



TWENTY-FIFTH WORLD HEALTH ASSEMBLY

Provisional agenda item 2.5

SMALLPOX ERADICATION

Report of the Director-General



INDEXED

1. As requested by the Twenty-fourth World Health Assembly, the Director-General has the honour to present the following report regarding the programme of smallpox eradication.
2. The current status of the programme as of 2 May 1972 is summarized in the Weekly Epidemiological Record¹ published on 5 May (attached).

Following a decline in smallpox incidence from 131 000 cases (1967) to 33 000 cases (1970) during the first three years of the eradication programme, the number of cases rose to 52 000 in 1971 and more cases have been reported so far this year than in the comparable period in 1971. The increase in reported cases in 1971 is accounted for by far more complete notification in Ethiopia which in the first year of a rapidly developing programme recorded 25 976 cases compared to only 722 cases during the year before. In 1972, however, increased numbers of cases are being reported by six of the seven known endemic countries. Better surveillance and more complete notifications of cases of smallpox are believed to account for much of this increase.

From 1967 through 1971, the number of countries experiencing cases of smallpox also declined, from 42 in 1967 to only 16 in 1971. This year, however, cases have already been reported by 18 countries as smallpox has been introduced into 10 countries otherwise considered to be smallpox-free. Included are introductions into Yugoslavia and the Federal Republic of Germany, the first smallpox importations into Europe in two years. In seven of the countries, including those in Europe, the outbreaks have been effectively contained; in one, Bangladesh, extensive outbreaks have occurred and although intensive emergency measures are being taken to contain the spread, effective control has not yet been achieved. From the remaining two countries, Iran and Iraq, little information is yet available regarding the source of infection, pattern of spread or the nature of containment activities which have been undertaken. Both countries, employing vaccine and bifurcated needles provided by WHO, are conducting mass vaccination programmes.

The large number of introductions of smallpox this year clearly demonstrates that the disease is far from being under satisfactory control, let alone nearing the point of eradication. Much remains to be done in the endemic countries and in those which are smallpox-free, greater vigilance must be exercised to prevent the reimportation of smallpox and its re-establishment as an endemic disease.

On the positive side, several large countries which were endemic for smallpox only a year ago, now appear to have interrupted transmission. No cases have been detected in Brazil or elsewhere in South America for more than a year. An active search for unknown endemic foci is, however, continuing. The last known cases occurred in Zaïre over eight months ago and in Indonesia, more than four months have passed during which no cases have been found. Both countries are continuing their active surveillance programmes in a search for cases.

¹ Weekly Epidemiological Record, 1972, 47, 18.

In Africa, only three countries are known to be endemic at this time - Botswana, Ethiopia and Sudan. In Botswana, after four years without detected cases, smallpox reappeared in January 1971. Cases have continued to occur until the present. Recently, special measures have been taken to strengthen surveillance and reporting and a national systematic vaccination programme will soon begin. In Ethiopia, an effective eradication programme which began in January 1971, in four provinces, has been extended throughout the country. During 1971, 26 000 cases were identified and over 9000 cases thus far in 1972. Over four million persons have been vaccinated. Ethiopian authorities expect to interrupt transmission in eight of the 14 provinces by the end of 1972. In Sudan, over 80 per cent. of the cases are now occurring in the southern provinces with most outbreaks elsewhere being traced to introductions from these provinces or Ethiopia. This year, surveillance activities have been materially strengthened throughout the country and vaccination activities are being intensified in the southern provinces.

In Asia, the principal endemic countries of India, Pakistan and Nepal have all recorded an increase in cases this year coincident with the development of improved surveillance programmes. Further improvements, however, are yet required in all three before the interruption of transmission can be expected. A significant setback to the programme was the reintroduction and extensive spread of smallpox in Bangladesh after 16 months during which no cases could be found. National health staff, WHO and other international agencies are working intensively to bring the outbreaks under control. Lastly, Afghanistan, in the fourth year of a well-executed programme, has recorded an 80 per cent. decrease in incidence and foresees the interruption of transmission within a few months.

Two problems of practical concern have become increasingly apparent, the first of which pertains to the occurrence of smallpox in non-endemic countries. With the continuing decrease in the number of countries with smallpox, each case in a country presumed to be non-endemic assumes increasing importance to the global programme as a whole. The source of infection and pattern of spread must be carefully investigated by experienced epidemiologists to assure that the outbreak has resulted from introduction from known endemic areas and not from unknown residual foci; prompt and effective containment measures must be applied to prevent re-establishment of infection. Without such measures, the success of the global programme as a whole is jeopardized.

A second problem of increasing significance has been that of determining that transmission has been interrupted in areas or countries where the routine surveillance programmes are detecting no cases. Several studies in Asia and South America were conducted during 1971 in which a newly developed "Smallpox Recognition Card" was employed. Schoolchildren, health and civil authorities throughout suspect or remote areas were shown the card and queried about possible smallpox cases which were then investigated. Further experience with this technique is required but, to date, this approach has proved highly effective in facilitating the search for unknown foci over extensive areas with limited numbers of personnel.

Eradication programmes are now operative in all endemic countries and the Organization is providing substantial support in terms of technical aid and consultants, supplies and equipment, teaching materials, courses and seminars. Substantial international assistance is also being provided on a bilateral basis by the USSR and the United States of America and 32 countries have made special contributions to the WHO Special Account for Smallpox Eradication. In the first quarter of 1972, more than 19 million doses of vaccine have been distributed from this account, a quantity greater than that distributed in any other three-month period since the inception of the intensified programme. Thus, continuing and, in fact, increased contributions will be required as efforts are made to intensify the programmes in the difficult remaining endemic areas.

Future activities

An Expert Committee on Smallpox Eradication met in Geneva from 22 to 30 November 1971. The Committee reviewed in detail the status of the programme and advised in regard to the strategy and methodology to be employed during the coming years. The Committee cautioned that although most cases of smallpox were then being reported by four countries, the persistence of transmission in these areas, while most of the world has become smallpox-free, necessarily implies special problems. It pointed out that an effort equivalent to that of the past five years may be required to interrupt transmission in these areas. The Committee concluded, however, that with such a special commitment, there is every reason to believe that the goal of global eradication could be achieved within a period of a few years.

A number of recommendations were made regarding future activities:

1. There is a need to strengthen reporting everywhere and to assure that every suspected case is investigated promptly, its source of infection traced and containment measures promptly instituted.
2. Because of the global nature of the eradication programme, all cases which occur in non-endemic countries are of international concern and should appropriately be investigated and contained by national staff assisted by experienced WHO smallpox staff, so as to facilitate tracing of sources of infection between countries and to assure, to the extent possible, that transmission does not become re-established in smallpox-free areas.
3. Countries sharing common borders with endemic areas should maintain special surveillance programmes which incorporate an active search for possible outbreaks as well as continuing intensive vaccination programmes.
4. Special programmes to uncover possible residual foci of smallpox should be conducted, particularly in recently endemic countries.
5. Except for a few countries at low risk and with highly developed health services and surveillance, routine vaccination programmes should be continued throughout the world.
6. Continuing research in a number of areas was considered vital. Although there is no evidence at present that there is a mammalian reservoir of smallpox other than man, further studies in the field and in the laboratory should be pursued. Other areas considered to be important for study include the development of simplified and improved methods for laboratory diagnosis; elucidation of the mechanisms of immunity in pox virus infections; and the development of improved methods for applying smallpox vaccine in association with other vaccines.
7. As countries become free of smallpox the programme itself might appropriately be broadened in scope to include administration of other antigens and surveillance of other diseases of national importance. It was noted that such an approach would be both logical in the scheme of development of health services and would serve to strengthen the structure necessary for a country to maintain a smallpox-free status.

WORLD HEALTH ORGANIZATION
GENEVA



ORGANISATION MONDIALE DE LA SANTÉ
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WEEKLY EPIDEMIOLOGICAL RECORD RELEVÉ ÉPIDÉMIOLOGIQUE HEBDOMADAIRE

Epidemiological notes on communicable diseases
of international importance and information concerning the application
of the International Health Regulations (1969)

Epidemiological Surveillance of Communicable Diseases
Telegraphic Address: EPIDNATIONS GENÈVE
Telex 22335

Notes épidémiologiques sur des maladies transmissibles
d'importance internationale et informations concernant l'application
du Règlement sanitaire international (1969)

Service de la Surveillance épidémiologique des Maladies transmissibles
Adresse télégraphique: EPIDNATIONS GENÈVE
Télex 22335

5 MAY 1972

47th YEAR — 47^e ANNÉE

5 MAI 1972

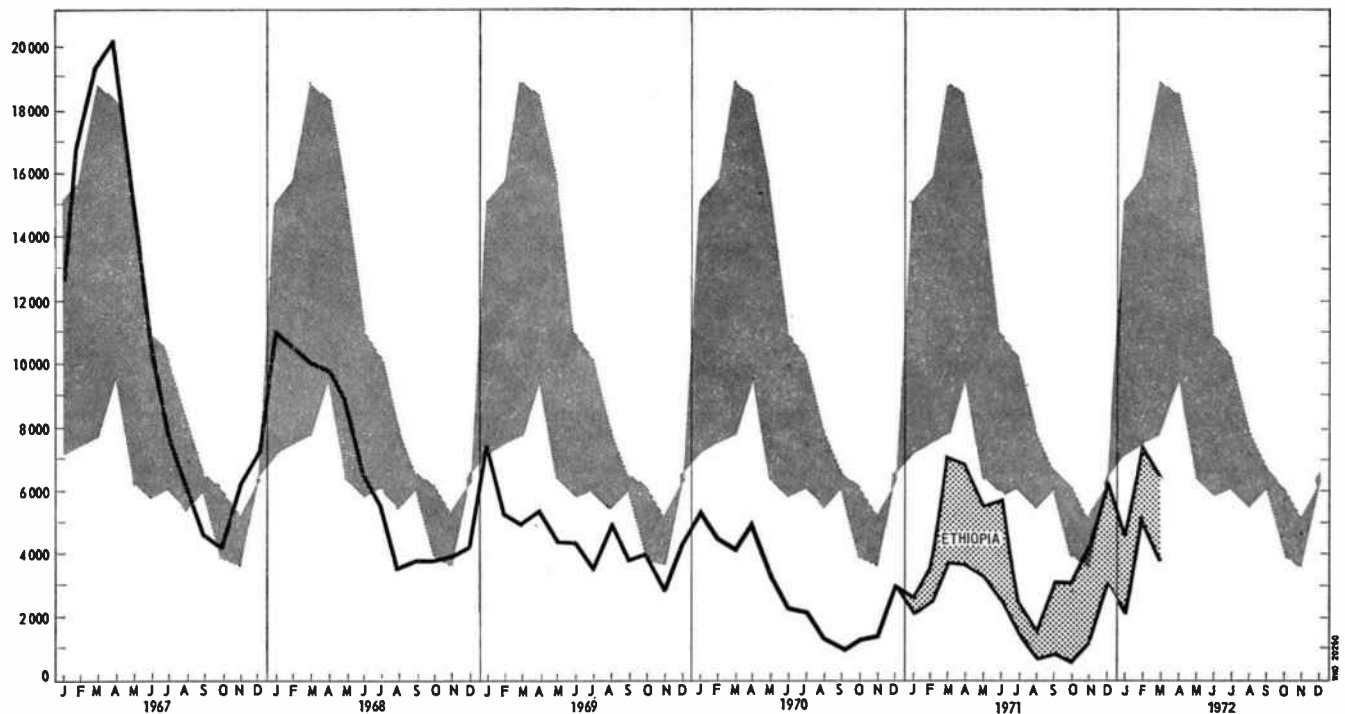
SMALLPOX SURVEILLANCE

SURVEILLANCE DE LA VARIOLE

Fig. 1

Worldwide Smallpox Incidence — 1967-1972 — Incidence mondiale de la variole

Cases — Cas



Note: The grey area represents the range between the highest and lowest incidence reported during the five-year period 1962-1966.
La zone en gris représente l'écart entre les incidences maximales et minimales observées au cours de la période 1962-1966.

Epidemiological notes contained in this number:

Influenza, Poliomyelitis, Smallpox Surveillance, Typhoid Fever.

List of Infected Areas, p. 185.

Informations épidémiologiques contenues dans ce numéro:

Fièvre typhoïde, grippe, poliomyélite, surveillance de la variole.

Liste des Zones infectées, p. 185.

Through 2 May 1972, 23 660 cases of smallpox have been reported to the Organization (Table 6), 44% more cases than were recorded during this same period last year. Increased numbers of cases are being reported by six of the eight countries known to harbour endemic smallpox—India, Nepal, Pakistan, Botswana, Ethiopia and Sudan. Greatly intensified surveillance activities and a more complete reporting of cases in these countries is believed to account for most of the increases. In addition, major outbreaks are now occurring in Bangladesh, following the return of refugees from India.

Reported cases of smallpox by year and by continent since 1965 are shown in Table 1. From 1967 through 1970, the number of cases recorded throughout the world decreased steadily despite more complete notification. In 1970, 33 304 cases were reported, the lowest total ever recorded by the Organization. In 1971, the number of cases rose to 52 098. This increase was principally accounted for by Ethiopia which, in a rapidly developing eradication programme, recorded 25 976 cases during 1971 compared to only 722 cases during the year before. Throughout the rest of the world the number of reported cases declined by 22%. For 1972, present trends suggest yet a further increase in the overall smallpox incidence. However, surveillance-containment activities in all endemic areas have been considerably intensified during the past year, possibly to the extent of stopping transmission in many otherwise endemic areas. If so, the incidence during the latter half of the year may be lower than during the latter half of 1971.

Although smallpox incidence increased during 1971, the number of countries reporting one or more cases declined for the fifth successive year. During 1967, 42 countries recorded one or more cases; in 1968, 38 countries; in 1969, 30 countries; in 1970, 23 countries; and in 1971, 16 countries. In 1972, however, cases of smallpox have already been reported by 18 countries, 10 of which recorded importations and are considered otherwise to be smallpox-free.

A number of countries which were considered to be endemic for smallpox only a year ago now appear to have interrupted transmission. No cases have been detected in Brazil or elsewhere in South America for over a year¹; the last known cases in Zaïre occurred over eight months ago²; and no cases have been discovered in Indonesia since January.

Smallpox cases per 100 000 population during 1967, the first year of the programme, and the projected incidence for 1972 as estimated from present trends, is depicted in Figures 2 and 3. Rates of 5.0 or more cases per 100 000 were reported by 15 countries in 1967; in 1972, five countries are expected to show rates of this magnitude: Bangladesh, Botswana, Ethiopia, Pakistan and Sudan.

Au 2 mai 1972, 23 660 cas de variole avaient été notifiés à l'Organisation (Tableau 6), soit 44% de plus de cas que l'année dernière au cours de la même période. Un accroissement du nombre des cas est signalé par six des huit pays où l'on sait que la variole est endémique: Inde, Népal, Pakistan, Botswana, Ethiopie et Soudan. On pense que cet accroissement est dû en grande partie à l'intensification marquée des activités de surveillance et à une notification plus complète des cas dans ces pays. En outre, des épidémies majeures surviennent actuellement au Bangla Desh, du fait des réfugiés revenus de l'Inde.

Le nombre de cas notifiés depuis 1965, par année et par continent, est indiqué dans le Tableau 1. Pour l'ensemble du monde, ce nombre s'est abaissé régulièrement de 1967 à la fin de 1970, bien que la notification ait été plus complète. Les 33 304 cas signalés en 1970 constituent le total le plus faible que l'Organisation ait jamais enregistré. En 1971, le chiffre est remonté à 52 098. Dans cet accroissement, la part principale revenait à l'Ethiopie, où le développement rapide d'un programme d'éradication a permis d'enregistrer 25 976 cas en 1971, contre 722 seulement pendant l'année précédente. Dans le reste du monde, le nombre de cas signalés s'est abaissé de 22%. Pour 1972, les tendances actuelles laissent prévoir que l'incidence mondiale de la variole va encore s'accroître. Cependant, les activités de surveillance et d'endiguement ont été considérablement intensifiées au cours de l'année dernière dans toutes les zones d'endémie, peut-être au point d'interrompre la transmission dans nombre d'entre elles. S'il en était ainsi, l'incidence au cours du deuxième semestre de cette année pourrait être inférieure à celle du semestre correspondant de 1971.

Malgré la recrudescence de 1971, le nombre de pays qui ont signalé un ou plusieurs cas s'est abaissé pour la cinquième année successive. Ainsi ce nombre était de 42 en 1967, de 38 en 1968; de 30 en 1969; de 23 en 1970 et de 16 en 1971. Néanmoins, en 1972, des cas de variole ont déjà été notifiés par 18 pays, mais 10 d'entre eux signalaient qu'il s'agissait de cas importés, et ils peuvent être considérés par ailleurs comme indemnes.

Dans un certain nombre de pays où, il y a un an seulement, la variole était réputée endémique, la transmission semble avoir été interrompue. Aucun cas n'a été décelé au Brésil ou ailleurs en Amérique du Sud depuis plus d'un an¹; les derniers cas connus au Zaïre se sont produits il y a plus de huit mois²; et aucun cas n'a été découvert en Indonésie depuis janvier.

Les Figures 2 et 3 indiquent l'incidence de la variole pour 100 000 habitants en 1967, première année du programme, et l'incidence escomptée pour 1972, d'après les tendances actuelles. En 1967, 15 pays avaient enregistré des taux de plus de 5,0 pour 100 000, tandis qu'en 1972 cinq devraient connaître un taux de cet ordre: Bangla Desh, Botswana, Ethiopie, Pakistan et Soudan.

Table 1. Reported Smallpox Cases by Continent, 1965-1972

Tableau 1. Nombre de cas de variole notifiés par continent, 1965-1972

	1965	1966	1967	1968	1969	1970	1971	1972*
AFRICA — AFRIQUE								
North — Nord	—	—	—	—	—	—	—	—
West & Central — Occidentale et centrale	6 253	7 484	11 069	5 488	479	64	—	—
South & East — Méridionale et orientale	10 699	6 897	4 460	5 580	3 126	3 099	27 315	90 43
SOUTH AMERICA — AMÉRIQUE DU SUD	3 632	3 665	4 544	4 375	7 410	1 795	19	—
ASIA — ASIE								
Indonesia — Indonésie	56 359	35 283	13 478	17 350	17 972	10 081	2 100	34
Mainland — Continentale	35 199	39 001	97 862	47 414	25 236	18 243	22 664	14 407
EUROPE	1	72	5	2	—	22	—	176
TOTAL	112 143	92 402	131 418	80 209	54 223	33 304	52 098	23 660

* As of 2 May 1972 — Au 2 mai 1972.

Fig. 2
Smallpox Cases per 100 000 Inhabitants — 1967 — Cas de variole pour 100 000 habitants

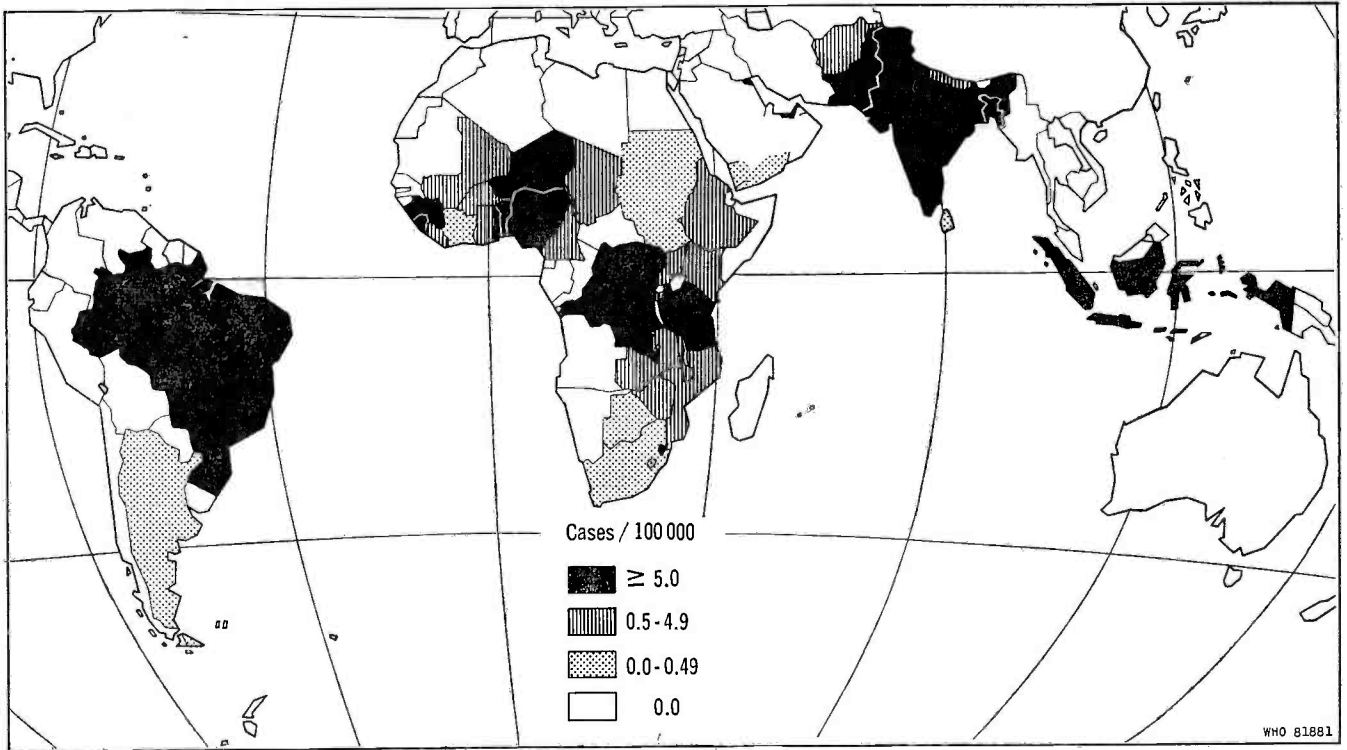
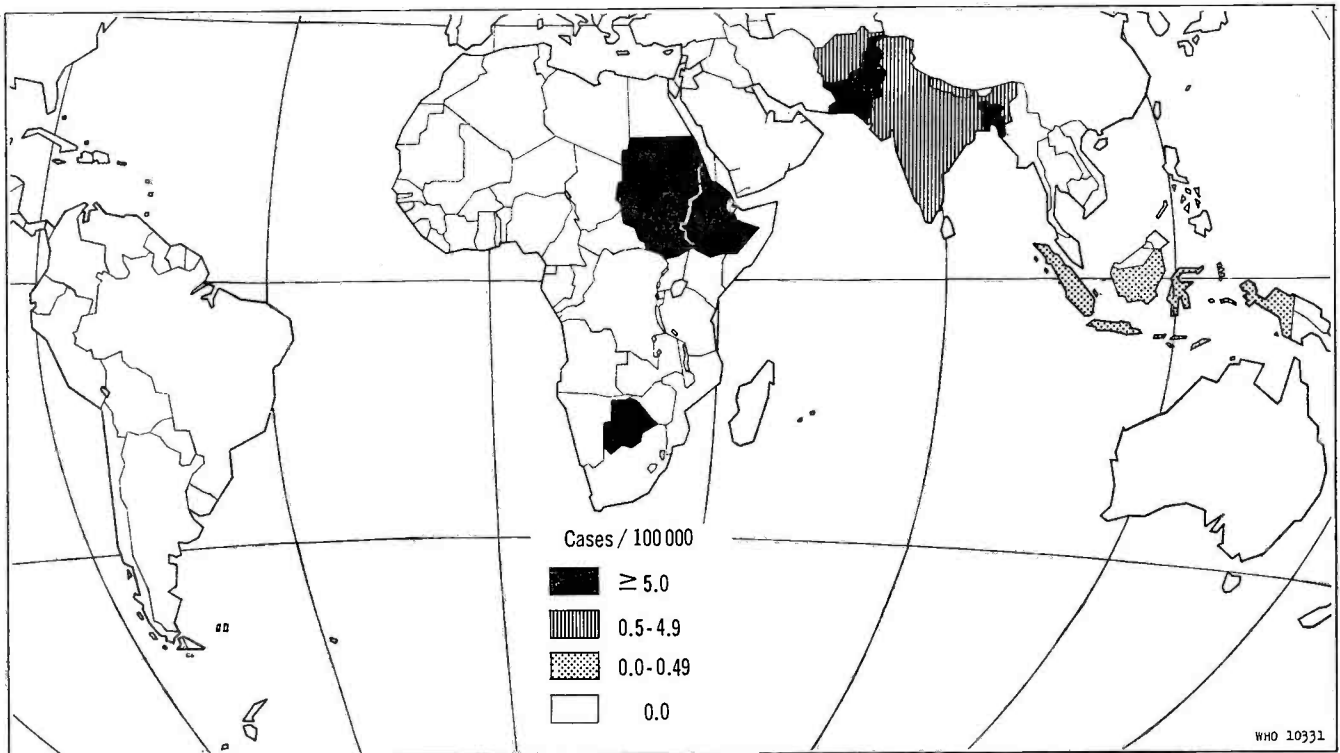


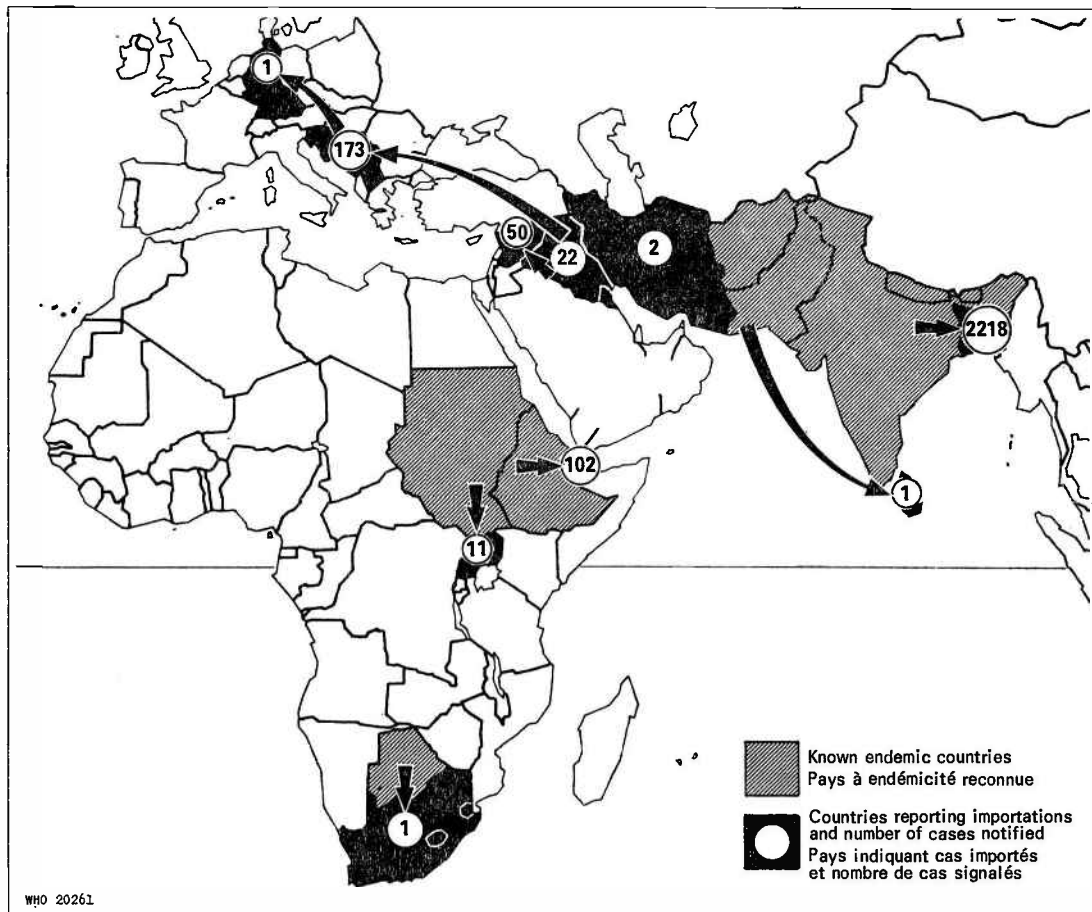
Fig. 3
Smallpox Cases per 100 000 Inhabitants (Estimated) * — 1972 — Cas de variole pour 100 000 habitants (estimation) *



* Excludes imported cases — Non compris les cas importés.

Fig. 4

Importations of Smallpox: Source of Infection and Reported Number of Cases, 1972 (as of 25 April)
Cas importés de variole: Source d'infection et nombre de cas signalés, 1972 (au 25 avril)



Source of infection for non-endemic countries

Thus far during 1972, ten countries otherwise considered to be smallpox-free have reported outbreaks (Table 2, Fig. 5). For eight of these, information has been made available regarding the source of infection and the measures taken; in all except Bangladesh, the outbreaks have now been contained.

From two countries, Iran and Iraq, cases have been reported during 1972 but little epidemiological data or other information has yet been provided. To what extent the outbreaks have been contained is likewise unknown. Mass vaccination has been undertaken in each of these countries but, as has been repeatedly demonstrated, mass vaccination without proper surveillance is not effective in stopping transmission. Without such surveillance measures, there is a very real danger that these countries could again become endemic for smallpox.

Origine de l'infection dans les pays non endémiques

Jusqu'ici, en 1972, dix pays normalement considérés comme indemnes de variole ont signalé des épidémies (Tableau 2, Fig. 5). Pour huit d'entre eux, on possède des renseignements sur la source de l'infection, et les mesures nécessaires ont été prises; ces épidémies ont maintenant été endiguées dans tous les pays, sauf au Bangla Desh.

Deux pays, l'Iran et l'Irak, ont notifié des cas au cours de 1972, mais peu de données épidémiologiques ou d'autres renseignements ont été fournis jusqu'ici. On ignore jusqu'à quel point les épidémies ont été enrayerées ou non. Une vaccination de masse a été entreprise dans ces deux pays mais, comme on en a eu la preuve à maintes reprises, cette mesure parvient mal à interrompre la transmission si elle n'est pas assortie d'une surveillance efficace. A défaut d'une telle surveillance, le risque serait grand pour ces pays de voir la variole s'y installer à nouveau à l'état endémique.

Table 2. Smallpox Importations, 1972 (as of 25 April) — Tableau 2. Cas importés de variole, 1972 (au 25 avril)

Country — Pays	Date of introduction Date d'introduction	No. of cases Nombre de cas	Imported from Importée de	Outbreak contained Epidémie enrayerée
Uganda — Ouganda	Feb., Mar. — fév., mars	11	Sudan — Soudan	yes — oui
French territory of the Affairs & Issas — Terr. français des Afars et Issas	Nov. (1971)	102	Ethiopia — Ethiopie	yes — oui
South Africa — Afrique du Sud	Feb. — fév.	1	Botswana	yes — oui
Bangladesh — Bangla Desh	Jan., Feb. — jan., fév.	2 218	India — Inde	no — non
Ceylon — Ceylan	Jan. — jan.	1	Pakistan	yes — oui
Yugoslavia — Yougoslavie ³	Mar. — mars	173	Iraq — Irak	yes — oui
Germany, Fed. Rep. — Allemagne, Rép. féd.	Mar. — mars	1	Yugoslavia — Yougoslavie	yes — oui
Syria — Syrie	Mar. — mars	50	Iraq — Irak	yes — oui
Iran	Unknown — Inconnue	2	Unknown — Inconnu	
Iraq — Irak	Unknown — Inconnue	22	Unknown — Inconnu	

Asia

Smallpox continues to be a significant problem in India, Pakistan, Nepal and once again in Bangladesh, all of which countries are recording more cases of smallpox during 1972 than in 1971 (*Table 3, Fig. 5*). However, during the past 12 months, both Indonesia and Afghanistan made outstanding progress. In Indonesia, smallpox incidence declined by 80% during 1971 and no cases whatsoever have been detected for the past three months. Smallpox incidence in Afghanistan during 1972 has declined sharply and there is an excellent possibility that transmission may be interrupted by autumn.

Afghanistan

Since January, only 88 cases have been detected, a decrease of 78% from the 405 cases recorded during this period in 1971. Most outbreaks can now be traced directly or indirectly to introductions from Pakistan. The first round of a carefully planned and well-supervised programme of vaccination has now been completed throughout the country, during which ten million persons were vaccinated. Random sample surveys by special assessment teams have revealed that less than 5% of the population in each of the areas remained susceptible to smallpox following visits of the vaccination teams. Intensive efforts have been made to develop the national reporting system and three special surveillance teams are conducting a continuing active search for cases in each of the four regions of the country. Mobile teams have begun a repeat programme of systematic vaccination of all under 15 years of age throughout the country while simultaneously searching actively for cases.

Bangladesh

As a result of an intensive and highly effective surveillance programme, smallpox transmission was interrupted in Bangladesh in August 1970. A continuing, active search for cases by special surveillance teams was conducted but no cases were found during the following 16 months. Indian health authorities also reported that no cases were detected among refugees arriving in refugee camps. However, in late November 1971, smallpox broke out in a refugee

Asie

La variole pose toujours un important problème en Inde, au Pakistan et au Népal et maintenant au Bangla Desh; en effet tous ces pays enregistrent plus de cas cette année qu'en 1971 (*Tableau 3, Fig. 5*). En revanche, au cours des 12 derniers mois, l'Indonésie et l'Afghanistan ont fait des progrès remarquables. En Indonésie, l'incidence de la maladie a diminué de 80% au cours de 1971 et pas un seul cas n'a été décelé au cours des trois derniers mois. En Afghanistan, l'incidence a fortement décliné en 1972 et il y a de bonnes chances pour que la transmission soit interrompue vers l'automne.

Afghanistan

Depuis janvier, 88 cas seulement ont été décelés, soit une diminution de 78% par rapport aux 405 cas enregistrés pendant la même période en 1971. Dans la plupart des épidémies, on peut maintenant remonter directement ou indirectement à des cas importés du Pakistan. La première tournée de vaccination, inscrite dans un programme soigneusement planifié et supervisé, a maintenant été accomplie dans tout le pays et a permis de vacciner dix millions de personnes. Des enquêtes par sondage aléatoire ont été effectuées par des équipes spéciales et ont révélé que, dans toutes les zones, moins de 5% de la population restait sensible à la variole après le passage des équipes de vaccination. Des efforts considérables ont été faits en vue de développer le système national de notification, et quatre équipes spéciales de surveillance effectuent une recherche active et continue des cas dans les quatre régions du pays. Des équipes mobiles ont entrepris un nouveau programme de vaccination systématique de tous les sujets de moins de 15 ans, et se livrent simultanément à une recherche active des cas.

Bangla Desh

Grâce à un programme de surveillance intensif et hautement efficace, la transmission de la variole avait été interrompue au Bangla Desh en août 1970. Malgré une recherche active et continue, effectuée par des équipes spéciales de surveillance, aucun cas n'avait été découvert au cours des 16 mois suivants. Les autorités sanitaires indiennes avaient également signalé qu'aucun cas n'avait été décelé parmi les réfugiés arrivant dans les camps. Cependant, à la fin de

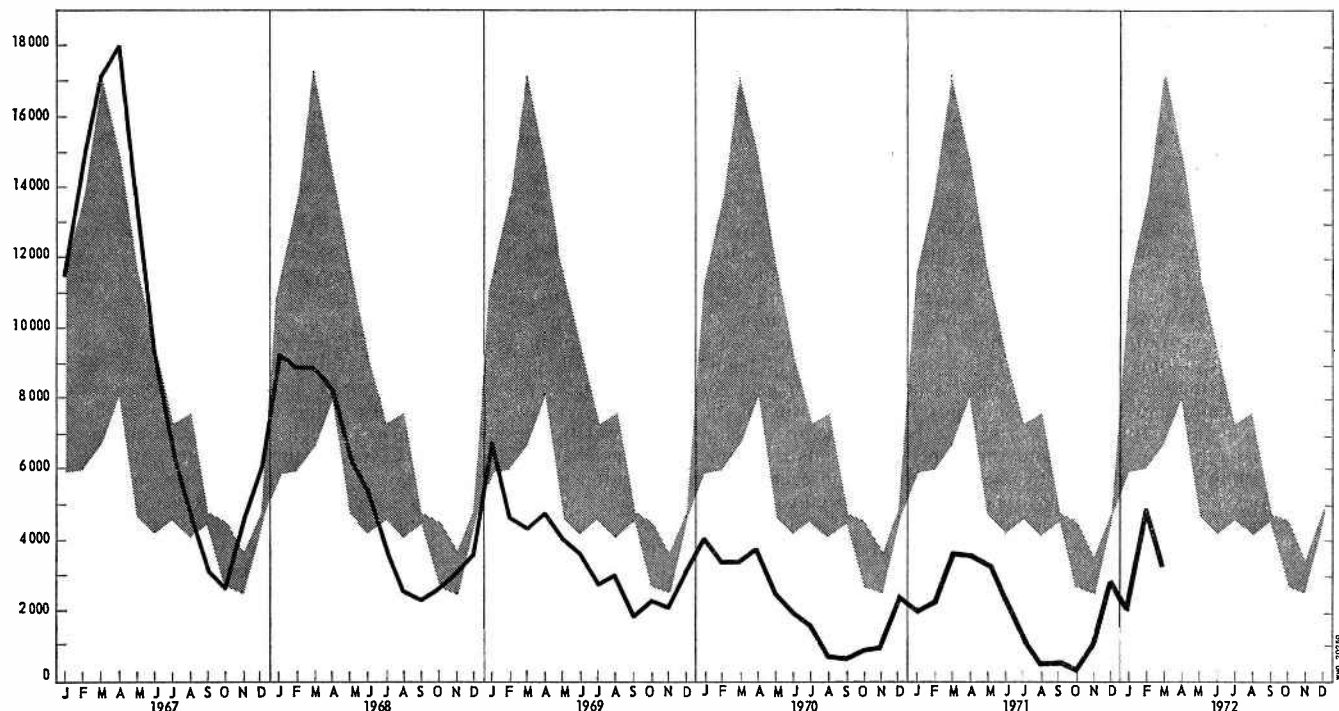
Table 3. Asia — Smallpox Incidence, 1967-1972
Tableau 3. Asie — Incidence de la variole, 1967-1972

Country or territory — Pays ou territoire	Population (000) 1972	Smallpox cases reported — Cas de variole notifiés					
		1967	1968	1969	1970	1971	1972 *
Presumed endemic countries — Pays présumés d'endémicité							
Afghanistan	17 462	334	739	250	1 044	736	88
India — Inde	560 630	84 902	35 179	19 281	12 426	15 846	8 660
Indonesia — Indonésie	127 219	13 478	17 350	17 972	10 081	2 100	34
Nepal — Népal	11 525	110	247	162	78	215	312
Pakistan	55 010	6 084	1 836	3 520	3 192	5 808	3 033
Other countries reporting cases — Autres pays ayant notifié des cas							
Bangladesh — Bangla Desh	77 600	6 377	9 229	1 925	1 473	—	2 239
Burma — Birmanie	28 874	—	181	69	—	—	—
Ceylon — Ceylan	13 154	1	—	—	—	—	1
Iran	30 372	—	—	—	—	29	2
Iraq — Irak	9 549	—	—	—	—	—	22
Kuwait — Koweït	704	41	—	—	—	—	—
People's Dem. Rep. of Yemen — Rép. dém. pop. du Yémen	1 431	—	1	—	—	—	—
Saudi Arabia — Arabie Saoudite	7 595	—	—	—	12	—	—
Syria — Syrie	6 287	—	—	—	—	—	50
United Arab Emirates — Émirats arabes unis	196	10	2	—	18	30	—
Yemen — Yémen	4 033	3	—	29	—	—	—
Total		111 340	64 764	43 208	28 324	24 764	14 441

* As of 2 May 1972 — Jusqu'au 2 mai 1972.

Fig. 5
Asia: Smallpox Incidence — 1967-1972 — Asie: Incidence de la variole

Cases — Cas



Note: The grey area represents the range between the highest and lowest incidence reported during the five-year period 1962-1966.
La zone en gris représente l'écart entre les incidences maximales et minimales observées au cours de la période 1962-1966.

camp of over 300 000 persons situated near Calcutta and over 700 cases were detected immediately before the return of refugees to Bangladesh. Other importations from India occurred along the northern border. To date 2 239 cases in 12 districts have been reported. Emergency measures have been taken to endeavour to stop transmission but due to the large number of importations, the extent of population movement, and transport and communications problems, containment of the outbreaks is proving difficult.

India

Smallpox incidence in India during 1972 is greater than in 1971, apparently due to more complete notification. However, reporting is still delayed and incomplete, making comparisons with previous years difficult. The principal endemic foci in India are in the northwest (Fig. 6) within a 500 kilometer (300 mile) radius of New Delhi, the capital, and in the east in the State of West Bengal and bordering districts of Bihar State. Except for a single focus in the State of Mysore and in neighbouring areas of Andhra Pradesh, virtually all cases in the five southern states (population 190 million) are attributable to introductions from endemic areas in the north.

Community-wide vaccination programmes have been in progress since 1962; vaccination scar surveys reveal that vaccination immunity is now as high or higher in India than in any other endemic country. Failure to interrupt transmission is attributed to the lack of an as yet adequate notification system and an unsatisfactory but improving programme of surveillance and containment.

Steps to revise and improve the notification system have recently been taken; surveillance activities have measurably improved in many states during the past year and containment measures are becoming more effective. With an augmented staff at state and national levels to strengthen and intensify the surveillance programme, transmission in India could readily be interrupted within 18 months.

novembre 1971 la variole éclata dans un camp situé près de Calcutta et abritant plus de 300 000 réfugiés; parmi ceux-ci plus de 700 cas étaient décelés juste avant leur retour au Bangla Desh. D'autres cas importés de l'Inde se sont produits le long de la frontière septentrionale. A ce jour, 2 239 cas ont été notifiés dans 12 districts. Des mesures d'urgence ont été prises pour tâcher d'interrompre la transmission, mais en raison du grand nombre de cas importés, de l'ampleur des mouvements de populations et des problèmes posés par les transports et les communications, il est difficile d'enrayer les épidémies.

Inde

L'incidence de la variole en Inde est supérieure en 1972 à ce qu'elle a été en 1971, apparemment parce que les notifications sont plus complètes. Elles restent tardives et partielles ce qui rend difficiles les comparaisons avec les années précédentes. Dans ce pays, les principaux foyers d'endémie sont situés au nord-ouest (Fig. 6), dans un rayon de 500 km autour de New Delhi, la capitale, et à l'est dans l'Etat du Bengale occidental et dans les districts adjacents de l'Etat de Bihar. Sauf en ce qui concerne un unique foyer dans l'Etat de Mysore et dans les zones avoisinantes de l'Andhra Pradesh, presque tous les cas qui surviennent dans les cinq Etats méridionaux (190 millions d'habitants) sont attribuables à des infections venues des zones d'endémicité du nord.

De larges programmes de vaccination sont en cours depuis 1962; des enquêtes de contrôle des cicatrices vaccinales révèlent que le degré d'immunisation par vaccination est maintenant au moins aussi élevé que dans n'importe quel autre pays d'endémicité. Si la transmission n'a pu être interrompue, c'est probablement du fait de l'insuffisance du système de notification et du programme de surveillance et d'endigement, mais ce dernier est en voie d'amélioration.

Des mesures ont été récemment prises en vue de réviser et de perfectionner le système de notification; la surveillance a été sensiblement améliorée dans de nombreux Etats au cours de l'année dernière, et les mesures d'endigement deviennent de plus en plus efficaces.

Une augmentation du personnel, à l'échelon des Etats et à l'échelon national, en vue de renforcer et d'intensifier le programme de surveillance, pourrait permettre aisément d'interrompre la transmission en Inde dans les 18 mois.

Nepal

During 1972, 312 cases have been reported by Nepal, all of which have occurred in two western zones in which the eradication programme has only recently been initiated. A steadily expanding vaccination programme has been in progress for over three years during which 10 million persons have been vaccinated. All districts except those in the northern, sparsely settled mountainous region are now actively engaged in the programme. The surveillance aspect of the programme is gradually being improved. With intensified surveillance and a continuing reduction in incidence in the bordering states of India, transmission should be able to be interrupted in Nepal within the next 12 months.

Pakistan

Reported cases of smallpox in Pakistan have almost doubled over the number recorded during a comparable period in 1971. The development in 1971 of eradication programmes and more complete notification of smallpox in Baluchistan, Northwest Frontier and Sind Provinces largely accounts for this increase. The fourth province, Punjab, shows a small decrease in reported cases this year, considerably less than had been expected in a province which had been engaged in an eradication programme for more than three years. Failure to achieve better results is attributed to population disruption and a temporary reduction in programme activities due to the war. With all provinces now engaged in the eradication programme and with the emphasis of the programme now directed towards improved notification and surveillance activities, a sharp decrease in smallpox incidence is expected during the next year.

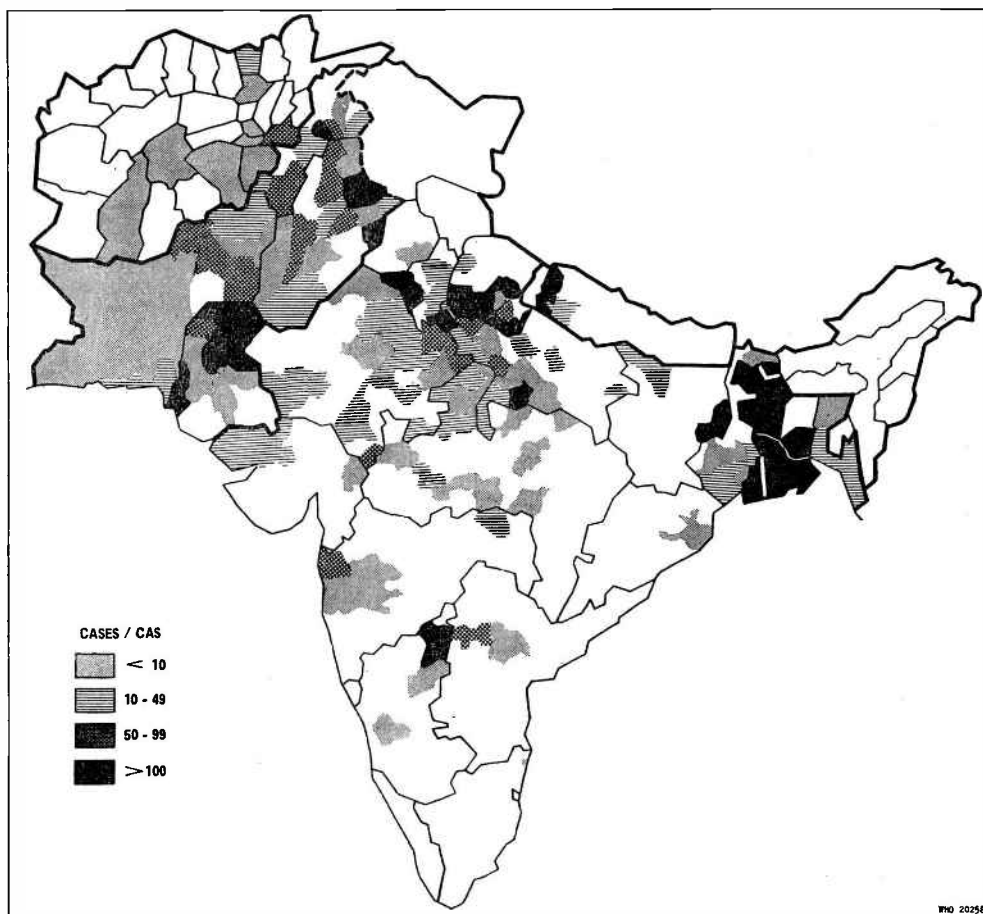
Népal

Au cours de 1972, le Népal a signalé 312 cas; tous sont survenus dans deux zones de l'ouest où le programme d'éradication n'a été mis en œuvre que récemment. Un programme de vaccination, qui connaît une extension régulière, s'y développe depuis plus de trois ans, au cours desquels 10 millions de personnes ont été vaccinées. Ce programme est maintenant poursuivi activement dans tous les districts, sauf dans ceux de la région montagneuse septentrionale, où la population est clairsemée. Les activités de surveillance inscrites dans ce programme sont graduellement améliorées. La transmission devrait pouvoir être interrompue au Népal dans les 12 mois à venir, si le programme de surveillance est intensifié et si la réduction de l'incidence se poursuit dans les Etats indiens limitrophes.

Pakistan

Le nombre de cas de variole signalés au Pakistan a presque doublé par rapport à la période correspondante de 1971. Cet accroissement est dû en grande partie au développement des programmes d'éradication en 1971 et à une notification plus complète de la variole au Baluchistan, dans la province frontalière du nord-ouest et dans celle du Sind. Dans la quatrième province, le Punjab, le nombre de cas enregistrés cette année a marqué une faible diminution, très inférieure à celle qu'on pouvait espérer du fait qu'un programme d'éradication y est entrepris depuis plus de trois ans. Cet échec relatif est attribué à la dislocation des populations et à une réduction temporaire des activités du programme en raison de la guerre. Maintenant que toutes les provinces participent au programme d'éradication et que la nouvelle orientation du programme insiste particulièrement sur une amélioration des notifications et des activités de surveillance, on s'attend à voir l'incidence de la variole s'abaisser fortement au cours de l'année prochaine.

Fig. 6
Asia: Cases of Smallpox by Area, 1972 (as of 25 April)
Asie: Cas de variole par zones, 1972 (au 25 avril)



Indonesia

In November 1971, smallpox transmission in Indonesia appeared to have been interrupted, little more than three years after the eradication programme was begun. However, a month later an undetected focus of infection was found in West Java and 163 cases occurred before it was contained. The last known cases in Indonesia occurred in this area in January 1972. An intensive nation-wide search for possible additional foci has been, and is, in progress but, as yet, no further outbreaks have been detected. While it is still premature to state that smallpox transmission in Indonesia has definitely been interrupted, it is clear that in this country smallpox should soon be a disease of the past.

Africa

Smallpox now appears to be confined to only three African countries: Botswana, Ethiopia and Sudan. Other countries, however, are clearly at risk of experiencing importations from these areas. Failure on the part of these countries to maintain a sufficiently alert vigilance could well result in the reestablishment of endemic disease such as occurred in Sudan in 1967 and in Botswana in 1971.

Botswana

After four years without detected cases of smallpox, the disease appears to have been reintroduced in early 1971. Cases have continued to occur until the present. Recently, special measures have been taken to strengthen surveillance and reporting, and a national systematic vaccination programme will soon begin.

Indonésie

Dans ce pays, la transmission de la variole semblait avoir été interrompue en novembre 1971, c'est-à-dire un peu plus de trois ans après la mise en œuvre du programme d'éradication. Mais le mois suivant un foyer d'infection, passé inaperçu, a été découvert dans l'ouest de Java et 163 cas se sont produits avant que l'épidémie ne soit enrayerée. Les derniers cas connus sont survenus dans cette région en janvier 1972. Une recherche intensive, à l'échelle nationale, a été entreprise en vue de détecter d'autres foyers éventuels; elle se poursuit, mais aucune nouvelle épidémie n'a été enregistrée jusqu'ici. S'il est encore prématuré de déclarer que la transmission est définitivement interrompue en Indonésie, il apparaît que la variole n'y sera bientôt plus qu'un souvenir.

Afrique

La variole semble maintenant confinée dans trois pays: Botswana, Ethiopie et Soudan. Néanmoins, d'autres pays sont évidemment exposés à recevoir des cas importés de ces zones et, s'ils ne continuaient pas à exercer une vigilance suffisante, ils pourraient bien voir la maladie se réinstaller à l'état endémique comme cela s'est produit au Soudan en 1967 et au Botswana en 1971.

Botswana

Après quatre années pendant lesquelles aucun cas n'avait été décelé, la variole semble avoir été réintroduite au début de 1971. Des cas ont continué à se produire jusqu'à présent. Récemment, des mesures spéciales ont été prises en vue de renforcer la surveillance et la notification; en outre, un programme national de vaccination systématique commencera bientôt.

Table 4. Africa — Smallpox Incidence, 1967-1972 — Tableau 4. Afrique — Incidence de la variole, 1967-1972

Country or territory — Pays ou territoire	Population (000) 1972	Smallpox cases reported — Cas de variole notifiés					
		1967	1968	1969	1970	1971	1972*
Presumed endemic countries Pays présumés d'endémicité							
Botswana	688	1	—	—	—	37	53
Ethiopia — Ethiopie	25 925	466	426	197	722	25 976	8 357
Sudan — Soudan	16 560	9	106	130	1 051	1 141	519
Other countries reporting cases Autres pays ayant notifié des cas							
Burundi	3 687	74	301	108	197	—	—
Cameroon — Cameroun	6 044	59	84	15	—	—	—
Central African Rep. — Rép. Centrafricaine	1 649	—	—	—	—	—	—
Chad — Tchad	3 672	86	5	—	—	—	—
Dahomey	2 882	815	367	58	—	—	—
Fr. Terr. of the Afars and the Issas — Terr. fr. des Afars et des Issas	89	—	—	—	—	26	102
Ghana	9 422	114	24	—	—	—	—
Guinea — Guinée	4 189	1 530	334	12	—	—	—
Ivory Coast — Côte d'Ivoire	4 491	2	—	—	—	—	—
Kenya	11 446	153	85	14	—	46	—
Lesotho	1 114	1	—	—	—	—	—
Liberia — Libéria	1 218	6	5	—	—	—	—
Malawi	4 767	38	61	65	—	—	—
Mali	5 161	292	131	1	—	—	—
Mozambique	7 700	104	145	11	—	—	—
Niger	4 234	1 187	679	28	—	—	—
Nigeria — Nigéria	69 154	4 753	1 832	202	64	—	—
Rwanda	3 848	—	—	107	253	—	—
Senegal — Sénégal	4 004	1	—	—	—	—	—
Sierra Leone	2 627	1 697	1 143	80	—	—	—
South Africa — Afrique du Sud	21 074	43	81	246	118	7	1
Southern Rhodesia — Rhodésie du Sud	5 272	26	12	25	6	—	—
Swaziland — Souaziland	431	25	20	25	—	—	—
Togo	1 956	332	784	83	—	—	—
Uganda — Ouganda	8 977	365	55	9	2	19	11
United Rep. of Tanzania — Rép.-Unie de Tanzanie	13 898	1 629	455	117	32	—	—
Upper Volta — Haute-Volta	5 624	195	100	—	—	—	—
Zaire	24 853	1 479	3 800	2 072	716	63	—
Zambia — Zambie	4 439	47	33	—	2	—	—
Total		15 529	11 068	3 605	3 163	27 315	9 043

* As of 2 May 1972 — Jusqu'au 2 mai 1972.

Ethiopia

As in 1971, Ethiopia continues to report by far the world's highest incidence of smallpox. The eradication programme which in February 1971 commenced field operations in five of the 14 provinces has now been extended throughout the country.⁴ Smallpox programme staff, working in close cooperation with other health staff and civil authorities, are actively searching for and containing outbreaks throughout the country. During the past 15 months, over four million persons have been vaccinated. Based on present progress and current trends in incidence, Ethiopian authorities expect to interrupt transmission in the eight southern provinces by the end of 1972.

Sudan

An increase in reported cases of smallpox has occurred this year in Sudan as programme activities have been intensified in the three highly endemic southern provinces. More than 65% of all cases are occurring in this area; outbreaks in the other provinces can now largely be traced to importations from this area or from Ethiopia. Special surveillance teams have now been created to cope with outbreaks in the south, and more intensive vaccination programmes have begun. With a decrease in civil disturbances in the southern areas, more rapid progress in the programme is expected, albeit with an increase in reported cases as outbreaks are actively searched for and contained.

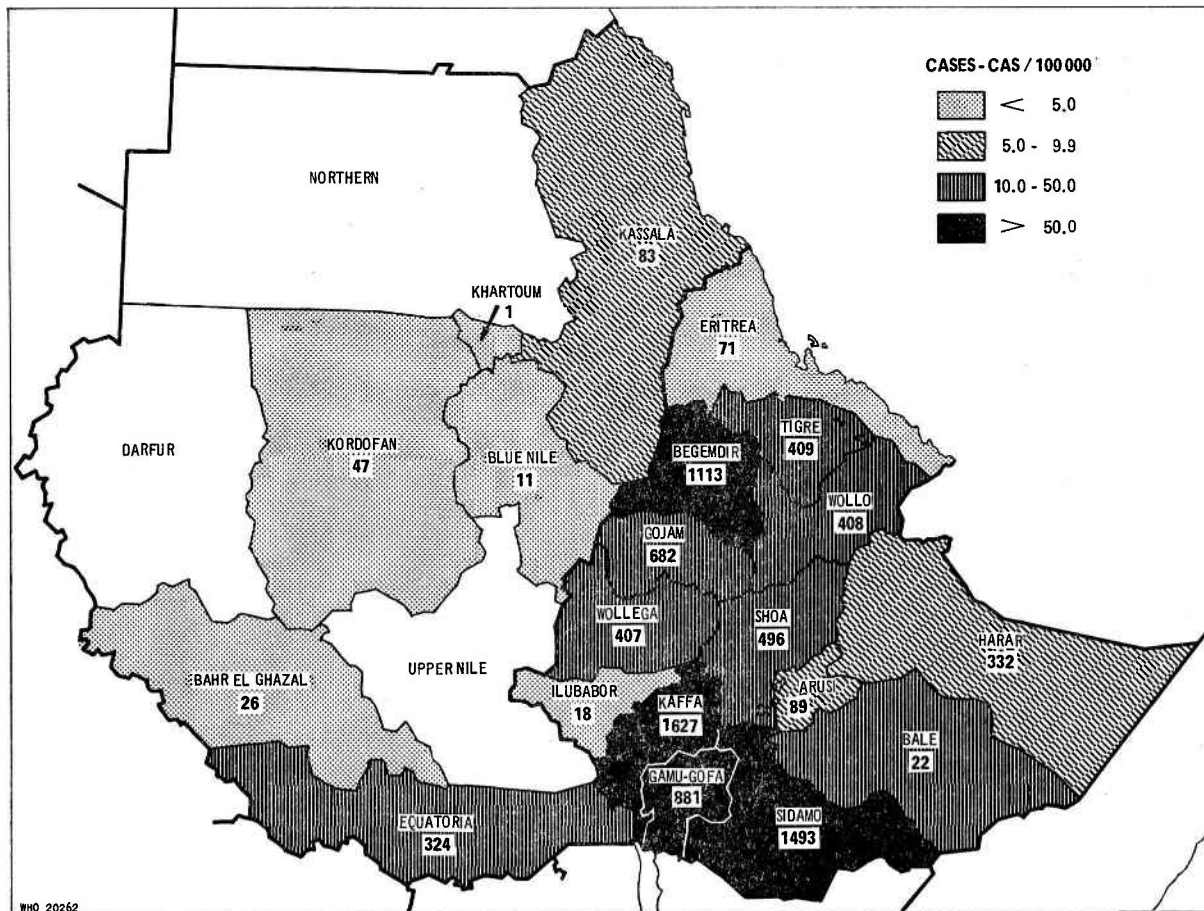
Ethiopia

Comme en 1971, l'incidence de la variole signalée par ce pays est de loin la plus élevée du monde. Dans le cadre du programme d'éradication, les opérations sur le terrain, qui ont été entreprises en février 1971 dans cinq des 14 provinces, ont été étendues à tout le pays.⁴ Le personnel, travaillant en collaboration étroite avec d'autres personnels sanitaires et avec les autorités civiles, s'emploie activement à rechercher et à enrayer les épidémies à travers tout le pays. Au cours des 15 derniers mois, plus de quatre millions de sujets ont été vaccinés. D'après les progrès déjà accomplis et les tendances actuelles de l'incidence, les autorités éthiopiennes pensent pouvoir interrompre la transmission dans les huit provinces méridionales vers la fin de 1972.

Soudan

Le nombre de cas notifiés a augmenté cette année avec l'intensification des activités du programme dans les trois provinces méridionales à haute endémicité. Plus de 65% de la totalité des cas se produisent dans cette zone; dans la plupart des épidémies qui éclatent dans les autres provinces, on peut remonter à des cas importés de cette zone ou d'Ethiopie. Des équipes spéciales de surveillance ont été créées pour faire face aux épidémies dans le sud, et on a procédé à une intensification des programmes de vaccination. Avec l'apaisement des troubles dans les régions méridionales, on peut espérer que le programme va progresser rapidement, encore que le nombre des cas notifiés puisse augmenter du fait de la recherche active des épidémies.

Fig. 7
Sudan and Ethiopia: Smallpox Incidence and Reported Number of Cases, 1972 (as of 25 April)
Soudan et Ethiopie: Incidence de la variole et nombre de cas signalés, 1972 (au 25 avril)



¹ See No. 48, 1971, pp. 486-490.
² See No. 10, 1972, pp. 109-113.
³ See No. 16, 1972, pp. 161-162.
⁴ See No. 14, 1972, pp. 141-146.

¹ Voir N° 48, 1971, pp. 486-490.
² Voir N° 10, 1972, pp. 109-113.
³ Voir N° 16, 1972, pp. 161-162.
⁴ Voir N° 14, 1972, pp. 141-146.

Table 5 — Tableau 5

SMALLPOX SURVEILLANCE — 1971 — SURVEILLANCE DE LA VARIOLE

Reports received by 2 May 1972 — Rapports reçus jusqu'au 2 mai 1972

COUNTRY — PAYS	Popu- lation 1971 (Mil- lions)	1971											TOTAL 1971	
		Jan. Janv.	Feb. Fév.	Mar. Mars	April Avril	May Mai	June Juin	July Juillet	Aug. Août	Sept.	Oct.	Nov.		Dec. Déc.
		1-4	5-8	9-13	14-17	18-21	22-26	27-30	31-34	35-39	40-43	44-47		48-52
AFRICA — AFRIQUE														27 224
Botswana . . . . .	.7	—	—	—	1	1	—	2	2	5	5	8	13	37
Ethiopia — Ethiopie	25.5	317	1 189	3 288	3 099	2 167	3 140	1 060	895	2 240	2 406	2 842	3 333	25 976
South Africa — Afrique du Sud	20.6	7	—	—	—	—	—	—	—	—	—	—	—	7
Sudan — Soudan	16.1	37	76	156	69	58	102	129	19	172	95	121	107	1 141
Zaire	24.9	25	12	12	6	5	1	—	2	—	—	—	—	63
SOUTH AMERICA — AMÉRIQUE DU SUD														19
Brazil — Brésil	94.4	8	7	3	1	—	—	—	—	—	—	—	—	19
ASIA — ASIE														24 705
Afghanistan	17.1	100	155	88	62	48	49	62	24	62	23	48	15	736
Nepal — Népal	11.3	1	5	27	34	19	70	—	—	—	—	26	33	215
Pakistan														5 808
<i>Baluchistan</i>	1.6	1	—	4	16	13	15	27	15	15	20	66	99	291
<i>N.W.F.P.</i>	9.5	139	139	128	30	422	406	352	158	159	159	223	339	2 654
<i>Punjab</i>	32.1	200	258	147	349	182	456	86	22	89	48	42	157	2 036
<i>Sind</i>	11.9	46	67	86	166	95	30	53	22	23	16	140	83	827
Indonesia — Indonésie														2 100
<i>Sulawesi</i>	9.5	149	155	403	220	130	98	142	73	37	25	19	—	1 451
<i>Sumatra</i>	20.4	114	135	64	35	2	56	34	14	—	—	—	—	454
<i>West Java — Java occidental</i>	26.2	13	24	17	12	—	—	—	—	—	—	—	129	195
<i>Other provinces — Autres provinces</i>	68.4	—	—	—	—	—	—	—	—	—	—	—	—	—
India — Inde														15 846
East — Est														
<i>Assam</i>	14.9	35	—	—	—	—	—	—	—	—	—	—	—	35
<i>Manipur</i>	1.1	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Nagaland</i> . . . . .	.5	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>N.E.F.A.</i> . . . . .	.4	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Tripura</i>	1.6	—	—	—	—	—	—	—	—	—	—	—	—	—
West — Ouest														
<i>Chandigarh</i> . . . . .	.3	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Gujarat</i>	26.7	27	69	73	37	10	8	—	—	—	5	6	2	237
<i>Haryana</i>	10.0	139	280	426	270	651	336	141	20	20	13	78	162	2 536
<i>Himachal Pradesh</i>	3.4	—	—	—	2	7	—	2	—	—	—	9	—	13
<i>Jammu and Kashmir *</i>	4.6	—	—	—	2	—	—	—	—	—	—	—	—	9
<i>Punjab</i>	13.5	27	19	4	11	15	2	—	—	6	4	—	10	98
<i>Rajasthan</i>	25.7	545	383	917	943	786	508	37	63	34	8	54	151	4 429
Central — Centrale														
<i>Bihar</i>	56.4	28	33	363	180	119	40	141	135	47	69	60	91	1 306
<i>Delhi</i>	4.0	2	7	70	86	89	34	12	8	3	—	2	11	324
<i>Madhya Pradesh</i>	41.5	100	82	59	171	123	56	127	20	127	34	13	109	1 021
<i>Orissa</i>	21.9	1	1	3	2	4	2	—	—	—	—	—	—	13
<i>Uttar Pradesh</i>	88.3	275	347	544	895	506	271	153	84	46	68	277	1 312	4 778
<i>West Bengal</i>	44.4	4	40	102	49	38	20	9	—	1	—	16	124	403
South — Sud														
<i>Andhra Pradesh</i>	43.4	50	28	59	31	15	12	2	3	4	—	3	4	211
<i>Goa</i> . . . . .	.6	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Kerala</i>	21.3	62	27	12	2	—	—	—	1	—	—	—	—	104
<i>Maharashtra</i>	50.3	2	—	14	6	7	15	49	27	18	21	—	—	159
<i>Mysore</i>	29.4	13	37	47	5	—	36	16	8	1	—	—	2	165
<i>Tamil Nadu</i>	41.8	—	—	5	—	—	—	—	—	—	—	—	—	5
NON-ENDEMIC COUNTRIES - Importations														150
PAYS DE NON ENDÉMICITÉ - Importations														
Fr. Terr. of the Afars and the Issas —														
Terr. fr. des Afars et des Issas . . . . .	.1	—	—	—	—	—	—	—	—	—	—	9	17	26
Iran	29.5	9	—	—	—	—	—	—	—	20	—	—	—	29
Kenya	11.1	—	—	45	1	—	—	—	—	—	—	—	—	46
Uganda — Ouganda	8.8	—	—	—	4	15	—	—	—	—	—	—	—	19
United Arab Emirates — Émirats arabes unis	.2	—	—	2	3	25	—	—	—	—	—	—	—	30
TOTAL		2 476	3 575	7 168	6 798	5 554	5 763	2 636	1 615	3 129	3 019	4 062	6 303	52 098

* Data concerning the Indian held part of Jammu and Kashmir, the final status of which has not yet been determined — Données concernant la partie du Cachemire et Jammu placée sous l'autorité de l'Inde, dont le statut définitif n'a pas encore été déterminé.

Table 6. Provisional Number of Cases by Week (including suspected and imported cases) — Reports received by 2 May 1972
 Tableau 6. Nombre provisoire de cas par semaine (y compris cas suspects et importés) — Rapports reçus jusqu'au 2 mai 1972

COUNTRY — PAYS	Population 1972 (Millions)	1972																	1971		
		January Janvier				February Février				March Mars					April Avril				TOTAL to date à ce jour	TOTAL same period même période	TOTAL for year pour l'année
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
AFRICA — AFRIQUE																			8 929	7 539	27 263
Botswana	.7	—	—	2	—	—	—	—	3	4	5	2	3	—	—	1	11	22	53	1	37
Ethiopia — Ethiopie	25.9	357	805	409	551	658	514	832	547	534	295	596	729	202	886	133	309	—	8 357	7 094	25 976
Sudan — Soudan	16.6	—	3	5	1	46	27	27	52	251	34	18	1	18	5	1	3	27	519	338	1 141
Other countries — Autres pays		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	106	109
SOUTH AMERICA — AMÉRIQUE DU SUD																			—	19	19
ASIA — ASIE																			14 366	8801	24 705
Afghanistan	17.5	10	16	16	4	—	1	5	13	3	—	1	—	—	11	6	1	1	88	405	736
Bangladesh — Bangla Desh	77.6	—	—	—	—	—	289	95	88	183	40	1	206	175	988	—	174	—	2 239	—	—
Nepal — Népal	11.5	—	2	44	—	—	—	218	18	10	4	—	14	—	—	—	2	—	312	59	215
Pakistan																			3 033	1 635	5 808
Baluchistan	1.6	10	9	1	1	24	5	7	3	26	24	24	12	19	3	—	8	—	176	17	291
N.W.F.P.	9.7	67	114	32	11	33	52	144	23	105	13	57	56	34	13	15	29	—	798	429	2 654
Punjab	32.8	56	15	98	23	73	41	41	5	18	84	52	39	10	26	12	22	—	615	865	2 036
Sind	12.1	4	26	46	27	24	92	95	84	53	106	200	209	122	97	134	125	—	1 444	324	827
Indonesia — Indonésie																			34	1 341	2 100
West Java — Java occidental	26.8	2	8	21	3	—	—	—	—	—	—	—	—	—	—	—	—	—	34	66	195
Other provinces — Autres provinces	100.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 275	1 905
India — Inde																			8 660	5 361	15 846
East — Est																					
Arunachal Pradesh	.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	15.4	—	—	—	—	2	2	2	2	—	—	—	—	—	—	—	—	—	8	35	35
Manipur	1.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meghalaya	1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nagaland	.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	1.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West — Ouest																					
Chandigarh	.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	27.4	—	—	—	—	—	—	5	5	5	1	—	—	1	—	—	—	—	18	169	237
Haryana	10.3	50	99	81	50	70	55	44	62	53	58	43	33	84	—	—	—	—	782	845	2 536
Himachal Pradesh	3.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13
Jammu and Kashmir*	4.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
Punjab	13.8	—	—	—	1	2	—	1	3	—	—	—	—	—	—	—	—	—	12	50	98
Rajasthan	26.4	92	39	55	14	30	41	44	13	36	15	15	15	43	34	—	—	—	486	1 845	4 429
Central — Centrale																					
Bihar	57.6	17	18	29	15	—	—	220	56	4	1	204	88	16	—	—	—	—	668	424	1 306
Delhi	4.3	1	2	—	5	14	2	6	7	5	2	2	5	4	7	9	—	—	71	79	324
Madhya Pradesh	42.6	10	24	3	14	28	11	13	3	26	9	17	27	20	—	103	—	—	308	241	1 021
Orissa	22.5	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	4	5	13
Uttar Pradesh	90.0	← 1825 →				← 1341 →				← 1192 →					—	57	—	—	4 415	1 166	4 778
West Bengal	45.6	29	21	53	364	528	40	40	44	35	39	25	10	2	8	6	4	—	1 248	146	403
South — Sud																					
Andhra Pradesh	44.3	1	—	7	9	7	11	12	5	10	16	16	15	—	—	—	—	—	109	137	211
Goa	.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerala	21.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	101	104
Maharashtra	51.7	—	—	3	6	9	40	22	25	4	20	—	—	—	—	—	—	—	132	16	159
Mysore	29.9	—	—	—	—	—	1	—	—	—	157	—	66	1	173	—	—	—	398	97	165
Tamil Nadu	42.0	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	5	5
NON-ENDEMIC COUNTRIES - Importations																					
PAYS DE NON ENDÉMICITÉ - Importations																					
Ceylon — Ceylan	13.2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Fr. Terr. of the Afars and the Issas — Terr. fr. des Afars et des Issas	.1	21	8	9	22	15	—	2	1	17	7	—	—	—	—	—	—	—	102	—	26
Germany, Fed. Rep. — Allemagne, Rép. féd.	59.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Iran	30.4	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	9	29
Iraq — Irak	9.5	—	—	—	—	—	—	—	—	—	—	22	—	—	—	—	—	—	22	—	—
South Africa — Afrique du Sud	21.1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	7	7
Syria — Syrie	6.3	—	—	—	—	—	—	—	—	—	—	—	16	7	16	11	—	—	50	—	—
Uganda — Ouganda	9.0	—	—	—	1	4	—	—	—	—	6	—	—	—	—	—	—	—	11	4	19
Yugoslavia — Yougoslavie	20.5	—	—	—	—	—	—	—	1	6	5	15	111	24	11	2	—	—	175	—	—
TOTAL																			23 660	16 379	52 098

* Data concerning the Indian held part of Jammu and Kashmir, the final status of which has not yet been determined — Données concernant la partie du Cachemire et Jammu placée sous l'autorité de l'Inde, dont le statut définitif n'a pas encore été déterminé.

† Includes United Arab Emirates (30 cases) — Comprend les Émirats arabes unis (30 cas).

— nil — zéro
 ... data not received ... données non reçues

INFLUENZA

WORLD INFLUENZA CENTRE, LONDON. —¹ Haemagglutination inhibition tests have shown that the strain A/Kumamoto/1/72, isolated in *Japan* during the outbreaks of the winter 1972,² is antigenically more closely related to the variant A/Hong Kong/107/71 than to the prototype A/Hong Kong/1/68 (H3N2). No other strains isolated in *Japan* in 1972 have yet been tested at the World Influenza Centre.

The Centre has also tested by haemagglutination inhibition a number of strains of virus A isolated during the 1971-1972 influenza season in *Portugal (Lisbon)*, *Romania*, the *Federal Republic of Germany (Berlin)* and the *United Kingdom (Glasgow)*. All are antigenically closely related to the prototype A/Hong Kong/1/68 (H3N2).

¹ See No. 50, 1971, p. 518 et No. 17, 1972, p. 167.

² See No. 7, p. 82.

GRIPPE

CENTRE MONDIAL DE LA GRIPPE, LONDRES. —¹ Les tests d'inhibition de l'hémagglutination ont montré que la souche A/Kumamoto/1/72, isolée au *Japon* pendant les poussées de l'hiver 1972,² est plus proche au point de vue antigénique de la variante A/Hong Kong/107/71 que du prototype A/Hong Kong/1/68 (H3N2). Le Centre mondial de la Grippe n'a encore examiné aucune autre souche isolée au *Japon* en 1972.

Le Centre a également testé par inhibition de l'hémagglutination un certain nombre de souches de virus A isolées pendant la saison grippale 1971-1972 au *Portugal (Lisbonne)*, en *Roumanie*, en *République fédérale d'Allemagne (Berlin)* et au *Royaume-Uni (Glasgow)*. Toutes sont proches du point de vue antigénique du prototype A/Hong Kong/1/68 (H3N2).

¹ Voir N° 50, 1971, p. 518 et N° 17, 1972, p. 167.

² Voir N° 7, p. 82.

POLIOMYELITIS

CEYLON. — Eighty-seven cases of poliomyelitis were reported during the fourth quarter (October-December) of 1971. The fall in incidence for this period is marked if compared with the 163 cases reported in the corresponding quarter of 1970. It also reflects the reduction in the number of cases in most areas except for the Jaffna Health Division where 67% (58 cases) of the total number of cases occurred. The greatest number of cases (40) reported in this region occurred during the month of December.

Laboratory examination of 122 stool specimens resulted in the isolation of 58 strains of polio virus. Of these, 43 were typed and polio virus type 1 was identified.

(Based on/D'après: *Epidemiological Bulletin, Department of Health Services, Ceylon, No. 45, 1971.*)

POLIOMYÉLITE

CEYLAN. — Quatre-vingt-sept cas de poliomyélite ont été signalés pendant le quatrième trimestre (octobre-décembre) de 1971. L'incidence au cours de cette période a témoigné d'une nette diminution, puisque 163 cas avaient été déclarés pendant le même trimestre en 1970. Cette diminution reflète, d'ailleurs, le recul de la morbidité poliomyélitique dans la plupart des circonscriptions, si l'on excepte la Division sanitaire de Jaffna où se sont produits 67% (58 cas) du nombre total des cas enregistrés. Parmi les cas notifiés dans cette région, la majorité (40) se sont manifestés pendant le mois de décembre.

Les examens de laboratoire pratiqués sur 122 échantillons de selles ont abouti à l'isolement de 58 souches de virus poliomyélitique. Parmi celles-ci, 43 ont été caractérisées, et c'est le poliovirus de type 1 qui a été identifié.

TYPHOID FEVER

BRAZIL. — Between 6 March and 2 April, 500 cases of typhoid fever have been reported in an outbreak of typhoid fever on the northern outskirts of the city of São Paulo. The outbreak has been completely controlled by application of intensive epidemiological measures. No cases have been reported in other parts of the city.

FIÈVRE TYPHOÏDE

BRÉSIL. — Entre le 6 mars et le 2 avril, une épidémie de fièvre typhoïde, avec 500 cas signalés, s'est produite dans la banlieue nord de la ville de São Paulo. Elle a pu être entièrement jugulée grâce à des mesures épidémiologiques intensives. Il n'a pas été signalé de cas dans les autres quartiers de la ville.

VACCINATION CERTIFICATE REQUIREMENTS FOR INTERNATIONAL TRAVEL

Amendments to 1972 publication

Federal Republic of Germany République fédérale d'Allemagne

In the note concerning smallpox, *delete*: Certificate required from travellers coming from Yugoslavia and *insert*: Certificate required from travellers coming from Socialist Autonomous Province of Kosovo, Yugoslavia.

Dans la note concernant la variole, *supprimer*: Certificat exigé des voyageurs venant de Yougoslavie et *ajouter*: Certificat exigé des voyageurs venant de la province socialiste autonome de Kosovo, Yougoslavie.

Paraguay

Delete all information concerning smallpox and *insert* — Supprimer les renseignements concernant la variole et *insérer*:

Insert — *Insérer*:

Cholera. — Certificate required from travellers going to and coming from infected areas.*

Choléra. — Certificat exigé des voyageurs venant de zones infectées et s'y rendant.*

Yellow-Fever, —
Fièvre jaune. —

CERTIFICATS DE VACCINATION EXIGÉS DANS LES VOYAGES INTERNATIONAUX

Amendements à la publication de 1972

Vaccination against Vaccination contre		
Choléra Cholera	Yellow fever Fièvre jaune	Smallpox Variole
⊙		⊙ > 6 months 6 mois

DISEASES SUBJECT TO THE REGULATIONS — MALADIES SOUMISES AU RÈGLEMENT

Infected Areas as on 4 May 1972 — Zones infectées au 4 mai 1972

For criteria used in compiling this list, see page 162 — Les critères appliqués pour la compilation de cette liste sont publiés à la page 162.

x Newly reported areas — Nouvelles zones signalées.

<p>PLAGUE — PESTE Africa — Afrique</p> <p>LESOTHO <i>Mafetang District</i> Thabana-Morena <i>Maseru District</i> Moriija</p> <p>America — Amérique</p> <p>BRAZIL — BRÉSIL <i>Ceara State</i> Guaraciaba do Norte Mun. Ipu Mun. Ipeuiras Mun. <i>Pernambuco State</i> Bodoco Mun. Exu Mun.</p> <p>ECUADOR — ÉQUATEUR <i>Guayas Province</i> Milagro Canton <i>Manabi Province</i> Bahia Canton Sucre Canton</p> <p>PERU — PÉROU <i>Piura Department</i> <i>Huancabamba Province</i> Sondorillo District</p> <p>Asia — Asie</p> <p>BURMA — BIRMANIE <i>Mandalay Division</i> Mandalay D: Mandalay Myingyan District</p> <p>INDIA — INDE <i>Tamil Nadu State</i> Coimbatore District</p> <p>VIET-NAM REP. Danang (P) Dalat (A) Nhatrang (PA) Saigon (excl. PA) Binh-Dinh Province Binh-Duong Province Binh-Long Province Binh-Tuy Province Darlac Province Dinh-Tuong Province Gia-Dinh Province Hau-Nghia Province Khanh-Hoa Province Kien-Tuong Province Lam-Dong Province Long-An Province Long-Khanh Province Ninh-Thuan Province Phu-Bon Province Phu-Yen Province Phuoc-Tuy Province Pleiku Province Quang-Duc Province Quang-Nam Province Quang-Ngai Province Quang-Tri Province Tay-Ninh Province Thua-Thien Province</p>	<p><i>Cameroun oriental</i> Haut-N'Kam Département Mungo Département N'Kam Département Sanaga-Maritime Département Wouri Département</p> <p>DAHOMÉY Atlantique Département Mono Département Ouémé Département</p> <p>GHANA Ashanti Region Central Region Eastern Region Western Region</p> <p>IVORY COAST CÔTE D'IVOIRE <i>Dép. du Centre</i> Dimbroko S. Préf. <i>Dép. du Sud</i> Adiaké S. Préf. Dabou S. Préf. Grand-Lahou S. Préf. Tiassalé S. Préf.</p> <p>KENYA <i>Coast Province</i> Tana River County <i>Eastern Province</i> Marasabit County <i>North-Eastern Province</i> Garissa County Wajir County <i>Rift Valley Province</i> x Trans Nzoia County: Kitale M. Turkana County West Pokot County</p> <p>LIBERIA — LIBÉRIA Monrovia (P) (excl. A) Cape Mount County</p> <p>MALI <i>Bamako Région</i> Nara Cercle <i>Kayes Région</i> Kayes Cercle Nioro Cercle <i>Mopti Région</i> Bandiagara Cercle <i>Ségou Région</i> Niono Cercle San Cercle</p> <p>MAURITANIA — MAURITANIE <i>1^{re} Région</i> Timbédra Dép.</p> <p>NIGER <i>Zinder Département</i> Magaria Arr.</p> <p>NIGERIA — NIGÉRIA <i>East-Central State</i> Aba Division Abakaliki Province <i>Lagos State</i> Lagos Urban Area (excl. airport) <i>Mid-West State</i> Benin Province <i>North-Central State</i> Kaduna Cap. <i>Rivers State</i> Ogoni Division <i>Western State</i> Abeokuta Province Ibadan Province</p> <p>TOGO <i>Région des Plateaux</i> Atakpamé Circ. & Subdiv. san.</p>	<p>Asia — Asie</p> <p>BURMA — BIRMANIE <i>Tenasserim Division</i> Moulmein District INDIA — INDE x Ahmedabad (A) Calcutta (P) (excl. A) Madras (P) (excl. A) Nagpur (A) Tiruchirapalli (A) <i>Andhra Pradesh State</i> East Godavari District Guntur District Hyderabad District Krishna District Nellore District Visakhapatnam District West Godavari District <i>Assam State</i> Goalpara District Nowgong District United Mikir & North Cachar Hills District <i>Bihar State</i> Bhagalpur District Darbhanga District Dhanbad District Gaya District Hazaribagh District Monghyr District Muzaffarpur District Patna District Santal Parganas District Saran District Shahabad District Singbhum District <i>Gujarat State</i> Ahmedabad District Baroda District Broach District Jamnagar District Junagadh District Kaira District Mehsana District Rajkot District x Sabarkantha District <i>Madhya Pradesh State</i> Bilaspur District Gwalior District Indore District Panna District Raigarh District Raipur District West-Nimar District <i>Maharashtra State</i> Ahmednagar District Aurangabad District Bhandara District Buldhana District Jalgaon District Kolaba District Nagpur District Nanded District Osmanabad District Parbhani District Sholapur District Thana District <i>Manipur Territory</i> <i>Meghalaya State</i> <i>Mysore State</i> Bangalore District x Belgaum District Chitradurga District Dharwar District Kolar District Mandya District x Mysore District North Kanara District Raichur District South Kanara District Tumkur District <i>Orissa State</i> Cuttack District Dhenkanal District Puri District</p>	<p><i>Punjab State</i> Amritsar District <i>Tamil Nadu State</i> Chingleput District Coimbatore District Dharmapuri District Madurai District Malabar District North Arcot District Salem District South Arcot District Thanjavur District Tiruchirapalli District Tirunelveli District <i>Tripura Territory</i> <i>Uttar Pradesh State</i> Bulandshahr District Ghaziपुर District Lucknow District Mathura District Meerut District Rae Bareilly District Shahjahanpur District Sitapur District <i>West Bengal State</i> Birbhum District Burdwan District Cooch Behar District Hooghly District Howrah District Jalpaiguri District Malda District Murshidabad District Nadia District 24-Parganas District Purulia District West Dinajpur District</p> <p>INDONESIA — INDONÉSIE <i>Djakarta-Raya Aut. Terr. (excl. PA)</i> Djakarta-Barat (West) Regency Djakarta-Pusat (Central) Regency Djakarta-Selatan (South) Regency Djakarta-Timur (East) Regency Djakarta-Utara (North) Regency <i>Atjeh Province</i> Pidie Regency <i>Bali Province</i> Badung Regency Bangli Regency Buleleng Regency Djembrana Regency Gianjar Regency Karangasem Regency Klungkung Regency Tabanan Regency <i>Djawa-Barat Province</i> Bandung Regency Bekasi Regency Bogor Regency Garut Regency Indramaju Regency Krawang Regency Kuningan Regency Lebak Regency Pandeglang Regency Purwakarta Regency Serang Regency Subang Regency Sukabumi Regency Sumedang Regency Tangerang Regency Tasikmalaja Regency Tjiandjur Regency Tjirebon (P) Regency <i>Djawa-Tengah Province</i> Blora Regency Bojolali Regency Brebes Regency Demak Regency Djepara Regency Grobogan Regency Karanganjar Regency Kendal Regency Klaten Regency Kudus Regency Pati Regency</p>
<p>CHOLERA — CHOLÉRA Africa — Afrique</p> <p>ANGOLA <i>Benguela District</i> Benguela Conc. & Deleg. S. Lobito Conc. & Deleg. S.</p> <p>CAMEROON — CAMEROUN <i>Cameroun occidental</i> Victoria Division</p>			

Pekalongan (P) Regency
 Pemalang Regency
 Rembang Regency
 Salatiga Regency
 Semarang (P) Regency
 Sragen Regency
 Sukoharjo Regency
 Surakarta Regency
 Tegal (P) Regency
 Tjilatjap (P) Regency
 Wonogiri Regency

Djawa-Timur Province
 Bangkalan Regency
 Banjuwangi Regency
 Blitar Regency
 Bodjonegoro Regency
 Bondowoso Regency
 Djember Regency
 Djombang Regency
 Kediri Regency
 Lamongan Regency
 Lumajang Regency
 Madiun Regency
 Magetan Regency
 Malang Regency
 Modjokerto Regency
 Ngandjuk Regency
 Ngawi Regency
 Pamekasan Regency
 Panarukan Regency
 Pasuruan (P) Regency
 Patjitan Regency
 Ponorogo Regency
 Probolinggo Regency
 Sampang Regency
 Sidoarjo Regency
 Sumenep Regency
 Surabaja (PA) Regency
 Trenggalek Regency
 Tuban Regency
 Tulungagung Regency

Irian-Barat Province
 Djajapura Regency
 X Manokwari (P) Regency
 X Sorong (P) Regency

Jogjakarta Aut. Terr.
 Bantul Regency
 Jogjakarta Regency
 Sleman Regency

Kalimantan-Barat Province
 Pontianak (P) Regency
 Sambas Regency
 Sanggau Regency

Kalimantan-Selatan Province
 Bandar Regency
 Hulu Sungai-Selatan Regency
 Hulu Sungai-Tengah Regency
 Hulu Sungai-Utara Regency
 Kota Baru Regency
 Tanah Laut Regency
 Tapin Regency

Kalimantan-Tengah Province
 Palangka Raya Regency

Kalimantan-Timur Province
 Balikpapan (P) Regency
 Berau Regency
 Bulungan-Tarakan (P) Regency
 Kutai Regency
 Samarinda (P) Regency

Nusatenggara-Timur Province
 Alor Regency

Riau Province
 Kepulauan Riau (P) Regency

Sulawesi-Selatan Province
 Barru Regency
 Bone Regency
 Bonthain Regency
 Bulukumba Regency
 Djeneponto Regency
 Enrekang Regency
 Gowa Regency
 Luwu Regency
 Madjene Regency
 Makasar (P) Regency
 Mamudju Regency
 Maros Regency
 Pangkep Regency
 Parepare Regency
 Pinrang Regency
 Polewali/Mamasa Regency
 Selajar Regency
 Sidenreng Regency
 Sindjai Regency
 Soppeng Regency
 Takalar Regency
 Wadjo Regency

Sulawesi-Utara Province
 Donggala/Palu (P) Regency

Sumatera-Barat Province
 Padangpariaman Regency

Sumatera-Selatan Province
 Bangka Regency
 Palembang (P) Regency
 Pangkalpinang (P) Regency

Sumatera-Utara Province
 Asahan Regency
 Dairi Regency
 Deli Serdang Regency
 Karo Regency
 Labuhan-Batu Regency
 Langkat Regency
 Medan (PA) Regency
 Nias Regency
 Pematangsiantar Regency
 Sibolga (P) Regency
 Simelungun Regency
 Tandjongbaiei (P) Regency
 Tapanuli-Selatan Regency
 Tapanuli-Utara Regency
 Tebingtinggi Regency

MALAYSIA — MALAISIE
Sarawak
Kuching (1st) Division
 X Kuching District

West Malaysia
Malacca State
 Central Hlth. District

Selangor State
 X Klang Hlth. District
 Kuala Lumpur Hlth. District (excl. airport)

NEPAL — NÉPAL
Sagarmatha Zone
 Saptari District

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN
RÉPUBLIQUE DÉMOCRATIQUE POPULAIRE DU YEMEN
Second Governorate
 X Musaimmeer Village

PHILIPPINES
 Butuan (P)
 Cebu (P)
 Manila (P) (excl. A)

Luzon Group
 Pasay
 Quezon
 Bataan Province
 X Batangas Province
 Bulacan Province
 Cavite Province
 Laguna Province
 Rizal Prov. (excl. Manila airport)
 Rizal Prov.: Caloocan

Visayas Group
 Bohol Province
 Masbate Province

VIET-NAM REP.
 Nhatrang (PA)
 Saigon (P) (excl. A)

Bien-Hoa Province
 Binh-Duong Province
 Gia-Dinh Province
 Hau-Nghia Province
 Khanh-Hoa Province
 Pleiku Province

YEMEN — YÉMEN
 Hodeida Province

YELLOW FEVER — FIÈVRE JAUNE
 Africa — Afrique

ANGOLA
GHANA
NIGERIA — NIGÉRIA
SIERRA LEONE
SUDAN — SOUDAN
 Territory South of 12° N.
 Territoire situé au sud du 12° N.

ZAIRE — ZAÏRE
 Territory North of 10° S.
 Territoire situé au nord du 10° S.

America — Amérique
BOLIVIA — BOLIVIE
Cochabamba Department
 Chapare Province

COLOMBIA — COLOMBIE
Vaupès Comisaria
 S. José del Guaviare

SMALLPOX — VARIOLE
 Africa — Afrique

BOTSWANA
Central Area
Bakwena District
 Molepolole
Gaborone District
 Gaborone
Eastern Area
Tati District
 Francistown
Northern Area
Bamangwato & Northern Crown Lands District
 Mahalapye
 Orapa
 X Serowe
Southern Area
Bangwaketse District
 Kanye

ETHIOPIA — ÉTHIOPIE
SUDAN — SOUDAN
Equatoria Province
 Eastern District Rur. C.
 Juba Rur. C.
 X Torit Rur. C.
Kassala Province
 Aroma Rur. C.
 X Gedaref Mun. C.
 X New Halfa
Khartoum Province
 Omdurman Mun. C.
Kordofan Province
 Hamar Rur. C

UGANDA — OUGANDA
Northern Region
 Acholi District

Asia — Asie
AFGHANISTAN
 Kabul Cap. (A)
 Ghazni Province
 Helmand Province
 Nangarahar Province
 Paktia Province

BANGLADESH
 Dacca (excl. A)
Chittagong Division
 Chittagong District
 Commilla (Tippera) District
 Noakhali District
 Sylhet District
Dacca Division
 Dacca District
 Faridpur District
Khulna Division
 Bakerganj District
 Jessore District
 Khulna District
 Patuakhali District
Rajshahi Division
 Rajshahi District
 Rangpur District

INDIA — INDE
 Calcutta (P) (excl. A)
 Delhi (excl. A)
Bihar State
 Champaran District
 Santal Parganas District
Delhi Territory
Gujarat State
 Panch Mahals District
 X Sabarkantha District
Haryana State
 Gurgaon District
 Hissar District
 Rohtak District
Madhya Pradesh State
 Balaghat District
 Chhatarpur District
 Dewas District
 Guna District
 Gwalior District
 Hoshangabad District
 Jabalpur District
 Morena District
 X Panna District
 Ratlam District
 Rewa District
 Shivpuri District
 X Ujjain District

Maharashtra State
 Poona District
Mysore State
 Gulbarga District
 Raichur District

Rajasthan State
 Ajmer District
 Alwar District
 Banswara District
 X Barmer District
 Bharatpur District
 Churu District
 X Ganganagar District
 Jaipur District
 X Jhunjhunu District
 Sikar District

Uttar Pradesh State
 Agra District
 Bara Banki District
 Budaun District
 Bulandshahr District
 Mainpuri District
 Meerut District
 Moradabad District
 Saharanpur District
 Shahjahanpur District

West Bengal State
 Cooch Behar District
 Nadia District
 24-Parganas District

IRAQ — IRAK
 Baghdad
North-East Iraq
 Kindinawa
South Iraq
 Muthana

NEPAL — NÉPAL
Seti Zone
 Kailali District

PAKISTAN
 Karachi (P) (excl. A)
 Lahore (excl. A)
 Peshawar (excl. A)
 Quetta (A)
West Pakistan
Baluchistan Province
 Lasbela District
 Makran District
 Quetta-Fishin District
 Sibi District
 Zhob District
North-West Frontier Province
 Bannu District
 Mardan District
 Peshawar District
 South Waziristan Agency
 Swat District
Punjab Province
 Campbellpur District
 Gujranwala District
 Jhang District
 Lahore District
 Muzaffargarh District
 Sialkot District
Sind Province
 Jacobabad District
 Karachi District
 Khairpur District
 Larkana District
 Nawabshah District
 Sukkur District

SYRIAN ARAB REPUBLIC
RÉPUBLIQUE ARABE SYRIENNE
Deir-ez-Zor District
 al Mayadin Subdistrict

Europe
YUGOSLAVIA — YOUGOSLAVIE
 Belgrade
Kosovo Soc. Aut. Prov.
 Djakovica Commune
 Orahovac Commune
 Prizren Commune
Montenegro People's Republic
 Plav Commune
Serbia People's Republic
 Cacak Commune
 Novi Pazar Commune
 Pozarevac Commune
Vojvodina Aut. Terr.
 Sid Commune; Morovic

Notifications Received from 28 April to 4 May 1972 — Notifications reçues du 28 avril au 4 mai 1972

■ Area notified as infected on the date indicated — Zone notifiée comme infectée à la date donnée
 ... Figures not yet received — Chiffres non encore disponibles
 C Cases — Cas
 D Deaths — Décès
 i Imported cases — Cas importés
 p Preliminary figures — Chiffres préliminaires
 r Revised figures — Chiffres révisés
 s Suspected cases — Cas suspects

City X (A) City X and the airport of that city. }
 Ville X (A) Ville X et l'aéroport de cette ville. }
 City Y (P) City Y and the port of that city. }
 Ville Y (P) Ville Y et le port de cette ville. }
 Ex.:
 Rangoon (PA) means the city of Rangoon with its port and its airport.
 signifie la ville de Rangoun avec son port et son aéroport.
 Karachi (P) (excl. A) means the city of Karachi with its port (but without its airport).
 signifie la ville de Karachi avec son port (mais sans son aéroport).

PLAGUE — PESTE

Asia — Asie

	C	D
VIET-NAM REP.	23-29.IV	
<i>Hau-Nghia Province</i>		
<i>Districts</i>		
Cuchi	4	0
Duchoa	1	0
Duchue	1	0
<i>Pleiku Province</i>		
Letrung D.	1	0
<i>Tay-Ninh Province</i>		
<i>Districts</i>		
Hieuthien	1	0
Khiemhanh	1	0
Phukhuong	4	0

CHOLERA — CHOLÉRA

Africa — Afrique

	C	D	C	D
CAMEROON	25-31.III		1-7.IV	
CAMEROUN				
<i>CAMEROUN OCCIDENTAL</i>				
Victoria Division	0	0	1	0
<i>CAMEROUN ORIENTAL</i>				
<i>Départements</i>				
Mungo	0	0	3	0
Sanaga-Maritime	0	0	1	1
Wouri	10	0	10	0
KENYA			16-22.IV	
<i>Rift Valley Province</i>				
<i>Counties</i>				
Trans Nzoia: Kitale M.		11	0	
Turkana		11	0	

Asia — Asie

	C	D
INDIA — INDE	23-29.IV	
Ahmedabad (A)	10	0
Madras (P) (excl. A)	8	0

INDIA (cont.) — INDE (suite)

	C	D
<i>Gujarat State</i>	9-15.IV	
<i>Districts</i>		
Ahmedabad	7	0
Kaira	21	0
Sabarkantha	3	0
<i>Mysore State</i>		
Belgaum District	1	0
Mysore District	3	0
<i>Tamil Nadu State</i>		
Madurai District	1	0

INDONESIA — INDONÉSIE

	C	D
30.I-15.IV ¹		
<i>Djakarta-Raya Aut. Terr. (excl. PA)</i>		
<i>Regencies</i>		
Djakarta-Barat (West)	4	0
Djakarta-Pusat (Central)	14	0
Djakarta-Selatan (South)	1	0
Djakarta-Timur (East)	3	0

	C	D
<i>Bali Province</i>		
<i>Regencies</i>		
Buleleng	2	0
Djembrana	47	3
Gianjar	7	0
Klungkung	1	0

	C	D
<i>Djawa-Barat Province</i>		
<i>Regencies</i>		
Subang	2	2
Sukabumi	3	1
Tasikmalaja	9	1
Tjiandjur	6	2
Tjirebon (P)	2	2

	C	D
<i>Djawa-Tengah Province</i>		
<i>Regencies</i>		
Bojolali	5	0
Semarang (P)	8	3
Sukohardjo	4	0

	C	D
<i>Djawa-Timur Province</i>		
Madiun Regency	2	0

	C	D
<i>Irian-Barat Province</i>		
<i>Regencies</i>		
Manokwari (P)	114	14
Sorong (P)	730	50

INDONESIA (cont.) — INDONÉSIE (suite)

	C	D
30.I-15.IV ¹		
<i>Sulawesi-Selatan Province</i>		
<i>Regencies</i>		
Gowa	13	0
Madjene	4	4
Pinrang	6	1
Polewali/Mamasa	2	1
Sidenreng	2	0
Sindjai	3	0
Soppeng	3	0
Wadjo	12	3

	C	D
<i>Sumatera-Selatan Province</i>		
Bangka Regency	8	0

	C	D
<i>Sumatera-Utara Province</i>		
<i>Regencies</i>		
Asahan	58	20
Labuhan-Batu	1	1
Langkat	36	7
Medan (PA)	2	2
Tandjongbalei (P)	15	2
Tapanuli-Utara	17	8
Tebingtinggi	12	1

¹ Including additional figures/Chiffres additionnels inclus.

	C	D
MALAYSIA — MALAISIE		
SARAWAK		
<i>Kuching (1st) Division</i>		
Kuching D. 24.IV-1.V	5	0

	C	D
WEST MALAYSIA		
<i>Selangor State</i>		
Klang Hlth. D. ■ 2.V	3	0
Kuala Lumpur Hlth. D. (excl. airport) 21-28.IV	1	0

	C	D
PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN	3.V ¹	
RÉPUBLIQUE DÉMOCRATIQUE POPULAIRE DU YÉMEN		

	C	D
<i>First Governorate</i>		
Aden Area	49i	0
<i>Second Governorate</i>		
Balai		
Lahaj		

	C	D
<i>Second Governorate</i>		
Musaimer Village	6	0

¹ Date of telegram/Date du télégramme.

CHOLERA (contd.) — CHOLÉRA (suite)

<i>Asia (continued) — Asie (suite)</i>			
	<i>C</i>	<i>D</i>	
PHILIPPINES	27.II-4.III		5-11.III
Cebu (P)	1	0	1 0
Manila (P) (excl. A)	27	0	8 0
<i>LUZON GROUP</i>			
Pasay	2	0	1 0
Quezon	4	0	2 0
<i>Provinces</i>			
Batangas	1	0	0 0
Bulacan	2	0	3 0
Cavite	0	0	2 0
Rizal (excl. Manila airport)	10	0	3 0
Rizal: Caloocan	3	0	1 0
			12-18.III
Manila (P) (excl. A)			1 0
<i>LUZON GROUP</i>			
Quezon			2 0
<i>Provinces</i>			
Bulacan			1 0
Laguna			1 0
Rizal (excl. Manila airport)			3 0
Rizal: Caloocan			1 0
<i>VIET-NAM REP.</i>			
			23-29.IV
Saigon (P) (excl. A)			3 0
Gia-Dinh Province			2 0

SMALLPOX — VARIOLE

Africa — Afrique

	<i>C</i>	<i>D</i>
BOTSWANA	23-29.IV	
<i>Central Area</i>		
Bakwena District		
Molepolole	19	0
<i>Gaborone District</i>		
Gaborone	1	0
<i>Northern Area</i>		
Bamangwato & Northern Crown Lands District		
Serowe	2	0

ETHIOPIA — ÉTHIOPIA

	<i>C</i>	<i>D</i>
16-22.IV		
<i>Provinces</i>		
Bale	15	...
Begemdir	4	...
Eritrea	1	...
Gamu-Gofa	27	...
Harar	2	...
Kaffa	86	...
Shoa	7	...
Wollo	176	...

SUDAN — SOUDAN

	<i>C</i>	<i>D</i>
23-29.IV		
<i>Equatoria Province</i>		
<i>Rural Councils</i>		
Eastern District	4	...
Juba	8	...
Torit	4	...

Kassala Province

Aroma Rur. C.	2	...
Gedaref Mun. C.	2	...
New Halfa	1	...

Khartoum Province

	6	...
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Asia — Asie

	<i>C</i>	<i>D</i>
AFGHANISTAN	23-29.IV	
Paktia Province	1	...

INDIA — INDE

Delhi Territory	9	0
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Gujarat State

Sabarkantha District	1	0
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Madhya Pradesh State

<i>Districts</i>		
Chhatarpur	7	0
Gwalior	7	1
Hoshangabad	5	0
Morena	68	2
Panna	1	0
Ratlam	14	0
Ujjain	1	0

Mysore State

<i>Districts</i>		
Gulbarga	170	21
Raichur	3	0

INDIA (contd.) — INDE (suite)

9-15.IV

Uttar Pradesh State

<i>Districts</i>		
Bulandshahr	23	2
Shahjahanpur	34	7

Rajasthan State

<i>Districts</i>		
Alwar	8	0
Banswara	3	0
Barmer	6	3
Churu	1	0
Ganganagar	10	4
Jhundjhunu	6	1

PAKISTAN

2-8.IV

WEST PAKISTAN

North-West Frontier Province

South Waziristan Agency	1	0
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Districts

Mardan	1	0
Peshawar	11	4

Baluchistan Province

<i>Districts</i>		
Quetta-Pishin	4	1
Sibi	15	2

North-West Frontier Province

South Waziristan Agency	7	3
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Districts

Mardan	8	1
Peshawar	17	0
Swat	2	2

Sind Province

<i>Districts</i>		
Jacobabad	4	0
Karachi	10	0
Khaipur	10	0
Larkana	8	0
Sukkur	90	0

Baluchistan Province

<i>Districts</i>		
Lasbela	0r	0
Quetta-Pishin	0r	0
Sibi	0r	0

¹ See/Voir: p. 172.

Areas Removed from the Infected Area List between 28 April and 4 May 1972

Territoires supprimés de la liste des zones infectées entre les 28 avril et 4 mai 1972

For criteria used in compiling this list, see page 162 — Les critères appliqués pour la compilation de cette liste sont publiés à la page 162.

PLAGUE — PESTE	<i>Mandalay Division</i>	SMALLPOX — VARIOLE	INDIA — INDE
<i>America — Amérique</i>	Myingyan D.: Myingyan	<i>Africa — Afrique</i>	<i>Maharashtra State</i>
UNITED STATES OF AMERICA	CHOLERA — CHOLÉRA	SUDAN — SOUDAN	Thana District
ÉTATS-UNIS D'AMÉRIQUE.	<i>Asia — Asie</i>	<i>Bahr el Ghazal Province</i>	PAKISTAN
<i>Arizona State</i>	BURMA — BIRMANIE	Rumbeik Rur. C.	<i>West Pakistan</i>
Coconino County	<i>Mandalay Division</i>	<i>Blue Nile Province</i>	<i>North-West Frontier Province</i>
<i>Asia — Asie</i>	Kyauksè District	Southern Division	Dera Ismail Khan District
BURMA — BIRMANIE	Kyauksè D.: Kyauksè	<i>Asia — Asie</i>	<i>Punjab Province</i>
<i>Magwe Division</i>		BANGLADESH	Multan District
Magwe District		<i>Chittagong Division</i>	Sargodha District
		Chittagong Hill Tract District	