WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTÉ

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OPERATIONAL GUIDELINES FOR SMALLPOX ERADICATION IN SOMALIA

CONTENTS

1. SMALLPOX SURVEILLANCE IN SOMALIA

In the past, the discovery of smallpox outbreaks in itself motivated searchers to find other outbreaks. However, with nil smallpox incidence, workers have become more complacent. In some areas local health and administrative officers have turned their attention to other problems. Two years of careful surveillance activities are needed to prevent previous gains being lost.

With limited manpower, transport facilities and funds it is not possible to maintain full-scale surveillance, especially active search activities in all areas at once. The development of national, regional and district surveillance plans is important and requires individual approaches and a full understanding of the epidemiological situation, the risk of possible importations or hidden smallpox foci, and resources and facilities available. While all areas of the country must be kept under surveillance, the frequency and the intensity of search operations should vary in proportion to probable risk. Intensive and frequent surveillance is needed for high-risk groups and high-risk localities. The techniques of search and surveillance must vary with the specific area and character of the population to be searched. From recent field-experience it is clear no single technique or system of surveillance will detect foci, therefore separate surveillance systems should be utilized simultaneously.

The Smallpox Programme is provided with an office in each of Somalia's 69 districts. In most cases this office is provided through the government. These offices are the basic information gathering and reporting units of the programme. Using the district "Zeropox" office as a base, a district team leader supervises surveillance agents and temporary searchers allotted to the various zones in the district. An office custodian, acting as guard and, whenever possible, able to complete the rumour register when necessary, is available for each office. All programme staff, apart from National Counterparts, are directly hired by WHO.

The Somali administrative/political structure of regional, district and village management (committees) provides a unique framework for smallpox surveillance. This system provides both a channel for communication as well as a channel for control. Effective utilization of this system should be the basis for surveillance activities. It requires the interest and participation of some leaders in each area (Regional Governor, District Commissioner, Regional and District Medical Officers). The ability of this system to immediately report all suspected smallpox cases has proven very effective in most areas.

As in 1977, there are several important surveillance techniques which should be continued throughout 1978-1979:

(a) Periodic active search operations:

- active searches in rural areas
- active searches in urban areas

(b) Surveillance during intersearch period:

- continuous surveillance activities by regional surveillance teams
- waterpoint surveys especially in nomadic areas
- special surveillance at markets, fairs, hospitals, etc.
- special surveillance in problem areas

(c) Publicity of the smallpox reward.

Programme staff details are shown in Appendix 1.

1.1 Periodic active search operations

Frequency

During the recent stages of the programme (1977 May-December) the active searches were carried out on a continuous basis in high incidence regions, monthly in low incidence regions and once per six to eight weeks in smallpox-free areas. In 1978-1979, it is proposed to have only 8-10 search periods:

	Southern regions*		Northern regions**	
	1978	1979	1978	1979
January	yes	-	yes	-
February	yes	yes	-	yes
March	yes			
April	-	-	-	-
May	-	-	-	yes
June	-	-	-	-
July	yes	yes	yes	yes
August	-	-	-	-
September	yes	yes	yes	yes
October	-	-	-	-
November	-	-	-	-
December	yes	(yes)	yes	(yes)

* South of Galgadud. ** North of Hiran.

With only six to four searches in 1978 and four in 1979, it is essential to plan and organize effectively so that all staff involved are thoroughly briefed, well motivated and properly supervised.

Preparation

Frequent changes in searchers and supervisory staff make it necessary to hold new training sessions to prepare for each search. It is planned to have pre-search training sessions at regional as well as district levels. In advance of these meetings, each regional epidemiologist and WHO adviser should discuss with the regional and district administrative and health officers to be certain that search and meeting dates do not conflict with other planned activities and that sufficient temporary searchers and permanent surveillance agents are available.

1.1.1 Active searches in rural areas

Techniques

Techniques of search will vary with the area and population to be searched. The following methods are currently being utilized:

(i) Settled area search

In areas with a large number of settled localities where a line listing of villages is available or could be prepared, usually two-man search teams are utilized. Teams are usually made up of one literate worker from a district or zonal (basha) centre and one local worker familiar with the area. Recruitment is assisted by district, zonal or village committees. According to an advance daily programme (SOM 1 - attached as Appendix 2) the team moves from locality to locality to search for fever and rash cases. As day-time absenteeism is often substantial, night halts in each major village are essential. Travellers and nomadic groups encountered on the way are searched too.

In areas with isolated, solitary, small villages which are political and commercial centres for the area a different type of search is used. The recruitment of local temporary searchers (four to six) with the chief of the locality (nabodan) as team supervisor for five to six days has proved to be effective. The first day the town/village residents are searched, then buyers and sellers during the second day. On further days (third to sixth) nomadic areas adjoining the village are searched. Such local searches must be supervised carefully by the regional epidemiologist, WHO adviser or district team leader who, with assistance from local administration, schedules the search, provides training and investigates information about rash and fever cases.

(ii) Nomadic area search

In "bush" areas where nomadic groups are constantly on the move, searching is more difficult and provides a special challenge to the programme. Finding continuing transmission in small nomadic groups having gone unnoticed for four to five months emphasizes the importance of searching all these groups. As they are often found in areas reported to be empty, all "bush" areas must be searched. Searchers here have a double responsibility - first to search for nomads and then to search for smallpox among them. Three types of search techniques are currently utilized:

- Simple specific area search

Two-man search teams made up of one literate worker from the zone and one nomad familiar with the area and nomadic groups are assigned a specific geographic area between recognized locations such as hamlets, roads, rivers, hills, etc., to search for nomads and then for fever and rash cases among them. Supervision and assessment of this type of search is extremely difficult.

- "Drop-and-move" type of search

Teams of 5-10 searchers are dropped on the far side of the area to be searched with instructions to list and search all nomadic encampments or travelling groups on the 50-150 km walk back to base. The presence of a supervisor in the team improves performance.

- "Check point crisscross" type of search

Two-man search teams crisscross bush areas between designated check points (villages, hamlets, known encampments). Key personnel verify the searchers' arrival at check points by signing the search form.

The difficult areas to search are those accommodating both a settled population and a nomadic population. Searchers usually neglect the nomadic areas. A variant of settled area search can be used, with three days scheduled for each settled village. On the first day the settled village is searched and the location of nearby nomadic settlements are listed and mapped. During the second and third day the identified nomadic settlements are searched. Water points and market areas serve as an excellent supplementary source of information on local nomad encampments.

Organization of search

A clear map of each district, showing borders of zones, roads and fixed search units must be prepared. Using this map a schedule for search operations covering the entire district territory should be drawn up. For this purpose a list of fixed search units (villages, hamlets, known temporary encampments), a list of localities harbouring nomadic population and a schedule for each searcher and supervisor (search schedule - SOM 1) should be prepared by the district team leader and regional epidemiologist immediately following the pre-search meeting at the regional level. A copy of this "search plan" should be submitted to the Regional Zeropox Office before the start of the search operation. A special plan should be prepared to search "bush" areas, remote areas and border areas of the district. Overlapping into neighbouring territory is recommended.

The search will be carried out by permanent NSEP staff and temporary hired searchers. In general, during a search each worker will be assigned one/two localities to visit each day. Each search worker and supervisor will be provided with the search report form SOM 2 (attached as Appendix 3) on which should be listed villages, hamlets, encampments or localities which he is to search and the date on which the visit should be made. The district team leader and regional epidemiologist should prepare a detailed itinerary for each worker and supervisor. The most experienced workers should be assigned the highest risk areas of the district such as areas harbouring nomads, border areas, etc.

In each village, hamlet or nomadic camp the searcher will detect all cases with fever and rash. Careful visits should be made to:

- all households (houses and huts) in a given locality;
- locality headmen and other prominent persons (signature of village headman should be obtained and locality surveillance record card should be signed - Appendix 4);
- school, tea-shop, water point, market area, other place where people gather;
- hospital, dispensary, orientation centre, administrative office, etc.

In visiting a house, hut or meeting a travelling group, the searcher will:

- introduce himself as a health worker;
- show the smallpox recognition care;
- ask about fever/rash cases; if these are present he should ask to see the patient;
- inform about reward of 200 So Sh for unreported smallpox outbreak;
- inform where to report.

If a suspected smallpox case is detected, all pertinent information including name, address, age, sex and immunity status of patient must be sent to the district team leader by messenger or by the quickest available means. If a "fever with rash" case is detected and no smallpox suspected, full information about the patient should be recorded on the reverse side of the search summary form SOM 3 (Appendix 5) and be discussed with the supervisor and district team leader. A locality surveillance record card kept by the village or locality leader should be signed by the searchers and supervisor during each search visit. Each searcher should report to the district team leader at the end of his tour programme and submit the completed search report - SOM 2 - duly signed by village/locality leaders. The district team leader will evaluate the search report submitted and will record all cases of fever and rash in the smallpox rumour register. It is the duty of the district team leader to visit every village/locality reporting fever and rash cases and verify the diagnosis. The district team leader should compile the search results on the district search summary form (SOM 3).

After the search, all search report forms, search schedules and district search summaries should be filed and kept in the District Zeropox Office or in the Regional Zeropox Office.

Supervision

A supervisor will be provided for every cluster of temporary searchers (5-10) to make certain that all villages, hamlets, nomadic camps, etc. are visited by the searcher and that the search is thorough and effective.

Two supervisory teams (regional surveillance teams) will be provided at the regional level to provide direct information to regional and national authorities on the effectiveness of the search, with major emphasis being placed on problem districts and problem areas.

Supervisors should complete the search report form with their comments about searchers' performance for evaluation by the district team leader. The district team leader should personally visit one/two localities assigned to each supervisor to evaluate both searchers as well as supervisor performance.

MODIFICATIONS

(i) Combining search and vaccination

In "bush" areas, especially in those where search activities are not reaching the expected level of effectiveness, it is desirable to combine search and vaccination. However, when a searcher is provided with vaccine he often forgets to search. Therefore where searching is combined with vaccination special training, supervision and assessment are required. In no way can vaccination be substituted for surveillance.

(ii) Progression of search activities

In regions with a limited number of programme personnel and transport facilities the search should not start at the same time in all districts. Resources (search, supervisory and assessment personnel, and transport) should be concentrated in one area at a time. About 14 days later, the search can begin in another district.

(iii) Search operation in areas with majority of nomadic population

Development of an effective search programme in nomadic areas requires a thorough understanding of nomadic habits and their movements. This may differ from area to area. Access is limited to short periods such as time of harvest and the dry season. During these periods it is imperative to target intensified surveillance primarily at the nomadic groups.

1.1.2 Active search in urban areas

Urban areas with their high concentration of population always present a significant threat. Therefore, a periodic active search operation in these areas is of high priority. The following principles should be observed:

- Organization of an urban search is more complex and requires ingenuity in coordinating diverse resources. One person should take full responsibility for planning, coordinating and compiling assessment results for each search.

- Searches must be conducted separately from vaccination activities and from searches in the surrounding rural areas. Schools, shops, and market surveys should preferably be visited during the intersearch period.

- Searches should be done house by house, door-to-door inquiries about the presence of smallpox cases, fever and rash cases followed by an explanation of the reward and where to report.

- Active search operations should always be supported by an intensive publicity campaign advertising the 200 So Sh reward.

Staff requirements for the search operation will vary with the urban area involved. As a guide the following calculation may prove useful. One searcher can search 50-100 houses a day or 350-500 houses per week. Therefore one searcher could visit 700-1000 houses in two weeks or approximately 5000 persons. Twenty searchers and three to four supervisors would be required for every 100 000 population.

Pre-search meetings are essential at two levels: a central meeting attended by administrative and health officers, supervisory staff, regional epidemiologist and WHO adviser. Zonal meetings should be held for searchers and their supervisors.

Organization of the search should be carried out by one highly experienced person who has no other duties. With his supervisors he should complete the search schedule four to five days before the start of the search. Each searcher should be provided with sufficient copies of the search report. Keeping searchers working together in the same area on any particular day improves supervisory activities. Searchers should meet whenever practical with their supervisors each evening to be instructed about the area to be covered next day and to hand in all "rumours" of fever and rash for verification.

The search will be done from house to house using recognition cards. Inquiries will be made about the presence of smallpox or other fever diseases with rash. The 200 So Sh reward for reporting smallpox and place to report should be publicized simultaneously. The most productive time for searches is in early morning, late afternoon and in the evening. When a case of suspected smallpox is discovered by a searcher, he himself should immediately inform the medical officer as well as the supervisor. Verification of such cases must be done immediately and verification of other "fever with rash" cases within 24 hours.

Special attention must be paid to the search in areas surrounding the towns and in villages within the authority of the municipality. In some areas, another high risk group may be a "floating population" establishing new dwelling areas between searches.

1.1.3 Search assessment - instructions to assessors

The current search assessment measures the effectiveness of a searcher in detecting rumours of fever and rash cases and informing the population of a reward. This is done by checking:

(a) Whether or not the locality was searched in the most recent search.

(b) Whether or not the locality headman was visited and the locality surveillance record card signed by the searcher/supervisor.

(c) Whether or not the school (including the Koranic school) was searched.

(d) The proportion of people who have seen the searcher/vaccinator during this search.

(e) The proportion who saw the smallpox recognition card.

(f) The proportion who knew of the reward.

(g) The proportion who knew where to report suspected cases.

(h) Presence of reward posters or slogans in locality.

(i) The number of cases with rash and fever detected during the search.

You should visit at least one locality in each zone assigned to each supervisor and the localities you visit should be the ones difficult to reach. The searchers should be requested to re-search the whole problematic area if you find the locality unsearched.

For each locality assessed you should question at least 30 persons older than six years of age (up to 100 in town sectors or if the village is large) asking each person separately if they know of the search (have seen the searcher and the recognition card), are aware of the reward and know where to report fever and rash cases. The locality surveillance record should be checked, the number of reward posters/slogans noted, and schools, markets and water points visited. You should inquire about cases of "fever with rash", note and confirm them and check your findings with those of the searcher.

Each person's answer should be noted on the form SOM 4 - Assessment of active search (Appendix 6). Do not wait until you have finished touring the village to try to recollect a proportion of answers. Record each answer immediately by marking (////) on the assessment form. Use the reverse side of the form for additional questions and further observations.

Do not interview persons in groups, try to select them individually and randomly throughout the locality to be assessed. Note the character of the population (urban, settled, nomadic).

At the conclusion of the assessment you should forward the completed forms and the following figures:

(a) The total number of localities assessed.

(b) The number which had been found to be searched.

(c) The results, as follows:

- total number of persons interviewed
- number who saw the searcher (and % of total)
- number who saw the recognition card (and % of total)
- number who knew of reward (and % of total)
- number who knew where to report (and % of total)

(d) The number of localities with adequate numbers of posters or slogans.

(e) Characteristics of assessed population.

You must of course personally check all reported cases of suspected smallpox and either you or a senior member of your staff must check all other reported cases of fever and rash.

You should review this assessment protocol with your search staff prior to each search so they know how their work will be evaluated. It is presumed that prior to each search you have instructed them during the pre-search meeting to:

- visit every house in the locality and every travelling group met,
- introduce themselves as health workers prior to further discussion,
- show the recognition card at each house and on the way,
- ask about fever and rash cases in the house or locality and to ask to see them, if any,
- announce the reward of 200 So Sh payable to both the person from the public who reports and the health worker who checks reports,
- instruct the population where they may report any suspected smallpox case or fever and rash cases,
- paste the reward placards or paint reward slogans on places attracting the attention of population,
- search every school, Koranic school, health establishment, tea shop, market, water point, administrative office,

- visit each locality headman; get his signature and sign the locality surveillance record card,

- list the name and addresses of all suspected smallpox cases and fever and rash cases.

During assessment try to pinpoint areas where the surveillance system needs further strengthening in order to be certain that any hidden focus will be quickly discovered. Assessors: WHO advisers, regional epidemiologists, senior team leaders if necessary.

1.2 Surveillance during intersearch period

1.2.1 Continuous surveillance by regional surveillance teams

The primary objective of the regional surveillance teams is to establish and maintain an alert, extensive, high-quality continuous surveillance system in their regions. The surveillance team leaders and the staff are expected to:

(i) Continue to motivate and stimulate regional and district administrative and health staff for continuous surveillance activities. Besides NSEP staff, malaria and basic health service workers and administrative officials visiting villages at frequent intervals should be repeatedly stimulated to search and report fever cases with rash.

(ii) Organize and carry out "special searches" in vulnerable areas as:

- remote areas that may be missed during regular search operations,
- areas which are cut off by seasonal changes,
- border areas,
- areas recently affected by smallpox,
- areas where staff is absent,
- areas having transient population or seasonal workers,
- areas not reporting fever and rash case for long periods.

(iii) Introduce a proper water point and market search and outline plans and schedules for these in each district.

(iv) Organize and stimulate an effective secondary surveillance system covering the whole assigned area (government, political and administrative officials, police, teachers, zonal and village officials, mass organizations such as: Somali Youth's Organization, Somali Worker's Organization, Somali Women's Democratic Organization, and the Red Crescent Organization).

1.2.2 Water point survey

Water points are important collecting points of people in rural areas of Somalia. During rains and in early post-rain periods when multiple alternative sources of water are available, water point surveillance has only limited value. However during the dry season (August-September, January-February) water points are visited by several hundred people daily. As people are busy collecting water and watching their animals, access to them is not always easy.

Showing the smallpox recognition card and publicizing the reward is relatively easy. Vaccination has met with partial success. According to experience no significant information on smallpox outbreaks has been obtained at water points. Water points proved most useful in identifying current areas of nomadic residence. Sending searchers from wells to individual nomadic groups to spend one night searching and vaccinating has proven the most effective use of the water point surveillance system.

1.2.3 Special surveillance at markets, hospitals, fairs

Surveillance at markets, schools, hospitals, festivals etc. has had an increasing importance in the programme. These places of gathering are places where rural population, settled or nomadic come to exchange views, news, to sell products, and to buy household commodities or to get a service. These meeting places can be used for collection of rumours and so become a supplementary element of surveillance.

The technique adopted is to place searchers on the roads at entry points to the market. The searchers should arrive well ahead of the crowd and place reward posters or other banners. Conversation with buyers and sellers was found to be most productive when they were entering or leaving the market place and not during their actual marketing.

1.2.4 Special surveillance in problem areas

All regions and even districts have geographic areas or groups of people constituting special smallpox surveillance problems due to relative inaccessibility of the area, high mobility of the population or higher probability of smallpox exposure.

(a) Areas with nomadic population and seasonal workers' camps

Development of effective surveillance among nomads requires a thorough understanding of nomadic habits and their movements. Maximum access is limited to short periods such as times of harvest and time of water shortage. During these periods it is important to target intensified surveillance activities at nomadic groups only. Remote bush areas, even those reported vacant must be searched. Organizing an effective bush search is the biggest current challenge facing every epidemiologist working in the programme.

Each district with a majority of nomads needs to develop its own search programme. The following draft-programme for Tieglow district in Bakool Region is an example of a complex search programme that needs to be developed at the district level:

SAMPLE SEARCH PROGRAMME - TIEGLOW DISTRICT - BAKOOL REGION - SOMALIA

1978-1979	Search activity			
Month	Villages	Farm area	Bush area	Water points
January	-	-	yes	-
February	yes	-	-	yes
March	-	yes	-	-
April	-	-	-	-
May	yes	yes	-	-
June	-	-	yes	-
July	yes	-	-	-
August	-	yes	-	yes
September	yes	-	yes	-
October	-	-	-	-
November	-	-	yes	-
December	-	yes	-	-

(b) Hospitals

A number of outbreaks could be traced to infectious disease or general hospitals. Because a hidden smallpox outbreak may first be detected when the patient is admitted, hospitals should be contacted by NSEP staff for the following items:

- Hospital superintendents should be fully informed regarding the present status of smallpox eradication activities and techniques used.

- All cases of suspect smallpox admitted to the hospital should be immediately reported to the regional medical officer and regional epidemiologist. A weekly report may be given to the Regional Zeropox Office even in the absence of smallpox or chickenpox admissions.

- Hospital staff should be properly vaccinated and revaccinated, including their family members.

- Hospital staff should ask about the presence of smallpox in patients' home-village or locality while taking clinical histories in the ward or the outpatient department.

(c) Festivals

Due to the risk of exporting smallpox to larger geographic areas, fairs and festivals should receive priority attention. The regional epidemiologist will collect information from each district on the time, location and anticipated attendance at each fair and festival. A regional surveillance team should attend these festivals and carry out smallpox surveillance. The team should give wide publicity to the reward. A technique similar to that used in market searches can be used in festivals.

(d) Localities around most recent smallpox outbreaks

Experience indicates that when hidden foci have persisted undetected for long periods of time, they often linger near old-known smallpox foci. In every district a search within a 10 mile radius from the last five foci should be organized in the first half of 1978. In addition to this 10 mile radius search, special surveillance attention should be given to villages or areas having common connexions with the last known foci in the district. If the source of infection for the last known outbreak has not been determined the search should be expanded and extra effort made to eliminate the possibility of hidden foci.

(e) Areas with recent history of case suppression

Special searches should be organized where there is the slightest suspicion of past or recent suppression of cases. District authorities should be motivated not to feel ashamed to report any newly discovered outbreak which may have been hidden for many months.

(f) Border areas

Many of the last outbreaks occurred near borders between districts, between regions and near international borders. For this reason special attention should be paid to these areas during the intersearch period.

(g) Previously unsearched areas

Careful scrutiny of previous search and assessment results will indicate areas which were missed during previous searches for various reasons. These areas must be treated as priority areas for mopping-up operations and during future searches.

1.3 Rewards

1.3.1 Publicity of the smallpox reward

The reward for reporting smallpox outbreaks has greatly improved all forms of surveillance. Wide publicity should be given to this advertisement to assure all segments of the population are aware of the reward and its purpose. Initially it became apparent that searchers were not disseminating information about the reward to the general public for fear the public and not the searcher would receive the reward. To overcome this, a dual reward was introduced whereby both the public informer and the NSEP fieldworker, who has received the report, will receive the 200 So Sh reward. Criteria for disbursing the reward are:

- Notification of previously unknown outbreak of smallpox.
- The outbreak must have had a case with the onset in the previous six weeks.
- The diagnosis must be verified as smallpox by laboratory and/or epidemiologic investigation.
- Studies consistently indicate that the most effective form of reward publicity is word of mouth from searchers to the public.

A variety of methods are used to publicize the reward:

- writing of an announcement about the reward on the walls,
- the exhibition of reward posters in villages, hospitals, schools, offices, shops, etc.,
- pasting of placards on public health vehicles,
- exhibition of special banners and signboards during fairs, festivals,
- publication in press, announcement by radio,
- projection of slides in cinemas and theatres,
- payment of the reward in public with much publicity and large attendance.

1.3.2 Chickenpox reward

A reward of 5 So Sh is paid by regional epidemiologists to surveillance agents or temporary searchers who detect a previously unknown chickenpox outbreak, provided correct programme documentation procedures have been followed and a specimen collected. This incentive may be suspended by national programme management depending on prevailing epidemic conditions.

2. CONTAINMENT MEASURES

Every outbreak of smallpox or suspect smallpox must be treated as an emergency. Containment measures must be promptly instituted whenever a smallpox case or suspect smallpox case is reported. The regional epidemiologist, the WHO adviser and regional surveillance team leader, together with the district team leader of the affected locality, are personally responsible for containment.

2.1 Containment team

In order to begin and complete the initial containment measures within 48 hours, the containment team should consist of:

- team leader such as regional epidemiologist, WHO adviser, regional surveillance team leader,
- two surveillance agents/supervisors,
- 5 to 10 temporary vaccinators hired from affected or neighbouring localities,
- one or two motivation workers from the district administration.

In urban areas the number of staff may have to be several times larger. All team members must be vaccinated or revaccinated and must be in good health as the work is difficult. The

team should be provided with transport and a sufficient amount of vaccine (usually about 50 boxes per team), plastic needles containers - two packs per person, bifurcated needles - 50 needles per two plastic containers, smallpox recognition cards - one per person, placards, containment forms or booklets, chalk, etc.

2.2 Night halts and night vaccination in affected locality

It is compulsory for the containment team to stay in the affected locality for as many nights as are needed until containment activities are completed. Work should be done mainly in the early morning, late afternoon and at night, in order that all residents are seen. Vaccination during the first and second nights should be done and supervised by the regional epidemiologist and WHO adviser.

2.3 Case finding in the affected locality

On arrival at the affected locality the team leader should meet local village/locality leaders and other respected citizens. He should (i) educate and motivate them, (ii) gain their cooperation and assistance, (iii) obtain information about the number and location of households with cases of fever and skin eruption in the affected locality and immediate area.

Furthermore, the team leader should organize a rapid but careful house by house search. The team members should show the recognition cards and ask for fever cases in each household, and list all such cases. The team leader should immediately visit all listed households and verify the diagnosis of any cases detected.

2.4 Numbering of houses and enumeration of population

When a case of smallpox or suspected smallpox is detected, the population of the entire affected locality/village/hamlet/camp should be enumerated before containment vaccination is started. The team leader must evaluate the situation and quickly plan containment. A sketch of the affected locality facilitates the work. One surveillance agent who knows the locality should handle the numbering of the households. No house/hut should be without a number and this should be painted on the visible part, close to the door. Adequate personnel should be used to complete enumeration within one to two hours. Containment forms or exercise books should be used for enumeration of all residents in each house, including absentees and visitors. If the exercise book is used, a separate page for each household should be used with standard columns: these include house number, name, age, date of vaccination, date of observed take, and remarks.

2.5 Containment vaccination

When enumeration of the entire population of the affected area is completed all persons living in the locality should be vaccinated regardless of previous vaccination status, health status (excluding mortally ill persons), nutritional status or age. Vaccinators should avoid tactics which frighten children and the elderly. Patient, persistent efforts with assistance of local leaders are always more effective than the use of force. In smaller villages and nomadic camps, vaccination can usually be achieved in a few hours. In larger villages and towns the following priorities should be established:

(1) the affected house/household

(2) face to face contacts

(3) affected locality/village-hamlet camp

(4) nearby villages up to 10 km radius or further if they are located along roads leading to the affected village

(5) relatives' homes/households regardless of contact history.

Vaccinators should remain in the affected locality for three weeks after the onset of the rash of the last smallpox case. They should record and vaccinate:

- all residents who may have been missed previously,
- all temporary absentees returning back to the village/locality,
- all visitors and newcomers to the affected locality.

2.6 Patient isolation

The patient should be isolated to the maximum extent and without delay. In Somalia isolation has traditionally been in isolation camps. Camp isolation has certain disadvantages. Because of a desire of patients to remain with their families, significant case-hiding resulted from fear of being taken to an isolation camp. A second negative factor is that the focus of containment is shifted from the affected area to the isolation camp. Village containment and the search for additional cases suffers as a result.

Home isolation also proved ineffective as small huts with many family members and frequent visitors are not ideal for isolation.

To have effective and acceptable patient isolation, a separate "isolation unit" should be developed in each affected locality. This should be used for one or more hamlets, within walking distance. Such a unit will consist of a central structure (temporary shelter, hut or tent) to house the patients, a kitchen and latrine area. Surrounding this unit must be a protective thorn barrier-haro. The public payment of five shillings per day per patient for each day spent in isolation makes isolation acceptable to most patients. The proximity of the isolation unit to the affected area offers further advantages in that it provides immediate isolation for new cases on detection. All cases admitted to the isolation unit, including clear cut smallpox patients, should be vaccinated on entry. This will prevent the needless infection of misdiagnosed cases. All isolation guards and their family members should be vaccinated too. Supervision of isolation by a day and night resident supervisor, WHO adviser and regional epidemiologist is essential.

Every smallpox case must remain isolated until all scabs have fallen. Contacts of patients, in addition to being vaccinated, should be placed under daily surveillance. If these persons develop fever from the seventh day after the first exposure to 17 days after the last, he or she should be isolated, until it is determined whether the fever represents the prodromal illness of smallpox.

If a smallpox case occurs in a general hospital, the hospital should be closed to visitors immediately, should stop the discharge of patients and should limit admissions to emergency cases only. The movement of hospital staff should be limited, controlled and listed. The patient should be removed from the general ward and placed in an isolation unit.

2.7 Guard and isolation system

Four watch-guards should be placed at every affected house if home-isolation or an isolation unit is used. Two must be on duty during the day and two during the night. This round the clock guard system should be maintained until all smallpox cases in the affected household or isolation unit have lost all scabs. The watch-guards should be responsible for:

(1) keeping the patient isolated from all others and preventing his movement,

(2) restricting entry of visitors to the affected household or isolation unit,

(3) vaccinating and listing all persons (including NSEP staff) coming to the affected household or isolation unit,

(4) carrying food, water and fire into the isolation area.

A log-booklet record of the guard's activities should be maintained. Watch-guards should be well supervised and their findings and performance should be assessed daily by supervisors.

2.8 Disinfection

Disinfection should depend on the facilities available. Rooms and articles should be exposed to direct sunlight for several hours. Floors, furniture and hard surfaces should be

thoroughly washed with soap and hot water. The value of articles should be balanced against difficulty and cost of their disinfection. Clothes, bedding and other laundry should be boiled.

2.9 Assessment of take-rate and completeness of enumeration

The results of containment vaccination should be carefully checked by an experienced supervisor about five days after the initial vaccination. Persons without a major reaction, with no reason for negativity, should be vaccinated again. This assessment should be carried out simultaneously with independent checking of the completeness of the enumeration. The daily follow-up should be organized with an aim to search each house in the affected locality for new cases and to identify and vaccinate absentees and newcomers.

2.10 Special searches in surrounding areas

At the time containment is started in the affected area, a special house-by-house search for "fever with rash" cases should be organized and implemented in a 10 km radius of the affected village. This special search should be repeated in two weeks to detect cases which may have been in the incubation period during the first search. Similarly, another special search of the whole district should be organized and carried out as a requirement for proclaiming the affected area smallpox-free six weeks after the onset of rash of the last smallpox case. Common sense should dictate the distance the search should go from the affected area. Large population centres, roads, markets, water points, etc. should be considered in planning the searches.

2.11 Expansion of containment vaccination

Only after completion of containment vaccination in an affected locality, and after the initial search in a 10 km radius is started, can vaccination activities be expanded, say within a 10 km radius of the affected locality.

2.12 Follow-up of the smallpox outbreaks

Throughout Somalia, all smallpox outbreaks will be considered "pending" until six weeks have elapsed since the onset of the last smallpox case. Outbreaks should have watch-guards at isolation units or at affected households if house isolation is used as well as vaccinator(s). They must remain until all scabs have fallen from the last smallpox case. The regional epidemiologist and WHO adviser, preferably accompanied by local health authorities, should visit the affected locality at least:

- twice per week for the first four weeks,
- once per week in the fifth and final weeks.

Visit objectives are:

- to verify the diagnosis of all fever cases with skin eruptions,
- to assess the effectiveness of containment vaccination and take-rate,
- to assess the work of watch-guards and check the isolation of patients,
- to assess the performance of vaccinators in neighbouring villages and localities,
- to conduct house to house searches in adjacent localities at high risk.

A special search of the whole area (10 km radius in low-incidence areas and the whole district in smallpox-free areas) should be organized as a basic condition before proclaiming the area as smallpox-free, six weeks after the onset of the last smallpox case. All cases with fever and rash found in this search should be verified by regional epidemiologists or the responsible WHO adviser.

From the beginning of October 1977 each smallpox outbreak should be visited and assessed by an appraisal officer from Mogadishu headquarters.

2.13 Reporting and documentation of smallpox outbreaks

From October 1977 the complete documentation of every detected or suspected smallpox outbreak, as well as its rapid reporting to regional level and Zeropox Office in Mogadishu, is the key to success of the present intensified SEP activities. The following procedure, reports and documentation are required.

(i) Urgent notification of outbreak

Within 24 hours of the initial notification of a smallpox or suspected smallpox outbreak from the field, there should be an on the site investigation by the local programme staff. The Regional Zeropox Office must be informed immediately by telephone call, cable or by messenger.

Regional programme staff should immediately report every smallpox outbreak by telegram or telephone call to Zeropox-Mogadishu (telephone No: 80308, cable address: Zeropox).

(ii) Cross-notification of source of infection

The source of infection should be immediately confirmed by a visit of the investigating officer if in the same region. If the source is situated outside the region, the quickest cross-notification is of paramount importance. The following actions are necessary:

- Zeropox Office in Mogadishu should be informed about the source of infection immediately by cable with a posted copy (or telephone call).
- Cross-notification to another region should be conveyed by telephone call or by cable with a posted copy.
- Investigation and response to a cross-notification should be accomplished within three days. The results of the investigation and the response to the cross-notification will be conveyed by telephone call or cable with a posted copy. The same will be conveyed to Zeropox - Mogadishu.

(iii) Report on smallpox outbreak investigation

When the epidemiological investigation of a newly detected outbreak is completed the investigating officer (WHO adviser or regional epidemiologist) should properly document the result of this investigation and send a report, not later than seven days after initial notification of the outbreak to Mogadishu Zeropox Office. The report should contain all pertinent epidemiological data including:

- Identification of affected locality
  (Village, population, district, region, number of affected households.)
- Size of outbreak
  (Number of cases, deaths, date of onset of first and last cases, date of notification etc.)
- Field diagnosis: (done by whom, date of "on the site" investigation, sample collected).
- Travel and contacts: (full details on day-by-day basis of index case within three weeks prior to rash).
- Source of infection: (full details of investigation and persons detected).
- Containment activities: (started, by whom, completed, staff involved).
- Containment vaccination: (total number at risk, primary vaccinations, revaccinations).

- 10 km radius search: (date started, completed, localities involved, staff involved, number of cases of "fever with rash" found).

These details should be accompanied by the "outbreaks information sheet".

3. EPIDEMIOLOGICAL INVESTIGATION - DIAGNOSIS

3.1 Epidemiological investigation of outbreak

The chain of transmission of smallpox can usually be identified if proper epidemiological investigation is done early.

3.1.1 Investigation of the source of infection

The first case(s) in the outbreak should be carefully determined by inquiries of patients, their family members and neighbours. The first (index) case is crucial to investigate because, necessarily he or she has been in close contact with someone having a similar rash between seven to 17 days previously. Frequently the affected person is fully aware of who infected him. Sit with the patient and drink tea with the head of the affected family. The following questions may be helpful:

(i) Has any ill person (relative, guest, friend, traveller) visited the house two or three weeks prior to the onset of rash of the first case of smallpox?

(ii) Has the first patient (index case) visited other villages or areas two to three weeks prior to the occurrence of eruption on his face?

(iii) Were there any deaths caused by fever and skin eruption among relatives, friends in the same village/locality or adjacent areas? Have any of these persons been ill with any disease?

It is recommended that a detailed calendar of past activities, travels, contact with suspected cases be constructed over the course of repeated interviews over an extended period of time. A list of all possible contacts, especially face-to-face contacts should be compiled including information allowing the tracing of such persons.

If the source is discovered, data should be entered on the outbreak information sheet and immediately transmitted to the regional epidemiologist and to Zeropox Mogadishu.

3.1.2 Forward tracing of contacts

Some household contacts, visitors, friends, relatives, etc. might have left the affected locality before containment started when the containment team entered the village and might develop the disease elsewhere.

The team leader should make all efforts to find out and trace such contacts for vaccination as well as daily surveillance. Priority should be given to "face-to-face" contacts. New foci might be detected in this way.

Similarly, when watch-guards or other persons supply information on face-to-face contacts moving to other areas, the district team leader should provide this information by special messenger to the regional epidemiologist for transmission to the region and district concerned. The regional epidemiologist should forward such information by special messenger if within the same region or by cable and telephone call (with posted copy) if the contact has gone to another region.

3.2 Differential diagnosis and clinical investigation of fever and rash cases

Maintenance of a rapid and accurate system of case investigation is essential for maintaining a smallpox-free status. Every report of a suspect smallpox case must be considered as a public health emergency. It is essential that every such report be investigated within the first 24 hours (12 hours in urban areas). Furthermore, it is essential that local workers entrusted with the responsibility to investigate reports of fever and rash cases be fully familiar with the clinical features of smallpox as well as rash diseases commonly confused with smallpox (see Table 1 - clinical evaluation of smallpox and chickenpox). Differential diagnostic posters (WHO) should be available in each health establishment.

(a) Incubation period

The incubation period in smallpox appears to be fairly constant at about 12 days with a range between 7-17 days. The incubation period of chickenpox is longer ranging between 12-21 days with a mean of 17 days. In herpes simplex the incubation period is two to seven days with a mean of four days. Sometimes an accurate history with regard to exposure of the patient to the source of infection may help in differential diagnosis.

(b) Types of smallpox

Even variola minor may be classified into four types: ordinary, modified, flat, and haemorrhagic. Ordinary and modified types of smallpox are responsible for 99% of cases.

Modified type is characterized by: fever (sometimes missing); lesions, few in number, evolve more rapidly, are more superficial and may not show the uniformity of the ordinary type; this form is rarely, if ever, fatal and occurs in vaccinated individuals.

Flat type is a severe febrile illness; lesions mature slowly, vesicles and other lesions tend to be flat and projecting a little from the surrounding skin; lesions are soft and velvety to the touch ("alligator skin").

Haemorrhagic type has prolonged pre-eruptive stage with high fever, intense headache and backache, restlessness, facial pallor with other evidence of toxicity. Bleeding may appear as early as the second or third day, commonly from the nose, mouth, skin, conjuctivae, in the urine, in stools, and from the vagina. Death occurs suddenly, between the fourth and seventh day of illness, when only a few skin lesions are observable. This form is highly infectious.

(c) Clinical evaluation:

The clinical evaluation of rash illness should take into account the distribution of the rash, the characteristics of the individual lesions, the evolution of the rash and the pattern of scarring (see Table 1). The first clinical examination forms the basis for the initial investigation of reports of smallpox. In the majority of cases the diagnosis can be easily made. Confusion may exist, however, in rare cases, especially during the early stages of illness. The diagnosis is made, not only by the clinical presentation, but by the epidemiological picture as well. Laboratory examination confirms the diagnosis later and has no effect on immediate actions.

3.3 Laboratory examination

3.3.1 At present it is most important to confirm the diagnosis of every suspect by laboratory test. For the proper collection of specimens, Zeropox Office, Mogadishu will provide the regional Zeropox officers and district team leaders with the simplified specimen/collection kits, containing forms and detailed instructions indicating methods of collection and despatch.

TABLE 1. CLINICAL EVALUATION

Characteristic	Smallpox	Chickenpox
Distribution of the rash	Relatively more dense on the face and extremities than on the trunk (centrifugal distribution). On the extremities the rash is usually more dense on the distal portion than on the proximal. Palms and soles are more frequently involved.	More dense on the trunk than on the extremities (centripetal distribution). There appears to be much more variation in the distribution pattern in dependence upon the number of lesions and crops.
Characteristics of the lesions	Deep seated circular in shape, firm to the touch and can be rolled between the fingers with little fear of rupturing them. In a given area all lesions appear in the same stage, frequent umbilication.	Superficial, oval in shape, not firm, likely to rupture easily with slight pressure. The lesions are raised on the skin, unilocular and without umbilication. Usually surrounded by an erythema. Pleomorphic, i.e. at one given time, lesions in different stages are evident.
Evolution of lesions	Slow, beginning as macules on the third or fourth day of fever, becoming raised in another 24-36 hours and developing into papules. Fluid gathers within, turning them into vesicles in 48-72 hours. The fluid is opaque, becomes turbid giving the form of a pustule. For three or four days these pustules mature. Then the lesions start scabbing usually between the fourteenth and twenty-first day after the first fever appeared. These scabs are deep seated but separate from all parts of the body with ease except for the palms and soles.	Rapid, starting as macules, sometimes becoming papules within a few hours and vesicles within another day. The vesicles are clear with a thin skin cover and appear like clear drops of water. If secondary infection is present, the fluid may become turbid and resemble smallpox lesions, with vesicles appearing as pustules. In uncomplicated cases however, the lesions usually resolve in four to five days and scabs appear. Lesions appear in crops with lesions of different stages apparent at any one time. Scabs are superficial and thin and separate easily from the body. May be very severe in adults.
Scars	Permanent and deep seated in up to two-thirds of patients, although variable according to the type of smallpox vaccination status and perhaps age and sex of the patient. More permanent scarring seen more common with unvaccinated individuals, younger age groups and females.	Usually not permanent; superficial and usually not seen after six months.
General conditions of patient	Fever subsides with appearance of rash but may rise again at the vesicular stage. The constitutional symptoms and toxaemia are severe in haemorrhagic type, flat type and in confluent varieties of ordinary type.	Usually no fever until rash appears but in some cases every crop may be associated with a rise in temperature. Other constitutional symptoms are mild or absent.

(i) Laboratory specimens should be collected from all affected persons:

(a) in every new reported smallpox outbreak,

(b) in every outbreak suspected to be smallpox,

(c) in every outbreak where containment action started (even by mistake),

(d) in every chickenpox outbreak where death occurred.

Furthermore specimens may be collected from:

(a) "fever with rash" cases which cause difficulty in diagnosis,

(b) chickenpox cases when eruptions are found on the soles and/or on the palms,

(c) chickenpox cases where extensive rash is present over all the body,

(d) suspected cases develop postvaccination complications.

(ii) All specimens collected in the field should be immediately sent to the Regional Zeropox Office and then transferred promptly to Mogadishu headquarters. Specimens should not be sent by post or by airmail.

(iii) In the past insufficient material had often been collected and the forms were not completed. At least 10 scabs for each sample should be collected. If no scabs are available, the swabs must be soaked with as much pustular or vesicular fluid as possible. Under present transport conditions, scabs are the best material for laboratory testing. Forms accompanying the specimens should be properly completed.

(iv) If the laboratory examinations of collected specimens are reported as positive for smallpox, the outbreak will be considered smallpox even if the clinical diagnosis or epidemiological investigation is doubtful. Similarly, if there is strong clinical and epidemiological evidence that the case is smallpox, but no virus is isolated or seen by electronmicroscopy, it should still be considered smallpox.

(v) Registers of collected specimens, together with results of laboratory investigation should be kept on regional, as well as national levels.

3.3.2 Collection, handling and despatch of specimens for laboratory testing

(i) Method of collection

Vesicular and pustular stages - the contents of 6-12 vesicles or pustules should be expressed with the attached cotton swabs.

Crusting stage - crusts should be loosened by using the sterile lancet. Do not use bifurcated needles. At least 10 or more scabs should be obtained and placed in the plastic screw-capped tube. Scabs which have already fallen off on the bed are also useful material to be collected, if there are few remaining on the patient.

(ii) Labelling and packing

Each tube of the collection kit should be labelled with the patient's name, the date of collection and the locality from which the specimen has been collected. A laboratory examination form should be wrapped around the specimen tube inside the larger container.

If by chance the form is not available, the following minimum information should be sent:

- name, age, sex, and address of the patient,
- date of onset of illness, brief clinical history,
- history of vaccination, vaccination scar, date of last vaccination,
- known exposure to smallpox/chickenpox,
- history of previous attack of smallpox/chickenpox,
- date and place of collection of specimen,
- the name/address of the person to whom the report should be sent.

The screw-capped plastic tube containing material should be placed inside the screw-capped metal cylinder. This container together with the information sheet should be placed within the larger screw-capped cylinder. Specimens from only one patient should be enclosed in each container. There should be enough padding within each container to prevent free movement of the tubes as well as to absorb any fluid if breakage should occur during the transport.

Specimens from the field may be sent to Zeropox-Mogadishu without refrigeration but all viruses, especially chickenpox, which is more viable when refrigerated should be despatched by the most rapid means, preferably by messenger. Do not send specimens by post or by air.

4. VACCINATION

4.1 Policy

A continuous programme of primary vaccinations, particularly of children, will remain as a programme objective. Vaccination will be combined with search operations when they are conducted in remote or vulnerable areas. Vaccination will be made available to any citizen on his request.

The World Health Organization undertakes the responsibility of furnishing the programme with adequate supplies of tested, potent vaccine. Only WHO approved vaccine should be used.

4.2 Vaccine distribution, storage and handling system

Should be established, maintained and supervised by regional epidemiologists and WHO advisers for each region.

Central level

Zeropox Mogadishu stores the imported vaccine and is to supply vaccine to regions every month. The storekeeper is to maintain adequate stocks of vaccine in the central store.

Transport of the vaccine from the central store in Mogadishu to the regional Zeropox offices is to be done by the most rapid means available - by air to the most distant northern or southern regions, otherwise by the car(s) belonging to the regional or WHO epidemiologists.

Regional level

Each region, on receipt of the vaccine, makes arrangements for its proper storage, preferably in refrigerators in good working order, and for its supply to districts. Preferably this is to be done on a bi-weekly basis in order to coincide with meeting with surveillance agents when vaccinations are being performed.

District level

Vaccine at the district level should be stored in a refrigerator, if available, in the district hospital or elsewhere. Since some districts do not have refrigeration facilities, vaccine there should be stored in a cool place, but for no longer than four weeks.

The local level

During vaccination assignments, the surveillance agent-vaccinator collects supplies of vaccine when he goes to report or to collect his per diem. He stores the vaccine in a cool place for some days and carries with him only the amount needed for given field-tour.

District team leaders should be aware of the fact that vaccine may not retain its potency if subjected to room temperature for a period of more than four weeks. If vaccine has been kept at room temperature for longer than this period it must be destroyed. Any remaining vaccine at regional and district levels must be destroyed when new stocks are received, regardless of storage conditions.

Surveillance agents-vaccinators should be aware of the fact that after vaccine has been reconstituted, it is potent for only 10-12 hours. At the end of the day any unused reconstituted vaccine should be discarded. Vaccinators should be instructed not to place vaccine in direct sunlight and to perform vaccinations in the shade. All staff should understand that only prepacked vialed diluent can be used to reconstitute vaccine. It must be supplied at all levels accordingly.

5. REPORTING AND RECORD KEEPING

Routine notification, reporting and record keeping form the basic framework of surveillance. However, surveillance represents a great deal more than routine collection of data. Current analysis and interpretation of reported data with the aim of suggesting and initiating appropriate activities, or re-direction of programme elements, should become the aim at all reporting levels.

5.1 Routine reporting

(a) Weekly epidemic reports

A network of basic reporting units, reporting every week to the centre should be rapidly established. At present the following reporting units should be established:

(i) Basic reporting units: district Zeropox Office - district team leader.

(ii) Regional level: Regional Zeropox Office - regional epidemiologist.

(iii) Central level: Zeropox Office, Mogadishu.

Health offices in big municipalities and hospitals must be involved too. This may be a gradual process, but is very important for commission review activities when the passive surveillance system is considered. Zeropox Office in Mogadishu will distribute at the beginning of 1978 to all reporting units an important register combining both the smallpox rumour register and the weekly epidemic report booklet (Appendix 7).

All fever and rash cases detected by health and administrative staff during their regular visits to localities in the district, as well as during programme search activities, plus information notified by the public, the political party, or other sources, should be entered in the smallpox rumour register by the district team leader. Smallpox rumour registers remain at the basic reporting unit (district Zeropox Office, municipality health office, selected hospitals) and in the Regional Zeropox Office. Maintenance of these registers is the responsibility of the person in charge of smallpox eradication activities. All reports of "fever with rash" cases collected during a given week, are sent every Thursday in two copies, with a weekly summary to the Regional Zeropox Office; one copy remains in the smallpox rumour register cum weekly epidemic report book. Regional epidemiologists transmit the district

weekly epidemic reports, together with the regional report (SOM 5 - Appendix 8) to Zeropox Mogadishu each month. In addition, a weekly smallpox incidence cable is sent to headquarters from each region. Even if no fever and rash case has been reported and entered into the smallpox rumour register, a "nil" report is expected and should be sent. Fig. 1 shows the flow of weekly epidemic reports from the periphery to the centre.

(b) Reporting of surveillance activities and results of active search operations

At the end of 1977, new district and regional search summary and search assessment forms were introduced. In addition to smallpox information, the new forms provided detailed information about search targets, "rash with fever" information obtained, vaccinations performed, samples collected and information about personnel used. Results of assessment carried out concurrently or immediately after the search, are also recorded on the search summary form. The district team leader should send the completed district search summary form SOM 3 to the regional level, not later than five days after the last day of the search. The regional epidemiologist should summarize the search reports received and submit them to the central Zeropox Office in Mogadishu on a monthly basis (SOM 5).

At regional post-search meetings, the search findings and assessment results should be carefully scrutinized to determine the major weaknesses and decide which areas, if any, need to be re-searched or what other types of remedial action need to be taken.

5.2 Maintaining of reports and records

(a) At district level (District Zeropox Office)

Each district team leader should prepare, maintain and make the following records available for inspection:

(1) Operational map of the district (showing zones, roads, villages, water points, rivers, risky areas).

(2) List of fixed search units (villages, hamlets, known encampments, permanent water points).

(3) Smallpox rumour register and weekly epidemic report booklet.

(4) Outbreak information sheets of smallpox outbreaks occurring in the district in 1977, and suspect outbreaks in 1978 and 1979.

(5) Search schedules, summaries and assessment done by the district team leader for each search operation organized in the district.

(6) List of surveillance agents employed and list of temporary searchers available in the district.

(b) At the regional level (Regional Zeropox Office)

At the regional level the following records and reports should be prepared, maintained and always available for inspection:

(1) List of fixed search units by district.

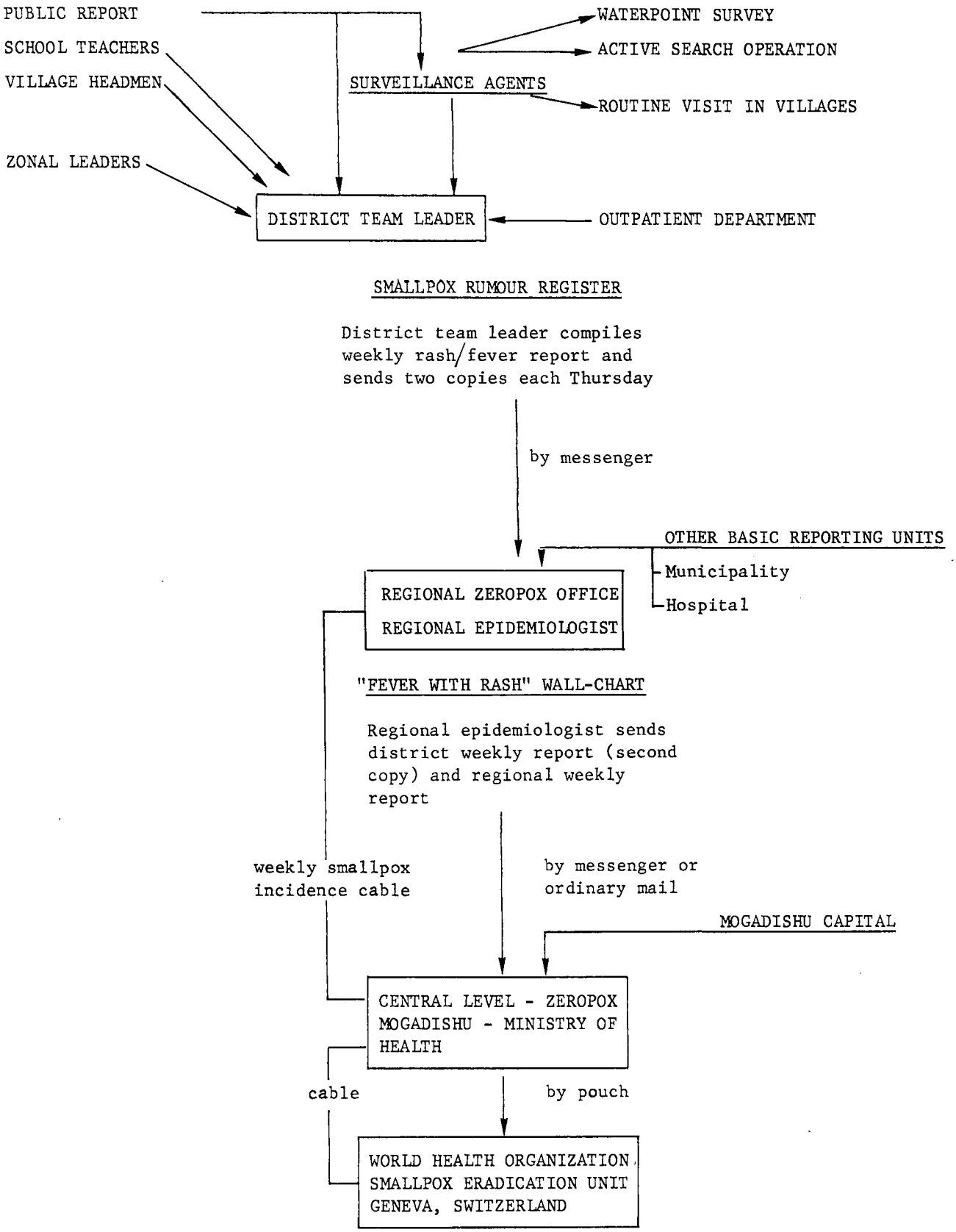
(2) Smallpox rumour register cum weekly epidemic report booklet.

(3) Copies of weekly epidemic reports from districts.

(4) District search schedules, summaries, assessments sent from separate districts in each region.

(5) Regional search summary and assessment data for each active search operation organized in the region.

FIG. 1. WEEKLY EPIDEMIC REPORTING - SMALLPOX/"FEVER WITH RASH" CASES



(6) Outbreak information sheets with data on smallpox outbreaks occurring in the region in 1977, and on all suspect outbreaks in 1978 and 1979.

(7) File on specimen collection and laboratory testing results.

(8) File on cross-notifications.

(9) Detailed reports on the last smallpox outbreaks in each district.

(10) Regional surveillance team reports and their travel programmes.

(11) Records of supply and equipment received by the region.

Furthermore, the following wall-charts are recommended:

(1) Map of region.

(2) Maps of separate districts.

(3) Wall-chart showing "fever with rash" findings, by district and by week for 1978, and 1979.

(4) Wall-chart showing organizational NSEP structure in the region.

(5) Wall-chart showing smallpox cases (by week of report, onset) and smallpox outbreaks (by week, newly detected, pending, with active cases) in 1977.

(6) Wall-chart showing search findings for each search.

(7) Wall-chart showing search assessment results and public awareness for each search.

(8) Wall-chart showing vaccination performance by year and by district.

6. DUTIES AND RESPONSIBILITIES OF NSEP STAFF

6.1 Duties and responsibilities of temporary searchers

All of you have helped bring Somalia and the whole world to the historic moment when there is no known active cases of smallpox. However, it is still possible that unknown smallpox cases still exist. Every case of smallpox must be found.

(1) Visit every house and every hut, stop every travelling group in any village, hamlet, nomadic encampment or locality you search.

(2) At each house or hut or travelling group you must:

(i) introduce yourself as a health worker,

(ii) show the recognition card,

(iii) ask about "fever with rash" cases in the household, locality and ask to see them if any,

(iv) announce the reward of 200 So Sh to whoever reports a suspect outbreak,

(v) announce the place at which to make the report.

(3) Paste reward placards or paint reward slogans on places attracting the attention of the population.

(4) Visit each locality headman or other prominent person; get his signature on the search report, and sign the locality surveillance record card.

(5) Search every school, Koranic school; talk to each class (teachers and students) and post reward placards or paint reward slogans on the school building.

(6) Search every tea-shop, market, restaurant, administrative office, orientation centre and health establishment in your allotted area. Post reward placards or paint reward slogans on the walls of these buildings.

(7) List the names and addresses of all "fever with rash" cases on the back of the search report SOM 2 and discuss cases with the supervisor and district team leader.

(8) If a case of smallpox or suspect smallpox is detected, all pertinent information including name, address, age, sex, immunity status (presence or absence of a scar) must be recorded and a special messenger must be sent immediately to the district team leader. If no messenger is available, stop your search and immediately inform the district team leader yourself.

(9) At the end of your tour programme you should report your findings to the district team leader and submit the completed search report, duly signed by the village locality leaders.

(10) Remember the reward of 200 shillings is payable both to the member of the public who informs and to the health worker who reports.

6.2 Duties and responsibilities of the surveillance agent

For every district, there will be a team of surveillance agents headed by the district team leader. This team should devote their full working time to developing high quality smallpox surveillance in each district. The duties and responsibilities of the surveillance agent are:

(A) General

(i) to assist the district team leader in gathering relevant demographic data: population of villages, hamlets, known encampments and the name of the village/ locality headman or other person who knows about the smallpox situation;

(ii) to assist in the preparation of maps of the district, indicating administrative units (zones), villages, roads, water points, rivers as well as "risk areas" and other special surveillance points;

(iii) to assist in maintaining records of active searches, "fever with rash" notification, and investigations of suspect cases.

(B) Pre-search period

(i) to assist the district team leader in the planning and organization of the district level pre-search meetings;

(ii) to actively participate in the district pre-search meeting and to ensure the proper briefing and field-training of the searcher in his allotted area;

(iii) to plan proper supervision of the search operation and assist in the preparation of both the search schedule and search reports for his searchers;

(iv) the remote and difficult problem areas should be reviewed and visited by the surveillance agent and taken as priority for supervision.

(C) Search period

(i) to be responsible for supervision of search activities by hired temporary searchers. It includes:

- surprise visits to view the work of the searcher in his place of duty,
- observation of search technique, the completion of the search report form, and his public relations,
- resolution of the deficiencies on the spot by suitable explanation and demonstration in the field,

(ii) to measure the impact of the visit of the searcher, in terms of the population's awareness of the search, of the recognition card, of the reward and where to report;

(iii) his services should be immediately utilized after the search in "vacant areas" or areas considered badly-searched, and in urban areas.

(D) During intersearch period

(i) to be fully responsible for surveillance work in one or more administrative units within the district;

(ii) to carry out a programme of activities prepared by the district team leader in consultation with the regional epidemiologist. The main activities during this period should be to plan and conduct special searches:

- in the villages and nomadic localities found omitted during the regular active search operation,
- in other "high risk" areas, such as border areas with other districts,
- at water points, farming areas during the harvest, markets, festivals, etc.

(iii) to organize the proper functioning of, and data collection from, the secondary surveillance system under his jurisdiction. Schoolteachers, members of the village and zonal committees and locality leaders should be motivated by him to provide information about suspect cases as well as about "fever with rash" cases.

6.3 Duties and responsibilities of district team leader

The NSEP unit at the district level is the key element in the basic infrastructure of the smallpox eradication programme and the district team leader is the key person. It is he who can establish and maintain a very efficient system of active surveillance in his area of jurisdiction. This means active search operations, water-point surveys, market and festival surveillance of secondary surveillance, i.e. involvement of village, zonal and district committees, schoolteachers, security officials, government authorities, etc. The duties and responsibilities of the district team leader can be defined as:

(A) General

(i) to thoroughly study the operational guidelines and brief his staff to ensure that everyone is performing his duties sincerely and according to the guidelines;

(ii) to collect the latest information about the epidemiological situation in his district about all kinds of surveillance activities in his area and make them available at the regional level.

(iii) to assist in planning, organizing, supervising and assessing all surveillance activities in his area;

(iv) to always have an adequate stock of search schedules (SOM 1), search reports (SOM 2), district search summaries (SOM 3) and search assessment forms (SOM 4), recognition cards, reward placards, vaccine, bifurcated needles, containers etc., required for field work.

(B) Pre-search period

(i) active participation in regional level pre-search briefing meetings;

(ii) to ensure that a list of fixed search units and a map of the district, showing administrative units, villages, roads, water points, rivers, "risky areas" and special surveillance points, is available;

(iii) to draw up a search schedule for all temporary searchers, as well as the surveillance agents, who are functioning as search supervisors. One copy of the schedule should be available for the regional epidemiologist;

(iv) to organize and conduct a pre-search meeting for all district searchers and supervisors. All of the district search staff should be thoroughly briefed on techniques, results and shortcomings of the previous search; they must be oriented for the coming search.

(v) to provide the search schedule and search reports, giving allotment of localities and date fixed for the search of a particular locality for each searcher.

(C) During search

(i) he may personally carry out concurrent supervision and consecutive assessment of search activities;

(ii) he should collect the search report forms from all searchers and supervisors at the end of the search, consolidate them in a district search summary and submit to the regional epidemiologist not later than five days after the last date of the search. Search summary and search report forms should be properly filed and kept in district Zeropox Office;

(iii) he should enter "fever with rash" cases found during the search into a smallpox rumour register;

(iv) he is personally responsible for the verification of all rumours and "fever with rash" cases and he must enter the diagnosis in the smallpox rumour register;

(v) he should arrange a re-search of any area found not searched or poorly searched.

(D) During intersearch period

(i) frequent periodic contact should be made with the administrative and political organization (village, zonal and district committees, teachers, locality leaders, security officials etc.) to involve them in reporting "fever with rash" cases;

(ii) he should plan and organize special searches in remote areas, areas which have been inaccessible, border areas, areas recently affected by smallpox, areas having transient population or seasonal workers etc.;

(iii) he should introduce water point and market searches and outline plans and schedules for them separately by zone;

(iv) rumours and "fever with rash" cases received through surveillance techniques should be recorded in the smallpox rumour register and sent weekly in two copies to the regional level as a weekly epidemic report; all recorded cases should be confirmed, their diagnosis verified and entered in the smallpox rumour register;

(v) if a definite or suspected case of smallpox or chickenpox death is detected, a special messenger should be sent immediately to the Regional Zeropox Office and cable, with a posted copy, to Zeropox-Mogadishu. Prompt and immediate containment should be initiated by him and the surveillance agents;

(vi) he should use all means and methods available to inform the public of the need for prompt notification of smallpox cases, the reward for reporting and where suspect cases are to be reported;

(vii) he should arrange the regular submission of the smallpox weekly epidemic report (smallpox rumour register) and all other reports and returns pertaining to smallpox eradication programme. This must be done on time;

(viii) he should prepare, maintain and make the following records available for inspection at any time:

- map of district,
- list of fixed search units,
- smallpox rumour register cum weekly epidemic report,
- outbreak information sheets of smallpox outbreaks which occurred in 1977 as well as suspected smallpox outbreaks in 1978-1979,
- search schedules, search reports, summaries and assessments for each search in district,
- list of surveillance agents and temporary searchers employed.

6.4 Duties and responsibilities of regional epidemiologist

The regional epidemiologist is a key person for ensuring effective programme implementation and supervision in accordance with the strategy and operational methodology established by the Government of Somalian Democratic Republic/WHO. His major responsibilities may be summarized as follows:

(A) General

(i) to ensure the implementation of operational guidelines in his region and make certain that the duties and responsibilities of the various categories of staff employed by the smallpox eradication programme are fully understood;

(ii) to ensure competent work and effective performance from all persons in his region performing smallpox eradication work;

(iii) to plan, organize, supervise and assess all surveillance activities in his area. Furthermore, to provide region-wise supervision of the programme by means of critical analysis of district records and field visits and provide necessary guidance to all staff through meetings, field trips and the supply of briefing materials;

(iv) to maintain adequate stock of different forms, vaccine, bifurcated needles etc., required for field duties and arrange for distribution to the appropriate places;

(v) to be responsible for organizing of two (one) regional surveillance teams at regional level, by selecting proper personnel. He has to work in close coordination with the WHO adviser posted to the region;

(vi) to see that the field vehicles provided to the region, one or two, for the smallpox eradication programme are allotted according to priorities (regional surveillance teams). He should ensure that proper maintenance of vehicles and PLO are entered in the log book.

(B) Active search period

(i) to arrange the date of active search in consultation with all concerned officials so that this does not have any conflict with other regional activities;

(ii) to organize pre-search meetings at various levels (region, district, municipalities, etc.). He should personally attend at least all district and regional meetings;

(iii) to assess the active search operation by visiting villages, schools, nomadic settlements in districts needing special attention;

(iv) to see that all the reports of the active search flow from district to region and region to centre according to schedule. He should compile all district reports and send to Zeropox-Mogadishu;

(v) to arrange for re-searching of any area which is found not to be searched or poorly searched.

(C) During intersearch period

(i) to plan and organize a special search in remote areas, border areas, areas cut off by seasonal changes, nomadic areas, etc;

(ii) to make periodical approaches to administrative and political officials to inform them about programme activities and to involve them in reporting fever and rash cases;

(iii) to inspect the smallpox rumour register maintained at various levels (district, municipality, hospital), verify some rumours to ensure that they were properly investigated and diagnosed;

(iv) to immediately visit the outbreak area to organize the necessary investigation and containment activities if there is a report of a suspected smallpox case; also to immediately inform Zeropox-Mogadishu about his findings. He should obtain a specimen and arrange for its despatch to Zeropox-Mogadishu;

(v) to use all media to intensify the publicity of the reward for notification of unknown smallpox outbreak. The publicity should be continuously reviewed to make it more effective;

(vi) to ensure the flow of weekly epidemic reports from districts to region and from region to Zeropox-Mogadishu;

(vii) to prepare, maintain and make available for inspection the records and wall-charts as under 5.2.(b);

(viii) to arrange or advise the recruitment of the most suitable personnel as permanent surveillance agents or temporary searchers in his area.

6.5 Duties and responsibilities of regional surveillance team

The primary objective of the regional surveillance team (RST) is to assist the regional epidemiologist to establish and maintain an alert, extensive, high quality surveillance system in the region. The main duties and responsibilities are as follows:

(A) General

(i) to coordinate smallpox surveillance activities in the whole region, to obtain the latest information about the epidemiological situation, appraise it and provide perspective on where the problem is greatest, which areas are at special risk, how personnel, funds and equipment should be deployed;

(ii) the regional surveillance team leader should provide technical expertise on epidemiology of smallpox and strategy of smallpox eradication, duties and responsibilities of regional staff, on plans for surveillance activities especially for search supervision and assessment.

(B) During search period

(i) to actively participate in regional and district pre-search meetings, to assist in producing a complete and uniform understanding of the region-wise plan;

(ii) to plan proper search, supervision and carrying out assessment covering all parts of the region;

(iii) to supervise the distribution of search and assessment forms, health personnel (hiring of temporary searchers) as well as funds;

(iv) during regular search the operation team should see if there is a proper understanding of duties and responsibilities in search, supervision, assessment; if adequate staff is available; and if forms are understood and are completed appropriately;

(v) they will organize containment and epidemiological investigation immediately if a smallpox outbreak (or a suspected one) is discovered;

(vi) they will institute an independent active search in remote, border or nomadic areas of the greatest risk or areas improperly searched in the past;

(vii) they will assess independently the effectiveness of the search activities as well as the level of information among the public about the reward and reporting of suspected cases;

(viii) they must verify the diagnosis of suspected cases, initiate containment activities, collect specimens, carry out challenge vaccination and report by cable suspected cases;

(ix) they will assist in preparing summaries of the results of search activities, in compiling the results of assessments, determining any "weak" spots requiring remedial action or subsequent "mopping-up" activities.

(C) During intersearch period

(i) to continue to motivate and stimulate local health and administrative staff to report fever and rash cases;

(ii) to organize and carry out special searches in vulnerable areas such as:

- remote areas or cut off by seasonal changes,
- nomadic and border areas,

- areas recently affected by smallpox,
- seasonal workers' camps, migrant factory workers' barracks, refugee camps;

(iii) to introduce a proper water-point survey, market search technique, outline plans and schedules;

(iv) to organize and stimulate an effective secondary surveillance system covering the whole region (village, zonal, district, regional committees, teachers, local leaders, police, public service organizations);

(v) to plan, organize and conduct wide publicity for the reward by wall-posters, loudspeakers, slogan-writing, public announcements, etc.;

6.6 Duties and responsibilities of WHO adviser/epidemiologist

The WHO adviser/epidemiologist is the counterpart of both the regional epidemiologist and the chief of the health service in the area of his jurisdiction. Jointly with them he is responsible for planning, organizing and implementation of NSEP in accordance with the guidelines.

(A) Administration

(i) to assist the regional epidemiologist in planning and supervising the work of health personnel. Only temporary hired staff (drivers, searchers, supervisors) are under his direct administrative control;

(ii) to assist the regional epidemiologist in the control of transport facilities (cars) allotted for NSEP to that area;

(iii) where, within the area of his jurisdiction, WHO has financial responsibilities, the WHO adviser/epidemiologist is responsible for preparation of accounts, planning financial requirements and the timely submission of accounts to Zeropox-Mogadishu;

(iv) to check that forms are being promptly supplied to districts/municipalities in adequate amounts, that they are completely understood, and that records and wall-charts recommended are prepared and maintained in offices.

(B) Training and briefing

The WHO epidemiologist is responsible for training and proper briefing of district/municipality/regional health staff in methods of smallpox surveillance and outbreak containment:

(i) during the course of his field visit he will constantly train local staff, correct any errors of technique or knowledge, that he encounters, reporting all deficiencies to his counterpart;

(ii) during pre-search meetings and at regular monthly staff meetings he will discuss techniques of surveillance, the action to be taken in any situation, fully analysing the results of surveillance activities for training purposes.

(C) Assistance to regional epidemiologist and regional medical officer

(i) to assist and ensure that smallpox activities are functioning effectively in order to detect suspicious smallpox outbreaks or outbreaks of fever and rash cases;

(ii) to keep central authorities and regional authorities well informed about the current status of the programme;

(iii) to assist in planning, organizing and carrying out surveillance activities, in planning and conducting regional progress review meetings, training seminars for district as well as regional level;

(iv) to assist in establishing and maintaining an efficient smallpox reporting and notification system;

(v) to assist in issuing surveillance circulars, publicity materials, proceedings of regional meetings, notes and reviews;

(vi) to assist in organizing active searches, their supervision and assessment and the preparation of summaries, and reviews;

(vii) to make periodic visits to problem areas in order to assess progress and to discover solutions for any difficulties and to solve them;

(viii) if smallpox or suspected smallpox outbreaks are detected to take direct responsibilities for containment activities and epidemiological investigation;

(ix) to verify personally all suspected smallpox cases reported to regional level;

(x) to make regular field assessment of the whole regional surveillance system, detect weak spots and initiate remedial or mopping-up actions;

(D) Other

(i) to assure effective administrative and financial control over WHO funds;

(ii) to maintain and supervise the day to day work of Regional Zeropox Office;

(iii) to provide overall technical expertise on epidemiology of smallpox, on strategy of smallpox eradication, on duties and responsibilities of NSEP staff, on plans for surveillance activities and their supervision and assessment;

(iv) to make careful appraisal of the epidemiological situation in the region and provide perspective on where the problems are greatest, which areas are at special risk, how personnel, funds, transport facilities and equipment should be deployed.

6.7 Duties of central appraisal officers

(i) to develop and implement the strategy to ensure smallpox eradication throughout the Somalian Democratic Republic;

(ii) to review periodically (together with regional and WHO staff) the progress of surveillance activities at state or divisional progress review meetings;

(iii) to plan priority action for coming months;

(iv) based on the assessment of the epidemiological situation to deploy available personnel (WHO advisers, national counterparts - regional epidemiologists), transport facilities and equipment;

(v) to periodically visit field areas to study the progress of surveillance activities in various regions or municipalities;

(vi) to assess performance of various personnel in the programme and suggest remedial action;

(vii) to liaise with state officials in order to remove bottlenecks, if any.

7. BRIEFING, TRAINING AND MEETINGS OF NSEP PERSONNEL

As a prerequisite for ensuring the success of programme training, briefing of all NSEP personnel at all levels is necessary:

to give technical information;

to identify personal skills (right person for right job in right place);

to raise the level of motivation.

(a) International and national epidemiologists

They should be trained at the beginning of their assignment regardless of previous experience. In general, briefing of the epidemiologist will require two/three days in national headquarters and a further two/three days of field orientation. Briefing should also include administrative, transport and financial matters. The outline for technical briefing should be flexible and changed according to current needs.

(b) Training and briefing of regional and district permanent staff

At the regional offices, trainees will be instructed how to vaccinate, make differential diagnosis, and collect specimens; organize, conduct and supervise active search in the area of their responsibility; and organize and conduct containment measures whenever required. They should understand forms and documentation required. In addition to this they should prove their capability in administrative matters such as reporting, maintenance of vehicles, financing, documentation, etc.

(c) Training and briefing of temporary searchers

At the district level during pre-search meetings at the beginning of recruitment, four to five hours of training should demonstrate correct techniques for proper record-keeping. Vaccination by bifurcated needles must be demonstrated and practised.

(d) Ad hoc training sessions

These should be organized whenever particular problems arise. Training and retraining sessions should be used as a way of combatting any lack of interest in the programme and to maintain the quality of work at a high standard.

(e) Review meetings

Two types of progress review meetings will be held in 1978:

(i) formal review meetings calling all regional epidemiologists and WHO advisers to Mogadishu, to be held every two months;

(ii) divisional review meetings held every two months. The country will be administratively divided into three or four divisions and headquarters staff will meet with local programme management in provincial districts.

Either one of the above type of meetings will be held each month as deemed appropriate by national programme management.

NSEP Regional Staff Projection - Somalia 1978

		WHO Advisor	Regional Epidemiol.	Regional T.Leader	Inter-preter	Custodial	Drivers	District Team Leaders	Surveill. Agents	Temporary Searchers	Reg. Totals during Intersearch Period	Reg. Totals during Search period
1	BAKOOL	1	2	(1)	1	5	3	5	72	100	39	139
2	BARI	1	1	-	1	6	2	6	26	43	43	91
3	BAY	2	2	(1)	2	4	4	4	64	30	32	162
4	W.GALBEED	-	1	1	-	6	2	6	23	43	44	92
5	GALGADUD	-	1	-	-	4	1	4	13	32	23	60
6	GEDO	2	2	(1)	2	6	4	6	64	120	36	206
7	HIRAN	1	1	-	1	3	2	3	23	42	34	76
8	L. JUBA	-	1	-	-	4	1	4	26	40	36	76
9	MID. JUBA	1	1	-	1	4	2	4	22	40	35	75
10	MOGADISHU	1	1	-	-	4	3	4	32	56	45	101
11	MUDUG	1	1	-	1	4	2	4	13	32	31	63
12	NUGAL	-	1	-	-	4	1	4	18	32	23	60
13	SANAAG	-	1	-	-	3	1	3	13	24	26	50
14	L.SHABELLI	2	2	(1)	2	7	4	7	64	93	33	136
15	MID.SHABELLI	1	1	-	1	4	2	4	33	56	46	102
16	TOGDHEER	1	1	-	1	4	3	4	20	32	34	66
TOTAL:		14	20	(5)	13	72	37	72	546	830	775	1655

NOTE: 1. These projected figures represent optimum programme requirements as at March 31st 1978. Changes will occur according to the epidemiological needs. It is not, however, envisaged that Global category totals will increase.

2. Temporary searchers south of Galgadud will operate for 60 days per annum, North of Hiran for 40 days per annum.

ANNEX 2

SMALLPOX ERADICATION PROGRAMME
SOMALIA

MASHRUUCA CIRIBTIRKA FURUQA
SOMAALIYA
BAAFINTA FURUQA

SEARCH SCHEDULE — SOM 1

BEEL: Zone Sector:	DEGMO: District	GOBOL Region

MAGACA KORMEERAHA:
Name of Supervisor

Tiro Taxan Ser. No.	Magaca Meesha Name of village/ Hamlet/Locality/ Urban Area	Taariikhda la baarayo Date to be Searched	Magaca Baafiyaha Name of Searcher	Faallo Remarks

Copy to: Supervisor
" ": District Team Leader

og: Kormeeraha
" : Madaxa Kooxda Degmada.

MASHRUUCA CIRIBTIRKA FURUQA SOOMAALIYA — SMALLPOX ERADICATION PROGRAMME = SOMALIA

DATE:

FOOMKA BAARIDA SEARCH REPORT

SOM 2

Magac Baarah: Name of Searcher			Meesha: Zone			Degmada: District		Gobolka: Region.	
Taariikhda Date	Magaca Meesha (Tuulo; Reer Miyi; Magaalo) Name of locality (Village; Nomadic group; town)	Wadar tiro Guri Total No. permen. houses	Inta Guri la Baaray Number of Houses Searched: Maguurtu Permen. houses	Aqal Miyi Nomadic Huts	Inta Dugsi la baaray Schools searched	Magaca Warta La Baaray Water places name	Inta Tuhun la helay No. of Rumours Collected	Inta Talaal laqabtay Nol of Vacc. performed	Saxiixa Madaxa Tuulada Village Headman signature.
Wadarta Grand Total:									

Qofkii Finan iyo Qandho leh Tafasiishiisa Foomkan Ku Qor: List Below any Fever with Rash Cases Detected:

Taariikh Date	Magaca Tuulada Name of village Locality	Magaca Bukaanka Name of patient	Da' Age	L/Dh Sex	Taariikhda Finanku ka soo baxeen Rash on set Date.	Talaal Hore Ha / Maya Previous vacc. Yes / No	Nooca Jirada Diagnosis	Caddeyn iyo faallo Verification / Remarks.

Halkan ku qor Magacyada Meelaha la Baaray: List Names of visited and searched.

Meelaha Caafimaadka / Health Establishment	Xafiisyada Maamulka - Golayaasha Hanuuninta / Administrative offices - Orientation Centers
Seyladaha / Markets	Baararka - Hudheelada / Teashops - Restaurants

Qofkasta oo Furuq Qaba waa in la helaa - Aqalkasta oo Meesha ku Yaalba waa inaad baarta:

Sidan Yeel: (1) Dadka isu sheeg qofkaad tahay - Sawirka furuqa tus.
(2) Weydii inu jiro qof qandho iyo finan qabaa - hadduu qofkaasi jiro waa inaad aragtaa.
(3) U sheeg abaalgudka ah SoSh. 200 iyo meesha ama cidda ay la socodsiinayaan haday wax tuhun ah arkaan.
(4) Xaashidan ha ~~s~~axeexo Madaxa Tuulada ama Meesha..
(5) Cidii qandho iyo finan leh magacooda iyo tafaasiishooda kale
(6) Buxi Diwaanka Baafiska Furuqa ee yel Guriga Nabaddoonka Meesha.

MASHRUUCA CIRIBTIRKA FURUQA - SOOMAALIYA

SMALLPOX ERADICATION PROGRAMME - SOMALIA

WARKOOBKA BAAFINTA DEGMADA - DISTRICT SEARCH - SUMMARY

SOM 3

Date:	Degmada: District:	Gobolka: Region:	Magaca Kormeeraha: Name of Supervisor:

Cidda soo Sheegtay Name of Reporting Unit	Wadarta la Baarey - Total number searched											W/Jiran la Helay Cases found during search				Wadarta inta Tuuloyinka laga Talaaley Number of vaccinations
	Tuuloyinka Villages	Reer Guuraa Nomadic encampment	Guryaha Permanent houses	Aqal Miyi Nomadic huts	Madax Tuulada Local headman	Dugsiyo Schools	Waraha Waterpoints	Suuqa Markets	Baar iyo Hudhelo Tea shops, restaurants	Fagaarayasha iyo Xaafiisyada Post places, offices	Meel Caafimaadka Health establishment	Furuq Smallpox	Bus-bus Chickenpox	Jadeeco Measles	Finan Others	
Wadarta: Total:																

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ANNEX 4

MASHRUUCA CIRIBTIRKA FURUQA - SOOMAALIYA

SMALLPOX ERADICATION PROGRAMME - SOMALIA

SOM 4

QIIMEENTA BAARISTA - ASSESSMENT OF ACTIVE SEARCH

Gobolka: Region:	Degmada: District:	Meesha: Zone:	M. Qiimeeyaha: Name of assessor:	Darajadiisa: Designation:	Tar: Date:

Tiro Taxan Serial number	Magaca Tuulada la Qiimeeyey Name of locality assessed	Taariikh Date		War fidin Xaashiyo Posters/slogans placed	Saxeexa Foomka Baafinta Surveillance card signed	Ma loo tegey? Was visit made to:					Tirada Dadka Lala Hadlay Number of individuals interviewed				
		La Baaray Searched	La Qiimeeyey Assessed			Madax tuulada Local headman	Dugsi Schools	Baararka Tea shop(s)	Suuqa Market(s)	Meel Caafimadka Health establishment	Tirada lala hadlay Total number interviewed	Tirada aragtay Baafiyaha Baaristan Number who saw searcher this search	Tirada abaalgudku intu yahay og. Number who knew reward 200 SoSh.	Tirada aragtay sawirka furuqa Baaristan Number who saw recognition card	Tirada og meeshay tuhunka u soo sheegto Number who
Wadarta - Total															
Boqolkiiba - Percentage															

JAMHUURIYADDA DIMOQRAADIGA EE SOMAALIYA ANNEX 6

MASHRUUCA CIRIBTIRKA FURUQA
BAARISTA FURUQA

SMALLPOX ERADICATION PROGRAMME
SMALLPOX SURVEILLANCE

DIIWAANKA BAAFISKA FURUQA EE MEESHA
LOCAL SURVEILLANCE RECORD CARD

MAGACA TUULADA *NAME OF LOCALITY*	DEGMO *DISTRICT*	GOOBOL *REGION*
MAGACA MADAXA TUULADA *NAME OF HEADMAN*		TIRADA *NUMBER*

TAARIIKH *DATE*	MAGACA BAAFIYAHA *NAME OF SEARCHER*	HELITAANKA *FINDINGS NO. OF*			
		FURUQ *SMALLPOX*	BUS-BUS *CHICKENPOX*	JADEECO *MEASLES*	KALE *OTHERS*

TAARIIKH *DATE*	MAGACA KORMEERAHA *NAME OF SUPERVISOR*	FAALLO — *REMARKS*

WAA IN LAGA HELAA AQALKA MADAXA TUULADA – *TO BE KEPT IN HOUSEHOLD OF LOCAL HEADMAN*

Printed in Switzerland

MASHRUUCA CIRIBTIRKA FURUQA - SOMAALIYA SMALLPOX ERADICATION PROGRAMME - SOMALIA

SHAQADA BAARISTA EE GOBOLKA - BIL AHAAN

Regional Monthly Summary of Search Activities

SOM 5

Bisha: _____ Sanadka: _____ WHO Epidemiologist: _____
Month Year:

Taariikhda la soo sheegay: _____ (Date Reported) Regional Epidemiologist: _____

Gobol: _____ (Region)

Tiro Taxan Serial No.	Magaca Degmada Name of District	Tirada la Arkay lana Baaray - No. visited and searched											Tirada Tuhunka - No. of Rumours								
		Tuloyinka Villages	Reer Guuraa Nomadic Encampments	Magaalada Permanent houses	Guurto Nomadic huts	Maraxda Tuulada Locality Headman	Dugsiyo - Schools	Waraha - Waterpoints	Suuqa - Markets	Baararka/Hudheelada T.Shops/Restaurants	Meel Caafimaadka Health Establishment	Fagaaraha Xafiisyada Pub. places offices	Total No. of rumours Wadarta		Verification Caddeyn				Wadarta inta Tuuloyinka laga Talalay-No. of Vacc.	Tiraca Dheecaan/Qolof la Qaaday- Specimens taken.	Tirada Shaqaalah Personnel involved	
													La soo sheegay Reported	La Hubiyey Investigated	Furuq Smallpox	Bus - Bus Chickenpox	Jadeeco-Measles	Fiican Kale Others			Baarayaal Searchers	Baafiyaal Surv.Agent
Wadarta Reg.Total																					

Tirada Abaalgud Furuq la Bixiyey:

Number of smallpox Rewards Paid:

Tirada Abaalgud Bus-Bus la Bixiyey

Number of chickenpox rewards paid:

Qiimeenta Baarista - Assessment of Search Activities

Tiro Taxan Serial Number	Magaca Degmada (Magaalo) Name of District (Town)	Tuuloyinka Villages		Reer Guuraa Nomadic encampments		Dugsiyo Schools		Suuqa Markets		Tirada Dadka Lala Hadlay Waydiiyey Number of Indiyiduals Intervied								
		La Qiimeeyey Assessed	La Baaray Found searched	La Qiimeeyey Assessed	La Baaray Found searched	La Qiimeeyey Assessed	La Baarey Found searched	La Qiimeeyey Assessed	La Baaray Found searched	Wadarta la waydiiyey Total No. Intervied	Tirada Baaraha Aragtay - No. Who saw searcher		Tirada og abaal-gudku intu yahay No.who knew reward		Tirada aragtay sawirka furuqa No.who saw Recog. card		Tirada og meesha u soo sheegan No.who know where to report	
											Tirada No.	%	Tiro No	%	Tiro No.	%	Tiro No.	%
	Wadarta Total Number																	
	Boqolkiiba Percentage																	

District
Degmada

Smallpox Rumour Register and Weekly Report Form
Diiwaanka Tuhunka Furuqa iyo Warbixinta Todobaadka

For Week Ending On Thursday
Todobaadka Ku Eg Khamiista Ee
Taariikhda

Serial No. Tiro Taxan	Date Rumour Rcvd. Taariikhda Tuhunka La Soo Sheegay	Patient Information / Qofka Buka					Informer / Soo Sheege		Investigation / Hubin			Lab. Spec. Taken Ma Laga Qaaday Dheecaan/Qolof
		Name Magaca	Age Da'da	Village/Locality Tuulada / Meesha	Date Rash ontset Taariikhda Finanka	Vacc. Scar Yes - No Tallaal Hore Haa - Maya	Name Magaca	Village/Locality Tuulada / Meesha	Date Taariikhda	By Whom Magaca Hubiyaha	Diagnosis Caddayn	

Weekly Total: Isugaynta Todubaadkan:	Smallpox: Furuq:	Chickenpox: Bus - Bus:	Measles: Jadeeco
Others: Wax Kale:	No. Surveillance Agents Working During Week: Tirada Baarayaasha Shageeyay Todobaadkan:		

Submitted by : Name: Soo gudbiye : Magaca:	Date: Taariikhda:
Received by: Name: Gudoome Magaca:	Date: Taariikhda:

Keep first copy in book - Send second and third copy to Regional Zeropox Office every week on Thursday - third copy will be sent to Mogadishu by Region.
Warqadda hore ha ku harto buugga - warqadda 2aad iyo 3xaad u dir khamiis walba xafiiska Gobolka ee Zeropox - warqadda 3xaad Gobolka waa inuu u soo diraa Muqdisho Axadkasta