WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTÉ

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TWENTY-EIGHTH WORLD HEALTH ASSEMBLY

Agenda item 2.2.3

DETAILED REVIEW OF THE PROGRAMME BUDGET FOR THE FINANCIAL YEARS 1976 AND 1977

SMALLPOX ERADICATION

Report of the Director-General

1. The Director-General has the honour to present the following report regarding the programme of smallpox eradication.

2. The status of the smallpox eradication programme as of 14 May 1975 is shown in the summary report published on 16 May 1975 in the Weekly Epidemiological Record[1] (attached).

3. The achievements of the global smallpox eradication campaign during the past 12 months have been among the most notable yet recorded. Of the four countries with endemic smallpox one year ago - Pakistan, India, Ethiopia and Bangladesh - remarkable progress was made in all except Bangladesh. In Pakistan, the last known case of smallpox occurred on 16 October 1974; in India, less than 100 cases were detected during March and during April and, except for importations from Bangladesh, transmission appears to have been virtually interrupted; and in Ethiopia, smallpox incidence decreased by more than 50% despite greatly improved case detection. In Nepal, outbreaks resulting from more than 120 importations last year from India have been fully controlled. Only in Bangladesh was there a significant setback. Progress in the programme in Bangladesh during the first nine months of 1974 had been such as to encourage the belief that transmission could be interrupted by January 1975. However, the most severe floods in decades occurred during the summer of 1974 in the limited remaining smallpox endemic areas and, following this, an unprecedented migration occurred which resulted in the dissemination of smallpox throughout the country. Increasingly stringent emergency measures were taken to cope with the problem culminating finally in February with the inauguration of a national emergency programme under presidential directive. Substantial additional international assistance was provided, health workers were relieved of other responsibilities to work in the programme, large numbers of additional staff were recruited and personnel from other parts of government joined in the national effort. By late April, smallpox had begun to come under control in most, although not yet all, parts of the country. Compared to the situation one year before, infection at the end of April was more widespread, i.e. 1269 villages were infected compared to 950 villages at the end of April 1974. However, the number of persons with active infection at that time was somewhat less - 1844 persons contrasted to 1990 a year before. These data reflect the fact that the detection of outbreaks is now more prompt and containment more efficient than before, resulting in outbreaks of much smaller size. With the rate of smallpox transmission now beginning to decrease due to seasonal factors, programme staff believe it is possible to interrupt transmission throughout the country by late August. This assumes, of course, that the present tempo of activities can be sustained and that sufficient funds are available to permit full implementation of the programme.

The next six months are most critical for smallpox eradication in Asia for unless transmission is interrupted by the end of October, the rapidity of spread of smallpox between November and April in the remaining densely crowded areas would make its elimination most difficult for at least another year. The situation in Ethiopia is no less critical. Smallpox in that country is now at its lowest ebb since the programme began. The remaining outbreaks, almost entirely confined to the difficult mountainous highland areas, are few in number, small in size and located in the most remote areas. Two helicopters have been

[1] Weekly Epidemiological Record, 1975 (16 May).

assisting in transport of the teams in order to speed progress in the campaign and these will continue working until prevented from doing so by the summer rains. It is hoped that the intensive case detection and containment effort coupled with declining rates of smallpox spread during the summer may also result in the elimination of smallpox in Ethiopia by late August. However, certain limited areas of the country have become unapproachable and some of these are known to have been infected with smallpox. Thus, adequate provisions will have to be made for continuing intensive surveillance throughout the next year.

The greatly accelerated progress in the eradication campaign during the past 12 months was made possible by substantially increased international support permitting a much increased national effort. Throughout Pakistan, India and Bangladesh, health staff now participate every four to eight weeks in a systematic house by house search for cases. A planned programme of inquiry is conducted at all major markets to uncover rumours of cases and a financial reward is offered to the public as well as to health workers for the discovery of previously unknown outbreaks. When an outbreak is discovered, guards are posted at each house to ensure that the patient does not leave and that all visitors are vaccinated. All persons within a radius of up to 10 miles are vaccinated and the area is searched for additional cases. The source of infection is carefully traced to ensure that all links in the chain of transmission have been adequately dealt with. In Ethiopia, these procedures have had to be modified because of lack of staff but health workers are now able to be posted for vaccination and outbreak control at each infected village until six weeks after onset of the last case.

Provision for additional personnel, both national and international, plus costs for transport (including helicopters in Ethiopia), per diem for health workers residing in infected villages, printing costs for forms and health education material have largely been supplied from international resources. Principal support has been received from the Government of Sweden which during the past year has made available $ 6 400 000 for programmes in India and Bangladesh. Further cash contributions for the programme have also been received from the United Kingdom ($ 540 000), the Netherlands ($ 408 000), the United States of America ($ 220 000) plus an additional $ 101 266 from Australia, Switzerland, Finland, Luxembourg, Kuwait, Uganda and the WHO Regional Office staff in New Delhi. Vaccine requirements during the past year have been met by donations from the Union of Soviet Socialist Republics, Netherlands, Canada, India, United States of America, Guinea, Kenya, Iran, Belgium, German Democratic Republic, Czechoslovakia and Colombia. Contributions in kind have also been received from Japan and the United States of America. But further support is urgently required.

The opportunity to achieve, at last, global eradication of this dread disease has never been better. Never have so few cases been present nor the the remaining endemic areas so limited. But there is no room for complacency. Should there be a temporary relaxation of efforts in one country or one state or province, the opportunity we now have could be irrevocably lost. The price to be paid by endemic and smallpox-free areas alike would be incalculable. Contrasted to the savings anticipated when global eradication is achieved - in excess of one billion dollars - the additional funds required are modest. To sustain the present tempo of activities throughout 1975 and to provide an adequate surveillance mechanism thereafter to assure that transmission has been interrupted will require at least an additional $ 3 700 000 in 1975 and $ 3 900 000 in 1976.

Confirmation of smallpox eradication

At the inception of the global programme, four areas were defined epidemiologically, each of which was geographically distant from the others and was considered unlikely to experience importations of smallpox from outside its own area. The areas were (1) South America, (2) Indonesia, (3) Africa and (4) Mainland Asia. The WHO Expert Committee on Smallpox Eradication decided that when at least two years had elapsed in such an area during which surveillance activities had been sufficiently comprehensive to detect possible remote foci, the disease could be considered eradicated. In August 1973, an international commission was convened in Rio de Janiero, 28 months after the last case in South America, and after review of the programmes and appropriate field visits to confirm the results, concluded that the disease had been eradicated in the Americas. In April 1974, a similar commission was

convened in Jakarta to review the programme in Indonesia, 28 months after its last known case. The commission concluded that the requirements for smallpox eradication as established by the WHO Expert Committee on Smallpox Eradication had been fully met and that the eradication of smallpox in Indonesia was considered to have been achieved.

Special studies were begun in 15 countries in western Africa in the spring of 1975 to provide documentation for consideration by an international commission. Assuming the early elimination of smallpox in Ethiopia, similar studies will be developed with countries in central and southern Africa during the coming year.

Other poxviruses

In regard to monkeypox and other poxviruses and their possible relationship to variola, there is little new information available. The last cases of monkeypox were detected in August 1974 and January 1975. No other cases have been found despite a continuing active programme of surveillance especially in Zaire, where 11 of the 19 cases have been found. A number of laboratories are actively engaged in continuing study of these viruses, but no significant recent findings have been forthcoming. The conclusion reached in a December 1973 meeting of research workers and epidemiologists concerned with activities in this field continues to be pertinent.

> "Monkeypox and the white poxviruses do not, at present, appear to pose a threat to the smallpox eradication programme. Nevertheless, intensive surveillance activities must continue as well as further investigations in the laboratory and in the field. The most important basis for optimism is provided by the increasing areas which are now free of smallpox and the steadily increasing time that they so remain."

Documentation

In celebration of World Health Day whose theme was "Smallpox - Point of No Return", special materials were prepared including a 15 minute documentary film, an issue of World Health and a special exhibit now on display at the Assembly.

As requested by the Assembly, preparation has begun of a detailed history of the eradication programme. Its completion will depend on the pace of progress in the campaign but assuming transmission is interrupted during 1975, a final draft of such a book should be available in 12 months time.