

# 1

## SUPPLIES FOR UNICEF PRIORITIES

Supply Division has emerged as a global leader in several areas that are key to implementing UNICEF's priorities for children and contributing to fulfilling the UN Millennium Development Goals. Developments in vaccine security, the safe delivery of HIV/AIDS-related products including antiretroviral medicines, back-to-school educational and recreational supplies, and the rapid introduction of long-lasting insecticidal bednets, along with coordinating the transition to the use of artemisinin-based combination therapies for malaria, have all demanded growth in the Division's procurement capacity.

These areas also require expertise in planning and forecasting demand, knowledge acquisition and dissemination on products and sources, regulatory reviews, close monitoring and evaluation of product availability, and detailed attention to quality and logistics. This expanded scope has capacity implications for Supply Division's committed experts. Supply Division has teams of professionals dedicated to a range of activities including the procurement and supply of pharmaceuticals, immunization, and Procurement Services. In addition, in 2004 Supply Division established an Emergency Coordination Unit and an Antiretroviral Unit to improve UNICEF's response further in these highly specialised and increasingly demanding fields.

Supply Division is developing its competences further by adding more product groups, in line with the organization's priorities. These groups of supplies are used to assist UNICEF-supported programmes. UNICEF's organizational priorities are immunization 'plus', fighting HIV/AIDS, early childhood, girls' education and child protection. In addition to programme priority-related supplies, Supply Division also procures supporting supplies, such as vehicles, computers etc., enabling UNICEF offices to run their programmes efficiently.

### I - IMMUNIZATION 'PLUS'

#### Total procurement: \$424 million

Two million children die every year from vaccine preventable diseases, as worldwide a quarter of newborns are not vaccinated. As part of its commitment to improving child survival, UNICEF procures vaccines for some 40 per cent of children in developing countries, representing an increasing number of children every year.

The procurement of vaccines and related supplies remains the largest segment of UNICEF procurement activities by value – accounting for 53 per cent of activities in 2004. The total value of procurement for UNICEF's priority 'Immunization 'Plus' was \$424 million, with \$374 million spent on 2.8 billion doses of vaccines, \$27 million on 500 million auto-disable syringes, and \$15 million on cold-chain equipment. In addition, Supply Division shipped \$8.3 million worth of donated Vitamin A.

UNICEF's vaccine procurement has increased steadily each year since 1996. Increases since 2001 have been primarily a result of immunization campaigns in support of polio eradication, measles control and elimination, as well as the introduction of Hepatitis B and Hib vaccines funded by the Global Alliance for Vaccines and Immunization/Vaccine Fund (GAVI/VF). In 2004, procurement was 8 per cent higher than in 2003.

The procurement of oral polio vaccines (OPV) reached an historic high in 2004, with over 2.1 billion doses purchased by Supply Division in support of the global polio eradication initiative. This included over one billion doses of OPV for India, for a value of \$100 million, funded by the World Bank, the German Development Bank (KfW), Rotary International and the Government of Japan. The World Bank's 'buy-down' mechanism established in 2003 was also used to finance OPV provision in Nigeria and Pakistan. In collaboration with the World Health Organization (WHO) and other partners, UNICEF is working on developing a polio vaccine stockpile to support the post-eradication period.



©UNICEF/H004-0650/Giacomo Prozzi

*A 10-year-old boy winces as he is vaccinated against measles at # 31 Jeleznodojiniy Vokzal primary school in Dushanbe, Tajikistan, as part of the first-ever national immunization campaign. The national campaign aimed to reach almost three million children, some 50 per cent of the total population of the country.*

## Vaccine Security

In 2001, UNICEF developed an organizational-wide objective of vaccine security – to ensure an uninterrupted, sustainable supply of quality, affordable vaccines. The three strategies that support vaccine security - accurate forecasting, forward funding and appropriate contracting - continued to be implemented by UNICEF and donors in 2004, and have proven effective. In 2004, the availability of vaccine was significantly better than in previous years, and the 2004-2006 vaccine tender will result in a sustained supply for this period.

The vaccine market remains fragile but the supply situation has improved in comparison to the previous five years. The number of manufacturers pursuing WHO pre-qualification and UNICEF procurement has increased significantly. Thus the newly augmented supplier base promises to make a marked contribution to the future of the vaccine market in developing countries. The accuracy of UNICEF's 2004 vaccine forecast exceeded the target of 80 per cent, and all countries procuring vaccine through UNICEF participated in the forecasting exercise. This assisted in ensuring that vaccine production met the organization's needs and provided UNICEF with leverage to negotiate reduced prices from manufacturers.

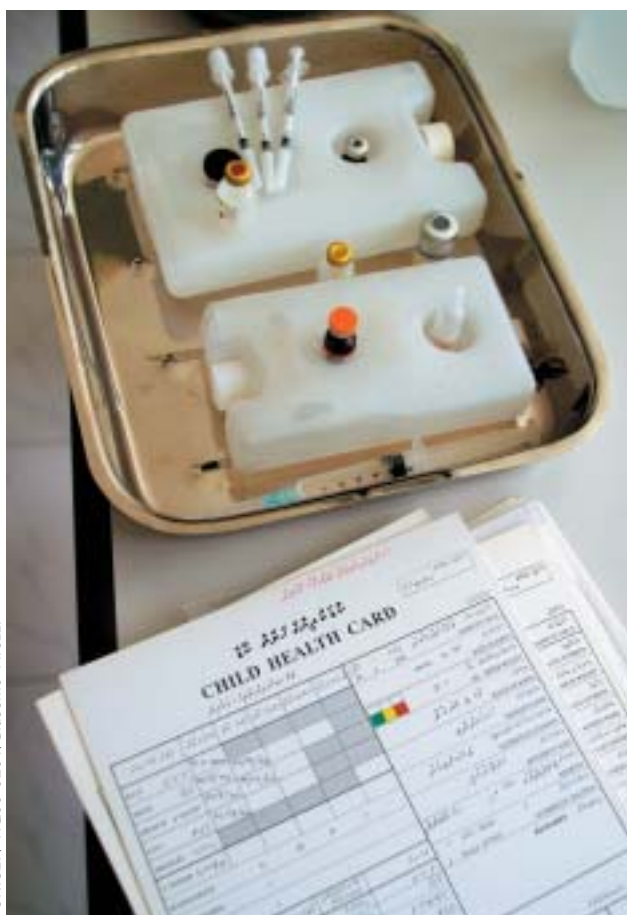
## Fighting measles

Global deaths from measles, which only a decade ago killed millions of children each year, plummeted by 40 per cent to an estimated 530,000 in 2003, with the largest reduction occurring in Africa, thanks to mass vaccination campaigns. To this achievement must be added an unknown number of children who have been spared debilitating illness, including life-long disabilities like blindness and brain damage. As measles wards shut down all over Africa, hard-pressed hospital budgets are being freed up to save children from other diseases.

In the years 1999 to 2003, Supply Division shipped over 637 million doses of measles vaccines. During 2004 alone, 139 million doses were procured for 62 countries around the world.

The WHO/UNICEF strategy for sustainable measles mortality reduction has thus proved highly successful and is the model upon which other child killers such as malaria are being tackled.

Supply Division undertook vaccine security missions to various countries, including Morocco, Tunisia, Nigeria, the Philippines and Fiji. Supply Division and the Regional Office also hosted a Vaccine Management and Forecasting Training workshop in West Africa. The objectives of these missions included providing assistance with in-country planning mechanisms, conducting reviews of and making recommendations for the in-country vaccine procurement system, and addressing various country-specific issues related to vaccine supply. In order to meet these objectives, the Division also conducted training on vaccine forecasting at various other regional Expanded Programme on Immunization managers meetings.



©UNICEF/ H005-0251/Giacomo Pirozzi

*Syringes, vaccines and child health cards supplied by UNICEF sit on a table at an immunization site on Kudahuvadho Island in Dhaalu Atoll, some 150 kilometres from Male, the Maldives.*

## Vaccine safety

In 2004, almost all manufacturers shipped vaccines using vaccine vial monitors (VVMs). The VVM is a strip on each vial which changes colour to record the extremes of temperature it has been subjected to in

transit. This allows recipients to check that the quality of the vaccine has not suffered due to exposure to extreme temperatures, and helps ensure that children are immunized with potent vaccines.

The average cost of a VVM is 7 cents per vial, with a range of between 4 cents and 20 cents. The total cost of VVMs for the quantities of vaccine forecasted by UNICEF over the period 2004-2006 is \$7.5 million.

Another important measure to ensure the safety and quality of vaccines is the use of vaccine arrival reports (VARs). Each vaccine shipment is inspected upon arrival to ensure that the vaccines arrived in good condition, that they were not exposed to extreme temperatures and that they meet all the procurement specifications. This initiative is fundamental to monitoring the cold chain. The VAR return rate increased from 75 per cent in 2003 to over 85 per cent in 2004. Because of the increased monitoring and inspection resulting from the VARs, there has been an improvement in the quality of vaccines delivered to countries. As a result, insurance claims for damaged vaccines decreased in 2004.

## Simple vaccines for a few cents

In recent years, UNICEF has experienced some price increases for traditional Expanded Programme on Immunization vaccines, which historically and to this day have only cost a few cents per dose. These price increases have been the result of several factors, including absorbing the costs involved in increasing capacity, maintaining compliance with Good Manufacturing Practice (GMP) requirements, and re-initiating the production of traditional vaccines, as well as the devaluation of the US dollar and market factors. UNICEF monitors prices carefully and its strategy is to reject any price increase unless it has been sufficiently substantiated by the manufacturer. Prices for 2004-2006 have now been established - based on forecasted supply needs. In order to maintain vaccine security, and remain in compliance with UNICEF's vaccine procurement principles, Supply Division has attempted to contract a minimum of four suppliers for each vaccine type.

UNICEF continues to support manufacturers in providing tiered pricing, meaning that these manufacturers offer their lowest market price to the poorest countries that UNICEF procures for. Industry has responded well to this principle, and UNICEF continues to obtain the best prices on the market for the vaccines it procures.

## Who funds vaccines for developing countries?

Each year UNICEF receives funding via over 400 funding mechanisms to support vaccine procurement. Sometimes some vaccines are funded by only one or two major donors. For example, from 2001 to 2003, OPV was largely funded by the Center for Disease Control & Prevention (CDC) and the Government of Japan, and in 2004 the World Bank's 'buy-down' mechanism became the major funding source. From 2001 to 2004, the Hepatitis B and Hib vaccines were almost exclusively funded by GAVI/VF.

However, the majority of vaccines are financed by many agencies, including governments themselves. UNICEF Country Offices work at the local level with governments and bilateral agencies to ensure there is sufficient funding available for routine needs. This effort is complemented by global programmes and fundraising efforts to ensure that the countries' overall financial requirements for vaccines, devices, cold chain and operational activities are covered.

## Emergencies

In 2004, Supply Division ensured that stockpiles of yellow fever, meningitis and measles vaccines were available to respond to outbreaks and emergency situations. For instance, nearly four million doses of measles vaccine and corresponding devices were

shipped to Darfur in Sudan, and over 400,000 doses of measles vaccine and syringes to Bangladesh for emergency immunization campaigns.

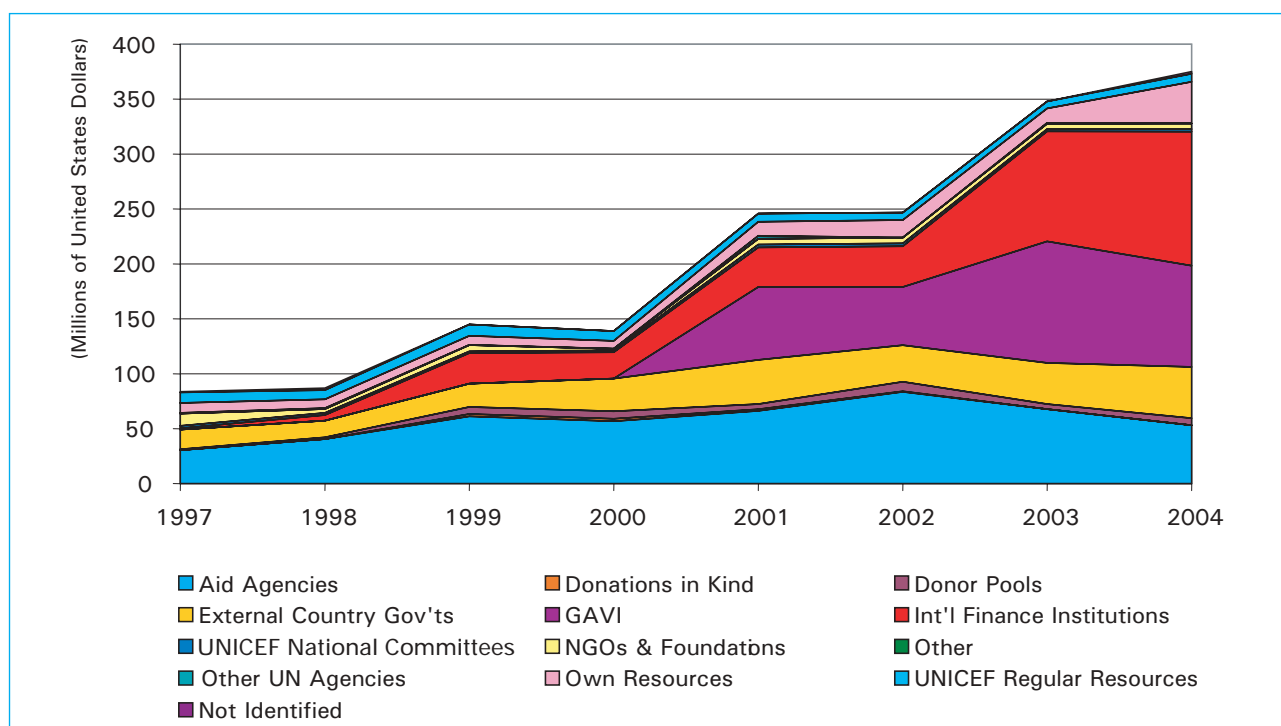
## Procurement on behalf of countries receiving support from GAVI/VF

Ten countries received support from GAVI/VF for the introduction and/or continuation of DTP-HepB vaccine, 11 countries received support for DTP-HepB + Hib vaccine, three countries received support for DTP-Hib vaccine, 28 received support for Hepatitis B vaccine, and 17 received support for yellow fever vaccine. The availability of combination vaccines was limited during the first half of 2004, but improved in the second half of the year. Based on ongoing discussions with manufacturers, UNICEF foresees that the supply situation will continue to improve, and that additional countries that would like to introduce these vaccines will be able to do so in 2005-2006.

## Safe Injection

In 2004, the introduction of a new auto-disable (AD) syringe increased the supplier base for this product, lessened reliance on a single supplier, and enabled UNICEF to continue supplying AD syringes for a weighted average price of below 6 cents a piece.

## VALUE AND SOURCES OF FUNDING FOR VACCINES PROCURED BY UNICEF



In line with the WHO /UNICEF bundling policy, UNICEF procured 500 million auto-disable syringes in 2004, plus the corresponding numbers of mixing syringes and safety boxes. The bundling policy works towards ensuring vaccines are only provided with appropriate devices, administered safely, and waste is managed safely, as one comprehensive policy.

## Vitamin A

UNICEF has been the recipient of a substantial contribution-in-kind of vitamin A capsules from the Canadian Government through the Micronutrient Initiative, since 1997. The purpose of the contribution is to support and enhance national programmes that aim to improve the vitamin A status of children and mothers in countries or country regions where vitamin A deficiency is a significant public health problem. UNICEF is responsible for distributing the supplements to countries where vitamin A deficiency programmes are underway. In 2004, UNICEF shipped \$9.3 million worth of Vitamin A, including a donation of \$8.3 million, representing some 500 million capsules, to 75 countries. The top five recipient countries were Pakistan, Nigeria, Ethiopia, the Democratic Republic of the Congo and Afghanistan.



©UNICEF / H004-0689/Giacomo Pirozzi

*Liliana, a health worker, examines 14-month-old Sasha at the UNICEF-assisted regional centre for AIDS prevention and protection, in the western port city of Kaliningrad, Russian Federation. Sasha's mother is 27 years old and HIV-positive.*

## II - HIV/AIDS

### Total procurement: \$21.3 million<sup>1</sup>

Millions of children are affected by the HIV/AIDS pandemic, and most of them are from developing countries. Some 6 per cent of those living with the disease are children, and 15 million children have been orphaned as a result of it. Despite some progress and international commitment, most children living with HIV/AIDS still do not have access to treatment. Fighting HIV/AIDS is a UNICEF priority.

UNICEF actively supports the "3 by 5" Initiative, launched by WHO on World AIDS Day in 2003. This initiative is dedicated to providing universal access to antiretroviral therapy (ART), the combination of antiretroviral (ARV) medicines used to treat the disease. The interim target of the Initiative is to provide effective ART to three million people who need it by the end of 2005. UNICEF is committed to making treatment more available and accessible to children in need, in turn contributing to the Millennium Development Goal of combating HIV/AIDS.

Treating parents, especially mothers, benefits children in many different ways. First, it reduces the likelihood of children being infected with HIV through mother-to-child transmission. Second, improving the length and quality of life of the mother is critical to the survival and development of the child.

In consultation with partners, the role of UNICEF in the procurement of HIV/AIDS-related supplies focuses on two issues: procuring and delivering ARV medicines, diagnostic equipment and test kits, and strengthening the capacity of health services.

In 2004, UNICEF procured \$21.3 million worth of HIV/AIDS-related supplies, primarily on behalf of partners including governments, non-governmental organizations (NGOs) and other UN agencies. Of this amount, \$18.4 million was for ARV medicines in 39 countries, and \$2.9 million for HIV/AIDS-related test kits and diagnostic equipment. During 2004, UNICEF reached around 1.5 million people with test kits. The increase in ARVs procured in 2004 was dramatic, rising from \$1.7 million in 2003.

In response to the challenges and complexity of ARV supply-chain management, Supply Division set up a dedicated ARV Unit in 2004, to focus its efforts on ensuring continuous access to life saving medicines. Supply Division also created a stockpile of HIV/AIDS-related products at its Copenhagen warehouse, providing the potential for uninterrupted delivery to those countries experiencing medicine shortages.

<sup>1</sup> - This figure does not include the procurement of medicines for the treatment of opportunistic diseases or laboratory equipment.