From: Chief, Smallpox Eradication 17 April 1973

To: Smallpox Staff

Subject: Target Zero - Progress report 8

1.0 Present smallpox situation

During the past two weeks, smallpox cases turned up in four unexpected areas:

1. Japan - a single case in a Japanese man returning from Bangladesh - Japan's first case since 1955

2. United Kingdom - an outbreak of 3 cases following a laboratory infection in a technician

3. Botswana - a single case in the capital Gaborone leading to three additional cases, almost five months since the last cases had been detected

4. Uganda - two cases so far detected in a town 25 miles south of the Sudan border, almost 4 months after the last known case in Sudan

The Japanese case was promptly detected; no further cases have been reported among contacts. He was vaccinated in January 1972 before leaving Japan but with doubtful success. The pattern is familiar in Europe with residents, improperly vaccinated in their own country, contracting the disease while travelling. Most importations could be prevented (as in the instance of the first UK case this year) if countries insured that their own citizens were satisfactorily vaccinated before departure.

The United Kingdom outbreak followed the occurrence of smallpox in a laboratory technician at the London School of Tropical Medicine - an unusual occurrence as only one other laboratory-acquired infection is known to have taken place (Liverpool 1949). The girl, a mycology technician, wandered into another laboratory to observe eggs being harvested. She had been vaccinated in childhood and again (? successfully) over a year ago in northern Ireland. She developed fever and back pain and was admitted to a general 18-bed ward of a London hospital. An atypical rash developed shortly after arrival but there was a delay of some days before the diagnosis was established. Two cases occurred among a husband and wife who were visitors to the ward, both cases being fatal. All contacts have been identified and the situation now appears under full control.

In Botswana, a 22-year old man with smallpox was detected in Gaborone, almost five months after the last known cases had occurred (October 1972) - an episode not unlike that in Brazil, Nigeria and Indonesia where five to eight months of nil incidence occurred before one further residual focus was found

An intensive area-wide house-to-house search was launched and eventually three other cases (onsets November, January, early March) were found in a religious sect which resists vaccination and hides cases. As yet, the definitive chain of infection leading back to the last known cases has not been fully established but the investigations are still continuing.

This outbreak again illustrates the need for persistent surveillance and an active search for cases, even when an area is thought to be smallpox-free. With the measures now being implemented and considering that this is the low point in seasonal transmission, there is every reason to be optimistic in regard to prompt elimination of this residual focus in Botswana.

Of much greater concern was the discovery of cases in Atiak, Uganda, fully four months after the last known cases had occurred in Sudan and eight months since the last known cases in Uganda. Rumours of suspected cases were first noted in Sudan and prompt investigation by Uganda teams followed. Further information regarding the source of infection is awaited.

None of these problems is, of course, in any way comparable with the serious smallpox situation currently prevalent in India and Bangladesh. However, the occurrence of any focus outside of known endemic areas must now be regarded and dealt with as an international public health emergency. Only if this is done can we assure that new areas do not become endemic problem areas such as happened in the past two years in Botswana and Bangladesh.

In the endemic areas, Ethiopia and its staff of 75 persons (one per 300 000 population) continues its course of unparalleled success with a further significant drop in incidence during March; intensive active search operations over extensive areas of Sudan are failing to turn up additional foci.

With increasing government support, the programme in Pakistan has been intensified but, despite more active surveillance and more complete notification, smallpox incidence in March actually declined somewhat from February. The success of efforts over the next few months will be decisive in determining whether transmission can be interrupted during 1973, as is now hoped and expected.

Smallpox incidence in Bangladesh similarly changed little from February, a cautiously hopeful sign that the large-scale emergency effort now in progress is beginning to have an effect. Much, however, remains to be done and considering the extent of endemic foci, a sustained effort throughout the summer will be required in order to permit surveillance teams to get on top of the problem this autumn.

Only in India is there yet no sign of significant progress - in fact, the reverse. Data for March are still incomplete but an increase in incidence of 25% or more over the incidence in February seems likely and an overall total of more than 50 000 cases during 1973 - the highest recorded since 1967 - seems probable. Outbreaks have now appeared in the previously small-

free eastern wing (Assam and Manipur); the states of Rajasthan and Andhra Pradesh where transmission was expected to be interrupted several months ago, continue to report indigenous spread, and importations from the major conflagration taking place in the Central States (Uttar Pradesh, Madhya Pradesh, Bihar and West Bengal) are causing problems in virtually all states.

The objective of a nil incidence of smallpox throughout the world by June 1974 - well within the reach of Ethiopia and Pakistan, as well as other countries and possibly in Bangladesh - seems increasingly unlikely in India without a substantially more intensive effort than is now being made.

2.0 Target areas

	Jan.	Feb.	Mar.
2.1 Cases occurring within original March 31 target area			
Bangladesh	1 450	2 097	1 732
Ethiopia	184	94	109
India	4 171	4 912	4 163
Pakistan	471	640	746
Cases occurring outside target area but specifically traced to importations			
Ethiopia	5	8	-
French Terr. of the Afars and Issas	-	1	-
Nepal	3	2	8
India	63	153	313
Japan	-	-	1
United Kingdom	-	-	4
Total of all cases in category 2.1	6 347	7 907	7 076
Per cent of world total cases in category 2.0	62	66	57
2.2 Cases occurring outside target area			
Bangladesh	1 601	1 846	2 338
Botswana	1	-	2
Ethiopia	444	449	280
India	1 666	1 569	2 635
Pakistan	248	229	94
Uganda	-	-	2
Total of all cases in category 2.2	3 960	4 093	5 351
Per cent of all cases in category 2.2	38	34	43

Note: Data as of 10 April 1973

3.0 Reporting

By 10 April, reports from all areas should have been received by WHO through week 13. Deficiencies now remain only in India, as per Report 7, where the cumulative number of weeks for which all states are in arrears is 22.

		No. of weeks
India -	Arunachal Pradesh	1
	Assam	1
	Bihar	3
	Chandigarh	2
	Goa	1
	Jammu and Kashmir	3
	Kerala	1
	Manipur	1
	Meghalaya	1
	Mysore	1
	Nagaland	3
	Punjab	1
	Tamil Nadu	1
	Tripura	1
	West Bengal	1