WHO Immunization Work: 2004 Highlights
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Immunization is a highly cost-effective, proven health intervention. A quarter century ago, deadly smallpox disappeared from our planet as a result of vaccination. Outstanding progress has been made towards the eradication of polio: the 16-year Global Polio Eradication Initiative has reduced the incidence of polio across the world by 99% since 1988. Measles mortality has dropped by nearly 40% since 1999, with even greater progress occurring in Africa. Annual neonatal tetanus deaths are on the decline – fewer than 200,000 in recent years as opposed to 800,000 in the 1980s. Vaccines avert the deaths of between two and three million children each year, and prevent suffering and disability.

I am pleased to present some highlights of the World Health Organization’s global immunization work in 2004. Our work in immunization is driven by the needs of our Member States and is carried out in conjunction with the United Nations Children’s Fund (UNICEF) and a range of partners (governments, the private sector and civil society). This booklet is a compilation of key events and developments in innovation, accelerated disease control, immunization systems and communication.

Despite the undeniable successes to date, we can and must do more. An estimated 27 million infants were not immunized with DTP3 in 2003, mostly in sub-Saharan Africa, South-East Asia and the Pacific. It is unacceptable that 2–3 million people die from vaccine-preventable diseases annually.

Today, immunization is at an exciting turning point. In the coming decade, a revolution is expected in the ways that vaccines are designed, manufactured, delivered and administered. Over 15 new or improved vaccines are in the pipeline and are anticipated by 2015. Demand for vaccination is mounting. Opportunities for partnerships are expanding, notably through the Global Alliance of Vaccines and Immunization (GAVI). Immunization contacts are incr

I would like to thank you for your interest in our work and for your support to our mission to vaccinate all people at risk against vaccine-preventable diseases.

Jean-Marie Okwo-Bele
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HIV vaccine development (2/2004)

International collaborative efforts have resulted in the development of multiple HIV vaccine candidates, based on novel technologies which are being tested in developed and developing countries. There is, however, an important gap in our knowledge about the safety and potential efficacy of these candidate vaccines; this poses a major problem for the national regulatory authorities with regard to the scientific basis for the regulation and potential licensing of these vaccines. To address these challenges, a consultation was organized by the WHO–UNAIDS HIV Vaccine Initiative at WHO in Geneva, bringing together experts in the field of HIV vaccine research, those involved in regulation and licensing of vaccines and in clinical trials. The group of experts developed recommendations in three key areas including 1) needs for standardization and control of candidate HIV vaccines; 2) approaches and normative requirements for the conduct of clinical evaluation of candidate vaccines; and 3) needs for technical guidance, training and capacity-building to ensure high quality scientific and ethical standards for the conduct of clinical trials, in particular those to be implemented in developing countries.

Intellectual property rights and vaccines (4/2004)

Although intellectual property rights have not so far had a major impact on limiting access to existing vaccines, there is a concern that, with the entry into force of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement, patents may limit access to newer vaccines and related technical developments in developing countries. A meeting was held in Geneva to achieve a clearer understanding of the issues and information needs and to facilitate information exchange amongst different stakeholders. WHO continues to collect and analyse information on intellectual property and to work with all concerned partners to ensure global equity in access to vaccines that have a significant public health impact.

Strengthening immunization systems and introduction of hepatitis B vaccine in central and eastern Europe and the Newly Independent States (5/2004)

A meeting was held to provide participants with an update on the current situation in the WHO European Region relating to hepatitis B epidemiology and hepatitis B vaccination programmes. The main objectives were to ensure a better understanding of the safety issues of hepatitis B vaccines and vaccination programmes at country level and of the financial sustainability issues relating to the introduction and maintenance of hepatitis B vaccination at country level. A full meeting overview, including presentations, is available at: www.vhp.org/files/html/Meetings_and_publications/VHPB_Meetings/kyivindeximeeting.html

Progress on SARS, pandemic influenza and other infectious disease vaccines (6/2004)

More than 150 top scientists, researchers and public health experts met at the Global Vaccine Research Forum in Montreux, Switzerland, to present, debate and offer expert advice on cutting-edge vaccine research and development. Areas covered included the highly effective vaccines that prevent pneumococcal invasive disease, a leading cause of pneumonia and death; oral live rotavirus
Vaccines that have demonstrated efficacy; developing-country manufacturers which are improving the quality and quantity of their vaccine production; and measles aerosol vaccine administration which is being developed as a means of mass immunization (WHO is evaluating devices); a SARS vaccine clinical trial in China; and avian influenza, a major threat to humans, for which experimental vaccines to cover future strains are in the pipeline.

Global HIV Vaccine Enterprise (6/2004)

The Global HIV Vaccine Enterprise, endorsed by the G-8 in June, is a virtual consortium created to accelerate HIV vaccine development. The Enterprise intends to prioritize the scientific challenges that need to be addressed, to enhance coordination of research and to facilitate global collaboration among the world’s vaccine researchers in industrialized and developing countries. WHO and UNAIDS are among the partners of the Global HIV Vaccine Enterprise. The WHO Initiative for Vaccine Research will take advantage of this development to strengthen its efforts to improve capacity in developing countries to conduct clinical trials at the highest scientific and ethical levels. The WHO Initiative will also address issues such as future access to HIV vaccines. HIV/AIDS vaccine development has been slow due to the enormous scientific, logistic and financial challenges involved.

Meeting of the European Laboratory Working Group on Diphtheria (6/2004)

The 8th International Meeting of the European Laboratory Working Group on Diphtheria (ELWGD) and the Diphtheria Surveillance Network (DIPNET) was held in Copenhagen. The main goal was to provide a forum to update participants on the clinical, epidemiological and microbiological aspects of diphtheria and review the diphtheria situation globally, with particular emphasis on the Newly Independent States. The specific objectives of the meeting were to:

- review the current status of diphtheria control in the European Region and activities undertaken by countries to sustain diphtheria control;
- brief participants on the strategies and seroepidemiological data of diphtheria immunity;
- discuss surveillance of Corynebacterium diphtheriae infections;
- review microbiological aspects and laboratory methods, including antimicrobial resistance and molecular and genetic characterization of Corynebacterium diphtheriae;
- update on circulation of toxigenic and non-toxigenic Corynebacterium diphtheriae during the period of decreasing morbidity.
Rotavirus global-burden data and vaccine candidates (7/2004)

International scientists and vaccinologists presented the most recent figures for the global burden of rotavirus infection (estimated at over 500,000 deaths annually in children less than five years of age) and the latest information on the rotavirus vaccine candidates under clinical development. The WHO Initiative for Vaccine Research (IVR) was a co-organizer and cosponsor of the successful 6th International Rotavirus Symposium in Mexico City. Both GSK Biologicals, Belgium and Merck Research Co., USA have rotavirus vaccine candidates which are completing large Phase III studies for safety and efficacy. Many of these trials are ongoing in Latin America. At this meeting, a group representing public health workers involved in immunization policy in Member States in the Americas and some ministries of health in the region proposed the Declaration of Mexico City on Rotavirus Prevention. It calls for continued support of immunization as the highest political priority and for the introduction of the vaccine into national immunization schedules.

Development and access of all people to future HIV vaccines (8/2004)

The WHO–UNAIDS HIV Vaccine Initiative organized a consultation in Lausanne, Switzerland to discuss issues related to gender, race and age in HIV vaccine research and clinical trials. A special focus of the meeting was the participation of women and adolescents in clinical trials. Studies show that women are particularly vulnerable with regard to HIV infection and, when exposed to HIV, they are at least twice as likely to become infected. In parts of sub-Saharan Africa, girls and women are up to six times more likely to become infected than their partners. Women and adolescents are potential beneficiaries of future immunization strategies against HIV/AIDS. In spite of this epidemiological reality, women and adolescents – especially girls – have often had minimal involvement in clinical trials of HIV vaccines, as compared to men. The expert group developed a series of recommendations covering ethics, policy, advocacy, community participation, clinical-trial design and research needs that would facilitate the development, evaluation and future access to future HIV vaccines, regardless of gender, age, race, ethnicity and socioeconomic status.

New mechanism for funding immunization (9/2004)

The International Finance Facility is an innovative new funding mechanism conceptualized by the United Kingdom’s Chancellor of the Exchequer, Gordon Brown as a way to help mobilize the resources needed to reach the Millennium Development Goals (MDGs). It works by selling securities on the private market, backed by long-term commitments from donor governments; the proceeds are disbursed over the near term, increasing the amount of development funds immediately available.

The GAVI Board endorsed a proposal to create an International Finance Facility for Immunization. This is supported by the United Kingdom and France and several international agencies, including WHO which provides assistance on the technical and programmatic aspects. The US $4 to $8 billion raised would be used to reach the more than 27 million children in the world who did not have access to this cost-effective health intervention in 2003, and to accelerate the introduction of new vaccines in developing countries.
Introduction of auto-disable syringes in over 95% of the least developed countries (9/2004)

In 1999, WHO, UNICEF, UNFPA and the International Federation of Red Cross and Red Crescent Societies (IRCR) issued a statement calling for all countries to use only auto-disable syringes – syringes which cannot be reused and thus present a lower risk of person-to-person transmission of blood-borne pathogens than standard disposable and sterilizable syringes – by the end of 2003. Since 1999, progress in introducing these devices into national immunization programmes has been steady. Data published in September 2004 by WHO showed that, by the end of 2003, auto-disable syringes had been introduced in 62.5% of non-industrialized countries. With the financial assistance of GAVI, 95% of the least developed countries introduced auto-disable syringes by 2003.


Since 2003, WHO has been working with GlaxoSmithKline and the Bill and Melinda Gates Foundation to develop a new vaccine for people living in the African "meningitis belt", an area covering 21 countries from Ethiopia to Senegal. This new trivalent meningococcal ACW polysaccharide is necessary to protect against both the typical meningitis strains and a rarer strain which caused an outbreak in Burkina Faso in 2002. Several important milestones in the post-licensure evaluation of this vaccine were achieved this year. Early results from a trial among adults in Ghana showed that the vaccine was well tolerated and performed just as well as a similar – but much more expensive – quadrivalent vaccine. Final reports describing the performance and safety of this vaccine in a "real world" setting, the 2003 Nm W135 epidemic in Burkina Faso, also became available. Results also showed that the vaccine is highly effective in preventing epidemic meningococcal disease and that it is as safe as other similar vaccines used in developed countries. The results were summarized and presented at the 14th International Pathogenic Neisseria Conference in Milwaukee Wisconsin, USA.

Needle-remover device tests in Madagascar (9/2004)

Trials of needle-remover devices were held during the mass measles campaign in Madagascar. With increasing use of auto-disable syringes for immunization worldwide, calls for safe and effective means of reducing injection-related waste are growing. The results of the trials, and others like it, will provide an evidence-base for WHO policy on needle-removers.

Regional Programme Managers’ Meeting (9/2004)

At the meeting of the WHO Regional Committee for Europe, the importance of maintaining immunization services within the region was acknowledged. Having established the regional office’s continued commitment to immunization, it was necessary to review the status of immunization services within the region, assess progress in achieving regional immunization and disease-control targets.
and goals, discuss challenges and constraints experienced by Member States, and consider new strategies for improving and extending immunization services. With these aims in mind, a meeting of National Immunization Programme Managers from all 52 Member States of the WHO European Region, together with selected technical advisors and representatives of partner agencies, was held in Slovenia from 18–20 October 2004. Conclusions were reached and recommendations were made on the following areas: 1) immunization services with focus on reaching hard-to-reach/vulnerable groups; 2) using information systems for immunization as an evidence base for programme management; 3) partnership and advocacy network for immunization; 4) measles elimination and congenital rubella infection prevention; 5) the Polio Eradication Initiative; 6) new and underused antigens; and 7) immunization safety. The full report is available on the VPI website: www.euro.who.int/vaccine

Meeting on surveillance for measles and rubella and the monitoring of vaccine coverage in countries in the European Region (9/2004)

The WHO Regional Office for Europe and the French Ministry of Health co-hosted a meeting in Paris. The main objectives were to provide a forum for countries with more complex health systems in western Europe and north America to exchange experiences on best practices and methods for laboratory surveillance and the measurement of vaccine coverage. The meeting was attended by 44 people from 15 countries and representatives from WHO Geneva and the Regional Offices for Europe and the Americas. Eighteen recommendations were developed in the areas of: 1) vaccination-coverage measurement; 2) unvaccinated or hard-to-convince populations; 3) laboratory investigation of measles/rubella cases: patient and primary-health care physician issues; and 4) laboratory-supported surveillance including laboratory network and a surveillance strategy. The recommendations are intended for use by WHO and Member States of the WHO European Region to assist them in meeting the 2010 objectives for measles and rubella in the WHO European Region.

Measles supplementary immunization activities

**Tajikistan (10/2004)**

Nearly three million children were vaccinated against measles during a national supplementary immunization activity (SIA) in Tajikistan from September–October 2004. During the preparation and implementation of the measles campaign, technical support was provided by WHO and included extensive training of national and sub-national immunization managers and staff at immunization centres in the various districts.

The measles SIA was used as a mechanism to target specific areas of the routine immunization programme that needed improvements, as well as to enhance the capacity of health workers on planning and supervision of immunization activities and safe immunization practices.

Through these activities a strong partnership has been developed between the international donor community, non-governmental organizations (NGOs), the media, families and communities and the children and young people themselves. The campaign was conducted by the Ministry of Health with support from the Centers for Disease Control and Prevention (US CDC) of the United States Department of Health and Human Services, the Japanese Government, UNHCR, UNICEF, WFP, the WHO Regional Office for Europe and the World Bank.

**Turkey (10/2004)**

Ten million children were vaccinated against measles in the autumn of 2004 during the second phase of a campaign targeting pre-school children and children under the age of 15 years not attending school. The first phase of this large scale measles “catch-up campaign” was implemented during December 2003, targeting approximately 10 million school children aged 6–14 years through a school-based campaign, thus dramatically reducing the number of children now at risk from this highly contagious disease.

The campaign was organized as a collaborative effort led by the Ministry of Health of Turkey in close collaboration with the Ministry of Education, with financial and technical support provided by the US CDC, UNICEF and the WHO Regional Office for Europe.
Breakthrough in malaria vaccine research (10/2004)

The WHO Initiative for Vaccine Research (IVR) welcomed the results of a clinical trial demonstrating that a candidate malaria vaccine conferred protection in young children in Africa. The Phase IIb trial of RTS,S/AS02A in young Mozambican children showed 57.7% efficacy against severe malarial disease. The results of the trial indicated that an effective vaccine against malaria that could potentially save the lives of children is possible. While much more work on the vaccine is required, this constitutes a scientific breakthrough in malaria-vaccine research. IVR provided technical advice on the presentation of the malaria vaccine and other aspects of the research.

First international standard for common genetic test (11/2004)

At its 55th session, the WHO Expert Committee on Biological Standardization (ECBS) established the first ever international standard for a genetic test. The test for the Factor V Leiden mutation identifies a genetic predisposition to thrombosis and could therefore enable prevention and early treatment of this potentially life-threatening blood condition. The new standard will help ensure that this commonly-performed genetic test gives accurate results worldwide.

Evaluation of disposable-cartridge jet injectors for safe, needle-free immunization (11/2004)

The use of needles and syringes to deliver vaccines can be a source of disease transmission, due to widespread unsafe injection practices and inappropriate needle disposal. There is a need to develop technologies for needle-free vaccine delivery. Jet injectors are one such technology, permitting needle-free delivery of drugs and vaccines into the body by generating a high-pressure stream of injection fluid that penetrates the skin. WHO has facilitated the development and evaluation of several disposable-cartridge jet injectors which are cheap and reliable and are aimed at developing-country use. These were demonstrated at WHO headquarters and in several African countries where health-care workers identified design changes that would facilitate their use in immunization in their countries. It is anticipated that these devices could be available in a short time frame, permitting needle-free immunization.

Malaria vaccine trial concluded in Shanghai, China (11/2004)

Multiple vaccines are being developed and tested against malaria and, among them, WHO has supported a malaria vaccine candidate developed by a Chinese researcher. This promising candidate recently underwent the first trial in healthy adults in a collaborative effort supported by WHO that involved local investigators and a local bio-pharmaceutical company. The completion of this first clinical trial of a malaria vaccine candidate to be conducted in China was a milestone in the development and establishment of local capacity to conduct research and clinical trials according to the required international Good Clinical
Practice standards. The trial was successfully concluded in November 2004 and, based on the safety and immunogenicity results of this trial, WHO will continue its active involvement in the further development of this candidate vaccine in future clinical trials.

Meningitis conjugate A vaccine clinical trial preparations (12/2004)

Lots of meningitis conjugate A vaccine were manufactured at the Serum Institute of India Limited (SIIL) and qualified at the United Kingdom National Institute for Biological Standards and Control (NIBSC) in preparation for Phase I clinical trials. This candidate vaccine is the result of the efforts of the Meningitis Vaccine Project (www.meningvax.org) – a partnership established between WHO and the Programme for Appropriate Technology in Health (PATH) – with funding from the Bill and Melinda Gates Foundation. The Phase I trial will determine vaccine safety and immunogenicity in healthy adults in India. Meningococcal meningitis A is a disease that affects mainly the African meningitis belt which stretches along the southern edge of the Sahara desert from Senegal to Ethiopia. Once it successfully completes all required phases of clinical development, the Serum Institute of India will manufacture and sell the vaccine with a target price of US$ 0.40 per dose. This affordable price will allow purchase by affected countries for widespread use in mass immunization campaigns which will prevent hundreds of thousands of cases and save thousands of lives.

Rotavirus clinical trials completed in Africa and Asia (12/2004)

WHO-sponsored rotavirus vaccine clinical trials in Africa and Asia were completed during 2004. The simultaneous evaluation of late stage vaccine candidates in developing countries of Africa and Asia has been a WHO priority since 2000 and four trials addressing issues for infants in developing countries were completed.

New oral polio vaccine development agreed (12/2004)

Polio partners, vaccine manufacturers and the Bill and Melinda Gates Foundation agreed to develop a new oral polio vaccine (monovalent) to stop chains of transmission in Egypt and India.
A new global strategy for immunization (1/2004)

WHO and UNICEF began developing a policy document called the Global Immunization Vision and Strategies (GIVS). This document provides all countries with a vision of what should be accomplished in immunization by 2015. It describes strategies and key activities for protecting more people (including accelerated disease-control activities); introducing new vaccines and technologies and delivering other health interventions with immunization. Realizing the full potential of immunization will require sustaining present gains, reaching the unreached, using new and underutilized vaccines, and ensuring that other priority interventions are delivered at immunization contacts. Together, these will contribute significantly to the reduction in infant and child mortality which is one of the MDGs.

Haemophilus influenzae type b (Hib) disease burden in Bangladesh, Indonesia and other Asian countries (1/2004)

WHO convened a Panel of Experts to review data from recent studies on Hib disease burden in several Asian countries, with particular emphasis on two vaccine-effectiveness assessments from Bangladesh and Indonesia. The Panel concluded that several factors could affect the sensitivity of Hib incidence studies that were conducted in Asia and therefore lead to underestimates. To further assess Hib disease burden in those countries, the Panel considered several options. These include Hib Rapid Assessments, enhanced surveillance, and case-control studies. In addition, the Panel recognized that, despite the high cost of randomized prospective studies (vaccine probe trials), one or two such studies would be appropriate and essential for the documentation of Hib disease in Asia and for lending support to assumptions used to assess burden in other countries.

Vaccination of more than 32 million people in Iran against measles and rubella (1/2004)

In order to prevent congenital rubella syndrome and measles virus circulation, the Ministry of Health and Medical Education of the Islamic Republic of Iran implemented a campaign to vaccinate more than 32 million people aged 5 to 25 years with measles and rubella (MR) vaccine. The ministry provided extensive training and support to more than 32 000 vaccination teams organized through 40 medical universities in Iran. Extensive planning and social mobilization was conducted in collaboration with WHO and UNICEF, with special emphasis on safe and effective administration of vaccine. The month-long campaign was successfully completed in early January, and coupled with changes in the vaccination schedule, measles virus circulation in Iran may be eliminated and the risk of congenital rubella syndrome will be greatly reduced.
Signature of polio eradication declaration by ministers (1/2004)

Ministers of health of the six polio-endemic countries and global partners signed the Geneva Declaration on the Eradication of Poliomyelitis – a commitment to intensify the final push against the disease – at a meeting convened by WHO Director-General Dr LEE Jong-wook and UNICEF Executive Director Carol Bellamy. In this historic agreement each country agreed to make an all-out assault on polio and to increase and improve the immunization of their populations. Countries increased the frequency of vaccination days and improved their service to marginalized communities. They committed to immunizing 250 million children in various national and subnational immunization rounds.

Synchronization of measles immunization activities in West Africa; millions more to finance measles control in Africa (2/2004)

Five countries of West Africa met in Lomé, Togo to agree on a plan to synchronize measles immunization activities to eliminate measles in the sub-region during the year. The meeting was attended by the WHO Director-General, Dr LEE Jong-wook, ministers of health and UNICEF and resulted in increased political commitment to measles elimination and direct government contributions to immunization activities. The Measles Partnership, meeting in Washington, committed an additional US $12 million to financing 2004 measles elimination activities in Africa. Funds granted will go to measles supplementary immunization activities and routine immunization. The Measles Partnership is made up of national governments, the American Red Cross, UNICEF, US CDC and WHO. Other key partners are the Bill and Melinda Gates Foundation and the International Federation of Red Cross and Red Crescent Societies.
Dramatic drop in measles deaths (4/2004)

WHO and UNICEF announced a global reduction of 30% in deaths from measles, the leading vaccine-preventable killer of children, from 1999 to 2002. At 35%, the reduction in measles deaths was even greater in Africa. Progress is due to the adoption of the WHO/UNICEF comprehensive strategy for sustainable measles-mortality reduction by the most affected countries. The strategy is based on achieving at least 80% routine measles immunization coverage in every district, and ensuring that all children get a second opportunity for measles immunization either through routine immunization services or periodic supplemental immunization activities (SIA) every three to four years.


Forty-three million people – mostly children, but also young women and seniors – living in 35 countries from Canada to the tip of South America were vaccinated during the second Vaccination Week in the Americas. Five presidents and several ministers of health participated in the drive. Each country in the region set goals, decided on which antigens should be used and which areas should be targeted. Areas of high risk and exclusion such as poor peri-urban areas, borders, indigenous regions, areas with displaced or isolated populations and tourist areas were identified. Most countries vaccinated against measles, polio, rubella and congenital rubella syndrome, while others sought to prevent influenza and neonatal tetanus. A major goal of the Week was to vaccinate those who have never been vaccinated (of the 15 million children under five years vaccinated, 23% had never previously had a dose of vaccine) and those who have not completed their vaccination series. The efforts put forth by countries in the Americas helped sustain the progress achieved in the elimination of measles and neonatal tetanus, while promoting equity in health services.

Tetanus vaccination of 42 million women in high risk areas (5/2004)

In 1999, new emphasis was given to the joint WHO–UNICEF–UNFPA Initiative to Eliminate Maternal and Neonatal Tetanus; since then, vaccination campaigns have been organized in 32 countries to protect women and their babies who are
at high risk for contracting tetanus during childbirth. These women usually live in remote areas, where access to health services such as clean deliveries and routine immunization is difficult or not available, and campaigns are for the time being most suited to provide protection. Over 42 million women living in 1345 high risk districts have received two or more protective doses of tetanus toxoid vaccine through a campaign-style approach since 1999. In addition, WHO reviews have demonstrated that maternal and neonatal tetanus (MNT) has likely been eliminated in 6 of the 57 priority MNT countries.

Reduction of incidence of neonatal tetanus in Rwanda to elimination levels (5/2004)

A survey carried out this month by WHO, UNICEF and the government of Rwanda, found that in the selected high-risk areas, neonatal tetanus mortality dropped to less than 1 per 1000 live births. The result is mainly due to good tetanus toxoid immunization coverage. Rwanda is the sixth of 57 priority countries that has been assessed by WHO and found to have neonatal tetanus rates suggesting that the disease has been eliminated as a public health problem.

Risk of the largest polio epidemic in recent years in Africa (6/2004)

WHO warned of the risk of largest polio epidemic in recent years in west and central Africa. Following confirmed polio cases in Guinea, Mali and Sudan, international travellers were cautioned about the risk of polio in Nigeria. The greatest risk to polio eradication in Africa emanated from Nigeria due to the stoppage of all immunization activities in Kano and surrounding states, following unfounded rumours suggesting oral polio vaccine was not safe. With immunization activities stalled in Kano and polio campaigns of suboptimal quality in other northern states, polio was able to creep back across Nigeria and spread into several previously polio-free countries, putting 15 million children at risk and necessitating a massive immunization campaign across west and central Africa. Rotary International, a major partner of the eradication initiative, reached US $130 million with its fundraising campaign.
Quick reaction of African governments to spreading polio outbreak (6/2004)

In Africa, the polio outbreak spreading from northern Nigeria affected 12 previously polio-free countries by mid-year. These included Côte d’Ivoire and Sudan, where civil unrest and displaced people contributed to a weakened “firewall” around the virus. African governments responded with alacrity: solutions were found for the unfounded rumours in the northern Nigerian communities, and vaccination resumed. In synchronized immunization days, over 80 million children across west and central Africa were vaccinated against polio.

Funding for measles mortality reduction activities in Africa (7/2004)

The GAVI Board awarded US$ 37 million for measles “catch-up” campaigns and US$13 million for the introduction of a routine second dose of measles vaccine in 35 countries in Africa. These countries represent about one-third of the world’s unvaccinated children, and account for more than 50% of measles deaths worldwide. With support from GAVI, the Vaccine Fund and other partners, measles mortality can be reduced by 85% from current estimates in these target countries by 2009.

Recommendations to control Shigella (7/2004)

The WHO Initiative for Vaccine Research (IVR) organized a meeting of international experts to review the status of vaccine development against Shigella infections and to generate recommendations for the global agenda. Shigella is associated with significant morbidity and mortality worldwide, with an estimated 700 000 deaths amongst young children. Several vaccine strategies are being pursued including live oral attenuated vaccine strains, multivalent strains and killed strains. Subunit vaccine development is also under investigation. Recommendations include establishing the burden of disease in Africa and other regions where it is not well defined, elucidating the strain diversity and antibiotic resistance profiles in developing countries and accelerating the clinical evaluation of the viable vaccine candidates in humans.

Task Force on Measles Elimination in the Western Pacific Region urges setting a target date for measles elimination (7/2004)

The Task Force on Measles Elimination in the Western Pacific Region, at its July meeting, reviewed progress towards measles elimination – which is well advanced – and urged the setting of a target date for elimination. The Task Force will recommend a possible target date for consideration at the Western Pacific Regional Committee Meeting in September 2005. The foundation for measles elimination is to achieve high vaccination coverage with two doses of measles vaccine. It was made clear that adequate planning and integration of measles elimination activities within the Expanded Programme for Immunization and health services is critical for achieving and maintaining high population immunity. Setting a target date for measles elimination will hasten political commitment and mobilization of resources.

Hib vaccine introduction experience (7/2004)

On the occasion of the 13th GAVI Board meeting, WHO was invited to review its experience with decision making and implementation of *Haemophilus influenzae* type b (Hib) vaccine. The presentation addressed the main challenges faced by Gavi to successfully support Hib vaccine introduction. It highlighted, in particular, the importance of collaborating with countries to strengthen evidence-based decision-making, through demonstrating disease burden in Asia and Eastern Europe and raising awareness in Africa. To consolidate implementation several obstacles remain, such as the availability of products with improved characteristics, including pricing through an increased number of suppliers; revised financing strategies that would allow for smooth transition
of procurement support; and a more systematic effort in assembling and communicating vaccine impact data. The GAVI Board mandated a time-limited Task Team to develop a situation analysis and provide recommendations by December 2004.

**Number of children paralysed by polio in Asian sub-continent countries halved (8/2004)**

Despite dense populations and extremely efficient transmission of poliovirus, polio eradication efforts in the Asian subcontinent made dramatic progress and the number of children paralysed from polio fell by over 50% over this year.

**Recommendation on global and synchronous cessation of oral polio vaccine following polio eradication (9/2004)**

The Ad hoc Advisory Committee on Polio Eradication recommends global and synchronous cessation of oral polio vaccine following eradication and consideration of strengthening the polio eradication strategy by using monovalent type 1 oral polio vaccine in areas where only type 1 wild poliovirus remains.

**New rotavirus surveillance network in the Middle East and North Africa (9/2004)**

Collaboration of the Department for Immunization, Vaccines and Biologicals (IVB) with the Rotavirus Vaccine Program at the Program for Appropriate Technology in Health, Seattle has strengthened global networks for rotavirus burden of disease surveillance and a new network was initiated in the Middle East and North African region.

**Measles Partnership model useful in fight against other diseases (9/2004)**

A meeting was held in Algiers to strategize ways to copy the great success of the Measles Partnership in the control of other infectious diseases such as malaria and HIV/AIDS.

**Congenital rubella syndrome reduction target in Eastern Mediterranean Region (9/2004)**

A target of less than one case of congenital rubella syndrome per 100,000 births was suggested at a regional consultation for the Eastern Mediterranean countries held in September. The point of the consultation was to update the five-year regional strategic plan for measles elimination and rubella control. The updated plan aims at enhancing regional activities to meet the regional target of measles elimination by 2010. Considerable progress is being made in measles elimination. Coupled with efforts to strengthen routine measles immunization, approximately 101 million children have been vaccinated in supplemental immunization activities. Eighteen countries routinely provide a second opportunity for measles immunization and 16 countries provide rubella vaccine as a part of their Expanded Programme on Immunization (EPI).

**Over 70% national immunization coverage in Ethiopia (10/2004)**

A joint WHO/UNICEF national and international review of implementation of the Reaching Every District (RED) strategy took place in the focus districts of Ethiopia. Microplanning was conducted, and priority zones have increased the number of outreach sites several-fold. Immunization coverage has increased tremendously in most priority zones, with programme performance
being monitored at all levels through the use of monitoring charts. From 2000–2004, national coverage with DTP3 has remained around 50%. In 2004, national coverage increased to 72%, with three of the 11 regions achieving DTP3 coverage of over 80%.

**Improvement of immunization coverage in Angola (10/2004)**

Angola has taken bold steps in improving immunization coverage, as shown in a joint WHO/UNICEF national and international review of the implementation of the Reaching Every District (RED) Strategy. Of the 59 priority districts (municipios) selected for implementation of the Strategy, all of those visited have detailed microplans in place, and health workers displayed a general awareness of the strategies and tools needed to increase immunization. Official results show that the national goal for 2004 of 60% immunization coverage for all EPI antigens has been achieved with all antigens and even surpassed with some. Additionally, the national goal of 75% immunization coverage for all EPI antigens in the 59 priority districts is on track for achievement by year end, having already been reached with BCG, measles and TT2+ antigens at the end of June.

**Support to Western Pacific countries for management of existing laboratory stocks of wild poliovirus and maintaining region polio-free (10/2004)**

The WHO Western Pacific Region was certified polio-free in October 2000. Keeping the region free of polio remains critical to protect the huge investments made in this historic achievement in public health. Since certification, over 50 000 cases of acute flaccid paralysis (AFP) – a clinical condition with sudden loss of power of movement in one or more limbs – have been investigated, but no wild poliovirus was found, although it is still circulating in other parts of the world. Member States remain committed to maintaining sensitive AFP reporting systems and quality immunization services to protect their newborn and young children from this crippling disease. Maintaining a polio-free status also means health institutions in the region must identify where wild polioviruses are stored for various testing and research purposes – this is laboratory containment. To support the effort to catalogue, safely store or destroy existing stocks of wild poliovirus and potentially infectious materials, WHO has assisted countries in 2004 to validate the activities so far and prepare a quality assessment report to document the laboratory survey and inventory.

*Both routine and supplementary immunization sessions need to be well planned to vaccinate the target population.*

Credit: WHO
Recommendation of measles elimination goal from Strategic Advisory Group of Experts (10/2004)

The Strategic Advisory Group of Experts (SAGE), which provides advice on immunization programmes to WHO on an annual basis, encouraged WHO to advocate that the remaining two WHO regions (AFRO and SEARO) set measles elimination goals. It supported a strong agenda on vaccine research and development, as well as the assurance of vaccine quality, as core functions of WHO. SAGE also commended the development of the Global Immunization Vision and Strategy (GIVS). The latter is a policy document serving as a road map towards the future for countries and all their partners, both domestic and international, on how to enhance and improve their national immunization programmes in order to meet challenges with respect to introducing new vaccines and reducing further the disease burden attributable to vaccine preventable diseases.

Global prevention of invasive Haemophilus influenzae type b diseases (10/2004)

A working paper was presented to WHO’s Strategic Advisory Group of Experts (SAGE) to discuss the current challenges with decision-making and
implementation of Hib vaccine introduction. The paper proposes a series of approaches that could provide the basis of a strategy to further invasive Hib disease-prevention through burden of disease establishment, cost-effectiveness studies, prioritization of invasive Hib diseases among other important public health problems, supply of adequate vaccine products at affordable prices, long-term financing strategies and impact assessment methodologies. SAGE recommended that WHO should consult with countries in all regions, with particular emphasis in the African Region, on their use of Hib vaccine. These consultations should aim at providing comprehensive information on existing evidence about Hib disease burden and the impact of Hib immunization in preventing meningitis and pneumonia.

Increase of immunization coverage in Democratic Republic of Congo

The Democratic Republic of Congo achieved and exceeded the threshold of 50% for DTP3 national vaccination coverage for the first time. This is a significant accomplishment in a country that represents over 60% of the total EPI target for infants in Central Africa. The implementation of the Reach Every District (RED) strategy contributed to Congo’s achievement.

Introduction of hepatitis vaccine in Western Pacific countries (2004)

The WHO Western Pacific Region became the first region in which all the countries and areas have introduced hepatitis B vaccine into their national immunization programmes. Most of the countries in the Western Pacific have a very high burden of hepatitis B. The Western Pacific Region has 28% of the global population, but accounts for more than 40% of the disease burden and mortality due to hepatitis B. Almost 800 deaths per day are estimated to occur in the region due to hepatitis infection. A regional goal has been set to reduce the chronic carriage rate, in the next five years, to less than 1% in children born after the start of a vaccination programme. Regional hepatitis B coverage has increased substantially in part due to GAVI-supported projects in China, Cambodia, Lao People’s Democratic Republic and Viet Nam. The region hopes to achieve its goal by strengthening the routine systems to ensure universal coverage of all infants with three doses of hepatitis B vaccine, the first delivered within 24 hours of birth.

Emergency measles immunization campaigns in aftermath of tsunami and implementation of preventive measures against tetanus (12/2004)

Through the Measles Partnership, US $35 million has been mobilized for emergency immunization activities in Aceh Province, as well as for medium and long-term work to control measles throughout the island of Sumatra. The emergency activities include vaccination for all displaced children from 9 months to 15 years of age. In the months and years to come, the EPI throughout Sumatra will be rebuilt, cold chain equipment will be replenished and a catch-up measles campaign will target all children between 9 months and 15 years of age. The Measles Initiative partners include the American Red Cross, the International Federation of Red Cross and Red Crescent Societies, UNICEF, the United Nations Foundation, US CDC and WHO. With many people injured during and after the tsunami, the risk for tetanus increased. WHO and its partners worked together to ensure that appropriate preventive measures are implemented.
Analysis of programmatic issues related to Hib vaccine introduction (12/2004)

WHO led a subcommittee of the GAVI Hib Task Team to assess issues related to the introduction of Hib vaccine. The sub-committee found that good surveillance data on Hib were rarely available and that the importance of Hib disease was not well understood, with misconceptions on Hib disease and disease burden present even among important decision-makers. To facilitate decision-making, clearer information on burden of disease, cost-effectiveness and long-term impact of the vaccine introduction on other aspects of immunization programmes is required. The GAVI Board endorsed the recommendations to work individually with countries in order to support their efforts to define and obtain information needed to inform national decision-making regarding the relative priority of Hib vaccine use. A $37 million project will be completed to achieve this aim over the next 4 years; this will include the co-funding of a vaccine probe study for India.
Access to vaccines of assured quality for many more children (2/2004)

In 1997, WHO launched an important initiative to strengthen national regulatory authorities to ensure that all vaccines used by Member States meet international standards of quality, safety and efficacy. In 1990, less than 20% of vaccine-producing Member States had an independent and functional regulatory system to oversee the quality of vaccine domestically produced and used or exported. Due to this initiative and additional WHO support, today about 40% of vaccine-producing countries have developed functional regulatory oversight in compliance with the WHO Expert Committee on Biological Standardization (ECBS) recommendations. These countries include the most populous developing countries that produce vaccines, such as Brazil, China, India and Indonesia.

Russian course on surveillance of adverse events following immunization (3/2004)

Twenty-five participants from the ministries of health of eight Russian-speaking countries (Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan) took part in the first Global Training Network course in surveillance of adverse events following immunization (AEFI) in Russian. They learned how to evaluate, develop and strengthen the surveillance system for AEFI and to investigate, analyse and communicate about such events. The course covered immunization safety, case investigation, crisis management, causality assessment, decision-making and effective communication with the national regulatory authority, national immunization programme, the media, patients, parents and the public. Participants developed a draft action plan for the strengthening of their national immunization safety programme. Currently four centres offer this Global Training Network course in three languages: the Tarasevich Institute in Moscow (Russia), the University of Cape Town (South Africa), the Ministry of Health of Sri Lanka and the Pharmacovigilance Center in Tunis (Tunisia). So far, 14 courses have instructed almost 240 participants.

The Sultanate of Oman became the first country to implement the WHO/UNICEF recommendations for Effective Primary Vaccine-Store Management. This new WHO/UNICEF initiative aims to ensure that countries correctly manage their central stores where vaccines are stored in large quantities worth several million dollars. The initiative focuses on the ten key requirements with which the vaccine management system must comply. The Sultanate of Oman is the first country to have completed an external assessment and to meet all requirements. In practice, this guarantees that high quality vaccines are used in immunization programmes as they will be stored safely, protected from damage, and transported and used in a timely manner. Several other countries have embarked on this process and are close to completion.


The Immunization Training Partnership brings together interested partners from the public and private sectors to share ideas and develop new techniques to train health staff at all levels. The third annual meeting of the Immunization Training Partnership was held in June 2004 in Geneva. Information on work carried out in 2003 was shared and future areas of collaboration were discussed. Members agreed that supportive supervision is very important for capacity-building of health staff. Participants committed to put greater efforts into developing appropriate tools and methods for conducting supportive supervision. The next meeting of the partnership is planned for June 2005.


The Global Advisory Committee on Vaccine Safety, established in 1999 to respond promptly, efficiently, and with scientific rigour to vaccine-safety issues of potential global importance, held its tenth meeting in Geneva. Issues discussed were the safety of adjuvants, the safety of dengue vaccine, and the effect of...
diphtheria–tetanus–pertussis (DTP) vaccination on child survival. In relation to the safety of adjuvants, it was suggested that WHO might serve as a repository for safety reports and as a forum for dialogue and guidance for the technical and scientific standards for adjuvants and their safety, for setting standards for such work, and for defining principles governing regulatory issues in adjuvant safety. The conclusions of the Committee are available on its website: www.who.int/vaccine_safety/en

New immunization financing database (7/2004)

The immunization financing database was launched on the web (www.who.int/immunization_financing) with the support and input of partners. It contains data initially from 22 countries which have developed financial sustainability plans at the request of the Global Alliance on Vaccines and Immunization (GAVI). This is the first time that such detailed and extensive data are available – showing estimates of how much immunization programmes cost, what the financing gaps currently are and what they will be in the future. Such information will help improve the understanding of the reasons behind inadequate funding for vaccines and immunization in the poorest countries. While this site is only part of the solution to the problem of sustaining financing for immunization, it is a major step forward for countries and partners: it enables them to make more informed decisions on the cost and impact of current and future immunization programmes and of strategies for long-term financial sustainability. Solid financing is one of several elements required to ensure continuity in services, and to fund continuous increases in coverage, quality and access to both traditional and newer vaccines.

Improvement in global dissemination of information on vaccine safety (8/2004)

The Vaccine Safety Net, an initiative to improve global dissemination of vaccine-safety information via the Internet, was launched. Websites containing vaccine-safety information were evaluated for their adherence to specific criteria for good information practices which had been identified by the Global Advisory Committee on Vaccine Safety (GACVS). Those sites adhering to criteria are listed as partners of the Vaccine Safety Network on the WHO Immunization Safety site (www.who.int/immunization_safety/safety_quality/vaccine_safety_websites/en). The managers of listed sites receive advance information of GACVS meeting agendas and conclusions so as to be better able to respond to queries on emerging vaccine-safety issues from health professionals, the media and the general public.


In 2004, WHO’s Eastern Mediterranean Region launched a regional bacterial meningitis surveillance network to support efforts to document the impact of Hi, Sp, and Nm disease on young populations in the region. In addition, it launched a regional diarrhoeal disease surveillance network to help document the impact of rotavirus and other enteric diseases on populations in the region. WHO’s African Region worked to strengthen existing surveillance systems focused on bacterial meningitis and enterics. Importantly, the AFR Paediatric Bacterial Meningitis Surveillance Network worked to document the impact of Hib vaccination on Hib meningitis and was able to show the impact of this vaccination activity in Malawi, where levels of Hib disease have decreased to extremely low levels since Hib vaccination was introduced.
Establishment of Developing Countries’ Vaccine Regulators Network (9/2004)

The Developing Countries’ Vaccine Regulators (DCVR) Network was formally established on 17 September in Bangkok. The Network’s mission is to provide a platform for discussion and advancement of knowledge in the area of evaluation of new vaccines. This will strengthen the regulatory capacity of the Network members and other developing countries. The DCVR’s founding member countries are Brazil, China, Cuba, India, Indonesia, Korea, Russia, South Africa and Thailand.

WHO policy on health-care waste management (10/2004)

Concern is increasing about the potentially negative impact on health of certain methods of managing health-care waste. There is currently no perfect readily-available solution for this. The new WHO policy paper on health-care waste management emphasizes the need for decision-makers in countries to balance risks and benefits when making policy decisions. The paper recommends that countries conduct assessments prior to choosing the method of health-care waste management to be adopted. WHO advocates the safe, effective and cost-effective non-incineration technologies in the long term and the exploration of options, such as recycling and adherence to best practices for small-scale incineration, in the short term.

Accreditation of training centres by the Global Training Network on Vaccine Management (11/2004)

The World Health Organization has accredited the Department of Communicable Disease Surveillance Control of the Sultanate of Oman and the Collaborative Centre for Cold Chain Management (CCCCM) of South Africa as training centres for the Global Training Network on Vaccine Management for a period of two years. The Oman centre runs vaccine store management training courses targeting cold store and cold chain managers as well as national logisticians. The CCCCCM, in addition to its vaccine store-management training course, also runs vaccine-management training courses targeting immunization programme managers.

Global criteria for effective vaccine store management met in Moldova (11/2004)

The Republic of Moldova's Chisinau primary vaccine store received recognition for meeting the WHO-UNICEF global criteria for effective vaccine-store management. After completion of its assessment, an external evaluation team announced that this vaccine store achieved an over 80% score in all the required areas: pre-shipment and arrival procedures; temperature control; sufficient storage capacity; standards of buildings, equipment and transport; effective maintenance; stock management; and vaccine distribution. Moldova is the second country to achieve this standard.

Streamlining of vaccine prequalification to cope with exploding demand (11/2004)

The vaccine prequalification procedure – whereby WHO advises UN procuring agencies on the acceptability of vaccines after an assessment of the quality, safety and immunogenicity – was streamlined to address the challenges of exploding demand and the advent of novel vaccines such as the new DTP-HepB-Hib combination vaccines, meningococcal conjugate, rotavirus and pneumococcal vaccines, etc. As a result, it will take less time (less than one year, compared to close to 18 months in the past) for a vaccine to be approved for routine needs. In case of emergencies, the time frame could possibly be further reduced. The new procedure will come into effect in January 2005.
Filmed on location in Africa, Asia and Europe, this 48-minute documentary featuring two IVB experts portrays the human face of immunization. The film was broadcast by BBC throughout the world. Immunization saves the lives of three million children each year, but millions more could be saved if there were enough vaccine and enough political will to protect all children in need. Today childhood immunization faces obstacles never seen before. The enemies of immunization include war, distrust, rumours and misinformation. But there are many heroes bringing immunization to every child. The Departement of Immunization Vaccines and Biologicals (IVB) worked with the Program for Appropriate Technology in Health (PATH) and independent film-maker Jenny Barraclough to produce this film which is also available in French.

The State of the World’s Vaccines and Immunization Report, 2003 revised edition, highlights the immense strides made in global immunization since the mid-1990s: the near eradication of polio worldwide, and dramatic reductions in the incidence of measles and maternal and neonatal tetanus in some of the lowest-income countries. It also charts progress in the development and introduction of new life-saving vaccines that have the potential to save millions of lives every year. However, many children have yet to benefit from these achievements. The report outlines new initiatives launched in response to low immunization coverage and the unacceptable toll of infectious diseases in developing countries; it also makes a case for investment in immunization by the world community and looks at the promising future for vaccines and immunization. In addition to English, the report became available in French and Arabic; Spanish and Russian versions are forthcoming.
Immunization in Practice, a practical guide for health workers, is revised and published (10/2004)

The revised edition of this popular guide consists of eight modules targeted at district and health facility staff who deliver immunization services to children and women. Its objective is to improve services so that every infant receives quality immunization in a sustainable way. Included are modules that can be used at any level of the health service for planning, monitoring and use of data to improve immunization services.

It is available at: www.who.int/vaccines-diseases/epitraining/SiteNew/iip

Media informed of news in vaccine research and disease control (2004)

Throughout the year, the Immunization, Vaccines and Biologicals Department based in WHO’s Geneva headquarters published seven press documents which are available on the WHO media centre website (www.who.int/mediacentre/en). Other press materials were published by the six WHO regional offices. WHO experts provided interviews and press briefings on a range of immunization issues from research and development to vaccine safety.
WHO headquarters’ sites

Department of Immunization, Vaccines and Biologicals (IVB)
www.who.int/vaccines

IVB publications
www.who.int/vaccines-documents

Statistics and graphics
www.who.int/vaccines-surveillance/StatsAndGraphs.htm

WHO position papers on vaccines
www.who.int/vaccines-documents/DoxGen/H3DoxWERpp.htm

Immunization partners
www.who.int/vaccines/en/otherwebsites.shtml

WHO regions’ immunization websites

Africa
www.afro.who.int/ddc/vpd/index.html

Americas
www.paho.org/english/ad/fch/im/Vaccines.htm

Eastern Mediterranean
www.emro.who.int/index.asp

Europe
www.euro.who.int/vaccine

South-east Asia
w3.whosea.org/vaccine/en/Section1226.htm

Western Pacific
www.wpro.who.int/themes_focuses/theme1/focus1/t1f1.asp

Specific topics

Immunization safety
www.who.int/immunization_safety/en

Global Advisory Committee on Vaccine Safety
www.who.int/vaccine_safety/en

Global Immunization Vision and Strategy
www.who.int/vaccines/gvis

Injection safety
www.who.int/injection_safety/en

Introducing new vaccines
www.who.int/vaccines/en/newvaccines.shtml

Quality, logistics and financing
www.who.int/vaccines-access

Supplemental immunization activities calendar
www.who.int/vaccines/siacalendar/padvancedasia.cfm

Surveillance
www.who.int/vaccines-surveillance

Vaccine research and development
www.who.int/vaccine_research/en

WHO vaccine preventable diseases monitoring system, 2003 global summary
www.who.int/vaccines/GlobalSummary/Immunization/CountryProfileSelect.cfm

WHO/UNICEF review of national immunization coverage (estimates), 1980–2002
www.who.int/vaccines-surveillance/WHOUNICEF_Coverage_Review
Vaccine-preventable diseases

Diphtheria
www.who.int/vaccines/en/diptheria.shtml

*Haemophilus influenzae b*
www.who.int/vaccines/en/haeflub.shtml

Hepatitis A
www.who.int/vaccines/en/hepatitisa.shtml

Hepatitis B
www.who.int/vaccines/en/hepatitisb.shtml

Measles
www.who.int/vaccine_research/diseases/measles/en/

Mumps
www.who.int/vaccines/en/mumps.shtml

Pertussis
www.who.int/vaccines/en/pertussis.shtml

Polio
www.polioeradication.org

Rubella
www.who.int/vaccines/en/rubella.shtml

Tetanus/Neonatal tetanus
www.who.int/vaccines-surveillance/deseasedesc/DES_ntt.htm

Yellow fever
www.who.int/vaccines/en/yellowfever.shtml