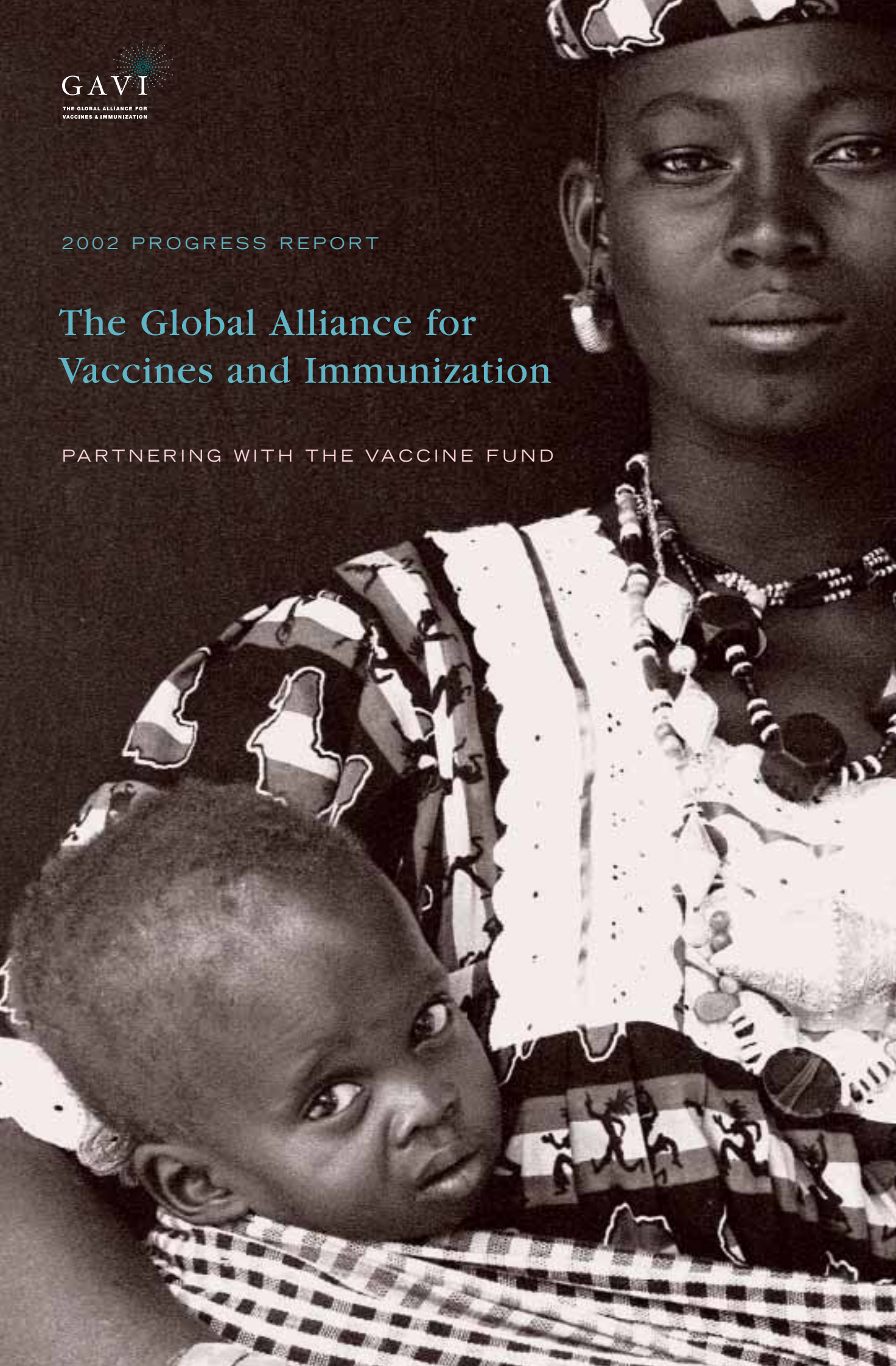




2002 PROGRESS REPORT

The Global Alliance for Vaccines and Immunization

PARTNERING WITH THE VACCINE FUND



Dear Gavians,

Many who pick up this report are veterans of the global effort to immunize the world's poorest children against preventable childhood diseases. Some of you are newcomers to the cause. Yet, all of us share a common purpose: to give the world's youngest, most vulnerable population a chance at a better, healthier life.

Three years ago I retired from the World Health Organization after 30 years of service as a physician in the field of public health. Three days later, I was back at work, helping to launch GAVI – the Global Alliance for Vaccines and Immunization.

With partners from national governments worldwide, the international community, the pharmaceutical industry, and philanthropy – most notably the Bill & Melinda Gates Foundation, which has provided a startup grant of \$750 million to GAVI's financing arm, The Vaccine Fund – we have begun the millennium with new tools, new skills, and a promising business strategy to bring new and underused vaccines to the developing world.

At GAVI today, we take positive lessons from both the private and public sectors to chart our way forward, guided by clearly defined goals, timelines, work-plans, financial controls and a system of checks and balances. Milestones help us to measure our progress.

The end of this year marks the third of our alliance. Resources from GAVI and The Vaccine Fund support programmes in 64 countries around the developing world. By the end of 2002, we projected that 80 percent of the world's poorest countries *with adequate delivery systems in place* would have introduced the hepatitis B vaccine to their children, and I am pleased to report, they have. Today, with GAVI support, 10 million more children have been vaccinated against the hepatitis B virus. More than 90,000 children who would have died prematurely from this deadly disease will now have a chance for a long, productive life.¹

**We must –
for the single and fundamental
reason that
this is the right thing to do.**

This is an iterative process. We learn as we push forward, confronting challenges at every turn. During the last two years, broad country demand for the new combination vaccines vastly outstripped supply; monovalent vaccines were shipped instead. To our dismay, only one manufacturer, GlaxoSmith-Kline, was able to fill orders. We hope this situation changes and more vendors enter the market.

We delayed implementation of the performance-based system because audits conducted in 2001 and 2002 revealed most countries had dilapidated information systems or none at all. We will issue first 'reward' payments in 2003.

In some countries, war, political turmoil, failing economies, and natural disasters have impeded the transfer of GAVI/Vaccine Fund assets to local governments.

¹ Preliminary estimates from the World Health Organization, 2002

But everyday, through the hard work of thousands of individuals, progress is steady, though much remains to be done. We must continue to demonstrate to the world the enormous importance of vaccines – including eventually one against AIDS. We must continue to assist countries in strengthening their healthcare delivery systems to ensure rapid delivery of all vaccines – as soon as they become available. As we seek political and financial commitment to our cause, let us show the decision-makers of the world that immunization costs so little and yet can save so many lives. We must – for the single and fundamental reason that this is the right thing to do.

One of the most eloquent tributes to healthcare workers and volunteers comes to us from Senegal. Serigne Dame Léye, headman in the village of Ngouye Diaraf, said: “If we don’t have polio or measles or whooping cough in this village anymore it is due to their dedication. They have saved the lives of our children. We used to have epidemics here. We used to bury two or three children every week because of measles. This does not happen anymore because of these people. I include them in my prayers. I trust they will be rewarded in heaven.”²

And to all Gavians who have undertaken this effort as a night job and make our progress possible, I extend my heartfelt appreciation.



Dr Tore Godal
Executive Secretary, GAVI Secretariat

² The Vaccine Trail: A Journey Through Senegal, by Sara Cameron



It is three years since the launch of GAVI, the Global Alliance for Vaccines and Immunization. Across much of the developing world, GAVI is already making a difference in the lives of children and their families. Every day, GAVI partners work together so that more and more children worldwide are protected against killer diseases by ensuring that they receive needed vaccines. Partners are also working together to support the strengthening of health care systems that are crucial to the safe and effective delivery of vaccines, as well as supporting the development of new vaccines especially needed in developing countries.

The GAVI partners have faced a number of challenges. I congratulate the partners in their willingness to be flexible and responsive as we address each new issue which arises to ensure that our overall goal – to reach more children with needed vaccines – is achieved.

This report looks at where we are today, what we have achieved and what remains a challenge. It is timely that this report is being released at the 2nd GAVI Partners' Meeting where the 2002 *State of the World's Vaccines and Immunization Report* is also being launched, outlining the bigger context in which GAVI is working to make a difference.

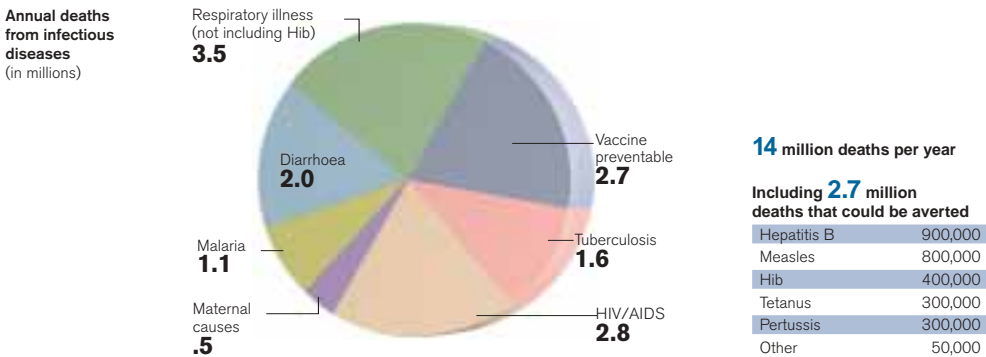
I am happy to share this report and would welcome feedback to ensure that the GAVI partnership remains responsive to the needs of children.

Carol Bellamy
Chairperson, GAVI Board

Alliance Goals

The work of GAVI is organized around three central goals that reflect a commitment to help substantially expand the number of children immunized in the world's poorest countries by providing them with basic access to lifesaving vaccines.

- | | |
|--|--|
| <p>1. Increase coverage – boost the number of children whose lives can be saved with the remarkably effective tool of vaccination.</p> | <p><i>Focus on improving the ability of local health facilities to deliver essential health services including immunization.</i></p> |
| <p>2. Shorten the time span between registration of a vaccine product in the marketplace and its full-scale use in the developing world.</p> | <p><i>Focus on new vaccines, hepatitis B and Haemophilus influenzae type b – and an under-used vaccine, yellow fever.</i></p> |
| <p>3. Accelerate the development and introduction of new vaccines.</p> | <p><i>Focus on near-term vaccines to combat childhood diseases, such as rotavirus, pneumococcus, and meningococcus type A.</i></p> |



GAVI Milestones

The partners focus their efforts on achieving quantifiable milestones on the way to realizing the overarching goal of equal access to all necessary vaccines. GAVI partners will continue to amend the milestones, as new challenges emerge.

- By 2002, 80% of all countries with adequate delivery systems will have introduced the hepatitis B vaccine – by 2007, all countries will have done so. **For 2002, this milestone was reached.**
- By 2005, 80% of developing countries should have routine immunization coverage of at least 80% in all districts.
- By 2005, 50% of the poorest countries with high disease burdens and adequate delivery systems will have introduced the *Haemophilus influenzae* type b vaccine.
- By 2005, the world will be certified polio-free.
- By 2005, the efficacy of vaccines and the burden of disease will be known for all regions for rotavirus and pneumococcal vaccine, and mechanisms identified to make the vaccines available to the poorest countries.



What is GAVI?

The Global Alliance for Vaccines and Immunization is a remarkable cooperative effort between private and public sectors to save children's lives and improve people's health through the widespread use of vaccines. This partnership of international organizations, national governments, pharmaceutical companies, research institutions, and philanthropy has one goal: to bring effective preventive health care to the world's most vulnerable population – its children.

In just three years, GAVI and its financial arm, The Vaccine Fund, have adopted a rigorous business-like framework to address a global health concern and have persuaded national governments to do the same. Based upon three essential points – cooperation, strategic planning and quantifiable results – this approach requires countries to develop strong coordination among local partners, prepare multi-year plans to improve health care and its financing, and importantly, establish a system to measure and verify results.

Simultaneously, GAVI and The Vaccine Fund aim to stimulate the vaccine industry to develop and supply vaccines to low-income countries.

**GAVI has played an important catalytic role...
The ministry of health had been planning to integrate hepB
vaccine into its programme for many years, but there
was no budget. With GAVI support the MOH had a good argument to
secure more government funds to the programme.
Mr Liu Peilong, Ministry of Health, China**

Why GAVI?

Immunizations today already save more than three million lives a year – about 10,000 lives a day – and protect millions more from illness and permanent disability. However, one child in four does not have access to basic immunization. And, if injections are available, they are often administered incorrectly, without the proper safety precautions. Were every child to be reached with all available vaccines, an *additional* three million lives could be saved every year.

A downward trend in vaccination coverage in low-income countries over the past decade – in combination with a decreasing supply of key vaccines – led the partners to form a new alliance to revitalize this crucial, cost-effective healthcare intervention. GAVI seeks to coordinate and complement existing healthcare services. Its goal is not to replace programmes already in place but rather to enhance and strengthen them.

Technical partners, such as the World Health Organization (WHO), UNICEF, the U.S. Centers for Disease Control and Prevention (CDC) and the Children's Vaccines Programme at the Programme for Appropriate Technology for Health (PATH), have realigned programme areas on global and regional levels to respond more rapidly and effectively to a particular country's needs. Donor-partners – such as bilateral aid agencies in Canada, Japan, the Netherlands, Norway, the United Kingdom and the United States, and local offices of WHO and UNICEF – have increased their support to national health programmes.

Since its inception, GAVI and The Vaccine Fund have already stimulated new interest – both north and south – in vaccine use and manufacture. Immunization trends have just begun to be reversed. The stagnation and decline that once marked the field promise to be transformed by an upward turn of new research and investment as well as usage.

Status Report

In 2000, GAVI invited the 74 countries with less than \$1,000 per capita annual gross national product to submit proposals for financing. In 2002, East Timor was added.

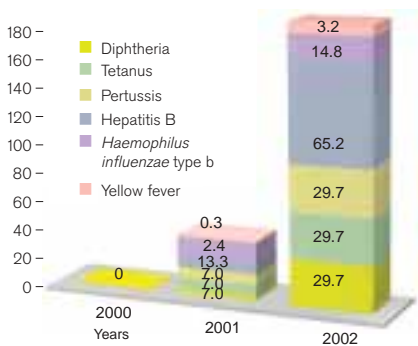
Since GAVI's founding, 10.5 million more children have been protected against hepatitis B, preventing the premature death of more than 90,000 people.

By the end of 2002, nearly 90% of those countries have received commitments from GAVI and The Vaccine Fund – a brisk pace for a brand new international aid programme.

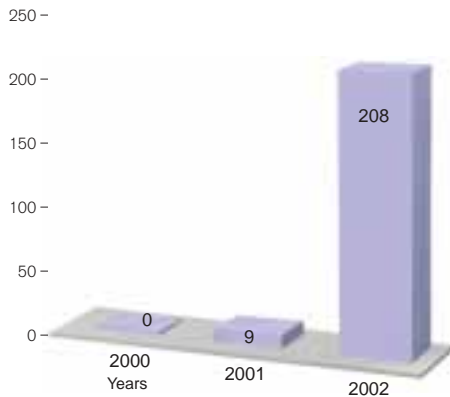
In fact, by year end 2002, 55 countries have already received vaccine supplies and/or cash from GAVI and The Vaccine Fund.

Resources Disbursed through 2002:

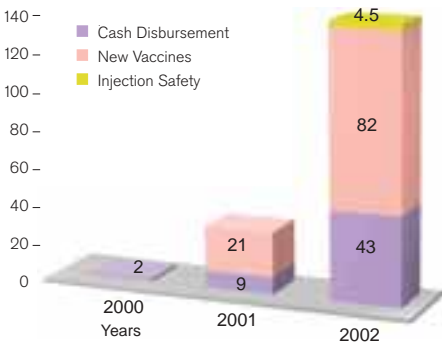
Cumulative number of antigen doses delivered to countries by GAVI/The Vaccine Fund, through 2002
(doses in millions)



Cumulative number of safety syringes delivered
(in millions)



Cumulative value of total GAVI/VF disbursements by 31 December 2002
(US dollars in millions)





The year 2000, the first of the alliance, was one of preparation, as partners developed new funding strategies and policies to support countries' immunization efforts and prepared the world for the introduction of new vaccines. In May of that year, eligible countries were asked to submit their proposals for assistance. After reviewing these proposals, GAVI and The Vaccine Fund made their first five-year commitment of \$300 million to 21 countries.

In 2001, more and more countries galvanized efforts to satisfy the requirements for funding and submitted plans to define local strategies to intensify immunization programmes by working with national health officials and alliance partners 'in country.' Five-year commitments rose to \$800 million, disbursed to 53 countries.

During 2002, substantial GAVI support – vaccines, cash and other resources – from The Vaccine Fund and directly from other partners, began to arrive in countries. As expected, a series of management issues have arisen – from ensuring safe injections and waste disposal, to recordkeeping, inventory control, and refrigeration and vehicle maintenance. Attention to these issues pays off not only in improved immunization services but also in all around healthcare. As 2002 draws to a close, five-year commitments now exceed \$900 million, disbursed to 61 countries.

Today, with support from GAVI and The Vaccine Fund, 33 more countries are able to protect their children against hepatitis B; seven countries provide vaccine protection against *Haemophilus influenzae* type b; and seven provide yellow fever vaccination. By year end, in spite of delays in setting up financial mechanisms, 50 countries will have received monetary support to improve health infrastructure. The tally for cumulative expenditures through 2002 for vaccines, supplies and cash support: \$130 million.

**This is a programme that's delivering. A donor can say to his
peers that this money is being well used.
Our goal is to have a health care center within five
kilometers of every village.
Prime Minister Pascoal Manuel Mocumbi of Mozambique**

A number of countries experienced delays in receipt and introduction of the new, multivalent vaccines – which protect children against several diseases in a single shot – due to supply and manufacturer issues. Furthermore, a number of countries encountered other programmatic challenges. Even so, 10.5 million children have been protected against hepatitis B – saving more than 90,000 lives with that single vaccine. In addition, 3.2 million children have been protected against *Haemophilus influenzae* type b, and 600,000 children have been protected against yellow fever. This means more than 100,000 premature deaths have been averted.³

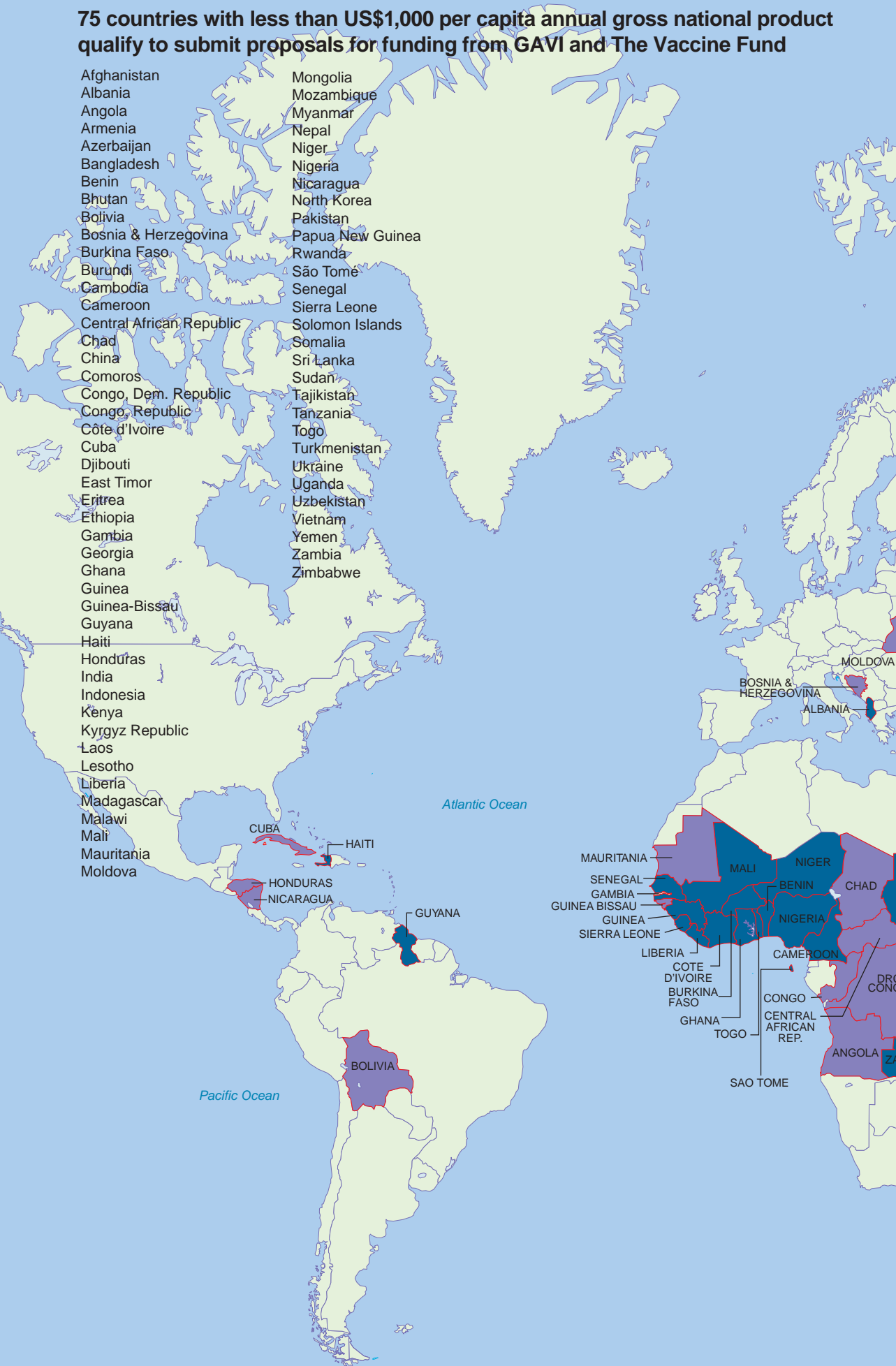
For the partnership, challenges now emerge with respect to the management of process. Where a loose alliance was effective during the programme's start-up phase, implementation now requires more structure – so that progress can be monitored and problems addressed in keeping with sound business practices. GAVI's stringent focus on institutional accountability has imposed new discipline upon grant makers as well as grantees.

³ Preliminary estimates from the World Health Organization, 2002

70 % of the world's children live in the 75 poorest countries

75 countries with less than US\$1,000 per capita annual gross national product qualify to submit proposals for funding from GAVI and The Vaccine Fund

- Afghanistan
- Albania
- Angola
- Armenia
- Azerbaijan
- Bangladesh
- Benin
- Bhutan
- Bolivia
- Bosnia & Herzegovina
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Central African Republic
- Chad
- China
- Comoros
- Congo, Dem. Republic
- Congo, Republic
- Côte d'Ivoire
- Cuba
- Djibouti
- East Timor
- Eritrea
- Ethiopia
- Gambia
- Georgia
- Ghana
- Guinea
- Guinea-Bissau
- Guyana
- Haiti
- Honduras
- India
- Indonesia
- Kenya
- Kyrgyz Republic
- Laos
- Lesotho
- Liberia
- Madagascar
- Malawi
- Mali
- Mauritania
- Moldova
- Mongolia
- Mozambique
- Myanmar
- Nepal
- Niger
- Nigeria
- Nicaragua
- North Korea
- Pakistan
- Papua New Guinea
- Rwanda
- São Tomé
- Senegal
- Sierra Leone
- Solomon Islands
- Somalia
- Sri Lanka
- Sudan
- Tajikistan
- Tanzania
- Togo
- Turkmenistan
- Ukraine
- Uganda
- Uzbekistan
- Vietnam
- Yemen
- Zambia
- Zimbabwe



GAVI Around the World

For Example:

CHINA

One-third of the world's individuals infected with hepatitis B live in China. Every year, as many as 280,000 Chinese people die from liver cancer and other liver ailments caused by hepatitis B.

China's participation in GAVI has raised the profile of its hepatitis B programme and accelerated the introduction of 500 million auto-disable syringes. Re-use of needles and syringes has been a leading cause of hepatitis B infection there. Therefore, the project is stimulating domestic production of auto-disable syringes.

**Each year, unsafe injections are responsible for:
8 million to 16 million hepatitis B infections, 2.3 million to
44.5 million hepatitis C infections,
and 75,000–150,000 HIV/AIDS infections.**

In 2002, China matched GAVI and The Vaccine Fund's contribution to its national efforts – a programme first – bringing total immunization resources to \$75 million dollars and marking the country's long-term commitment to this endeavor. Following a five-year period of GAVI support, China will assume all programme costs and provide the hepatitis B vaccine free of charge to all infants, including those born in China's poorer rural provinces. Thus, over the next five years, as a result of this 'first-of-a-kind' funding arrangement, more than 35 million Chinese babies will be immunized against hepatitis B.

GHANA

In Ghana, the launch of GAVI galvanizes national political commitment to immunization as a health-care priority. Ghana has used its cash disbursements from GAVI and The Vaccine Fund to computerize its healthcare facilities to improve recordkeeping. At low-performing sites, performance incentives have been established. Introduction of the new, pentavalent vaccines – DTP-hepatitis B-*Haemophilus influenzae* type b – allows a broad-based, technical review of the knowledge and skill of healthcare workers.

In addition, Ghana has become the first country to undertake its own long-term immunization plans that phase in local funding as GAVI funding diminishes. Ghana made this decision after working on its financial sustainability plan, recognizing that commitment of its own funding would extend the length of support from GAVI and The Vaccine Fund and could encourage other funders to help the country maintain its vaccine programme.

KENYA

In Kenya, the minister of health implemented GAVI's performance-based approach in local districts using GAVI funds to distribute checks to every district medical officer, based on the districts' immunization rates, and promising additional funds when immunization rates rise. The impact of this



strategy is not yet known. Nevertheless, the Kenyans have created a decentralized, performance-based payment system that bypasses usually back-logged, government channels, and suggests a possible framework for future international health care programmes.

Data quality audits have motivated workers and streamlined the management of district health offices. Record-keeping is more systematic, employing new tools to improve performance by tracking outstanding issues, regularizing supervisory visits and posting reports publicly.

TANZANIA

This year marks the second in which the Tanzanians have exceeded their immunization targets in the administration of the tetravalent vaccine – DTP plus hepatitis B. The Tanzanians manage the expansion of their immunization programme systematically. Poorly performing districts that nevertheless held latent promise were allocated GAVI funding that provided *per diem* payments to healthcare workers. In turn, the workers used the cash to buy bicycles and petrol, enabling them to reach more children in remote districts.

The immunization programme in Tanzania is also one of the first to benefit from debt-relief; the national government invested US\$1 million in its immunization programme with funds re-captured by HIPC – the Highly Indebted Poor Countries initiative.

TAJIKISTAN

In Tajikistan, the local inter-agency coordinating committee, established in order to qualify for GAVI/Vaccine Fund resources, now meets regularly and is a dynamic forum that grapples with long-term plans to rebuild the country's health care delivery system. The business-like GAVI framework has helped to mitigate a climate that was once dependent upon the Soviet system and has ignited a new sense of enterprise and self-help.

**An invaluable contribution...
to the common success of early child health. We have a
unique opportunity to improve not only the model
of immunization management and its implementation, but the
overall model of health systems.**

Dr K. S. Olimova, Deputy Minister of Health, Tajikistan

In part, because of GAVI requirements, the country's health officials have taken critical steps to move from the ponderous, outdated model of vertical, centralized health care to a more flexible approach that responds to local realities. Extraneous immunization posts are being closed. The overarching healthcare delivery system is rationalized, a process of de-centralization has begun in earnest.

Long-term Financial Planning

GAVI partners regard themselves as catalysts that support and encourage immunization efforts in the early phases of implementation. After a period of two years, continued GAVI support becomes contingent upon a country's submission of its own long-term, financial plan that will eventually lead away from GAVI funding toward support from the national ministry of health and other local, as well as external sources.

GAVI support for strengthening routine immunization systems has had an immediate positive impact on Liberia's efforts to revitalize immunization services following the end of the civil war. The central role of the ICC has fostered joint planning, supervision and closer interagency collaboration.
Dr Peter S. Coleman, Minister of Health, Liberia

To achieve financial sustainability, a country is not expected to become self-sufficient – at least not the most resource-poor countries. Instead, GAVI defines sustainability as a shared responsibility between developing countries and their donor partners.

In the past, long-term budget planning has not been a pragmatic exercise for health officials in most developing countries, since development aid cycles were typically one, two or at most three years in duration. Moreover, much of the information needed for long-term forecasts was held within finance ministries.

Today, GAVI and The Vaccine Fund engage ministers of health and finance in planning their own national long-term strategies to sustain routine healthcare and improved immunization beyond five years of GAVI support. Long-term financial forecasts, planned budgets, and defined goals give health administrators, often for the first time, the opportunity to develop a set of problem-solving skills that help them clarify programme costs and identify existing and potential sources of support. Given this context, it is inevitable that finance ministers see the economic efficacy of improved routine health care and enhanced immunization programmes, and healthcare officials from the national to the local level can gain access to the resources they need to do their jobs.

Defined Goals Produce Quantified Results: Performance-based Grants

Funding for the improvement of health care services is unrestricted. Participating countries use the funds according to work plans and goals established locally. An initial investment of \$20 per child reflects the number of *additional* children the country plans to immunize. The programme measures impact: GAVI and The Vaccine Fund will award additional funding when a country realizes its projections.

Measuring impact requires confidence that the data provided are sound. Employing a newly developed management tool the partners call 'data quality audits,' GAVI partners evaluate the data received. Described simply, external audit teams that include local staff of two of the 'big five' accounting firms, Deloitte&Touche and PricewaterhouseCoopers, examine health center records and compare them to reports sent to district and national levels, verifying accuracy.

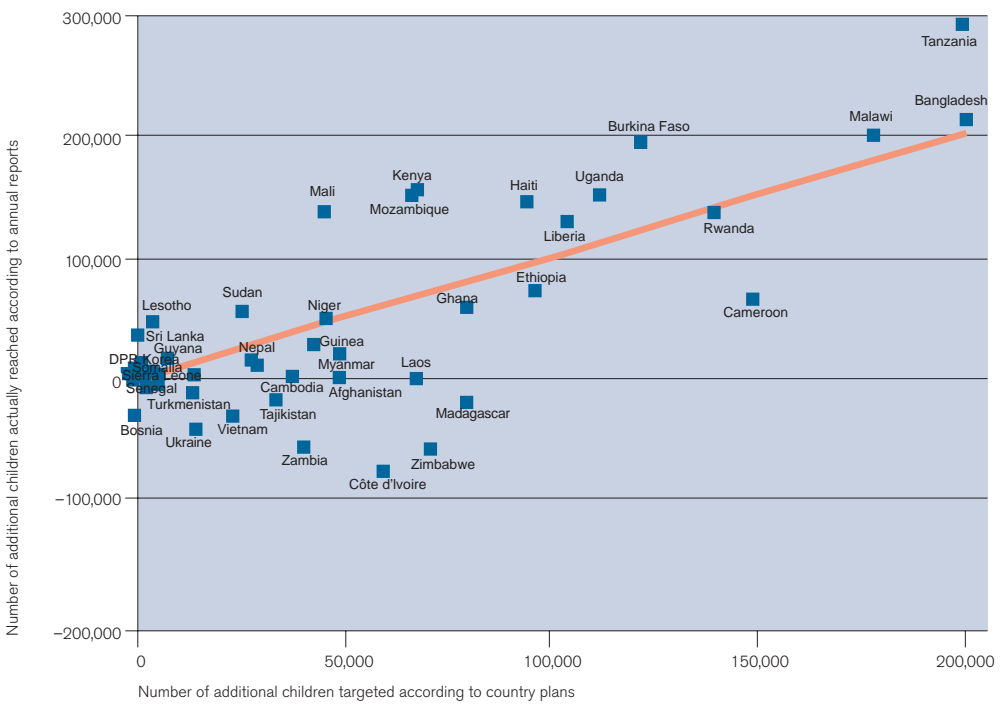


The scheme is difficult to implement. In many countries accurate reporting systems do not yet exist. In 2001, six countries were audited. Only *one* country was found to have an adequate system in place. As a result, the reward scheme was postponed until 2003 and GAVI and The Vaccine Fund increased their investment in countries. In 2002, six countries, out of a total of 12 audited, were found to have adequate systems.

Although these audits in no way offer a gold standard of measurement, they nonetheless provide a useful tool that improves the management of health information systems and add value in capacity building.

During the year 2003, when the reward scheme is implemented and countries are paid according to how many more children are immunized, GAVI will revisit the process and adjust it as needed.

Immunization Targets and Results for 2001



In their efforts to increase basic immunization, some countries have surpassed their targets while others have not. The countries that appear above the diagonal line succeeded in immunizing even more children than they had projected, while countries that did not realize their targets are below.

Altogether, the countries included in the graph – those for which data were available – immunized 2 million children in 2001. According to their plans, these countries had intended to reach a total of 2.4 million children in 2001.

In this graph, the cluster is also represented by the following countries:

- | | | | | |
|------------|----------|---------|------------|--------------|
| Albania | Bhutan | Eritrea | Kyrgyzstan | Turkmenistan |
| Armenia | Burundi | Gambia | Moldova | Yemen |
| Azerbaijan | Comoros | Georgia | Nepal | Zambia |
| Benin | Djibouti | Guyana | São Tomé | |

Unprecedented Action: Vaccine Industry Develops and Supplies Low-cost Vaccines for the Developing World

As catalysts, GAVI and The Vaccine Fund have spurred the pharmaceutical industry to new levels of production and supply of low-cost vaccine material to the developing world, as well as heightened levels of interest in research. By assisting the poorest countries in the development of realistic, long-term financing schemes to purchase sophisticated vaccines, GAVI and The Vaccine Fund have helped to reinvigorate commitment to immunization as well as create viable new markets in the developing world.

**The Ministry of Health is pleased to be working with GAVI in its efforts to immunize Cambodian children whose health is among the worst in the region. We fully agree that vaccines are one of the most effective and economical health investment interventions available to humanity.
Dr. Ung Phyrun, Secretary of State, Kingdom of Cambodia**

For example, the multinational vaccine companies Chiron and Berna Biotech have made collaborative arrangements with manufacturers in developing countries to produce DTP-hepatitis B and DTP-hepatitis B-*Haemophilus influenzae* type b vaccines for the low-income country market. Other developing country producers, such as India's Serum Institute, are developing a DTP-hepatitis B vaccine. It is hoped that these and other industry actions will relegate to history the recent vaccine supply problems.



How to Apply to GAVI and The Vaccine Fund for Support

To establish eligibility to receive GAVI funds, each country must have a gross national product per capita of less than US\$1,000 and:

1. apply as a government with the endorsement of the country’s national Interagency Coordinating Committee – in the instance where one pre-exists – or in its absence, create a new such organization;
2. provide a recent assessment of the national immunization system;
3. establish a five-year immunization plan; and
4. develop an injection safety plan to ensure that injections are administered under sterile conditions and that medical waste is disposed of responsibly.

Funding Requests Fall into Five Categories

Funding to improve health services	Safe injection materials	Hepatitis B vaccine	<i>Haemophilus influenzae</i> type b vaccine	Yellow fever vaccine
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- Support is provided based upon country proposals which are reviewed by an independent group of experts – most of whom are health officials from developing countries, who provide peer review.
- Countries that immunize more than 80 percent of children against diphtheria, pertussis and tetanus – DTP3 – are eligible to receive new vaccines in addition to a modest implementation package.
- Countries that immunize between 50 percent and 80 percent of children are eligible to receive the above as well as financial support to expand immunization services.
- Countries with weak immunization services – where fewer than 50 percent of children are currently immunized with DTP3 – are eligible to receive financial support to expand immunization services. DTP3 coverage must reach 50 percent before such countries are eligible to receive new vaccines.

**Vaccine Fund Disbursement Criteria
Basic Conditions for Support**

GNP/capita < US\$1,000	ICC or equivalent	Immunization assessment in last 3 years	Multi-year plan for immunization	Strategy for injection safety
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DTP 3 coverage < 50%
Immunization services and injection safety

DTP 3 coverage 50%–80%
Immunization services AND
new/under-used vaccines and injection safety

DTP 3 coverage > 80%
new/under-used vaccines and injection safety

GAVI Partners

Governments in developing countries deliver immunization services to children through their national health systems. Government health ministries manage national coordination – usually through inter-agency coordinating committees, which have become essential to the work of GAVI.

Vaccine manufacturers in developing countries produce vaccines at affordable prices for sale in the developing world. A new GAVI-inspired network was formed to strengthen collaboration among vaccine manufacturers in developing countries.

Governments in industrialized countries help to build political commitment and establish health as a priority for foreign assistance. Donor governments support countries in their efforts to improve health and immunization programmes by participating in national coordinating groups and providing financial and/or technical support to health sectors and immunization programmes.

Vaccine manufacturers in industrialized countries, represented by IFPMA – the International Federation of Pharmaceutical Manufacturer’s Associations – have been GAVI partners since its inception, and currently the membership includes Aventis-Pasteur, Berna Biotech, Chiron, GlaxoSmithKline, Merck and Wyeth. The development, manufacturing and marketing of vaccines to all countries of the world are core responsibilities of these member companies.

Bill & Melinda Gates Foundation invests in global health efforts, especially in support of immunization, and helps raise awareness of the value of immunization. The Foundation has committed more than \$1 billion to projects focused on the prevention and control of infectious disease. These grants help to build coalitions among scientists, universities, nongovernmental organizations and private industry to ensure that all children have access to vaccines and that new drugs, vaccines and diagnostics are developed and delivered.

Nongovernmental organizations – NGOs – have a long history of involvement in the field of child health and immunization. Some NGOs provide technical advice and staff to government programmes while others provide additional financial support.

Public health and research institutions provide policy recommendations on global immunization practices, act as reference laboratories for surveillance and quality control and provide technical staff for operations to help build capacity for research and development.

The World Bank Group works to increase financing to combat communicable diseases and increase immunization through more flexible use of International Development Assistance funds. Immunization is now a key health service indicator in the assessment of a country’s eligibility for debt-relief under the Highly Indebted Poor Countries (HIPC) initiative.

UNICEF has been a significant actor in the global effort to protect the health of the world’s children through routine immunization. Immunization ‘Plus’ is once again one of its organizational priorities. UNICEF hosts the GAVI Secretariat in Geneva, Switzerland; provides administrative support to The Vaccine Fund – disbursing GAVI/Vaccine Fund grants to countries – and procures vaccines and safe injection supplies on behalf of GAVI partners.

World Health Organization, the world’s leader in global public health, provides technical expertise and strategic support to the alliance. Furthermore, WHO staff in the field play a critical role in support of GAVI objectives.



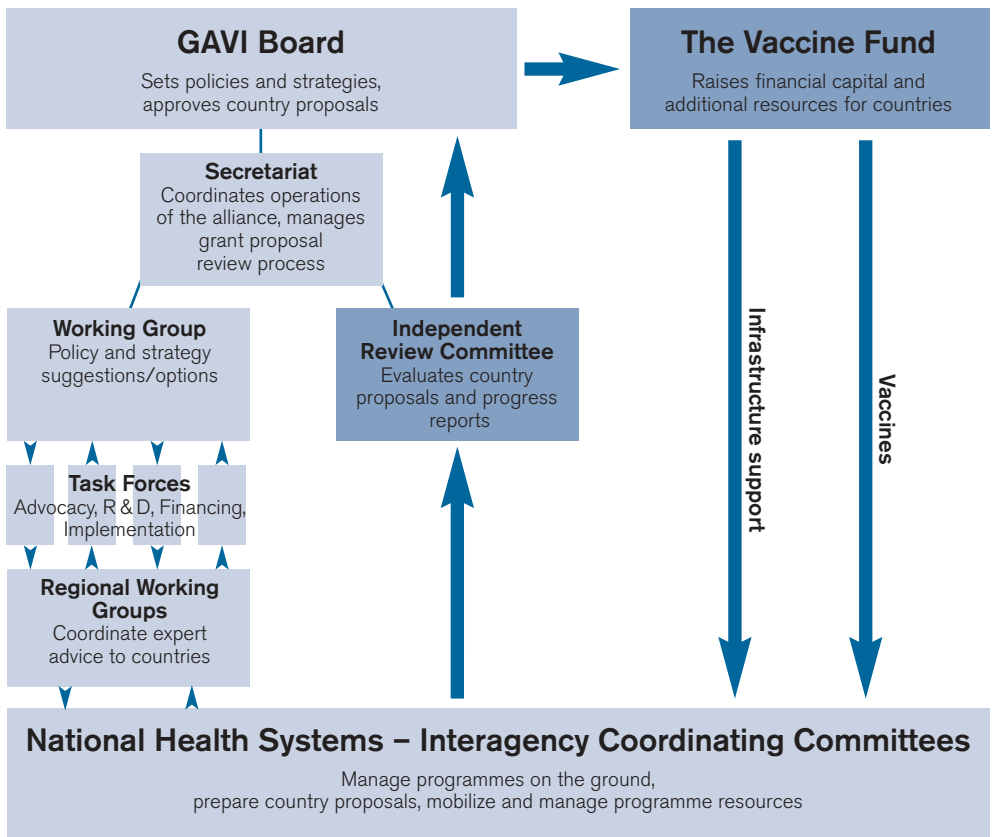
Decisions of the GAVI Board are guided by contributions from the following groups:

The Working Group includes technical experts representing all participating organizations. The working group assists in implementing decisions and policies of the board.

Task Forces address critical issues such as country level needs for technical assistance, advocacy and public outreach, financial planning, and research and development. They are hosted by partner agencies on a global level.

Regional Working Groups provide coordinating support to countries and regions. Task forces are hosted by partner agencies on the regional level.

The Secretariat is comprised of a small team of five professionals, led by Dr Tore Godal, who reports to the GAVI board. Its operations are underwritten by membership fees; transaction costs are minimal. UNICEF offices in Geneva host the Secretariat.



■ The alliance allows greater efficiency and coordination of new and longstanding immunization efforts among partners.

GAVI Board

The Board is the governing body of the alliance and its members represent the highest institutional commitment of their respective organizations.

CHAIRPERSON

Ms Carol Bellamy

Executive Director

UNICEF

(through June 2003)

Five renewable members of the GAVI Board:

BILL & MELINDA GATES FOUNDATION

Dr Richard Klausner

Executive Director of Global Health

UNICEF

Dr Jean-Marie Okwo-Bele

Senior Advisor

Team Leader Immunization Plus

THE VACCINE FUND

Mr Jacques-François Martin

President

WORLD HEALTH ORGANIZATION

Dr Gro Harlem Brundtland

Director-General

(ex-officio member)

Dr A. Asamoah-Baah

Executive Director

Health Technology & Pharmaceuticals

THE WORLD BANK GROUP

Mr James Wolfensohn

President

(ex-officio member)

Dr Mamphela Ramphele

Managing Director

Eleven Rotating Members of the GAVI Board
as of January 2003

FOUNDATIONS

Mr Tim Wirth
President
United Nations Foundation
USA
(July '01–June '03)

GOVERNMENTS–DEVELOPING COUNTRY

Ms Sushma Swaraj
Minister of Health and Family Welfare
India
(Jan '02–Dec '03)

Dr P. Nymadawa
Minister of Health
Mongolia
(Jan '03–Dec '04)

Dr Francisco F. Songane
Minister of Health
Mozambique
(Jan '03–Dec '04)

GOVERNMENTS–INDUSTRIALIZED COUNTRY

Dr E. Anne Peterson
Assistant Administrator
US Agency for International Development
USA
(Jan '02–Dec '03)

The Rt. Honourable Clare Short
Secretary of State
DFID
United Kingdom
(Jul '01–Jun '03)

Ms Susan Whelan
Minister for International Cooperation
Canada
(Jan '03–Dec '04)

VACCINE INDUSTRY–DEVELOPING COUNTRY

Dr Suresh Sakharam Jadhav
Director-General
Serum Institute of India
India
(Jan '03–Dec '04)

VACCINE INDUSTRY–INDUSTRIALIZED COUNTRY

Mr Geno Germano
Executive Vice President
Wyeth Global Vaccines
USA
(Jan '02–Dec '03)

NONGOVERNMENTAL ORGANIZATION

Dr Muctaru A. S. Jalloh
National President
Sierra Leone Red Cross Society
Sierra Leone
(Jul '02–Jun '04)

RESEARCH INSTITUTE

Prof Philippe Kourilsky
Director General
Institut Pasteur
France
(Jul '01–Jun '03)

TECHNICAL HEALTH INSTITUTE

Dr David Fleming
Deputy Director for Science and Public Health
US Center for Disease Control
USA
(Jan '01–Dec '02)

The Vaccine Fund Board of Directors

The Vaccine Fund Board of Directors is responsible for promoting global awareness of the need to support expanded immunization goals throughout the developing world, as well as raising and disbursing the additional funds needed to support programme objectives.

The Honourable Nelson Mandela

Chair

The Honourable Graça Machel

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South Africa

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Chair of the Executive Committee

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USA

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George Welde

Managing Director

North American Sales

Goldman Sachs

USA

Jacques-François Martin

President

The Vaccine Fund

France

The Independent Review Committee

Independent experts in healthcare and immunization – most from developing countries – are selected by the executive secretary in consultation with the working group and partners. Key qualifying criteria include: professional integrity and broad expertise in health – with specific knowledge in the field of vaccines and immunizations – as well as independence from all GAVI partners.

The committee reviews country proposals on a rolling basis throughout the calendar year and reviews progress reports annually, in accordance with policies established by the GAVI Board. Recommendations of this body are integral to final decision making by the board of directors of both GAVI and The Vaccine Fund.

New Proposals Sub-Group

(met for the first time in July 2000)

Dr Sam Adjei

Ghana

Mr Oleg Benes

Moldova

Dr Merceline Dahl-Regis

Bahamas

Dr Peter Figueroa

Jamaica

Dr Stanislava Popova-Doytcheva

Bulgaria

Mr Robert Steinglass

USA

Dr Viroj Tangcharoensathien

Thailand

Monitoring Sub-Group

(met for the first time in October 2002)

Dr Liudmila Mosina

Belarus

Ms Brenda Candries

Belgium

Mr Chenjerai Victor Maziwisa

Zimbabwe

Mr Mia Bilenge Constantin Miaka

Democratic Republic of Congo

Mr Gradeline Minja

Tanzania

Dr Ciro de Quadros

Brazil

The ‘Basic Six’

Diphtheria is a bacterial infection caused by the organism *Corynebacterium diphtheriae*. The spread of infection requires close contact between people. A safe and effective vaccine has long been available; it is usually given together with vaccines for tetanus and pertussis in the triple vaccine known as DTP. A drop in vaccination rates in the former Soviet Union in the 1990s led to numerous diphtheria epidemics.

Measles is the leading cause of vaccine-preventable, childhood deaths worldwide, killing as many as 800,000 children each year. This is a highly contagious infection, spread by droplets, with an incubation period of between 7 and 18 days. A relatively cheap and effective vaccine exists, but its delivery poses challenges as it is only effective in older children.

Pertussis, or whooping cough, is spread by droplets and direct contact and is highly contagious. Each year, even with high vaccination rates using very safe and effective vaccines, as many as 300,000 people, mostly young infants, are killed by the disease, and at least 45 million suffer from the illness with prolonged and exhausting bouts of coughing that may continue up to three months.

Polio is a viral infection that can result in permanent paralysis. More than half of all cases are in children under the age of three, but anyone can be affected. Immunization is the only way to prevent the disease that has no known cure. Today, polio is within sight of eradication worldwide. Large parts of the world are polio free, thanks to the steadfast efforts of the global public health community.

Tetanus is caused by infection with a bacterium, *Clostridium tetani*, which is present in the soil, in animal dung and in faeces and enters the body through wounds. The bacterium produces a toxin which can make skeletal muscles unusually rigid, and may result in spasms. Ultimately, breathing may become difficult or impossible, resulting in death. There are an estimated 300,000 tetanus-related deaths each year. Safe and effective vaccines have been available for decades.

BCG, bacillus of Calmette and Guérin, provides a degree of protection against childhood tuberculosis and tuberculous meningitis. Since 1975, case-control studies using different BCG strains indicate that vaccine efficacies range from zero to 80%. In young children, the estimated protective efficacy rates of the vaccine range from 52% to 100% for prevention of tuberculous meningitis and miliary TB and from 2% to 80% for prevention of pulmonary TB.

Under-used Vaccines

Yellow Fever is an acute infectious disease caused by a virus that is transmitted by various species of Aedes mosquito and in South America, *Haemagogus* species. Each year, as many as 200,000 people are afflicted with this disease, and 30,000 people die from it. In

sub-Saharan Africa, 468 million people in 33 countries are considered to be at risk. A single dose of the existing vaccine is highly effective and provides protection for at least a decade and probably for life.

Haemophilus influenzae type b is a common cause of bacterial meningitis and a variety of life-threatening infections, including pneumonia seen mostly in children. Spread by droplets through coughs, sneezing, and in over-crowded living conditions, it is estimated to cause at least three million cases of serious disease and hundreds of thousands of deaths worldwide each year. Several vaccines are already in widespread use in high-income countries and are among the safest vaccines in use. Yet, relatively few low-income countries have begun routine use in infants.

Hepatitis B virus is estimated to have infected 400 million people throughout the world and causes both acute and chronic liver infections. Transmitted by contact with human blood and other infectious body fluids, as through unsafe injection practices and sex, it is also spread from infected mothers to their infants at birth. Vaccines have been available for almost 20 years and their impact is seen in reduced numbers of adult deaths from liver cancer in countries where the vaccine is used routinely in infants.

Near-term New Vaccines

Meningitis (group A) is the cause of major epidemics in sub-Saharan Africa, marked by thousands of cases per outbreak and a fatality rate of almost 10 percent. Between 1988 and 1997, 704,000 cases of meningitis – 100,000 of which resulted in deaths – were reported in the African meningitis belt, which stretches from Ethiopia to the Gambia. Infants are at highest risk. Currently, polysaccharide vaccines are not effective in protecting infants and can only be used in expensive and emergency interventions in older children. GAVI’s goal is to produce a conjugate vaccine to be incorporated into routine immunization programmes in regions at risk of epidemics.

Pneumococcus The bacterium Streptococcus is the most common cause of severe pneumonia worldwide. It also causes meningitis, septicaemia, and ear infections. Although the death toll is complicated to calculate, the pneumococcus bacterium is thought to kill as many as one million people each year. In developing countries, one in every 10 childhood deaths is attributed to this infection. A new conjugate vaccine is highly effective in infants, although it has yet to be tested in low-income country settings.

Rotavirus is one of the primary causes of diarrhoeal disease and causes 125 million cases of diarrhea each year that result in 600,000 deaths – primarily among infants and young children. It is highly contagious and is spread by the oral-faecal route. A vaccine licensed in the US is no longer recommended or available for use in any country due to a reported association with intussusception.



Photo Credits and Captions

Pages 5, 13, and 17

Courtesy of Jonathan Becker

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Caption: GAVI/Vaccine Fund resources assist in improving health care delivery systems that accelerate the dispatch of *all* vaccines to children.

Pages cover, 3, 7, 11, and 15

Thomas Kelly, UNICEF

Page 7

Caption: Today with GAVI support, this healthcare worker immunizes an infant using an auto-disable syringe – which can only be used once, unlike older glass and plastic syringes. Use of nonsterile needles can increase the risk of HIV and hepatitis B infection.

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Caption: In Tanzania, cash from GAVI and The Vaccine Fund provide *per diem* payments to healthcare workers. In turn, workers use the cash to buy bicycles and petrol – enabling them to reach more children in remote districts. Here, health care workers travel by velo, transporting vaccine supplies to one such district.

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Courtesy of The World Health Organization (WHO)

Caption: Typically, vaccines and supplies are purchased through UNICEF's global procurement mechanism and distributed to countries, according to rules established by the Alliance that include multi-year purchase commitments and tiered pricing.

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