



World's press watches polio

WITH the lowest number of polio-endemic countries ever, the world's press is focused on the Global Polio Eradication Initiative (GPEI). In the first few months of 2003, a number of major media outlets ran feature length stories on the Initiative. The New York Times ran a front-page story on the rise in polio cases witnessed in India last year, the Los Angeles Times published a five-page spread on Rotary International's role as the catalyst of the campaign, while USA Today ran a feature on world-renowned photographer Sebastião Salgado and his work in publicizing polio. These pieces were followed by items in the Wall Street Journal and both BBC World television and radio, focusing on the February immunization campaign in India.

Many media stories highlighted the fact that never before in the Initiative's history have so few countries remained endemic with wild



poliovirus. The features went on to focus on the importance of reaching and vaccinating every child under the age of five, if polio is to be eradicated from those remaining countries. ♦

UNICEF plays crucial role in mobilizing communities

DR Iqbal Baig has been treating families in India's Meerut City for decades. Over time he has seen the city's population grow to 1.2 million and, more recently, a change in his job. In India – the country with the world's largest number of cases – Dr Baig is now 1 of 2500 Community Mobilization



Iqbal Baig (left), Subaida Khatoon (second from left) and Mohammed Farhat (center) receiving a briefing from UNICEF Field Coordinator, Kshitij Joshi (right)

Coordinators employed by UNICEF in Uttar Pradesh. The state of 170 million people accounts for 65% of the world's polio cases. Dr Baig works with a team to reach households and ensure all children under five years of age are immunized against polio.

This is one view into the people and efforts behind social mobilization activities in India during the largest polio immunization campaigns in the world, targeting 165 million children. Social mobilization is an important component of eradicating polio to raise awareness about immunizing all children; influence attitudes to generate support for eradication; and promote behaviour that ensures no child is missed. In India, ten days before this year's national immunization days (NIDs), television and radio advertisements, many featuring India's best known celebrity, Amitabh Bacchan, aired countrywide. Meanwhile, social mobilization efforts in Uttar Pradesh focus on 3000 high-risk villages.

Today, Dr Baig and his team are intensifying efforts so parents have their children vaccinated before the upcoming monsoon season when torrential rains create an environment that exacerbates poliovirus transmission. "We must motivate every resisting family, newcomer, and parent of newborns, before the rain sets in," Dr Baig sighed. "We have to try harder." ♦

Contents

Page 2:
Immunization after polio

Page 4:
Madagascar heroes honoured

Page 5:
Emir of Kano & Rotary fight polio

Page 6:
Polio in cash crunch
For the first time since the launch of the GPEI in 1988, the programme faces an unprecedented funding crisis in the first quarter of 2003, resulting in planned immunization activities being scaled back in some recently endemic countries.

A global race...



Photo: © Rotary International/JIM Gibaux

for a global victory



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POST CERTIFICATION IMMUNIZATION POLICY

Framework for the Assessment and Management of Paralytic Polio in the Post-Certification Era

The November 2002 interim meeting of the Technical Consultative Group (TCG) endorsed the framework (see below), which has been developed to summarize the risks of paralytic poliomyelitis in the post-certification era. This framework will be particularly important for countries using Oral Polio Vaccine (OPV) and for developing policy decision models. The framework divides the risks into two major categories: (a) those due to vaccine-derived polioviruses (VDPVs) and (b) those due to the handling of wild poliovirus stocks.

In continuation from Polio News issue 17, which focused on risks associated with the use of OPV, this issue summarizes the nature and magnitude of the risks related to handling wild poliovirus stocks.

Risks of polio paralysis in the post-certification era**

Risk category	Risk	Frequency	Estimated global annual burden*
Risks of polio paralysis from continued use of oral polio vaccine	VAPP (vaccine-associated paralytic polio)	1 in 2.4 million doses of OPV administered	250–500 cases per year
	cVDPV (circulating vaccine-derived polio)	One episode per year in 1999–2001 (Haiti, Madagascar, the Philippines,)	Approx. 10 cases per year (total of 29 cases in three years)
	iVDPV (immuno-deficient excretors of vaccine-derived polio)	19 cases since 1963 with 2 continuing to excrete; no secondary cases	<1 case per year
Risks of paralysis from mishandling of wild poliovirus	Inadvertent release from a laboratory	None to date	
	Inadvertent release from an IPV manufacturing site	One known event in early 1990s	No cases
	Intentional release	None to date	

* Study and data collection is ongoing for all categories
** Under current polio immunization policies

Technical tips

The importance of containment

THE Global Certification Commission for the Eradication of Poliomyelitis (GCC) will declare the world free of wild poliovirus transmission only when no wild poliovirus has been found for at least three years and appropriate measures have been implemented. Laboratories and inactivated polio vaccine (IPV) manufacturers will be the only remaining sources of wild poliovirus. “Experts agree that the current risks and consequences associated with inadvertent release of wild poliovirus are small, but we have to ensure a defined global containment strategy is in place to reduce those risks to the lowest possible level for now and in the future,” says Dr Walt Dowdle, External Consultant to the Global Polio Eradication Initiative (GPEI) and head of the US containment effort. The 1978 laboratory associated smallpox outbreak in the United Kingdom emphasizes the need to address laboratory containment issues for infectious agents that no longer exist in nature. According to Dowdle, though, the challenges of polio containment are quite different from smallpox. Most obvious is the fact that many more laboratories around the world have wild poliovirus containing materials, as polio is a popular research tool and can cause clinically unapparent infections. This may potentially leave some laboratories unaware of the presence of wild polio in stored clinical materials. Additionally, large quantities of the wild virus are necessary for production of poliovirus vaccine. For these reasons, the global survey for laboratories with wild poliovirus will involve nearly 100 times the number surveyed for smallpox. “With a containment strategy in place, the risks of accidental release can be further minimized,” concluded Dowdle. ♦

Poliovirus release – possible occurrence and consequences deemed ‘low’

WHILE the risk of release due to mishandling of the wild poliovirus is low, the GPEI is actively addressing all three potential scenarios in which this might occur.

Scenario 1: accidental release from a laboratory

Between 1941 and 1976, 14 cases of paralytic polio occurred among laboratory workers. Since then, the population has been immunized and safety of laboratory technology has improved to a degree that makes inadvertent release of infectious virus much less likely. However, since laboratories will be the only remaining source of the virus once natural circulation is interrupted, it is important to take stock of all wild poliovirus now to ensure that laboratories with wild poliovirus are operating under appropriate biosafety conditions. Nearly 170 countries and territories worldwide have initiated national surveys of all biomedical laboratories to identify poliovirus materials, encourage destruction of unneeded materials, and implement appropriate biosafety conditions.

Scenario 2: accidental release from an IPV manufacturing site

Large quantities of live poliovirus are used in the production of IPV. One case of inadvertent release was recorded in the early 1990s, occurring during a period of universal immunization when no containment strategies

existed. To prevent a repeat of this situation, such risks are being adequately managed. Manufacturers have worked closely over the past 18 months with biosafety experts and WHO to implement more stringent containment practices at manufacturing facilities. In February 2003, the WHO Expert Committee on Biological Standardization (ECBS) convened to finalize the guidelines for an increased containment process for all manufacturers. As IPV manufacturing sites are located in industrialized countries, consequences of a potential release would be limited as these countries are planning to maintain high population immunity with IPV for the foreseeable future, and sanitation infrastructure is high.

Scenario 3: intentional release

This scenario is the least likely to occur, due to ongoing use of polio vaccines globally and the inherent limitations of poliovirus as biological weapons or bioterrorist tools. However, full evaluation of this risk depends on the polio immunization policies that are adopted worldwide in the post certification era. Most countries which have been suggested as potential targets for an intentional release plan to maintain population immunity with IPV for the foreseeable future, markedly reducing the probability of an intentional release and the implications in the unlikely event of such an occurrence. ♦

AFP and polio reporting, year-to-date (data received at WHO Geneva as of 25 February 2003)

Region	2001 (as of 25 February 2002)					2002 (as of 25 February 2003)				
	Non-polio AFP rate	Adequate specimen rate	Confirmed polio cases	Wild polio virus cases	Pending cases	Non-polio AFP rate	Adequate specimen rate	Confirmed polio cases	Wild polio virus cases	Pending cases
African ¹	2.20	71%	113	63	476	3.00	82%	214 ^(*)	201	942
Americas	1.13	89%	10 ^(**)	0	326	1.20	92%	0	0	328
Eastern Mediterranean	1.89	83%	139	139	253	2.26	88%	119	119	82
European	1.23	81%	3 ^(*)	2 ^(*)	236	1.19	82%	0	0	236
South-East Asia	1.78	83%	268	268	560	1.92	82%	1595	1595	582
Western Pacific	1.39	88%	0	0	610	1.33	88%	0	0	438
Global total	1.61	81%	533	472	2461	1.90	84%	1928	1915	2608

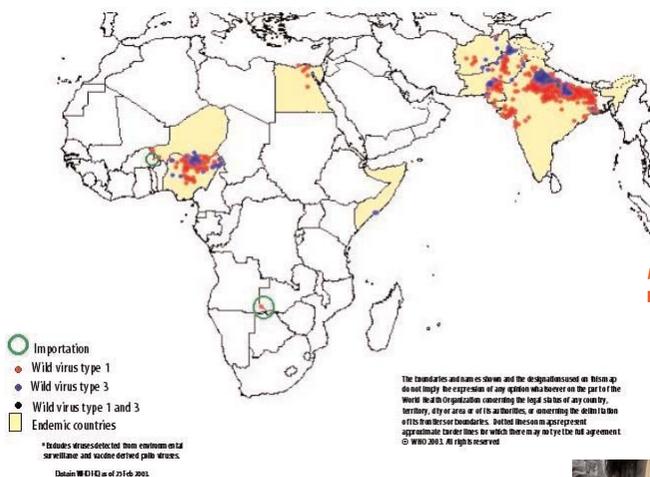
¹ For African Region, pending cases refers to pending laboratory results.

^(*) Importation.

^(**) Vaccine derived polio virus. In 2001, in the American region, in Dominican Republic 3 cases and in Haiti 7 cases. In 2002, in the African region, in Madagascar, 4 cases.

Wild poliovirus map

25 February 2002 – 24 February 2003



Timeline: total wild poliovirus and date of most recent wild poliovirus by country from 25 February 2002 to 24 February 2003



Source: Data at WHO Geneva as of 25 February 2003

The boundaries and names shown, and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Instead, these maps represent approximate border lines for which there may be no agreed agreement. © WHO 2003. All rights reserved.

Snapshots from NIDS...



Photo © India/IM Gboux



Photo © Nigeria-Retry International/IM Gboux



Photo © Afghanistan-WHO/IM Gboux

NIDS calendar for selected countries

Region	Country	April 2003 Type of activity Intervention	May 2003 Type of activity Intervention	June 2003 Type of activity Intervention
AFRO	Angola			27-June / NID / OPV Round 1
	Niger	26-April / SNID / OPV Round 1	29-May / SNID / OPV Round 2	
	Nigeria	01, 05, 26-April / SNIDs / OPV Round 2-3		
EMRO	Afghanistan	15-April / NID / OPV Round 1	20-May / NID / OPV Round 2 / Vit A	
	Egypt		02-May / NID / OPV Round 2	
	Pakistan	15-April / NID / OPV Round 2		03-June / SNID / OPV Round 1
	Somalia	April / NID / OPV Round 2		
	Sudan	01, 13, 17-April / SNIDs / OPV Round 2		
SEARO	Bangladesh	April / NID / OPV Round 1 / Vit A	04-May / NID / OPV Round 2	
	India	06-April / SNID / OPV Round 1	18-May / SNID / OPV Round 2	

This calendar reflects information known to WHO/HQ at the time of print. Some NIDS dates are preliminary and may change; please contact WHO/HQ for up-to-date information.

Rotary raising urgently needed funds to eradicate polio

ROTARY members are more committed than ever to achieving a polio-free world. To that end, Rotary has embarked on a new drive to raise US\$ 80 million by June 2003. In addition, Rotary is reaching out to the public by way of a global advertising campaign. The ads, which are prominently appearing on television and in magazines in Australia and Canada during February and March, target receptive business and professional people. These ads are also being distributed as public service announcements worldwide.

In addition, a special add is airing on United Airlines' in-flight television network from February to April on all national and international flights. Passengers will be directed to a corresponding advertisement in United Airlines' "Hemispheres" magazine. The ad will give instructions on how to make a contribution to polio eradication.

Anyone wishing to contribute can send donations to: The Rotary Foundation – Polio, P.O. Box 75133, Chicago, IL 60675-5133, USA. Or visit: www.rotary.info ♦

Madagascar heroes recognized as tragedy overshadows NID

SIX people participating in an NID in Madagascar tragically died in October 2002, when their helicopter crashed while returning from successfully delivering polio vaccine to difficult-to-reach areas of the country. The helicopter was on its way back after finalizing the delivery of vaccines for the second phase of the NID when the accident occurred. The names of the six victims, Lt Colonel Davisa Ratsimandah; Lt Colonel Michel Nernet Miharivelo; Lt Colonel Emmanuel Rakotoniaina; Lt Flavien Yamicole; Andre Jaonera; and Major Solo Ratsimbazafy, have been nominated as 'Polio Eradication Heroes' of the CDC Foundation. The 'Heroes Fund' was established to assist families financially who have lost loved ones during polio eradication activities.

The activity will be remembered for the tragic death of the six Polio Eradication Heroes. ♦

USAID Global Health Bureau recognizes Ellyn Ogden's contribution to polio eradication



Ellyn Ogden highlights the importance of polio eradication at a recent donor meeting.

ELLYN OGDEN, USAID Polio Eradication Coordinator, has been granted the prestigious Sustained Outstanding Achievement Award by the Global Health Bureau, USAID, in Washington DC. The award recognizes Ogden's tireless commitment to polio eradication across the globe. "This official recognition is more than deserved," commented Richard Greene, Director, Office of Health, Infectious Diseases and Nutrition of the USAID Bureau for Global Health. "Ellyn's



Photo © Pakistan Red Crescent Society

A Red Crescent volunteer in Pakistan administers the oral polio vaccine to a child. Over 490 volunteers worked tirelessly to raise awareness about immunization activities, and personally immunized over 360 000 children in 2002.

Pakistani Red Crescent volunteers instrumental in reaching hard-to-reach areas

PAKISTANI Red Crescent volunteers are turning out by the hundreds to help stop the virus. In 2002, the Pakistan Red Crescent Society actively recruited 491 men and women volunteers to systematically mobilize target communities for supplementary immunization activities (SIAs). Driving through the streets with megaphones, going door-to-door, the volunteers distributed 100 000 polio fact sheets (in English, Urdu and other languages), polio information stickers, brochures, badges, pens and banners, while posting over 90 000 posters announcing upcoming immunization campaigns. The Red Crescent's unique community-based advantage proved essential in visiting specific population groups in many otherwise hard-to-reach areas. By the end of the year, the Red Crescent volunteers alone had immunized well over 360 000 children. "Our volunteers did a fantastic job," commented Dr Fazil Moin, Secretary-General of the Pakistan Red Crescent Society. "Each and every one of them personally immunized over 900 children. Because they belong to target communities, the service they offer is uniquely valuable in reaching areas which otherwise would remain unvaccinated. It was a tremendous achievement and one we hope to build on in 2003." *In 2001-2002, Red Cross and Red Crescent volunteers have helped promote polio immunization days in Afghanistan, Bangladesh, Chad, Congo, the Democratic Republic of the Congo, Egypt, Ethiopia, Iraq, Liberia, Niger, Nigeria, Pakistan, Sierra Leone, Somalia and Sudan.* ♦

energy and commitment are second to none, having fought polio not just centrally, but first-hand in the field in countries such as the Democratic Republic of the Congo, Egypt and Ethiopia." Greene cited Ms Ogden's leadership in championing social mobilization activities, gaining increased support by local NGOs at national levels, and working to improve routine immunization services as examples of her many distinguishing characteristics. Ms Ogden has been involved in polio eradication since 1997, when she took on the global challenge as USAID Polio Eradication Coordinator. USAID has allocated more than US\$ 200 million to the Polio Eradication Initiative since 1996. ♦

Rotary steps up global volunteerism

AUSTRALIAN and Canadian Rotary members rang in the New Year while volunteering during the January 2003 NID in Cameroon. Another Rotary group of 85 from the United States joined members from Ethiopia to help immunize children against polio in that country. And, another group of Rotary members travelled to Nigeria in November, where their efforts were honored with a visit from the Emir of Kano, who also took part in the NID by immunizing local children.

Earlier, in October 2002, Rotary continued its high level of support to India by approving a grant of almost US\$ 5 million for eradication activities in that country, bringing Rotary's total contributions there to more than US\$ 46 million. Among other things, the grant helped pay for hiring local vaccinators, to go house-to-house. In November 2002, Rotary International President Bhichai Rattakul called on Rotary leaders in India to "redouble your efforts" to achieve polio eradication in Uttar Pradesh.

As an answer to this call, Rotary placed an information advertisement of a pro-immunization speech given at Moradabad by Dr. Naseem Ahmed, Vice-Chancellor of Aligarh Muslim University, in a number of newspapers for wider outreach.

In addition, 65 Rotary members from Canada and the United States joined Indian Rotarians, health workers, and other volunteers in the six day effort to vaccinate 165 million children under the age of five years. ♦



Rotary International volunteers from around the world are joined by the Emir of Kano in Nigeria to raise awareness of immunization campaigns.

Photo: © Rotary International/JM Gibaux

Democratic Republic of the Congo: maximizing the polio experience

Polio infrastructure makes measles campaign possible

ON 13 December 2002, a measles campaign was launched in the North Kivu and East Kasai provinces of the Democratic Republic of the Congo (DRC) to immunize all children between 6 months and 15 years of age. To maximize immunization coverage for the event, the government organizers, with the assistance of UNICEF and WHO, drew on the experience and infrastructure of the GPEI to both plan and implement the campaign. Organizers adapted past polio successes to produce maps, organize cold chains for the vaccines, target social mobilization activities at schools, parents, and political administrators, and encourage parents and children to take advantage of the services offered. Nearly 3.2 million children were immunized (an estimated 96% coverage). "The polio eradication experience made the success of this activity possible," commented Dr Brad Hersh, EPI Medical Officer at WHO, Geneva. "The polio programme provided a perfect framework to reach almost all children and prevent many measles deaths."



Photo: © WHO/Dr. Hersh

A child is protected against measles, during one of many mass immunization campaigns across Africa.

A model polio-free country

WITH an increasing number of countries attaining polio-free status, it is important to maintain vigilance and political commitment to ensure wild poliovirus is not reintroduced into a polio-free country. The DRC is a model example of a country doing exactly that.

Since confirming its last case of polio on 29 December 2000, the DRC has taken a number of steps to maintain its polio-free status, including continuing SIAs, consistently improving surveillance, and increasing the level of routine immunization.

The success of the DRC's post-polio programme is all the more extraordinary considering the country's infrastructure remains disjointed after more than a decade of civil war. Most roads are still impassable, making logistical organization of SIAs difficult. Volunteers, health workers and equipment often have to be transported by sea or air, putting a tremendous strain on human and financial resources.

Despite this, the DRC continually maintains its political commitment to polio eradication – and it is paying off, as the country just celebrated its second polio-free year. ♦

Funding shortfall prompts cutbacks

EXTREMELY encouraging international support to and endorsement of the Initiative in 2002 was overshadowed by an acute funding shortfall at the start of 2003, leading to an abrupt curtailing of some activities in the first half of the year. Due in part to the global economic downturn of the past two years, a number of key partners informed WHO late in 2002 that it would not be possible to provide expected year-end resources. While the resultant scaling back of activities presents new risks to the rapid achievement of a polio-free world, the risks are manageable if sufficient funding is in

place by June 2003 for activities planned in the second half of the year.

In response to this acute funding gap, the Initiative has re-prioritized and subsequently scaled back activities, particularly in the WHO Regions for Africa and the Eastern Mediterranean. By the end of January 2003, plans had been made to cancel national or subnational polio immunization campaigns in more than 10 recently endemic countries, cut national surveillance budgets by an average of 30 percent and reduce the length of contracts of most polio-funded international and national staff. ♦

Japan: a solid global polio partner



IN 1980, Japan made history when it eradicated polio, but the country's mission to eliminate polio has transcended Japanese borders.

Long before the launch of the GPEI in 1988, Japan had worked with governments of nearby countries to eliminate polio. In the late 1960s and early 1970s, Japan helped provide the Philippines and Thailand with vaccines, equipment and human resources to vaccinate children against polio. In 1980, Japan began helping Brazil produce quality polio vaccine and provided equipment and technical experts.

With the 1988 launch of the GPEI, Japan strengthened its commitment to end polio and provided aid to Bangladesh, China and Laos, Indonesia, Kenya, Niger and Pakistan. Over the past decade, Japan's generosity has spanned the globe. It has provided US\$ 230

million to help countries obtain vaccines and construct cold chain facilities. That commitment has made Japan the fourth largest donor to the GPEI while helping to immunize 600 million children around the world.

Even today, as Japan faces economic dilemmas at home, it remains a steadfast partner in the endeavour to end polio. At a December ceremony in Islamabad, the Government of Japan announced its US\$ 9.6 million pledge to Pakistan for 2003 activities to eliminate polio from the country. The contribution raised Japan's total donation to Pakistan's polio eradication efforts since 1996 to US\$ 38.5 million. "We are committed to fighting infectious diseases worldwide, as it is viewed by Japan as a global issue requiring approaches based on global partnerships," said Mr Minoru Shibuya, Japan's Ambassador to Pakistan, at the ceremony. ♦

Recent donations:*

Finland
US\$ 90 000 for Polio Reference Laboratory in Finland

Italy
US\$ 80 000 for Polio Reference Laboratory in Rome
US\$ 100 000 for polio immunization activities in Somalia and Sudan

Rotary International
US\$ 2.6 million as rapid response grants for 2003 polio activities in Angola, the Democratic Republic of the Congo, Ethiopia, India, Nigeria, and a grant to AFRO for surveillance activities.

United Kingdom
US\$ 4.75 million in global funding for polio activities
US\$ 340 000 for AFP surveillance in Myanmar

United States of America
US\$ 133 million for 2003 global polio eradication activities distributed through the US Centers for Disease Control and Prevention and USAID.

The Global Polio Eradication Initiative expresses its gratitude to all donors.

**Donations announced since Polio News 17 December 2002.*

PAG pursues funding opportunities

THE Polio Advocacy Group (PAG) is involved in a number of activities to help fill the funding gap. Established to coordinate the resource mobilization efforts of the partners and exploit their relative strengths, the PAG is an informal partnership between Rotary International, the UN Foundation, UNICEF and WHO.

The PAG made an urgent appeal to the donor community and partners in late 2002 to help fill the critical 2003 funding gap of US\$ 75 million for polio eradication activities. It appealed to donors to have funds available before mid-2003, to ensure scheduled activities continue in the second half of the year.

The G8, during its last Summit in June 2002, vowed to provide the funding required for polio eradication activities in Africa. Following commitments by Canada and the UK, appeals have been made to the other G8 countries to fulfill their commitment before the upcoming G8 Summit in Evian, France in June 2003.

Discussions with the European Commission were reconvened in an attempt to reprogramme unspent EC Health Sector funds for polio eradication in priority countries. Support was approved in the amount of US\$ 25 million for India and US\$ 12.9 million for Nigeria. This funding builds on the EC's contribution for polio eradication activities in Nigeria that amounted to over US\$ 18 million. ♦

Materials available:

- **Weekly Epidemiological Record:**
Progress towards poliomyelitis eradication in Egypt, 2002 (issue no. 13, 28 March 2003)
Progress towards poliomyelitis eradication in India, 2002 (issue no. 10, 7 March 2003)

Forthcoming events 2003:

- **Technical Consultative Group** – 24–25 April
- **World Health Assembly** – 19–28 May
- **Rotary International PolioPlus Committee Meeting** – 27–29 May
- **Rotary International Convention** – 1–4 June

