municipality. Six suspect cases were noted as occurring in two of the first six months of 1973 and nil reports were available for the remaining months. These reports had not been properly forwarded.

The quarantine procedures were reviewed with the harbour quarantine authorities, and the process was similar to that observed in Sabang and other international ports.

Comment:

The observation of suspect smallpox cases must be documented by both the Jakarta central health offices and the national surveillance programme.

4. FINAL COMMENTS AND RECOMMENDATIONS

In general, substantial improvement in surveillance action, administrative relationships and general programme operation was apparent in most areas and at virtually all levels of the smallpox eradication programme. This is evidence of dedicated and skilful leadership provided at the national level and at most provincial and local levels. The more efficient operations also show the benefit derived from the work of the present and past WHO staff assigned to this project.

This review is believed to have reached the objectives as outlined under Section 1 of this report. Specific comments and general suggestions are offered for each area reviewed under items 3.1 through 3.8. In addition, the writer's general recommendations may be summarized as follows:

4.1 Surveillance of smallpox

After reviewing the available data and visiting pertinent areas in seven out of the 26 provinces of Indonesia, the writer gained some assurance that endemic smallpox no longer exists within the country. In order to provide better evidence so that a review group may issue a firm and positive statement that smallpox transmission within Indonesia has been interrupted, selective attention to surveillance techniques will be required in several areas. The specific

surveillance measures indicated have been suggested in the comments following each section of this report regarding specific provinces (items 3.1 through 3.8). Of particular importance is the further improvement of surveillance activity in West Java, especially in Tangerang, and in Jakarta. Search of Mamuju Regency in South Sulawesi, previously omitted from earlier searches and the subject of the only rumour of possible smallpox disclosed during this visit, should be accomplished within the next month, and must be documented appropriately.

#### 4.2 Introduction of smallpox to Indonesia

Owing to the current hyperendemicity of the disease in several areas of the Indian sub-continent, and the frequent travel to India and few days required for sailing to this country from potentially infected ports, the above measures should serve to reduce the risk of spread after introduction of disease, now that eradication of smallpox appears to have been achieved. During the visits made to each area this potential problem was described, and the need for disease surveillance emphasized.

#### 4.3 Certification programme

Meetings are in progress to arrange for the collection of statements of freedom from smallpox which are scheduled to be obtained from civil and health authorities in 12 provinces classified as the Group 1 (or greatest risk) areas. These statements will include 158 of the 288 kabupatens, 1711 of the 3155 kecamatans and 24 641 of the total 47 500 villages (desas). This is a formidable task and will require considerable effort to clarify administrative relationships and verification in selected areas. Although cumbersome, it will, with the planned publicity and health education effort in February 1974, draw considerable attention to smallpox as a disease and should serve to verify further the apparent absence of smallpox cases in Indonesia. These efforts will also provide greater awareness of the reward paid both to health workers and to private citizens for notification of each confirmed case of smallpox. The collection of statements is expected to be completed in several areas in December 1973, and in all areas by March 1974. This effort should be supported.

#### 4.4 National offices

Reminders should be forwarded to individual provinces when reports are missing or delinquent. Both weekly disease and monthly suspect smallpox reports will be useful, should a final assessment and verification of the smallpox-free status be scheduled.

#### 4.5 Simultaneous smallpox-BCG immunization programme

The use of these two vaccines is proceeding without untoward incident, and represents a desirable step, aiding both disease control and surveillance efforts. Additional evaluation of the bifurcated needle is indicated, since BCG vaccine given frequently in the past has been by puncture, and syringes are cumbersome, expensive and not without hazard when used under field conditions.

#### 4.6 Final programme review and assessment

In conjunction with the WHO Regional Office and WHO headquarters, plans should be developed for a review and final appraisal of the smallpox situation in Indonesia. If an international group of informed and experienced persons were to review the available information, and perhaps visit a few selected areas, it is likely that an announcement might be made which would provide encouragement to others involved in similar eradication efforts. It would be appropriate to schedule such a review after fully two years of nil case incidence, and prior to the next World Health Assembly. Thus late April of 1974 would seem to be an appropriate time. Detailed recommendations are as follows:

#### 4.6.1 Representatives participating in final review

For maximum benefit of this review, an international committee composed of responsible and respected authorities from several countries should be convened. The representatives might come from Malaysia, Australia, the Philippines and India, for example, with one or more representatives from the WHO Regional Office for South-East Asia and from WHO headquarters. In addition, two or three representatives from countries located at greater distances might be included.

#### 4.6.2 Time schedule for final review

The review should consist of an initial period of two or three days for briefing the committee and reviewing of appropriate documents. This would be followed by visits to selected areas, such as North Sumatra, South Sulawesi, West Java and portions of Jakarta, by individual committee members accompanied by national and WHO staff. These visits, three or four in number, could be scheduled simultaneously and would occupy no more than three or four days. They would provide additional personal assurance of the status regarding smallpox. The final deliberations and writing of an appropriate report should require not more than three days' additional time. Thus the total time elapsed, including travel time, should not exceed two weeks, and would probably not be more than about 10 days.

#### 4.6.3 Briefing procedure

Representatives of the Indonesian Health Ministry, together with WHO regional and project staff, should provide the committee with detailed briefing regarding the history, development and progress of the smallpox eradication programme within Indonesia.

#### 4.6.4 Documents required

Appropriate documents should be supplied. These might include:

- (a) Analyses of weekly reporting of smallpox from regencies to provincial headquarters for all provinces.
- (b) Monthly suspect smallpox case reports from the provinces.
- (c) Copies of the monthly regency-to-province reports regarding suspect smallpox cases for selected areas, including Jakarta, West Java, North Sumatra and South Sulawesi for the period January 1973 through February 1974.
- (d) Tabulations of the results of the certification programme regarding freedom from smallpox from each of the twelve provinces in which this programme is in progress.
- (e) Summaries of the laboratory results from the investigation of suspect smallpox cases in 1972, 1973 and through February 1974.

#### 4.6.5 Preparation of report

A brief report should be prepared promptly at the close of the deliberations, and specific assignments for the drafting of such a report made in advance.

#### 4.7 Additional antigens for immunization

It is apparent that other communicable diseases, notably tetanus, are also of importance. Despite the present very incomplete reporting in virtually all areas, it is clear that diphtheria and pertussis occur with variable frequency, and that typhoid and poliomyelitis will be seen more frequently in the future. Better estimates of the incidence and relative importance of these diseases should be made on the basis of studies in selected areas, to guide the development of additional immunization efforts.

#### 4.8 Administrative problems

Attention must be directed to retaining strong leadership in the SEP both at national and local levels until eradication is assured. At least the present numbers of both national and WHO staff are required for this purpose; further reductions are not indicated at this time. Appropriate support in the form of supplies and vehicles must be continued, at least through 1974, at which time this effort may be absorbed into the total immunization programme.

#### 5. ACKNOWLEDGEMENTS

It was again a distinct pleasure to work with the national, provincial and regency staff of Indonesia. Special appreciation is expressed, of the strong support provided by Professor J. Sulianti Saroso, and to Dr I. F. Setiady and Dr Njoman Kumara Rai. The assistance provided by Dr Keja, WHO Senior Public Health Administrator, Dr G. Cuboni and Mr W. L. R. Emmet, of the WHO Smallpox Eradication Project in Indonesia, is also gratefully acknowledged.

Schedule of visits and discussions

August

- 1 & 2 Arrived in New Delhi - Briefing: Dr Z. Jezek and Dr L. Brilliant
- 3 Briefing: above and Dr N. Grasset
- 4 Arrival in Jakarta
- 5 Meeting with Dr G. Cuboni - general discussion
- 6 Meetings with Dr Keja (Acting WHO Representative), Dr Cuboni and Mr Emmet of the WHO staff; Drs Setiady, Kumara, Karyadi and Guno, of the Indonesian Health Ministry, and Dr Koswara (formerly Chief of the Smallpox Programme in Jakarta on home leave).  
  
Formulation of plans for review during August.
- 7 Review of plan and specific programme for review of various areas of Indonesia, with Dr Keja, Dr Setiady, Dr Kumara and staff.
- 8 Discussion of programme with Professor Dr Sulianti, Dr Setiady, Dr Kumara and WHO staff. (This included plans for the present review and also for the final assessment in 1974).  
  
Departure for Medan, Sumatra, at 18.00 h.
- 9 Visit to Office of Provincial Health Services. Discussion with IKES, Dr Mangasa Siregar; Secretary of CDC, Drs Sinulingga, and smallpox staff in SEP offices. Dr P. Q. Loebis, the Provincial SEP Director, was in the field to complete the last phases of smallpox surveillance.
- 10 Meetings with Dr Marpaung, Chief, Provincial Epidemiological Surveillance unit; Dr Hamsah Siregar, Chief, Medan Municipality Health Services; a health centre, and Dr Kiam Tjay Jo, Director of Child Health, Provincial General Hospital of Medan and his staff.
- 11 Final reporting to IKES, Dr Mangasa Siregar (North Sumatra) regarding the need to strengthen surveillance and office management. Travel to Aceh. Meeting with IKES of Aceh, Dr Yuliddin Away; CD Chief Dr Mohammed Iljas; Endemic Disease Chief, Dr Burhanuddin and Epidemic Disease Chief, Mr Sady Nurdin, B.Sc. Meeting with all surveillance supervisors. Travel to the free port of Sabang. Meeting with the doctor in charge, Dr Ali Azir Hasibuan and his supervisors for communicable-disease control and quarantine.
- 12 Review of quarantine and surveillance procedures with Dr Ali and staff for port and island of Sabang. Check of local data and comparison with information from provincial headquarters.
- 13 Return to Banda Aceh, provincial headquarters. Review of suspect case reporting in Aceh. Field trip with Dr Burhanuddin, Chief of Endemic Disease Programme for the Province; Dr Sjarifuddin, Regency Physician; Mr Sady Nurdin and others to evaluate the management of a reported suspect case in Kampung Rabo, Kemukiman Seulimeum, Kecamatan Seulimeum, Kabupaten Aceh Besar.

Annex 1

August

- 14 Visit to hospital and home of reported suspect smallpox case in Aceh. Depart for Jakarta.
- 15 Further arrangements for other visits. Problems with flight bookings in Jakarta.
- 16 Departure from Jakarta for Ujung Pandang, South Sulawesi. Meetings held with Dr Andi Pangeran (Director of Medical Care and Acting IKES, in the absence of Dr Tadjuddin, Dr Halim Banna, Acting Director of CDC and in the absence of Dr Hasan Anoez in Bangkok on fellowship; Mr Achmad Idrus, CDC Secretary; Mr Katutu, Chief of Smallpox Section; Drs Noor Nasry Noer, Smallpox Surveillance-Containment Officer, and smallpox staff, including Mr Burhanuddin from the Province also. Mr Pandia, B.Sc. and Mr Undang, B.Sc., from national headquarters participated in the discussions and review of all available information.
- 17 Final discussions with South Sulawesi programme representative. Departure for Ambon, Maluku. Initial meeting with Dr Andy A. Louhemapessy, Chief of CDC for Maluku Province.
- 18 Meeting with IKES, Dr D. Palekahely, of Maluku Province. Review of all available records with Dr A. A. Louhemapessy and CDC staff. Final meeting with IKES.
- 19 Travel to Jakarta.
- 20 Planning session for remainder of visit.
- 21 Meeting with Dr Tri Harjono, Chief of CDC for Jakarta Municipality; Dr Sunarto, Acting Chief of CDC for 1972-73. Mr Djunas Sali, B.Sc. and national headquarters; and other staff.
- 22 Travel to Pontianak, West Kalimantan. Meeting with IKES, Dr Sri Soewarsi; Chief of CDC, Dr Buchari; Smallpox Project Supervisor, Mr Herman Djalan, B.Sc. and other staff. Records reviewed.
- 23 Field trip to observe surveillance operations.
- 24 Meeting with IKES, Dr Sri, and return to Jakarta.
- 25 Travel to Bandung.
- 26 Review of progress to date and draft of report of observations with Dr Kumara and Dr Cuboni.
- 27 Meeting in West Java SEP Headquarters with Dr Soleh, Chief, Epidemiological Surveillance unit; Mr Entom, Provincial SEP Supervisor, and Mr Odang, Administrative Assistant, Dr Bambang, from the national staff, acting as Chief of the Smallpox Programme in Bogor Regency, was also present. At the time of the visit both Dr Uton and Mr Lukman were away from Bandung.
- 28 Field work evaluation in Tangerang.
- 29 Meeting with Dr D. A. W. Nugent, WHO Representative for Indonesia. Review of headquarters facilities and operations and North Jakarta, including port health authority.

August

30 Final reporting to Professor Dr Sulianti and staff.

September

3-4 Meetings in the WHO Regional Office, New Delhi.

5-7 Meetings at WHO headquarters, Geneva.

9 Arrival in Los Angeles, California, United States of America.

ANNEX 2

STATUS OF SURVEILLANCE OF SMALLPOX, INDONESIA, SELECTED PROVINCES AND MUNICIPALITIES  
January-June 1973

Area	Province or Municipality evaluated						
	North Sumatra	Aceh (inc.) Sabang	South Sulawesi	Maluku (Ambon)	Jakarta Municipality	West Kalimantan	West Java
Date of review	8-10 Aug.	11-13 Aug.	15-16 Aug.	17-18 Aug.	20-21 Aug.	22-24 Aug.	27-29 Aug.
Total regencies	17	10	23	5	5	7	24
Weekly smallpox reports <sup>a</sup>	17	10	23	0	2	5	24
% reporting	100%	100%	100%	0	40%	72%	100%
Weekly prov. report (last week forwarded)	29	31	31	41 (of 1972)	31	31	33
Monthly suspected smallpox <sup>b</sup>	14	10	11	0	4	0	24
% reporting suspects	82%	100%	48%	0	80%	0	100%
Complete suspect reports <sup>c</sup>	8	6	5	0	4	0	20
% complete reports	47%	60%	46%	0	100%	0	83%
Total suspect reports over/expected <sup>d</sup>	60/102	51/60	51/138	0/30	24/30	0/0	138/144
Reports with suspects <sup>e</sup>	30	6	30	0	15	0	75
% with cases eval.	50%	13%	59%	0	63%	0	54%
Total notifications <sup>f</sup>	176	17	136	0	43	0	357
Total cases evaluated <sup>g</sup>	320	19	168	0	48	few	491
Varicella	170	18	115	0	45	0	303
% varicella	53%	95%	65%	0	94%	0	62%
Last year smallpox	1971	1970	1971	1956	1971	1969	1972
Cases 1972	-	-	-	-	-	-	-
1971	285	-	1 451	-	4	-	191
1970	1 217	122	1 721	-	130	-	4 490
Laboratory samples suspect smallpox 1973	15	18	79	0	10	0	63

<sup>a</sup> Number of administrative units (regencies) with satisfactory weekly reporting.

<sup>b</sup> Number of administrative units (regencies) with some monthly suspect smallpox case reporting.

<sup>c</sup> Number of administrative units (regencies) with complete regular monthly suspect smallpox case reporting.

<sup>d</sup> Suspect smallpox reports received over total expected with regular monthly reporting from each administrative unit (regency).

<sup>e</sup> Suspect reports received less nil suspect reports.

<sup>f</sup> Total of individual suspect case notifications on initial report.

<sup>g</sup> Total of individual suspect cases evaluated.