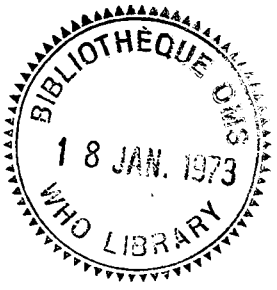
WORLD HEALTH ORGANIZATION SE/WP/72.16

INTER-COUNTRY SEMINAR ON
SURVEILLANCE IN SMALLPOX ERADICATION

INDEXED

New Delhi, 30 October - 2 November 1972



DEVELOPMENT OF A REPORTING SYSTEM IN UTTAR PRADESH

by

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Under the old traditional method of reporting in rural areas, the village chaukidar (watchman) was made responsible for registration and reporting of vital statistics and also for notification of epidemic diseases. Since the chaukidar is usually an illiterate person and engaged in other duties as well, the notification has been most defective both in reliability and promptness.

1. Keeping in view the shortcomings in reporting by village chaukidars, provision was made under the U.P. Panchayat Raj Rules, 1947, for the village Panchayat or village headman to be made responsible for reporting of epidemics which cover only plague, cholera and smallpox. These rules provide for:

   a) Reporting immediately on the first outbreak.

   b) Weekly thereafter for as long as any case of these diseases continues to occur in any village.

While deaths are noted from the reports made by head of family or village chaukidar, seizures are compiled by Pradhans from their own information.

Reports of first outbreak: One copy of the report of the first outbreak is sent by the Panchayat Secretary or Gaon Sabha Pradhan to the Medical Officer of the nearest dispensary and another to the District Medical Officer of Health at District Headquarters.

Transmission of epidemic reports: To ensure quick transmission of first outbreak reports, these are sent through special messenger both to the Medical Officer of the nearest dispensary and to the District Medical Officer of Health. The messenger used to be paid actual railway/bus fare and also one day's wages if the person was not an employee of Government District Board or Panchayat, from the contingencies of the Panchayat Raj Department. The Panchayat Secretary, who is primarily responsible for immediate reporting of smallpox cases to the Primary Health Centre, however, rarely performs this function effectively.

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Weekly epidemic report: After the first outbreak report has been sent, further seizures and deaths from these deaths are reported by Panchayat Secretaries every week to the District Medical Officer of Health for so long as cases continue to occur. Copies of these reports are not sent to the dispensary doctor, and also no reports are sent for weeks in which there have been no seizures or deaths. These reports pertain to the period from Sunday to Saturday and are to be sent by the Pradhans or Panchayat Secretaries on Sunday morning by a special messenger.

Reporting in urban areas: In urban areas the responsibility of reporting of epidemic diseases rests with the Municipal Medical Officer of Health. Under the Municipal Act, 1916, every guardian or parent is required to report the occurrence of any infectious disease including smallpox, as is also the private practitioner, who in the course of his practice becomes cognizant of the existence of any such disease in any dwelling in the city. They report to the Municipal Medical Officer of Health who will notify such cases to the Epidemiology Branch of the Directorate of Medical and Health Services, who take necessary containment measures. However, the people are in the habit of concealing such cases for fear of forcible isolation of patients to the hospitals, and cases generally come to light only after deaths have taken place. Private practitioners also generally do not report such cases. Thus cases in urban areas are mostly reported by Medical Officers in Charge, I.D. Hospitals in big cities, and the vaccinators, and sanitation staff working under the Municipal Health Officers.

2. Need for complete and prompt reporting: It was observed that the functionaries, viz Panchayat Secretaries, Gaon Sabha Pradhans or village chaukidars, who are required to report cases, do not do so and the reporting of the outbreak was often very late. Since the smallpox surveillance component had not developed, the reporting system was also not efficient and its importance was not fully recognized till 1971. It was realized that the solution to the smallpox problem did not lie in mass vaccinations alone, but in systematic search for undetected cases, their epidemiological investigation and effective containment measures and as such the reporting should be improved in order to ensure uniform and prompt notification of any suspect or confirmed case of smallpox.

2.1 Common defects in notification:

a) Delayed reporting: The reporting of outbreaks has often been considerably delayed, from 15 days to 6 months, and thus the effectiveness of containment measures and epidemiological investigations is limited.

b) Incomplete and incorrect reporting: In the absence of correct and complete reporting the current assessment of the epidemic situation and planning of the programme was not feasible.

c) Lack of uniformity: There has been no uniform system of reporting in rural and urban areas and no specific responsibility was given to any agency.

d) Transmission: The entire channel of transmission of data from the periphery to the Office of the District Medical Officer of Health was in the hands of agencies other than the health department, to whom the data had no relevance and also over which the Public Health Department had no control.

e) Ignorance of people: People are generally ignorant about the importance of prompt notification of cases due to inadequate health education.

In view of these difficulties, there has been a long felt need to improve the reporting system in order to ensure its completeness, promptness, correctness and uniformity.

3. Measures adopted to improve reporting system:

With the advent of Basic Health Services in the State in the year 1967, the responsibility of reporting the incidence of smallpox cases was entrusted to the integrated staff at the periphery, i.e. Basic Health Workers and Vaccinators. Thus the field health staff was made the principal source of information.

3.1 Agencies involved in reporting:

a) Basic Health Workers and Vaccinators:- who are responsible for the vaccination work, keep vigilant during their visits to the villages and through their epidemic intelligence and social contacts obtain information regarding occurrence of smallpox cases and deaths in their areas and report weekly to the Medical Officer in Charge, Primary Health Centre. Thus the Basic Health Workers, who are primarily malaria workers, have been fully involved in the programme.

b) Health Inspectors, Sanitary Inspectors and Smallpox Supervisors:- This supervisory staff at PHC level detects cases of fever with rash and after verification reports the same to the Medical Officer in Charge, Primary Health Centre. They also verify cases of smallpox reported by BHWs/Vaccinators and ensure that no cases have been left out.

c) The other public health and family planning staff such as extension educators, F.P.H.A.s, A.N.M.s and F.W.W.s also keep alert to detect cases of smallpox during their routine visits.

d) Passive surveillance by M.O.i/c P.H.C.s:- The Medical Officers in Charge, Primary Health Centres, also enquire from the patients attending the Primary Health Centres about the outbreak of any epidemic in their villages, particularly smallpox and cholera.

e) It was observed that even the above did not prove to be absolutely effective, hence cooperation has been sought from other departments, viz. Revenue, Community Development and Education. Services of school teachers have been found to be specially helpful in reporting of smallpox epidemics in the villages, as they get useful information from students attending the schools from neighbouring villages. All the health and family planning staff is required to contact school teachers in their areas during their visits and obtain information regarding any case of fever with rash. The Medical Officer in Charge, Primary Health Centre, on receipt of information from any of these sources, goes on the spot to confirm the diagnosis and takes immediate containment measures and informs the District Medical Officer of Health about the occurrence of smallpox cases through a special messenger. All the Primary Health Centres have been made the reporting centres and framed posters indicating the name of reporting centres have been put up.

3.2 "Nil Case" weekly reporting system has been successfully introduced.

3.3 Compilation of data at the District Level: The reports from different Primary Health Centres/Dispensaries and other sources are compiled in the office of District Medical Officer of Health and the weekly report on the prescribed proforma sent to Assistant Director, Epidemiology Branch (DMHS) every Tuesday.

3.4 Compilation of data at the State Level: The weekly epidemic reports received from different districts for the period from Sunday to Saturday are compiled and submitted to the Directorate General of Health Services by telegram every Thursday and to the Central Bureau of Health Intelligence, New Delhi. Besides the above report a separate report in respect of airport cities, viz. Kanpur, Lucknow, and Allahabad is submitted to the Directorate General of Health Services every Tuesday.

3.5 The reporting system was scrutinized and subsequently changes were made in order to further improve and make it more effective.

4. Up to June 1971, under the traditional reporting system, i.e. according to the date of onset of disease, every possible administrative measure to improve the system (promptness and completeness of notification) was undertaken. However, the results were not very encouraging. The major defect was the inclusion of addenda figures in weekly reports which necessitated frequent corrections of data at different levels. To avoid addenda figures of more than three weeks duration instructions were issued to District Health Officers that all possible efforts should be made to detect all cases within 3 weeks from the date of occurrence. This, however, resulted in under-reporting as the cases which were detected more than 3 weeks after the occurrence of rash were not reported by the district authorities.

5. Since the reporting system differed from state to state, the Ministry of Health also felt the need to have a uniform system of reporting throughout the country. With this end in view, the new system of reporting of cases by week of detection and not by the date of occurrence was introduced and the state of Uttar Pradesh was the first in the country to adopt this system in November 1971.

5.1 At District Level: In November 1971, instructions were issued to all District Medical Officers of Health to submit weekly epidemic reports about all cases of smallpox detected during the week under report. The new system during this short period has proved to be most effective and the results are very encouraging. Notification of cases has enormously improved and consequently also the quality of epidemiological investigations. The whole system of reporting has been essentially simplified and assessment of the epidemic situation in the State as a whole has also been greatly facilitated.

On comparing the achievements made in 1972 with those of the previous year we find that whereas during 1971, 16 to 17 districts were not submitting weekly epidemic reports for 3 weeks or more, the number of such districts has been reduced to 6 or less since February 1972 onwards, as shown in Figure 1. The new system has been accepted in the districts with enthusiasm. It is expected that the time lag between the onset and reporting of an outbreak will be very much narrowed. The time lag between receipt of

reports at the district level and their submission to the State level has also been substantially reduced. The main reason for delay in sending the reports from the districts to the State level was because of the tendency on the part of District Medical Officers of Health to wait for all the reports from the Primary Health Centres and thereafter send the consolidated report.

5.2 At the State Level: Similarly all reports received at the State Headquarters from the districts in a particular week, irrespective of the week to which they relate, are included in that very week. In this new system, since the time for receipt of epidemic reports from the periphery to the State Headquarters is precisely indicated, a large number of reports are now being received and the number of defaulting districts has gone down. It is envisaged that in the near future reports will be received in time from all the 54 districts in the State.

Transmission of reports from periphery to DGHS under the new system: All reports from peripheral workers are required to reach Primary Health Centres by Saturday and the same day the Medical Officer in Charge, Primary Health Centre, sends his report to the District Medical Officer of Health after compilation at the Primary Health Centre. All the reports received from Primary Health Centres are compiled at the district headquarters and the consolidated reports sent to Deputy Director (Smallpox) every Wednesday. After compilation at the State level in the office of Deputy Director (Smallpox), the consolidated report is sent to Director General of Health Services, CBHI, and also to the statistical cell at the State level (Epidemiology Branch) on the prescribed proforma every Monday. The Statistical cell also sends the smallpox figures (sent to them by Deputy Director (Smallpox) along with cholera and other diseases to Director General of Health Services and CBHI. Hence there now is no discrepancy between the figures that are being sent by Deputy Director (Smallpox) and by the statistical cell.

5.3 Uniformity in proforma: For the sake of uniformity in procedure, standard proforma have been introduced at the district level, on which District Medical Officers of Health are required to submit their weekly smallpox reports to Deputy Director (Smallpox) and also from the State level to DGHS, CBHI and others.

Thus the revised system of reporting has removed the major defects of late and incomplete reporting and has also eliminated variation in figures at different levels and a step has been taken towards uniform system of reporting in the state.

APPENDICES

1. Figure 1, showing number of districts which did not submit weekly Epidemic Reports for 3 weeks or more.
2. Figure 2, showing number of districts which did not submit weekly Epidemic Reports in time.
3. Annex I - diagramatic representation of transmission of weekly epidemic reports from periphery to centre.
4. Annex II - weekly epidemic report proformas for use at the State level.
5. Annex III - weekly epidemic report proformas for use at district level.

FIGURE 1

Uttar Pradesh - Number of districts which did not submit weekly epidemic reports for three weeks or more

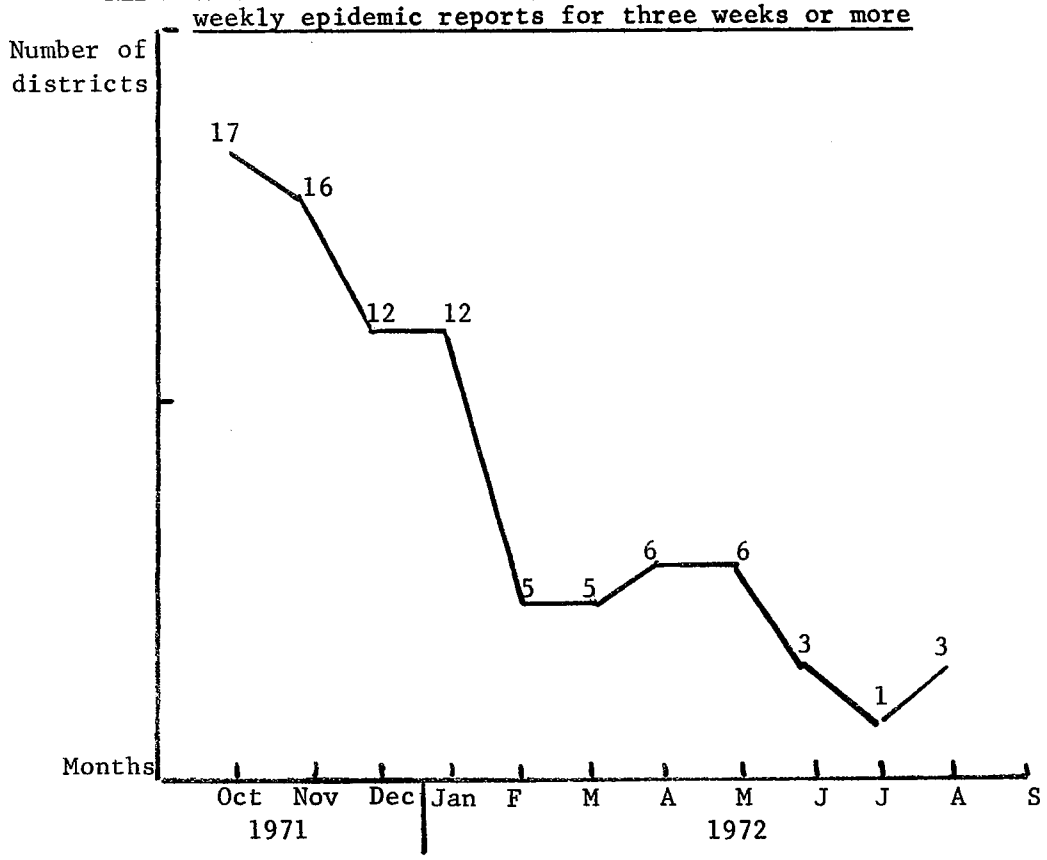
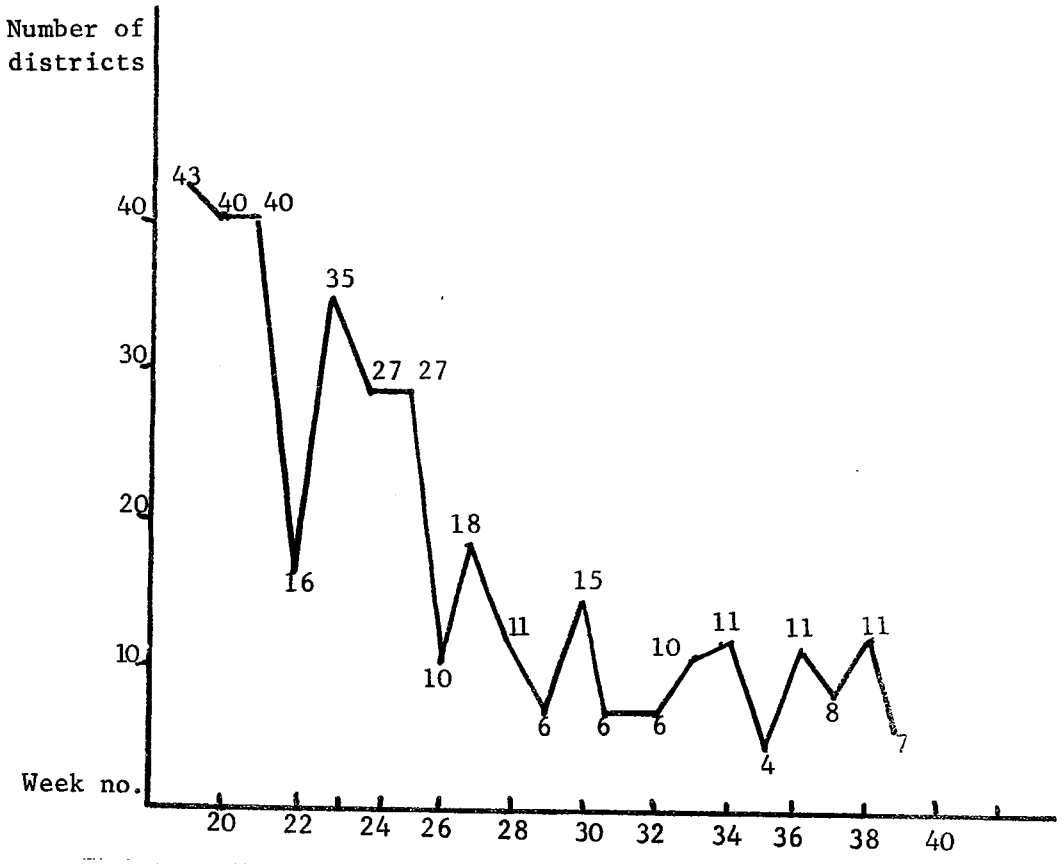


FIGURE 2

Uttar Pradesh, 1972 - Number of districts which did not submit epidemic reports in time



ANNEX I

Diagramatic representation of
transmission of weekly epidemic reports from periphery to the centre

Days	Week under review	First week after week under review	Second week after week under review
Sunday			
Monday			Dep.Dir.(Spx) to DGHS
Tuesday			
Wednesday		DMOH to Dep.Dir.(Spx)	
Thursday			
Friday			
Saturday	M.O.PHC to DMOH		

ANNEX II

WEEKLY EPIDEMIC REPORT

STATE Uttar Pradesh

Week No._____

Week ending_____ _____
(day) (Month)

To: Central Bureau of Health Intelligence
Directorate General of Health Services
Nirman Bhavan, New Delhi-11

Copy: National Smallpox Eradication Programme
Nirman Bhavan, New Delhi-11

Copy: State Statistical Unit

No. of Districts in the State 54

No. of Districts which are 3 weeks or more behind in reports.....(Mark with 'X' all those Districts in column A below).

Jalaun			
Jaunpur			
Jhansi			
Kanpur			
Kheri			
Lucknow			
Mainpuri			
Mathura			
Meerut			
Mirzapur			
Moradabad			
Muzaffarnagar			
Nainital			
Pilibhit			

Pithoragarh			
Pratapgarh			
Rae-Bareli			
Rampur			
Saharanpur			
Shahjahanpur			
Sitapur			
Sultanpur			
Tehri-Garhwal			
Unnao			
Uttarkashi			
Varanasi			

Mark 'NIL' if a nil report is received.
Mark ... if no report is received.

ALL reports received during the present week are to be entered in this week's report.

- For example, if reports for three different weeks are received from a District, the number of cases are added together and entered in this week's report.
- If supplementary reports for previous weeks are received, they are recorded in this week's report.

Even if all Districts have not reported, this form must be sent not later than Monday morning and must include all reports received between Sunday and Saturday of the preceding week.

Each month a summary table will be submitted showing cases according to the week of onset for each District.

Signed_____ Date_____
(NSEP State Programme Officer)
for Director of Health Services

ANNEX II (continued)
WEEKLY EPIDEMIC REPORT

STATE Uttar Pradesh

Week No._____

Week ending_____ _____
(day) (Month)

To: Central Bureau of Health Intelligence
Directorate General of Health Services
Nirman Bhavan, New Delhi-11

Copy: National Smallpox Eradication Programme
Nirman Bhavan, New Delhi-11

Copy: State Statistical Unit

No. of Districts in the State 54

No. of Districts which are 3 weeks or more behind in reports.....(Mark with 'X' all those Districts in column A below).

Agra			
Aligarh			
Allahabad			
Almora			
Azamgarh			
Bahraich			
Bullandshahr			
Ballia			
Banda			
Barabanki			
Bareilly			
Basti			
Bijnor			
Budaun			

Chamoli			
Dehradun			
Deoria			
Etah			
Etawah			
Faizabad			
Farrukhabad			
Fatehpur			
Garhwal			
Ghazipur			
Gonda			
Gorakhpur			
Hamirpur			
Hardoi			

Mark 'NIL' if a nil report is received.
Mark ... if no report is received.

ALL reports received during the present week are to be entered in this week's report.

- For example, if reports for three different weeks are received from a District, the number of cases are added together and entered in this week's report.
- If supplementary reports for previous weeks are received, they are recorded in this week's report.

Even if all Districts have not reported, this form must be sent not later than Monday morning and must include all reports received between Sunday and Saturday of the preceding week.

Each month a summary table will be submitted showing cases according to the week of onset for each District.

Signed_____ Date_____
(NSEP State Programme Officer)

ANNEX III

SMALLPOX WEEKLY EPIDEMIC REPORT

To: State Programme Officer, NSEP

Copy: State Statistical Officer
(Assistant Director,
Epidemiology Branch)

State.....

District.....

Week No.....

Week ending..... ....
(day) (month) (year)

Name of all PHCs and Municipalities	Number of		Mark with 'x' PHCs and Municipalities which are 3 weeks behind in reporting
	Cases	Deaths	
Total			

Signed_____ Date_____
(DMOH)

1. Mark '0' if a nil report is received.
Mark ... if no report is received.

2. All reports received during the week under review are to be entered in this week's report. If reports for more than 1 week are received from a PHC/Municipality the number of cases are added together and entered in this week's report. If supplementary reports for previous weeks are received they are to be recorded in this week's report irrespective of the date of occurrence of the cases.

3. Even if all PHCs/Municipalities have not submitted reports this form must be sent not later than Wednesday morning.

4. MOPHCs or MMOHs must send their reports to DMOH every Saturday for the week ending that Saturday.