

# ROTARIANS MOBILIZING FOR SURVEILLANCE

## *FINDING THE LAST CASES OF POLIO*

### *A Guide for PolioPlus Committees and other Rotary Leaders*

Rotarians have proved to be a priceless resource in the global polio eradication effort. Just as Rotarians mobilized an unprecedented number of volunteers to participate in National Immunization Days they must now mobilize themselves and others to **make surveillance a priority** in the final stages of polio eradication. High quality surveillance is critical to find every case of polio and to determine its origin.

Rotarians are in a unique position to help increase current efforts for improving surveillance **so that every last case of polio is found and reported.**



# WHAT IS POLIO SURVEILLANCE?

## *Frequently Asked Questions*

**What is surveillance?** Surveillance for polio can be described as the reporting of all potential cases of polio. Surveillance is a highly labor-intensive process that includes many stages. To have a perfect surveillance system for polio, all cases of ACUTE FLACCID PARALYSIS must be found, reported and investigated.

**What to report? *Recognizing Acute Flaccid Paralysis (AFP)*** Acute Flaccid Paralysis is defined as a sudden onset of paralysis (not present since birth) and not associated with any injury. This includes any case of paralysis or weakness of the limbs, lax and floppy (flaccid) limbs or the inability to walk or use arms. When polio occurs, there is no rash or other clearly identifying signs or symptoms, so very careful observation is required to determine possible cases of polio. Every case of such paralysis must be found and reported immediately to the health authorities for immediate investigation. All new cases of lameness in children of up to 15 years of age are to be treated as suspected poliomyelitis until proved otherwise by a physician and/or laboratory. The key to polio surveillance is to find all children who could have polio, i.e. children with Acute Flaccid Paralysis, and then to have each case confirmed in a laboratory and to determine the origin of the virus. Some AFP cases will be due to other diseases such as Guillain-Barré syndrome, or transverse myelitis. (See WHO chart for diagnosis of Polio and other Acute Flaccid Paralysis)\*\*

**When to report?** It is crucial that all new cases of AFP (paralysis) must be reported as soon as possible, ideally within 48 hours of onset, since the paralyzed person could be spreading the virus to others.

**What is the definition of *adequate stool specimens*?** 2 stool samples taken 24 - 48 hours apart, 0-14 days after the onset of paralysis and arriving at the lab with sufficient quantity and ice present. (*There should be a follow-up examination of the patient at 60 days.*) Specimens could be collected up to 2 months after onset of paralysis.

**Where to report?** Cases of AFP need to be reported to the nearest hospital/ District/Municipal Immunization office or (please include contact information for local government health authority). Stools should be transported to the lab within 3 days of collection. When this is not possible, they should be properly stored in refrigerators or freezers.

**What happens when AFP cases are reported and how are they investigated?** The health authorities are expected to immediately investigate the child with AFP, collect two adequate stool samples in cold boxes, 24 hours apart, and send them to the nearest accredited National Laboratory for

investigation and to determine if it is a case of polio. (The “turn-around time” for laboratory investigation, from when the samples are received by the lab, should be approximately 28 days.)

The National laboratory will then report the results to the health authorities. Positive specimens are sent on to a Regional or Specialty Laboratory for further testing and genetic studies. There are > 100 National or Sub-National laboratories throughout the world which determine if polio virus is present. If polio virus is found the sample is sent to one of the 14 Regional Reference Laboratories to determine if it is wild poliovirus or coincidental vaccine polio virus. There are 6 Specialty Laboratories worldwide where further typing of the virus and molecular genetic studies are performed to identify the source of the virus.

**Why is surveillance critical to polio eradication?** Surveillance is needed for the eradication of polio because it identifies those areas where polio is continuing and where mop-up (house-to-house) immunizations need to take place in order to complete eradication. Surveillance is also needed for certification so that we can be sure no polio is occurring in the region and finally no polio in the world. We must document by surveillance that there has been no polio anywhere in the world for three years to receive final certification that polio has been completely eradicated.

**How sensitive should a country’s surveillance system be?** A country’s surveillance system should be sensitive enough to detect at least one case of AFP for every 100 000 children under the age of 15 – even in the absence of polio.

**What is active surveillance?**

WHO’s proven strategy for rapid detection and investigation of cases. Consists of active visit every 7 – 10 days to every major health facility.

\*\* (Chart for Differential Diagnosis of AFP sent to all National PolioPlus Chairs in January 1999 PolioPlus mailing)

## **THE PRINCIPAL OBJECTIVES OF A POLIO SURVEILLANCE SYSTEM**

1. The identification and investigation of all cases of acute flaccid paralysis and the virological confirmation of all cases of polio.  
*Physicians, health care workers and the general population must be fully informed of what is involved in identifying and investigating polio.*
2. The accreditation of laboratories that are capable of processing specimens in order to virologically confirm polio.  
*Laboratories must have the necessary equipment and communication capabilities.*
3. The commitment of Governments to the implementation of national surveillance strategies.  
*Recognition must be given to Governments who are appropriately supporting surveillance strategies in their countries.*

## **OBJECTIVES FOR POLIOPLUS COMMITTEES AND ROTARY LEADERS**

- **Coordinate with WHO and the Ministry of Health to determine the best way for Rotarians to become involved in support of national surveillance efforts.** The National PolioPlus Committee Chairperson should develop a plan of action for involving Rotarians to support and enhance acute flaccid paralysis (AFP) surveillance efforts in that country.
- **Mobilize Rotarians.** The National PolioPlus Committee Chairperson should encourage Rotarians to mobilize for surveillance as they have done for NIDs. Rotarians can be instrumental in raising awareness for AFP surveillance among their contacts with physicians and health professionals and to encourage high quality reporting of AFP cases. The National Committee should make full use of the Rotary network and work closely through Club Presidents and District Governors. They should also work with Club PolioPlus Committees, District PolioPlus Subcommittees, Rotaractors and the Rotary Village Corp.
- **Utilize the PolioPlus Partners Program to fund surveillance projects.** The PolioPlus Partners Program can also be utilized to fund activities that promote surveillance and supplementary needs for reverse-cold chain equipment.

## **IDEAS FOR INVOLVING ROTARIANS IN SURVEILLANCE ACTIVITIES**

- Conduct a survey of Rotarians in every Rotary Club in the country and find out which have established contacts with physicians, particularly pediatricians (both those in private practice and in government service).
- Form a team of Rotarians, preferably physicians or with a health background, who can work together with the National PolioPlus Committee, the Ministry of Health and WHO to develop an appropriate plan for Rotarians to become involved in surveillance efforts.
- In coordination with the Ministry of Health and WHO, establish training for this team of Rotarians to learn about surveillance in their particular country and to find out what is needed from physicians to improve surveillance.
- In coordination with the Ministry of Health and the local chapter of the Pediatric Medical Association, help sponsor short dinner seminars (one or two hours long). Ask Rotarian physicians if they would be willing to lecture at these seminars and to make a few friendly phone calls to encourage their physician friends and acquaintances to attend. Rotary Clubs could be asked to sponsor the event.
- Rotarians can also start raising awareness for surveillance individually by making a visit or a friendly phone call to their physician contacts to talk about surveillance and the importance of reporting every single case of AFP. They can ask these physicians to “spread the word” and mention this to their colleagues. In planning for surveillance, the National PolioPlus Committee Chairperson can match Rotarians with particular hospitals, clinics, private pediatric practices and ask them to make regular monthly follow-up calls or visits to hospitals, clinics etc. In their follow-up Rotarians can:
  - 1) Encourage physicians to take active role within their own hospitals to check hospital log books to see how AFP cases are currently being reported. They could make inquiries such as:
    - Are other physicians aware of surveillance efforts in their hospital?
    - Is there a system set up for reporting a case of AFP, if not, why not?
  - 2) Distribute informational materials about AFP reporting to health workers, teachers, religious leaders and traditional medical practitioners. (The National PolioPlus Committee Chairperson should make sure that the WHO EPI Medical Officer and the Ministry of Health are consulted before any material is distributed. These informational materials should include the PolioPlus, Ministry of Health and WHO logo.) These materials are eligible for funding through PolioPlus Partners, for example:

- The Diagnostic AFP Poster available through WHO (posters were sent to all National PolioPlus Committee Chairpersons in PolioPlus January 1999 mailing) The National PolioPlus Committee Chairperson can ask the WHO EPI Medical officer if these can be ordered through WHO or if they can be reproduced locally.
- Stickers or magnets to be placed on phones that show whom to call to report a case of AFP.
- Rotarians can also make use of their high-level contacts in the Government to increase political support for polio eradication efforts. It is very important for Governments to take polio eradication very seriously, even as countries move away from NIDs and start going into a “surveillance mode”.
- The National Committee can maintain a list of Rotarians willing to be “on call” for reporting cases of AFP in difficult situations and share this with the WHO EPI Medical Officer. The list would show which Rotarians have:
  - fax availability that could lend itself for the purpose of reporting AFP cases (Some hospitals and clinics that report AFP to laboratories are not fully equipped with fax or email and this may slow the reporting response time. Rotarians can visit hospitals and clinics and find out if they are in a position to report cases of AFP in a timely manner and if Rotarians may be able to facilitate this reporting process.)
  - 4 wheel drive autos, or other vehicles which could be used in times of emergency for the transport of;
    - surveillance staff going to collect stool samples from remote areas that are not accessible by car (stool samples need to be collected 0-14 days after the onset of paralysis, and again 60 days later)
    - a child with signs of acute flaccid paralysis to a health center
  - ice or dry ice storage capability/availability (Rotarians may be willing to provide ice in emergencies to maintain what is called the reverse-cold chain.)
- Assist WHO with improving the communications capability of a laboratory. *IMPORTANT:* As the needs of a country will vary, the National PolioPlus Committee Chairperson will want to *contact the WHO EPI Medical Officer first* to find out if assistance is needed by a particular laboratory.

Rotary can assist WHO by making sure that national laboratories are properly equipped to receive reports and communicate with regional laboratories. The

National Committee can also find out if there are Rotarians who have technical or communication expertise that would be willing to volunteer their time to visit labs and assess the current status of communication, electrical, and computer capabilities.

Rotary has already helped WHO to assess and improve the quality of the laboratory communication system in several countries in Africa. Rotarians who have the technical skills could possibly provide support locally to:

- Determine if there is a need for new equipment, upgrades for existing equipment, or maintenance. (This would include: computer hardware, memory, modems, fax, email service provider etc.)
- Install hardware or software as needed
- Provide training for using the software and hardware/Help with understanding technical manuals
- Follow-up to make sure the equipment is maintained in working order
- Determine appropriate recognition to Head of Institute and Ministry of Health to ensure appropriate technically trained staff are retained.

## **POLIOPLUS PARTNERS FUNDING**

The following items may be funded through the PolioPlus Partners program to help support efforts to improve surveillance.

- supplemental reverse cold chain items such as:
  - refrigerated stool carriers
  - ice-making supplies
- surveillance mobilization items (stickers with phone number of who to report to, diagnosis poster of symptoms)
- MOH publications promoting AFP reporting
- supplemental needs for communication equipment for laboratories
- advertisements, billboards promoting the need to report cases of acute flaccid paralysis
- funding for a national courier service to provide pick up and delivery of stool samples of AFP cases from remote areas to certified laboratories (Rotarians could also try to find out if courier companies could provide this service at a reduced cost)
- funding of supplemental needs for bicycles, motorcycles, or other vehicles which may be needed by the Ministry of Health to transport specimens or for health workers who need to investigate cases.\*\*
- incentives for discovering cases of wild polio only in countries that are near certification or virtually polio free (A reward can be given to the person who reports a case of AFP that results in a case of confirmed wild poliovirus.)

**\*\* Vehicles or other large equipment purchased with PolioPlus or PolioPlus Partners funds are to be donated directly for use by the Ministry of Health or other appropriate health authorities.**