Immunization: unfinished business

An IFRC advocacy report in partnership with the GAVI Alliance





International Federation of Red Cross and Red Crescent Societies

Solution State Nain Findings

- → Immunization is a public health 'best buy' and significant contributor to the health-related Millennium Development Goals (MDGs), particularly MDG 4 a two-thirds reduction in child mortality by 2015 (compared to 1990). Global measles deaths dropped by 78 per cent (from 2000 to 2008) through improved routine immunization and periodic vaccination campaigns. This accounts for nearly 25 per cent of the total decline in child mortality since 1990. Immunization, by preventing disease, is one of the most cost-effective health interventions.
- → Community-based volunteers, such as those of National Red Cross and Red Crescent Societies, are ideally placed to help promote vaccination and other maternal, newborn and child health interventions. Trained Red Cross and Red Crescent volunteers, who live in the same community as the beneficiary population and speak the same local language, can help to reach the most inaccessible communities, the poorest of the poor, and the marginalized. Volunteers are also a trusted source of information to help dispel myths. During the 2009 polio outbreaks across Africa, 30,000 Red Cross and Red Crescent volunteers were mobilized to support the outbreak response campaigns, helping to reach over 25 million children with polio vaccination.
- → The global community should learn from the successes of these highly effective vaccination initiatives and seize the opportunity to avert deaths and illness caused by vaccine-preventable diseases. Epidemics, such as the measles outbreaks which have affected 31 African countries over the last two years and claimed more than 1,200 lives, are preventable with affordable vaccines. Partnerships should be strengthened and resources secured to give everyone, particularly mothers and children, a shot at better health through immunization.

- → There is untapped potential within vaccination and millions more lives could be saved. With the introduction of pneumococcal vaccine and rotavirus vaccine, 840,000 and 200,000 lives could be saved each year, respectively, in the poorest countries. Coupled with increased access to routine vaccines such as diphtheria, pertussis, tetanus, or pentavalent (DPT, Haemophilus influenzae type B, and hepatitis B), the GAVI Alliance estimates that more than 4 million lives could be saved. Additionally, the human papillomavirus (HPV) vaccines, which help to prevent cervical cancer, are a critical tool for improving the health of women and girls.
- → Significant financial gaps pose a threat to maximizing the potential lives which can be saved with vaccination. The GAVI Alliance, which finances vaccines in the world's poorest countries, faces a funding challenge of 4.3 billion US dollars over the next six years. The Measles Initiative, which has supported ministries of health to accomplish phenomenal reductions in measles deaths needs 283 million US dollars from 2010 to 2015. The Global Polio Eradication Initiative, which is on the brink of success in eradicating only the second disease in history, faces a gap of 1.3 billion US dollars from 2010 to 2012. A balanced immunization investment strategy with sustained funding is needed.

A call to action A Contain the second sec

Infancy can be a time of grave risk for children born in less developed parts of the world.

Global child mortality could be reduced by as much as 25 per cent, by accelerating the introduction of new vaccines and expanding the use of under-utilized ones, according to the GAVI Alliance (Global Alliance

for Vaccines and Immunization). GAVI works to save children's lives and protect people's health by increasing access to immunization in the world's poorest countries.¹

If this were achieved, it would represent

a significant contribution to United Nations Millennium Development Goal (MDG) 4 - a two-thirds reduction in child mortality by 2015.² One of MDG 4's indicators is an increase in the number of children under one year immunized against measles. Measles deaths were reduced by 78 per cent from 2000 to 2008. This was achieved through improved routine immunization and periodic vaccination campaigns in which Red Cross and Red Crescent volunteers and other civil-society groups play a vital role.

The UN's most recent review of progress toward the eight MDGs notes "substantial" reductions in child mortality – especially since 2000 – and often against the odds in the poorest countries.³ But too many children are still dying of vaccine-preventable diseases, especially in sub-Saharan Africa.



A newborn is vaccinated at the Wellington health centre in Freetown, Sierra Leone.

- 1. GAVI Alliance press release, 17 September
- 2009. 2. Compared to 1990. United Nations Millennium Development Goals.
- 3. United Nations. The Millennium Development Goals Report. 2010.

"The world possesses the resources and knowledge to ensure that even the poorest countries, and others held back by disease, geographic isolation or civil strife, can be empowered to achieve the MDGs."

– Ban Ki Moon, United Nations Secretary General



"I hope that some day the practice of producing cowpox in human beings will spread over the world. When that day comes, there will be no more smallpox." – Edward Jenner (1749–1823)

The lingering toll of needless death

Just four diseases – pneumonia, diarrhoea, malaria and AIDS – account for 51 per cent of all deaths in the under-five age group worldwide. Most of these children could be saved, says the MDG review, with cheap measures like antibiotics, oral rehydration, drugs, anti-malaria bed nets and immunization.

It is the historical success of vaccination⁴ that makes the lingering toll of needless death so dismaying. It was in 1974 that "the most successful public health initiative of all time: the Expanded Programme on Immunization, which has saved millions of lives over the past 35 years," was launched.⁵

However, humanity has so far succeeded in eradicating⁶ only one disease: smallpox. Will polio be next? Since the start of the Global Polio Eradication Initiative (GPEI) in 1988, the global incidence of polio has been reduced by 99 per cent. There are only specific regions of four countries – Afghanistan, India, Nigeria and Pakistan – where the spread of wild poliovirus has never been interrupted.

Great advances have been made towards the global elimination of measles, however a decline

Causes of under-five deaths in low-income countries



in funding and an erosion of political will have enabled measles to make a comeback in some countries. For example, as of July 2010, there had been more than 1,200 deaths from measles in the preceding two years in 31 African countries.

International commitment to eradicating polio and fully realizing global vaccination goals is critical and must be renewed.

To encourage immunization, WHO and UNICEF developed the Global Immunization Vision and Strategy (GIVS) for 2006–2015,⁷ the first decade-long framework to vaccinate more people against more diseases. The other GIVS strategies are to:

- introduce new vaccines and technologies
- integrate immunization with other health interventions and disease surveillance
- manage vaccination in an evermore interdependent world

Since 2000, the MDGs have provided benchmarks by which the contribution of vaccination could be measured. There is now a need for a special focus on pneumonia and

diarrhoeal disease – two of the three leading killers of children – and the vaccines that can prevent them.

"Immunization to date has been a triumph," says Bekele Geleta, the IFRC's secretary general. "But broadly speaking, the world has done the 'easy' 80 per cent; the 'difficult' 20 per cent remains. Immunization is unfinished business."

That "difficult" 20 per cent includes the most inaccessible communities, the poorest of the poor, the marginalized and those already enduring complex or neglected disasters like the long-term drought in the Horn of Africa. These are the communities that must be reached if equity and the right to health are to be achieved.

- The words "vaccination" and "immunization" are used interchangeably in this report. The word "vaccination" comes from the Latin vacca, meaning cow, after the early use of the immunogenic cowpox virus.
 UNICEF.
- UNICEF. The State of the World's Children Special Edition. 2009.
 The word
- "eradication" is defined as the reduction of a disease to zero worldwide as a result of deliberate efforts, removing the need for further control measures.
 WHO / UNICEF. Global
- UNICEF. Globa Immunization Vision and Strategy. 2005.

Number of deaths that the GAVI Alliance estimates could be averted with new and under-utilized vaccines by 2015, given the necessary resources.

4.2 million

The Red Cross Red Crescent

Through its Global Measles and Polio Initiative
(GMPI), the IFRC works strategically to help Red
Cross and Red Crescent National Societies fulfill
their role as key partners in the international drive
against these two diseases. National Societies
provide the volunteer network to tackle
the "last mile" of immunization at villagebuildin
scale val
The IF
communication at village

and community level.

GMPI funding and technical support enables National Societies to respond to requests from health ministries for volunteers to take part in mass vaccination campaigns.

 Mozambique Ministry of Health. Administrative vaccination campaign coverage. Figures to nearest whole percentage point.

 Dr Margaret Chan. Keynote speech at IFRC 2008 Global Health Forum, 14 May 2008. Statistics from Mozambique's Nampula province, for example, show that in an October 2008 measles vaccination campaign, districts where local Red Cross volunteers were involved in social mobilization achieved 97 per

cent coverage; where the Red Cross did not conduct this house-to-house social mobilization, measles vaccination coverage was only 88 per cent.⁸

Kate Elder, IFRC senior officer for immunization, says: "Meeting the GIVS goals will mean strengthening routine immunization and building on the well-established success of largescale vaccination campaigns."

The IFRC's ability to fill gaps by working at community level, reaching inaccessible areas

97% coverage where Red Cross volunteers were involved; 88% where they weren't ity level, reaching inaccessible areas and finding the most vulnerable was recognized by Dr Margaret Chan, WHO Director-General, when she said the Red Cross Red Crescent can "quite literally operationalize WHO technical recommendations in every corner of the world... In terms of bringing the benefits of global initiatives to bear on vulnerable populations, [Red Cross and Red Crescent] volunteers not only reach every household, moving door to door, but you reach them in the right way. You help bring children to immunization sites, but you also educate households in the importance of immunization."⁹

Civil-society groups deliver as much as 60 per cent of health services in some developing nations. National Society volunteers contribute the added value of a community-based approach that few organizations can match – especially when combined with the global resources of the International Red Cross and Red Crescent Movement.

Red Crescent volunteers take part in a Measles Initiative-supported vaccination campaign in Bangladesh.



Integrated measles and polio

Angola

Burundi

Ghana

Côte d'Ivoire

Polio

Benin

Chad

Gambia

Burkina Faso

Central African Republic

Cameroon

Liberia

Sudan

Togo

Afghanistan

Kyrgyzstan

Measles

Madagascar

East Timor

Philippines

Solomon

Islands

Iraq

Democratic Republic of the Congo Ethiopia Kenya Malawi Mali Mauritania Namibia Niger Rwanda Senegal Sierra Leone Swaziland Uganda Zambia Bangladesh Indonesia Tajikistan

Red Cross **Red** Crescent involvement in vaccination campaigns 2009–2010

Notes: Information represents Red Cross Red Crescent involvement in measles and polio, or integrated measles/polio, vaccination campaigns available at time of publication. In many countries listed, multiple vaccination rounds occurred between 2009-2010. Additionally, some campaigns included other antigens such as yellow fever or rubella.

Towards the eradication of polio

Through the GMPI, the entire International Red Cross and Red Crescent Movement is committed to eradicating polio.

10. IFRC. Annual Report, Global Measles and Polio Initiative, 21 April 2009. Although the global incidence of polio has been reduced by 99 per cent since 1988, a major polio outbreak across West and Central Africa in 2009 reminded the world that "diligent support is required"¹⁰ in order to realize the benefits of vaccination. Wild poliovirus (WPV) was reported in 23 countries in 2009 – the highest number in a decade, and all but three of them in Africa. To



Benin children are given vitamin A supplements as part of a polio vaccination campaign.

support the mass polio vaccination campaigns conducted in response to these outbreaks, the IFRC launched an emergency appeal, raising 1.6 million US dollars. The social mobilization activities conducted under the emergency appeal greatly assisted in raising awareness and ensuring that children were being immunized in the affected countries.

National Societies in Angola, Benin, Burkina Faso, the Central African Republic, the Democratic Republic of the Congo, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mali, Niger, Sierra Leone, Sudan, Togo and Uganda mobilized some 30,000 volunteers to ensure at least 95 per cent of children under the age of five received oral polio vaccine.

Never has the world been closer to eradicating polio, but the surviving 1 per cent is lethal, as a recent outbreak in Tajikistan illustrates.

The European region was certified polio-free in 2002, but at the time of writing it accounted for some 75 per cent of all 2010 polio cases worldwide. These outbreaks highlight the critical need to stop polio in the last remaining endemic areas and protect the investment and gains of the past 20 years.

The Global Polio Eradication Initiative says the historic achievement is now threatened by a 1.3 billion US dollar funding gap for implementing activities in 2010–2012, and disease surveillance and immunization campaigns are already being curtailed.

30,000

Number of African Red Cross and Red Crescent **volunteers** mobilized in 2009 to respond to polio outbreaks.

Immunization: a shot at better health for mothers and children

The latest MDG review says that "without a major push forward, many of the MDG targets are likely to be missed in most regions."¹¹

Progress on gender equality, a goal that directly affects mothers and children, has been "sluggish"; safe water – a prime concern for women in rural areas – remains an "urgent" challenge; only about half of the developing world's population is using improved sanitation.

However, there have been significant MDG advances in the health arena. More than 40 per cent of people worldwide who need treatment for HIV (MDG 6) are now receiving antiretroviral therapy. Across Africa, long-lasting insecticidetreated nets (LLINs) are being used in more communities and more children suffering from malaria are being treated with effective drugs.

These and other improvements, including immunization, have reduced child deaths from 12.5 million in 1990 to 8.8 million in 2008.

Immunization remains a public health "best buy" for low-income countries in particular. According to Helen Evans, Deputy Chief Executive Officer of the GAVI Alliance, it is "one of the most costeffective investments they can make in economic development, and vital in realizing the right to health."

She adds: "Cost-benefit analysis in the US shows that every dollar invested in a vaccine dose saves an average of 14.50 US dollars – and up to 27 US dollars – in health expenses."¹²

By preventing disease, vaccines enable people to be more productive including those, often women, who would have had to stay at home and care for the sick. The potential economic return on GAVI's efforts to support the introduction of new and under-utilized vaccines has been estimated at 18 per cent by 2020 – higher than most health interventions and similar

Immunization remains a public health "best buy"

• •



Nepal Red Cross volunteers assist with measles vaccination at a Kathmandu primary school.

to the potential return from primary education (MDG 2).¹³

The IFRC 2009 report *The epidemic divide*¹⁴ echoed this sentiment, stating that "communicable diseases are the enemies of development". Epidemics destroy livelihoods in poor communities.

Vaccination is relatively easy to carry out, it reinforces primary healthcare and its impact can be amplified through "herd immunity". WHO defines "herd immunity" as the blocking of transmission of a disease when a critical proportion of a population has been vaccinated or has otherwise developed immunity.

- United Nations. *The Millennium Development Goals Report.* 2010.
 GAVI Alliance
- Statement, 21 October 2009. **13.** Bloom, D.E., Canning, D. and Weston, M. 'The value of vaccination' in World Economics. July -September 2005. Refers to income generated by healthy people who have been protected by immunization. **14.** IFRC. The
 - epidemic divide. July 2009.

Number of **children** under five years who die every year from pneumococcal disease.

800,000

New vaccines could save millions more lives

Diphtheriapertussis-tetanus vaccine. Haemophilus influenzae type B.

In the developing world, once a child has survived the first month of life, pneumonia and diarrhoea are the diseases that pose the biggest mortality threat. Together, they account for more than onethird of all deaths of children under the age of five. Here too, the full potential of vaccination may only now begin to be tapped. Together with growing access to routine vaccines against diphtheria, pertussis, tetanus, or pentavalent vaccine (a combination of DPT,¹⁵ Hib¹⁶ and hepatitis B), GAVI estimates that more than 4 million lives could be saved. GAVI's support of immunization since 2000 has already prevented more than 5 million premature deaths.

GAVI's funding challenge 2010–2015: approx. US\$ 4.3 billion



Total programme spending: US\$ 7 billion

GAVI forecasts that by 2015, with adequate funding, around 40 more countries will have introduced pneumococcal vaccine against the bacteria associated with the majority of cases of pneumonia and some forms of meningitis. More than 110 million children could be immunized and approximately 840,000 lives saved each year.

In addition, just over 40 countries could introduce the vaccine against rotavirus with GAVI support – the most common cause of severe diarrhoea in young children. Nearly 60 million children could be immunized and some 200,000 lives saved each year. Additionally, a new vaccine which prevents cervical cancer has the potential to save millions of women's lives. An estimated 270,000 women die of cervical cancer each year, 85 per cent of these live in developing countries. The vaccines protect against the human papillomavirus (HPV) – cervical cancer's primary cause – and became available in 2006, but have yet to reach lowincome countries. GAVI has put HPV vaccines on a priority list for future funding.

These opportunities to save lives, however, require additional funding from the global community (see chart).

Once-only cost of **eradicating smallpox** in the 1970s.

US\$ 100 million

The measles paradox: forwards or backwards?

In terms of recent trends, is the world going forwards or backwards on measles? Has the upward curve of success reached a plateau or are we regressing?

The Measles Initiative (MI) was founded in 2001 by the American Red Cross, the United Nations Foundation, the US Centers for Disease Control and Prevention (CDC), the World Health Organization (WHO), and the United Nations Children's Fund (UNICEF). It supported ministries of health to achieve the dramatic 78 per cent reduction in measles deaths from 2000 to 2008.

There is now growing concern that the combined effect of decreased financial and political commitment could erase the advances made in the past decade and lead to more than 500,000 measles deaths per year by 2013. In Africa, a 92 per cent reduction in measles deaths was cause for great celebration, but recent outbreaks in many African countries provide a sobering reminder that the gains are fragile. Complacency, even short-lived, is all that measles needs to regain a foothold.

One of the most recent measles outbreaks occurred in Malawi, the worst there in 13 years with more than 166 deaths recorded in less than a year. In 2010, the IFRC deployed nearly 120,000 US dollars from its Disaster Relief Emergency Fund (DREF) to support the Malawi Red Cross response to the outbreak.

Another recent outbreak began in September 2009 in Zimbabwe; by July 2010 there were over 9,600 cases and the outbreak had claimed more than 500 lives.

Measles has appeared again in the developed world, too. In France, an outbreak that started in May 2008 in two schools had spread throughout the general population by the autumn. To date, 4,120 cases have been reported, including two deaths. A third of the people affected had to be hospitalized.

How could this happen in a country with one of the best health-care systems in the world?

As in most developed nations, measles was largely a forgotten disease and *people became complacent*. The now-discredited campaign against the combined measles, mumps and rubella vaccine (MMR) led to a decline in childhood vaccination.¹⁷ More than 80 per cent of the French measles cases were people who had not been vaccinated. The outbreak there is expected to continue until the remaining susceptible population is immunized.

Globally, routine immunization against measles increased from 72 per cent in 2000 to 83 per cent by 2008. However, there were still more than 22 million infants and children not vaccinated, the majority of them in six very populous countries: China, the Democratic Republic of the Congo, Ethiopia, India, Nigeria and Pakistan. The risk of a new surge in measles in Africa, especially, is great.



The Measles Initiative has reported that an estimated 12.7 million measles deaths were averted between 2000 and 2008 through increased routine immunization, combined with periodic country-wide vaccination campaigns. While it costs less than 1 US dollar to vaccinate a child against measles, the Measles Initiative faces a funding gap of 10.5 million US dollars for 2010 alone. The funding gap from 2010 to 2015 totals 283 million US dollars.

The considerable gains won against measles worldwide could be lost if these proven successful strategies are not sustained. In May 2010, the 63rd World Health Assembly in Geneva endorsed a series of milestones for 2015 to lay the groundwork for eradication.

A child is vaccinated against measles during a national campaign in Bangladesh.

Estimated **annual cost** to the world of treating **smallpox**.

US\$ 1.35 billion

 In February 2010 the Lancet "fully retracted" the original research paper that linked MMR to bowel disorders and autism.

A borderless battle against disease

Disease recognizes no borders, but nor does the battle against it. The struggle to protect against diseases or eradicate them altogether is one that has been waged by some very effective international alliances over the past decade – a significant contribution to the spirit of MDG 8 on global partnership.

"The war drums on infant death must beat louder"

In its tenth anniversary report,¹⁸ the GAVI Alliance says that despite the backdrop of the global financial crisis, it received "a record number of applications for funding from low-income countries in 2009." GAVI reports unprecedented commitment to immunization programmes in the developing world by governments and health ministries. DPT3¹⁹ coverage, which is an important measure of the overall health of a country's immunization system,



In 2009, Rwanda became the first developing country to roll out pneumococcal vaccine to help prevent pneumonia, which alone accounts for nearly a quarter of child deaths in the country. Partnership made the roll-out possible.

is now estimated at approximately 80 per cent in low-income countries – the highest level ever.

18. GAVI Alliance Progress Report 2009.
19. DTP3: children receiving the full three doses of DTP vaccine in the first year of life.
20. 'What the world can do today for the health of children', The National, 25 July 2010.

To make the greatest possible progress in immunization and fulfill the ambitions of governments, the GAVI Alliance requires an additional 4.3 billion US dollars through 2015 to meet country demand for new and under-utilized vaccines. The Bill & Melinda Gates Foundation has committed itself to spending 10 billion US dollars over the next ten years during the "Decade of Vaccines" to support research and development, and the delivery of new vaccines to the world's poorest people.

However, the foundation says that it alone cannot fill the critical funding gaps faced by GAVI, GPEI, MI and other vaccination initiatives. To reach these child health goals, more partners are needed – to provide both financial support and the vital work at grass-roots level. Delay in expanding international commitment will inevitably cost lives.

Former US President Jimmy Carter and former UN Secretary General Kofi Annan recently issued a joint call for a "a balanced investment strategy" that reinforces routine immunization, completes existing initiatives to eradicate polio and reduce measles deaths by 95 per cent, and introduces new vaccines.²⁰

Professor Fred Were, chairman of the Kenya Paediatric Association and lecturer at the University of Nairobi, provides an African perspective on the call to action. "In Kenya," he says, "a child dies every four minutes. This is unacceptable. And the main cause of death is vaccine-preventable disease such as pneumonia. It's imperative that the government, the private sector and individuals feel morally obliged to do everything possible to reduce this trend. The war drums on infant death must beat louder."

Number of **routine immunizations** recommended for children by WHO.

An immunization success story from Haiti

By Marco Jiménez, IFRC, Port-au-Prince

It is relatively unusual for immunization to be woven into the fabric of a full-scale international disaster-response operation, but it happened in Haiti in 2010. One of the many government programmes that came to a sudden halt on 12 January 2010 after the earthquake was routine immunization.

The IFRC was one of the first organizations to respond to the government's call to quickly protect as many vulnerable people as possible against vaccine-preventable diseases, putting its resources behind a drive to vaccinate 150,000 children and adults against measles, diphtheria, pertussis and tetanus.

The programme was a combined effort by the Ministry of Health, the Haitian Red Cross Society (HRCS), IFRC, UNICEF, community organizations and other partners.

Vaccination started on 8 February, including 120 HRCS volunteer vaccinators on the ground, and National Societies from Finland, France, Germany, Japan, the Republic of Korea and a joint Canadian–Norwegian Red Cross unit. People were vaccinated against measles, diphtheria, pertussis and tetanus, and given albendezol – a deworming agent – and vitamin A. Local Red Cross volunteers explained to their communities that by vac"These children are our hope, our future"

cinating themselves and their children, Haitians were helping to counter the effects of the earthquake.

On 4 March, ahead of schedule, Dr Bathélémy Guibert, the director of the municipal health office at Fonds-Verrettes – a municipality in the Croix-des-Bouquets arrondissement in Haiti's quake zone – was able to tell reporters that the day's session would see the 100,000th vaccination of the campaign. He said: "These vaccinations are another opportunity for people to survive the tragedy, children above all."

"Our priority has been to put children first from the very beginning," said Noel Ylmond, a leading member of Villambetta, a quake settlement in the hills above Port-au-Prince where a tented vaccination post was set up. "But it's difficult for people to understand that when other things seem more pressing. These children are our hope, our future."

Red Cross workers unload vaccination equipment during the Haiti earthquake response.



Gambia: 100% and no less

By Moustapha Diallo, IFRC, Gambia

Amy Sallah, a young volunteer from the Gambia Red Cross Society (GRCS), puts drops into the mouth of Youma Cham, an eight-month-old baby.

She is held by her mother, Tarie Gaye, and her father, Moustapha Cham, who stands next to them leaning on a crutch. The parents are smiling. The little girl has just been vaccinated against polio in the second round of a massive synchronized vaccination campaign that aims to ensure every child is properly immunized.

For the Cham family and many other parents, the risk of paralysis caused by polio is a constant worry. Moustapha says: "I have suffered paralysis since an early age and I'm very aware of the importance of the oral vaccination against polio. It's why I personally make sure my children are vaccinated." To ensure parents are well-informed and understand the importance of having their children vaccinated, thousands of volunteers from Africa's Red Cross and Red Crescent Societies conducted community-level social mobilization in a series of national polio vaccination campaigns.

In Gambia, throughout the country, 300 volunteers helped to support the operation to vaccinate nearly 400,000 children under the age of five.

"Our volunteers go door-to-door to convince communities of the dangers of polio and the need to have their children vaccinated," says Fatou Gaye from the GRCS health department.



Gambia Red Cross volunteers in Brufut village talk to children about the dangers of polio.

An immunization first in Bolivia

Bolivia has a track record of successful immunization to protect its children against diseases that cripple and kill.

The country moved these efforts up a gear in August 2008 when it became the first GAVI-eligible nation to start immunizing against rotavirus, a major cause of morbidity and death among children under five. Rotavirus is estimated to have caused almost 2,000 Bolivian children to be hospitalized in the period 2006–2008, accounting for almost half of all hospital cases of diarrhoea.

Bolivia was well-placed to take a lead in deploying the rotavirus vaccine. Earlier immunization efforts have freed the country of measles and polio. Diphtheria, pertussis and neonatal tetanus have been reduced to low levels and the incidence of yellow fever has also fallen. Success in these efforts had boosted public confidence in health services and most of the essential infrastructure was already in place, although in need of some expansion.

"Immunizing children with the rotavirus vaccine marks another crucial step towards strengthening public health, and that makes it a vital investment in the country's future welfare and development," says Dr Walter Selum Rivero, Bolivia's Minister of Health.

The results are impressive. By early 2010, Bolivia had exceeded its targets, having already achieved 80 per cent coverage with the first dose of rotavirus vaccine and 64 per cent with the second. In just a year, the number of reported cases of rotavirus diar-

In just a year, rotavirus diarrhoea was reduced by 10 per cent

rhoea was reduced by 10 per cent. Immunization is offered free of charge at government health centres, and more than 200,000 children received the vaccine in 2009.

At the same time, Bolivia has taken a proactive approach to funding rotavirus immunization and phasing out GAVI financial support. The country has co-financed the vaccine at 3.50 US dollars per dose, or nearly half of the total price. This is the highest level of co-financing among countries receiving GAVI support and Bolivia plans to end GAVI's support entirely by 2015.

"This initiative is too important to leave unsecured," says Dr Rivero. "With national funding we can guarantee its sustainability for the long term."

- Make sustainable funding available for immunization programmes, supporting the continued availability of routine
 vaccines and enabling the introduction of new and under-utilized vaccines. Funding gaps and unpredictable funding
 reduce efficiency and can enable diseases to regain a foothold. Many diseases, including leading childhood killers, can
 be prevented by vaccine.
- Invest more in highly successful vaccination initiatives so they can reach their globally endorsed goals, including
 completing polio eradication and reducing measles mortality by 95 per cent. Concurrently, strengthen the routine
 immunization system in countries paying particular attention to reaching the most vulnerable and reducing inequities.
- Broaden the partnership around immunization, particularly by strengthening civil society. Vaccines will have the greatest
 chance of reaching their intended beneficiaries through empowered communities with the knowledge and resources to
 demand their right to vaccination and take up available services.

For more information on the IFRC global health programmes, please contact: Dr Stefan Seebacher Head, Health department E-mail: stefan.seebacher@ifrc.org

For more information on the IFRC immunization programme, please contact: Kate Elder

Senior health officer, MNCH and immunization E-mail: kate.elder@ifrc.org

Media and public relations contacts:

Paul Conneally Manager, Media and public communications unit E-mail: paul.conneally@ifrc.org



The International Federation of Red Cross and Red Crescent Societies promotes the humanitarian activities of National Societies among vulnerable people.

By coordinating international disaster relief and encouraging development support it seeks to prevent and alleviate human suffering.

The International Federation, the National Societies and the International Committee of the Red Cross together constitute the International Red Cross and Red Crescent Movement. IFRC thanks the GAVI Alliance for its support in producing this report.

.....

