11TH GAVI BOARD MEETING

THE GLOBAL ALLIANCE FOR VACCINES & IMMUNIZATION

Partnering with The Vaccine Fund

Washington, DC

15-16 July 2003

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Summary Report

1. Country reports: Ghana & Uganda

- The Board welcomed the reports from Ghana and Uganda. The main issues addressed by the presenters included the significant financial and human resource challenges facing both countries, which are, in spite of the challenges, relatively strong performers.

DECISIONS

The Board:

1.1 Decided that in future meetings presentations from countries that are facing even greater challenges than Ghana and Uganda would be warranted.

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2. Strategic Framework

- The GAVI Strategic Framework for 2004-05 is a work in progress; more difficult reflections and decisions will come when the actual work plan activities and budgets are proposed to the Board at its next meeting in December 2003.
- In developing the work plan the responsible partners and entities should be provided with information on the earlier discussions in the Board sub-group in the development of the Strategic Framework.

DECISIONS

The Board:

2.1 Approved the proposed priorities and their rankings.

2.2 Approved the proposed targets, with some minor editing, acknowledging that they may require some adjustments when the activities are more fully developed and issues are more closely explored. For example, some of the targets should be made more quantitative.

2.3 Approved the proposed partners or entities that will be responsible for developing the work plan activities and budgets, with one exception: UNICEF, and not ICCs, should be responsible for developing the work plan activities to ensure that the seven large countries are back on track, or show signs of getting back on track, by 2005.

2.4 Agreed to the process and the timeframe for work plan development as proposed in the framework. The overall financing envelope was also

was also endorsed. In response to the suggestion that all funding for implementation of the work plan be channelled through The Vaccine Fund, this will be decided by the concerned donors in consultation with the agencies.

2.5 Agreed to the process, and the timeframe for work plan development proposed in the framework.

2.6 Welcomed the strong commitment to address system-wide barriers and in this context welcomed the planned workshop in Autumn 2003 – coordinated by the Secretariat in consultation with NORAD on behalf of the bilaterals – to facilitate development of the work plan.

2.7 Requested that the process used to develop the Strategic Framework – with excellent transparency and sufficient time for consultation and response to feedback – be used for the development of the work plan.

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3. Report on task forces, regional working groups

- Task forces and regional working groups have played a very important role in the development of GAVI forging strong collaboration among a large set of partners and producing important products for GAVI. Their contributions were universally applauded by the Board.
- GAVI is evolving and today's challenges look very different than the challenges of the early days. Therefore it makes sense that GAVI looks very different than it did one year ago.

DECISIONS

The Board:

3.1 Approved all of the recommendations of the Board sub-group. Specifically:

3.1.1 The Research & Development Task Force, having successfully completed its Board-requested tasks, will come to an end as of this meeting.

3.1.2 The Advocacy and Communications Task Forces in its current form will come to an end as of this meeting. However, advocacy is a crucial activity for GAVI and will therefore need to be addressed through other means, for instance:

3.1.3 Establishing a small Global Advocacy Coordinating group comprised of the main partners: WHO, UNICEF, the Secretariat, The Vaccine Fund, CVP/PATH, and the Gates Foundation. The role of this group should be to coordinate messages about the value and importance of immunization, and to ensure that efforts to approach key leaders, international agencies, and global audiences are coordinated, coherent and consistent.

3.1.4 Country level advocacy would be the responsibility of the ICCs and partners on the ground. It may be appropriate to have UNICEF provide significant support in this area, especially as a conduit to build on work

done by existing groups such as the "Communications and Advocacy Group for Polio Eradication and Immunization".

3.1.5 Communications on GAVI will be the responsibility of the Secretariat and The Vaccine Fund.

3.1.6 The Financing Task Force continues to have an important role to play in the work on financial sustainability, and should therefore be continued to end 2005. It may need to contract more work out and will therefore need to be adequately financed.

3.1.6 The ITF should cease to exist in its current form after December 2003. The ITF should use the remaining six months to complete its work plan, and to engage partners (particularly those who are neither represented on the Board or Working Group) on transitioning arrangements to ensure that a forum for collaboration and consultation would be continued in the form of an annual partners' meeting, with periodic conference calls in between, to discuss operational and technical issues related to developing and enhancing the common application of best immunization practices. WHO is the logical candidate to lead this forum.

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4. Improving Board operations

- An Executive Committee of the GAVI Board could help to improve efficiency and facilitate decision-making of the full Board, as the topics being presented to the Board become more and more complex.
- The current two-year term of rotation may be too short for rotating members to fully build their constituencies and contribute to the GAVI Board.

DECISIONS

The Board:

4.1 Approved the creation of a GAVI Board Executive Committee, to include all five renewable members (WHO, UNICEF, the World Bank, The Vaccine Fund and the Gates Foundation) and one rotating member each from developing and industrialized country governments. Based on consultations with Board members subsequent to the meeting, USAID (Anne Peterson) and Mozambique (Francisco Songane) have been elected as the first two rotating members of the Executive Committee.

4.2 Decided that the performance of the EC should be reviewed after one year of operation in relation to its agreed functions, as outlined in terms of reference developed during the meeting which can be found in the revised Proposal for improved GAVI Board operations.

4.3 Endorsed the proposal that other Board members should be consulted and participate in Executive Committee deliberations on specific topics as necessary.

4.4 Decided that involvement of Board members – and not alternates – will be essential for the Executive Committee to be effective.

4.5 Approved the extension of rotating Board member terms from two to three years.

5. Financial sustainability

- World Bank President, James D. Wolfensohn, emphasized that GAVI was pioneering new approaches for strengthening financial sustainability of important public health programs, and that this is a potential model for other global initiatives. He mentioned that immunization financing and financial sustainability needs to be worked out within the framework of general health programs and priorities. He committed the World Bank to work with partners to continue developing innovative financing mechanisms, and to work with partners to support national governments in their efforts to improve the prospects for financial sustainability. The Bank is ready, willing, and able to play its role alongside other partners. He is also committed to encouraging World Bank staff to support the work of GAVI, given the importance of immunization for achieving the MDGs.GAVI needs to recognize health system-wide constraints affecting both financial and institutional sustainability of immunization. For instance, human resources is an issue that needs to be fixed and cannot be addressed through immunization alone.
- The financial gaps identified by the first round of national Financial Sustainability Plans pose a great challenge to the GAVI partners as they seek ways to support governments in mobilizing additional and reallocating existing national resources, and identifying and mobilizing external resources to reduce the funding gap.
- GAVI needs to also recognize the role of other health system constraints affecting both institutional and financial sustainability. Limited human resource capacity in focus countries will be an issue that cannot be addressed through national immunization programs alone.
- Just as governments are being asked to think seriously about reallocating national health and other resources toward financing immunization programs, GAVI partners must be held accountable for addressing the financing challenges that have been revealed through the process of financial sustainability planning. Existing bilateral donations need to be more reliable and longer-term; new donors must be found; and core partners must identify their different forms of contributions.

DECISIONS

The Board:

5.1 Requested that at upcoming Board meetings, representatives from selected countries be asked to report on progress in implementing their financial sustainability plans, and how they are working to address financing gaps, including reports on how much of their government budget goes to health, and how much of the health budget goes toward immunization. Selected countries should be from the range of experience, including those countries facing the greatest financing challenges.

5.2 Requested the Secretariat follow-up with Board members to ensure that they report to future Board meetings on how they as individual partners will help to address the financial gaps that countries are facing. The World Bank may be the appropriate partner to make the first report.

5.3 Requested the Financing Task Force to provide more clarification on its recommendation that countries should report back on how they are addressing their financing gaps, as this is also included in the annual progress reporting system.

5.4 Requested the Secretariat to explore the proposal to work with other global mechanisms such as the Global Fund to Fight AIDS, TB and Malaria, Roll Back Malaria, Stop TB and others to address financing gaps in a more comprehensive way. This effort will need to be linked with MDG-related initiatives, such as a "Framework for Action", an MDG project that looks at costs of achieving the goals.

6. Vaccine procurement process

- Board members expressed concern about reported price increases for the combination vaccines. While it is understood that prices will only reduce once there is competition in production and supply, increased demand should have the effect of lowering price over time.
- According to UNICEF Supply Division, vaccine prices are going up for several reasons. One, manufacturers are increasing their investments in capacity, and the amortization of this needs to be done over a shorter time than normal, given the accelerated introduction of new vaccines under GAVI. Another is the weakening of the US dollar – many vaccines are supplied from Europe and UNICEF Supply Division requests prices in US dollars, as it is a US dollar-based organization.
- It was recognized that the maturity of the combination vaccines, as indicated by competition in production and lower prices, will take longer than the current round of GAVI approvals. The Vaccine Provision Project (VPP) will prepare a "lessons learned" document once the 2004-06 procurement round is complete.

DECISIONS

The Board:

6.1 Requested the VPP to come back to the Executive Committee with a proposal for specific actions GAVI can take in the premature market environment to ensure vaccine supply at affordable prices.

6.2 Requested the Secretariat to organize a teleconference of the VPP Oversight Committee in the near future to address the Board's concerns about vaccine pricing. [The first teleconference took place on 22 July 2003.]

7. Vaccine Vial Monitor update

- The GAVI Board had previously set a deadline that by end 2003 all vaccines purchased by The Vaccine Fund would need to be supplied with vaccine vial monitors (VVMs). Board members urged that this deadline be met and called for industry representatives to report progress of individual manufacturers towards this goal.

- It will be important for PAHO, as another major vaccine purchaser for developing countries, to become more closely involved with GAVI and UNICEF Supply Division in the issue.

DECISIONS

The Board:

7.1 Welcomed the report that adoption of VVMs by manufacturers is accelerating, though behind the schedule proposed by the Board at the last meeting: VVMs will be available on all monovalent hepatitis B and DTP-Hep B vaccines by end 2003. VVMs will be available on the DTP-Hep B-Hib during 2004. Yellow fever is the only Vaccine Fund-purchased vaccine for which VVMs will not be fully available according to the requirements of the GAVI Board.

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8. Data Quality Audit update

- Good quality data is important for monitoring performance as well as managing programs. The Data Quality Audit (DQA) does not examine how countries actually use the data for program management but does provide substantive information in relation to improvements expected in immunization data management and reporting.
- The progress report on the DQA was well received, but Board members questioned the extent to which data are being used at the health facility level. USAID is willing to support countries to improve their information systems, including supporting a study to assess how countries are using Immunization Services Support (ISS) from the Vaccine Fund. DFID would be willing to support an evaluation of GAVI and The Vaccine Fund's performance-based grants system.
- Board members are supportive of evaluating the performance-based functions of GAVI in order to learn more about how the infrastructure money from The Vaccine Fund is being used. This does not imply a change in policy but an opportunity to observe practices in the countries. This could be helpful for GAVI in its resource mobilization activities because this is the truly innovative part of GAVI. Questions to be addressed include the effect of incentive schemes at national, district and local level.
- While countries are able decide how to use the money according to their requirements, the cash must be available where it is most needed – usually at the delivery level. However, experience from the polio eradication efforts show that it is very difficult to track the use of funds down to the district-level.

DECISIONS

The Board:

8.1 Supported in general an evaluation of ISS and the performance-based grants system. The Secretariat is to move forward with USAID, DFID, WHO and a developing country to develop TORs and a timeline for the study.

8.2 Requested partners such as WHO to support countries to improve data management and reporting in countries with low DQA scores.

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9. Human resources update

- GAVI is not going to solve the health human resource problem, but GAVI will not be able to do its job without considering the human resources context. It is appropriate for GAVI to have a focus on human resource needs for immunization, without losing the perspective that the entire health sector is affected.
- GAVI is already contributing to human resources through the many countries that are using Vaccine Fund infrastructure funding to provide staff incentives and improve supervision.

DECISIONS

The Board:

9.1 Agreed that there are a number of routes to follow within the GAVI context:

9.1.1 Ensure that immunization figures into the broad-based approach being tackled through the work of the Department of Health Services Provision (OSD) at WHO and other global initiatives addressing human resources (e.g. Rockefeller);

9.1.2 Ensure that human resources is addressed in the priority area focusing on contributing to addressing health system barriers in the 2004-05 work plan; and

9.1.3 In the priority area focusing on the seven large population countries in the 2004-05 work plan, there are multiple health system failures, but there is also strong polio activity in many of these countries. The work plan activities for these countries could therefore include a proposal for how to utilize the polio human resources.

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10. Country eligibility for support from GAVI and The Vaccine Fund

DECISION

The Board:

10.1 Decided to postpone any revisions to the list of eligible countries until after the first five-year phase of GAVI and Vaccine Fund support, i.e. until 2005, in order to align it with policies for the next phase of country support.

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11. Board turnover

- Technical Institutes: The term of the US Centers for Disease Control and Prevention (CDC) in the Technical Institutes seat ended December 2002. The only candidate for the seat, the International Vaccine Institute, has made it clear that it will be unable to pay the Board fee.
- OECD Countries: France, represented by Secretary of State for Foreign Affairs Renaud Muselier, has been nominated to fill this seat.
- R&D: Six nominations were received for the GAVI R&D seat: Gothenburg University, Sweden; the International AIDS Vaccine Initiative (IAVI), USA; Istituto Superiore di Sanita, Italy; London School of Hygiene & Tropical Medicine, U.K.; National Public Health Institute (KTL), Finland; and The Oswaldo Cruz Foundation, Brazil. The candidates were assessed based on the following criteria:
    - Knowledge and experience in vaccine development (R & D)
    - Managerial experience
    - Developing country experience
    - Ability to pay Board seat fee (only applicable to OECD country candidates)
    - Geographical distribution on GAVI Board

DECISIONS

The Board:

11.1 Endorsed the recommendation to extend the CDC's term until the end of 2003 in order to launch a new search for a replacement. The CDC will need to examine whether it will be able to pay the Board fee for 2003, and to inform the Board who will replace David Fleming as the CDC representative.

11.2 Endorsed the recommendation from Institut Pasteur to accept the nomination of Gothenburg University, represented by Professor Jan Holmgren, to fill the R&D seat. Professor Holmgren will serve on the ADIP Management Committee; he will assume the chair of this committee in October, succeeding Rick Klausner.

11.3 Endorsed the nomination of France, represented by Secretary of State for Foreign Affairs Renaud Muselier.

11.4 Requested the Secretariat to work with the Chair to send official notification to the new Board members.

11.5 Reconfirmed its support for the requirement of Board fees, as it signifies Board members' commitment to GAVI.

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12. Extension of Executive Secretary term

DECISION

The Board:

11.1 Endorsed the recommendation of the GAVI Board Executive Secretary search committee that Tore Godal continue until the end of 2004. The search committee was chaired by UNICEF and originally consisted of DFID, the World Bank, and Mali; Mozambique joined the committee after Mali rotated off the Board.

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13. Location and date of next Board meeting

DECISION

The Board:

13.1 Accepted the invitation of newly appointed WHO Director-General Dr JAW Lee to hold the next GAVI Board meeting in Geneva at WHO Headquarters. The agreed dates are Tuesday and Wednesday, 9-10 December.

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14. 3rd GAVI Partners' meeting

DECISION

The Board:

14.1 Took note of the invitation by the Indian state of Andra Pradesh to hold the meeting there and will provide an official response as soon as possible. In the meantime, it is noted that the 3rd GAVI Partners' Meeting will be held in November 2004.

Agenda

Tuesday, 15 July

Opening remarks

Carol Bellamy, GAVI Board Chairperson, UNICEF Executive Director
Mamphela Ramphele, Managing Director, The World Bank

Reports from the field - Uganda, Ghana

Agyemang Badu Akosa, Director General, Ghana Health Service, Ghana
Alex Kamugisha, Minister of State for Health Primary Health Care and ICC Chairperson, Uganda

GAVI Strategic Priorities for 2004-05

Tore Godal, GAVI Executive Secretary

Board sub-group to review task forces and regional working groups

A. Asamoa-Baah, Executive Director, Health Technology and Pharmaceuticals, WHO

Proposal for improved Board operations

Carol Bellamy, GAVI Board Chairperson, UNICEF Executive Director

Analysis of first-round Financial Sustainability Plans

Steve Landry, The Vaccine Fund
Ruth Levine, Center for Global Development

Address by the host

James Wolfensohn, President, The World Bank

Wednesday, 16 July

Report of vaccine procurement process; update on status of VVMs

Vaccine procurement process:

Steve Jarrett, Deputy Director, UNICEF Supply Division
Paul Fife, Manager, Vaccine Procurement Project
Jacques-François Martin, President and CEO, The Vaccine Fund

Update from vaccine industry on VVMs:

Geno Germano, Executive Vice President and General Manager, Wyeth Global Vaccines
Suresh Sakharam Jadhav, Director, Serum Institute of India

Progress report on Data Quality Audit

Steve Hadler, Chief, Routine Immunization, CDC

Progress report on human resources for immunization

Orvill Adams, Director, Health Service Provision, WHO

Countries eligible for support from GAVI and The Vaccine Fund

Board turnover

Other business

In camera

List of annexes

Annex 1

GAVI Strategic Framework 2004-05

Executive Summary

The GAVI work plan 2004-2005 will be built upon this strategic framework.

Ten priority areas, which include current as well as proposed new priorities, have been organized into four clusters:

- strengthening health service delivery,
- ensuring access to vaccines and related products,
- securing long-term financing, and
- strategic planning.

Within each of the four clusters, priorities have been ranked in order of importance. The responsible partner for each target has been indicated in the table. This partner or entity will be responsible for developing the work plan but not necessarily for implementing the proposed activities.

Introduction

GAVI was formed to harness the strengths and experience of multiple partners in immunization. The goals of the alliance are inspired by and grounded within the goals of the wider development community, such as the Millennium Development Goals (MDGs) and the goals of the 2001 UN Special Session on Children (see Annex).

The GAVI Strategic Framework 2004-05 forms the foundation upon which the GAVI Work Plan 2004-05 will be built. It derives largely from the priorities and needs of countries as expressed in their multi-year plans and applications to GAVI and The Vaccine Fund, but focuses on the GAVI "added value" as opposed to incorporating all partner efforts relating to immunization.

The document starts with a description of the basic principles of GAVI "added value" and then describes the main GAVI priorities for 2004-05. It outlines the next steps for the development of the work plan including a proposed financial envelope for the budget. Summaries of the priorities, targets and responsible GAVI partners or entities are included in tables starting on page 14. Basic descriptions of GAVI, its long-term strategic objectives, milestones, and progress to date are included in an Annex as background.

GAVI "added value"

The basic spirit of the alliance is to focus on those areas in which no one partner can work effectively alone and to add value to what partners are already doing. GAVI "added value" has been defined operationally in four clusters:

COORDINATION AND CONSENSUS-BUILDING

GAVI provides a unique opportunity to build consensus around policies, strategies and priorities and assign responsibility to the one that has the comparative advantage. It is now important to aim for better synergy with NGOs and the larger health sector outside of immunization.

FUNDING SUPPORT TO COUNTRIES FROM THE VACCINE FUND

Through The Vaccine Fund, GAVI provides considerable financial resources to countries to purchase vaccines and other supplies and to support the operational costs of immunization. The Alliance needs to ensure that it is fully capitalizing on The Vaccine Fund's comparative advantage to employ new and innovative funding strategies – providing a true added value in the context of existing bilateral and multilateral support to country health systems.

INNOVATION

New processes and actions have been established with the GAVI alliance. Examples include the country proposal and review process, performance-based grants for immunization services support, financial sustainability planning, the Data Quality Audit (DQA), the Vaccine Provision Project (VPP) and the Accelerated Development and Introduction Plans (ADIPs). Looking ahead, GAVI needs to capitalize on its direct access to countries through The Vaccine Fund proposal process and its community-wide collaboration to capture "best practices" from the field, conduct operational research to assess their applicability to other settings and support their implementation. Also valuable are lessons learned about less effective practices, so that they are not repeated elsewhere.

ADVOCACY AND COMMUNICATIONS

As an alliance of major leaders in international health and development GAVI has great potential to affect decision making among policy makers and donors on the value of vaccination for reducing poverty and infant mortality in the developing world. In fact the mere existence of GAVI and The Vaccine Fund has resulted in greater commitment to immunization among partners at the global and national levels.

GAVI priorities 2004-05

Over the last three years GAVI partners have demonstrated the power of effective partnership and successfully put routine immunization back in the spotlight. Looking ahead it will be important to maintain a focus on performance and to capitalize on GAVI's comparative advantages. For one, the established collaboration mechanisms should be used to build bridges between the broad health systems approach and global initiatives such as GAVI, to ensure the strongest positive impact in countries. Furthermore, the long-term financial resources of The Vaccine Fund offer an unprecedented opportunity to work more strategically with industry so that it will develop and manufacture products needed by developing countries.

The selection of GAVI priority areas for 2004-05 is based on the current landscape and the potential "added value" of having GAVI as an alliance focus on this area. The selection of GAVI priorities does not negate or supercede individual partner priorities.

Ten GAVI priority areas have been organized by their contribution to the three main pillars in any country's immunization program: service delivery, or the health system; products - vaccines and other technologies; and financing, including national health budgets and external donor support. A fourth area, setting priorities for and monitoring progress of the alliance itself, is crucial to the long-term effectiveness of GAVI. Within each of the four areas, priorities are ranked with ongoing priorities appearing higher than new priorities.

A) STRENGTHENING SERVICE DELIVERY

1. Health information and monitoring systems for action
2. Contributing to alleviation of system-wide barriers
3. Enhanced efforts in large population countries

B) ENSURING ACCESS TO VACCINES AND RELATED PRODUCTS

4. Procurement / Supply of existing products
5. Development and introduction of new, near-term products

C) SECURING LONG-TERM FINANCING

6. Managing the process for country support from The Vaccine Fund
7. Financial sustainability
8. Recapitalization of The Vaccine Fund

D) STRATEGIC PLANNING

9. Setting priorities
10. Monitoring progress

TARGETS: At its inception GAVI identified its long-term strategic objectives and measurable milestones (see Annex). Progress towards the milestones is continuously reported to the Board; next time will be at its December 2003 meeting. In developing the work plan for 2004-05, the necessary shorter-term and more specific targets are noted in each section. The targets may require some adjustments such as be made more quantitative, when the activities are developed and issues are more closely explored.

RESPONSIBILITY: Responsibilities are identified in the tables starting on page 14. Responsibility does not imply that this partner or entity implements all relevant activities. Instead, the responsible partner or entity will lead the work plan development in the relevant area(s), and identify implementers for each activity (this particularly applies where the Secretariat is the lead, but where key partners have a strong role in planning). Ministries of Health supported by their Inter-agency Coordinating Committees (ICCs) will have an important role to play in many activities; in such cases the global level partner will be responsible for overall coordination and monitoring.

A) STRENGTHENING SERVICE DELIVERY

Increasing immunization coverage, with a concerted effort to reach out to marginalized groups, is critical to achieving the health-related objectives of the Millennium Development Goals (MDGs). Maintaining results in immunization coverage requires service delivery systems that can provide sustained long-term access; this is a great challenge for GAVI partners.

In many countries, strengthening health service delivery is considered within the context of health sector reforms which combine decentralization, service integration and broadening the mix of providers, including NGOs. External support to the health sector is increasingly being harmonized and coordinated with national ownership, decision-making and accountability as basic pillars. A major challenge for GAVI therefore is to explore how it can best align itself with countries' own reform agendas including the Poverty Reduction Strategy Papers (PRSP), budget support and sector-wide approach (SWAp) arrangements, and how NGOs can be engaged more closely in this work.

Global health initiatives such as GAVI and the Global Fund to Fight AIDS, TB and Malaria, provide additional resources and attention to specific diseases or interventions, as opposed to PRSPs which address broader, long-term systemic issues. These global initiatives have been charged to provide early results, innovation and added value. However they rely upon a basic service delivery infrastructure which can respond and absorb these additional resources. One of the major findings of the McKinsey study revealed that countries which are unlikely to reach their immunization targets face multiple system-wide barriers such as political/financial commitment, physical infrastructure, monitoring, management including human resources, and social mobilization. It is therefore neither feasible nor cost effective to address these system barriers through an isolated focus on immunization specific action.

GAVI as an alliance and a pathfinder will contribute to improving health delivery systems in three ways. It will continue the work already started on improving countries' health information and monitoring systems. It will seek to alleviate other system-wide barriers, such as addressing

human resource constraints, by strengthening partnerships, and conducting "learning by doing" exercises that use immunization as a window to the broader system. Finally, in certain countries which have significant challenges and large numbers of unimmunized children, GAVI partners will work individually with the countries and identify the most appropriate role for the alliance.

1) HEALTH INFORMATION AND MONITORING SYSTEMS FOR ACTION

Target: By mid 2004, the data quality self assessment (DQS) methodology and other tools finalized

Target: By end 2005, all countries with failed DQAs have received timely and adequate support

Target: By end 2005, DQS systematically used by at least 10 countries

Target: By end 2005, HMIS and EPI specific reporting coordinated, where possible

A reliable information system is an important element of a problem-solving quality management cycle in which countries assess, plan, implement and evaluate. Furthermore, GAVI's performance-based grants program which rewards countries for improving their immunization coverage relies on a dependable information system.

The Data Quality Audit (DQA) has proven to be valuable in diagnosing specific problems that, if addressed, could improve the quality of countries' health information systems. Countries should use this initial diagnosis for rapid action to improve their systems – including integrating their immunization data with system-wide data – and get the help from partners they may require.

The specific link between the immunization related indicators for monitoring MDG performance also needs further attention, in order to align the monitoring processes and ensure quality of data. A new Health Metrics Network will offer opportunities to integrate immunization indicators into a system of broader health indicators.

A data quality self assessment tool (DQS) is being developed, on the basis of the DQA methodology, to help countries improve their information systems. The DQS is intended to be conducted by countries themselves using available staff, especially for countries that "pass" the DQA and would like to continuously monitor and improve their information systems. The DQS is not intended to replace the DQA.

2) CONTRIBUTING TO ALLEVIATING SYSTEM-WIDE BARRIERS

Target: By mid 2004, agreement by major health sector stakeholders on joint efforts to alleviate health systems barriers.

Target: By end 2004, ICCs strengthened, with stronger links to NGOs and higher level national health coordination committees.

Target: By end 2004, efforts in 10 high-performing and 10 low-performing countries undertaken, lessons learned, documented and best practices shared.

It has become apparent that countries with strong health systems enjoy effective partnerships among the various health system actors and donors; these partnerships exploit synergies to reduce duplication and mismatches. Alleviating system-wide barriers to immunization services, therefore, requires better partnerships and better bridges between the PRSP-based health and development framework and instruments of global initiatives such as GAVI. In this area GAVI adds value as a convener and facilitator at both global and country level.

A precondition for successfully coordinated efforts in countries is effective collaboration in Inter-agency Coordinating Committees (ICC), which comprise public and private constituencies including governments, donors, the academic sector and NGOs. The emergence of GAVI has revitalized existing ICCs, and instigated the development of new ICCs where they had not previously existed. But major action is warranted to stimulate them to become more effective,

including enhanced collaboration with the broader health sector and stronger involvement of NGOs. In many countries, NGOs provide services in challenging areas with populations (internally displaced persons, conflict areas, famine, etc) which typically have the lowest overall health system coverage.

Other than improving health information and monitoring systems (see above), it is not yet clear how the alliance can best help countries address other system-wide barriers. After three years of GAVI support, some countries are already showing spectacular performance while others are struggling. Thus, we are in a unique position to learn from performance in countries, and test how best to transfer "best practices" to other settings. It may be helpful to focus on barriers for which progress can reasonably be anticipated within the two-year timeframe. An area of particular interest is human resources where both short-term and long-term action is envisaged. In all cases, a country-focused approach is essential. To initiate the process, workshops scheduled in 2003 with representatives from poor-performing and high performing countries will seek to derive best practices case studies for addressing health systems barriers. A specific work plan which builds on the knowledge acquired will be developed in early 2004.

3) ENHANCED EFFORTS IN LARGE POPULATION COUNTRIES

Target: By mid 2004, seven large population countries have made analysis of the barriers and possible solutions, and have agreed with their ICCs on action plans.

Target: By end 2004, GAVI and partners have established new policies to support the seven large population countries.

Target: By end 2005, lessons from accelerated disease control (ADC)efforts applied in the large population countries as appropriate.

Target: By end 2005, the large population countries are back on track or show signs of getting back on track in immunization coverage.

Comment: Some countries are significantly falling behind their coverage targets and in the most populated countries this results in large numbers of unimmunized children. In most cases they are prevented from succeeding in their immunization efforts by multiple barriers that cut across the whole health sector or society. Unless these countries mount special efforts, they are likely to remain behind, effectively preventing the global GAVI objectives to be met.

Based on consultation, seven countries have been designated for enhanced efforts from the GAVI alliance: Bangladesh, DR Congo, Ethiopia, India, Indonesia, Nigeria, and Pakistan. Côte d'Ivoire and Sudan are possible additions. As some of these countries are also polio priority countries, it will be important and beneficial to capitalize on the ongoing work of the polio effort and others, in particular NGOs, to improve routine immunization and strengthen the health system. Lessons learned from other ongoing accelerated disease control (ADC) activities could also prove to be a valuable tool to enhance their immunization performance. In some countries, special efforts will be essential to reach marginalized populations; in some cases increased support to MOHs may be an inefficient mechanism for providing services in these areas and other mechanisms, such as NGOs should be explored.

These countries will be challenged to develop an action plan with their partners to get back on target and, if necessary, seek support to implement this plan. GAVI partners will then analyze these plans and determine the most appropriate way to support these countries.

B) ENSURING ACCESS TO VACCINES AND RELATED PRODUCTS

Considerable concern has emerged with regard to the global availability of basic vaccines. The increasing divergence of vaccines used in high- and low-income countries has led to a dramatic reduction in the quantity of vaccine offered on the market and puts the poorest countries at high risk of vaccine shortages and consequent program disruptions; supply constraints have become a major hindrance for successful immunization performance. Furthermore, this volatile situation could hurt the potential for future vaccines and related supplies.

With a longer-term perspective up to 2015, GAVI has a unique opportunity to explore and define innovative mechanisms for Vaccine Fund resources, for example, long-term contracting, capital market mechanisms, or using the Vaccine Fund as a "guarantor" for vaccine procurement, which could further improve the supply situation.

The Vaccine Provision Project (VPP) has been developed to improve the collaboration among the key partners in vaccine program management, forecasting, financing, and dealing with vaccine manufacturers. Accelerated Development and Introduction Plans (ADIPs) have been established to focus on ensuring that vaccines against rotavirus and pneumoccocal disease are appropriate and available for developing countries. These entities will be critical in defining GAVI's role in improving the supply outlook for existing products for the 75 Vaccine Fund eligible countries, and promoting and supporting the development of future products, potentially for use in all developing countries.

4) ADEQUATE SUPPLY OF EXISTING VACCINES AND RELATED SUPPLIES

Target: By end 2005, completed vaccine tendering process for period 2007-09 (or longer) utilizing innovative strategies to ensure affordable and secure supply. (Note: Given the introduction of new manufacturers in 2006, it may prove to be more effective to complete the next round of procurement in 2006, in order to have time to work with the new manufacturers and give them the full benefit of competition for the next round.)

Target: By end 2005, timeline for achieving end to combination vaccine supply problems by diversifying sources of existing product.

Target: By end 2005, minimal divergence between vaccine forecasts and uptake.

Target: By end 2005, Vaccine Fund role, if any, in routine vaccines defined.

Target: By end 2005, strategic plan for product requirements for 2005-15 (to include, e.g., IPV, acellular pertussis, rotavirus, pneumococcal, rubella, meningococcal, preferred presentation such as monodose).

The Vaccine Fund has already been successful in leveraging action to address the limited supply of DTP-based combination vaccines. New manufacturers of combination vaccines are scheduled to come on line in 2006, with potential price reductions for the DTP-Hep B vaccine in 2006 and for the DTP-Hep B+Hib in 2007. Long-term financing could be used to further diversify sources of vaccines and put an end to the current shortages of the most sought after combination vaccines.

It has become apparent that many countries have inadequate vaccine forecasting and stock management capacity. With the low cost of traditional vaccines, there has not been much motivation in the past to be diligent about stock management. In addition, donor funding tends to fluctuate from year to year, crippling countries' long-term planning abilities. There is an urgent need to assist countries to improve their forecasting and promote rational and consistent decision-making.

While the Vaccine Fund has focused to date on the purchase of new and under-used vaccines and safe injection materials, it will be important to define its role, if any, in routine vaccines, especially polio, tetanus and measles. GAVI also needs a framework for responding to additional vaccine needs, such as yellow fever and meningitis outbreak control, so that requests are not continually proposed and reviewed in isolation.

Forward-thinking is essential in regards to for future product requirements up to 2015. Scenarios need to be developed to explore the potential demand for and uptake of vaccines that could be supported by the Vaccine Fund in the future, for example, inactivated polio vaccine (IVP), acellular pertussis, rotavirus, rubella, pneumococcal, meningoccocal, as well as new preferred

presentations such as monodose. In this way, GAVI will give clear signals to industry about needed products and quantities.

5) LATE-STAGE DEVELOPMENT AND INTRODUCTION OF PRIORITIZED VACCINES AND TECHNOLOGIES

Target: [Pending decision on establishment of technology ADIP] By end 2004, technology ADIP is up and running with milestones established.

Target: [Pending development of work plans and targets by ADIP teams] By end 2005, establish the public health benefit and demand for rotavirus and pneumococcal vaccines in developing countries (not just the 75 Vaccine Fund eligible).

Target: By end 2005, proposed plan for next stage, i.e. continuation of ADIP or transition to other approach.

After identifying rotavirus and pneumococcal vaccines as high priorities for GAVI, the GAVI Board has established and funded two Accelerated Development and Introduction Plans (ADIPs) for rotavirus and pneumococcal vaccines. The ADIP teams, which are supervised by a sub-group of the Board called the ADIP Management Committee, will present their 2004-05 work plans and targets to the Board at its December 2003 meeting.

The Board will also be asked at its December 2003 meeting to decide whether to establish an ADIP to speed development and introduction of new technologies that will improve the reach and/or efficiency of immunization services in developing countries.

The proposed targets above will therefore be further refined.

C) FINANCING

As a global funding initiative, GAVI has an opportunity and a responsibility to provide leadership in ensuring that program improvements can be sustained. GAVI partners recognize that in the poorest countries, stable external financing of the health system is required to achieve and sustain immunization program targets. The resources provided by The Vaccine Fund – financing of costs related to health systems strengthening, the introduction of new and under-used vaccines and injection safety – is short-term and intended to catalyze additional financing from national budgets and from other donors and health sector partners.

GAVI partners will continue to provide resources to countries through current Vaccine Fund mechanisms, support countries in mobilizing other sources for financing of their health and immunization services after the period of Vaccine Fund support, and prioritize the mobilization of new resources for The Vaccine Fund so that new forms of support can be provided to countries.

6) MANAGING THE COUNTRY SUPPORT PROCESS FROM THE VACCINE FUND

Target: By end 2005, all eligible countries will have applied, been approved for and received continued support for ISS, new vaccines and injection safety, based on satisfactory proposals and progress reports.

Target: By end 2005, DQAs conducted in relevant countries.

Target: By end 2005, coverage surveys carried out when needed for allocation of performance-based grants

The GAVI Secretariat estimates that an additional 23 injection safety proposals, 13 yellow fever proposals, 18 hepatitis B proposals and 38 Hib vaccine proposals will be received through 2005.

Increase Vaccine Fund support to strengthen country health systems – in addition to the current performance-based grants – has been approved in principle by the GAVI and Vaccine Fund

boards. A proposal will be presented to the GAVI Board in time for a decision by the end of 2003. This new type of health system support may require new proposals from eligible countries.

To implement the performance-based grants, GAVI and The Vaccine Fund require external validation of immunization coverage data; the Data Quality Audit will therefore need to be conducted in all countries receiving ISS funding. For those countries that cannot "pass" the DQA after repeated attempts, it will be necessary to fund and conduct population-based surveys to validate coverage data. Finally, as countries' information systems get stronger, including through use of the DQS, GAVI will likely transition to using surveys as the external validation for all countries receiving performance-based grants under the current system.

7) FINANCIAL SUSTAINABILITY

Target: By end 2005, all funded countries have developed their financial sustainability plans according to proposal schedule, with lessons learned and experiences shared with countries and partners.

Target: By end 2005, all countries assisted to integrate FSPs into their national plans, including PRSPs (Poverty Reduction Strategy Papers) and MTEFs (Medium-term Expenditure Frameworks).

Target: By end 2005, financial sustainability work transferred to partner(s); role of World Bank explored and defined.

While total costs for immunization services had always been projected to increase as a result of higher coverage and the addition of new vaccines, the first financial sustainability plans have revealed that financing gaps, after the initial Vaccine Fund support period, may become greater than anticipated. In countries that have introduced the new vaccines, in particular combination DTP-Hep B-Hib, the share of GAVI/VF support of their immunization financing has been high.

While the development of financial sustainability plans (FSPs) is a requirement for continued support from GAVI and The Vaccine Fund, to be truly useful the FSP must be integrated into a countries' own multiyear plans including PRSPs (Poverty Reduction Strategy Papers) and MTEFs (Medium-term Expenditure Frameworks).

Finally, the responsibility for global coordination and country support of the financial sustainability planning will be transferred by 2005 from the FTF to a suitable GAVI partner, yet to be defined.

8) RECAPITALIZATION OF THE VACCINE FUND

Target: By end 2004, long-term resource mobilization plan fully aligned with long-term GAVI strategic planning.

Target: By end 2005, assured long-term funding from current and new donors.

Target: By end 2004, new funding priorities and policies defined for 2006-2015, based on GAVI strategic directions.

Much of the strength and power of the Alliance is dependent upon the substantial resource of The Vaccine Fund. As GAVI's financial arm, The Vaccine Fund has been tasked with raising its own funds. However, the best case for funding is the successful operations of the GAVI alliance and national immunization programs and common recognition of need. The Fund management will have to work closely with the alliance partners and the GAVI Secretariat to align its resource mobilization plans closely with the long-term GAVI strategic planning.

D) STRATEGIC PLANNING

As GAVI moves beyond its "start-up" phase, strategic planning and monitoring of the impact of GAVI becomes even more critical.

9) SETTING PRIORITIES

Target: By end 2004, a system and process for strategic planning process established.

Target: By end 2005, long-term (through 2015) strategic plan, including Vaccine Fund priorities and policies, developed and approved.

Target: By end 2005, GAVI 2006-07 work plan developed and approved.

Based on its long-term perspective stretching to 2015, the Alliance will establish a participatory strategic planning process which in particular will take into account the needs and expressed demands from countries.

Increasing and sustaining immunization rates will go a long way toward increasing child survival as part of the Millennium Development Goals; out of the 10 million children dying every year, up to 1.6 million could be saved with currently available vaccines and another 1.5 million with vaccines that are expected to be available for introduction over the next 5-10 years. According to conservative estimates, current efforts save 3 million children's lives. GAVI will need to capitalize on the focus on the MDGs and use the comparative advantage of the alliance to help meet them. GAVI also needs to strengthen alliances with other development partners and stimulate new approaches to reaching marginalized and vulnerable groups.

GAVI priorities will also have to consider the evolving character of ADCs (polio, measles, tetanus). As the polio eradication and the measles initiative transition from primarily campaign mode to strengthening routine systems it will be important to synergize efforts. Furthermore, GAVI will need to consider the best role for the Vaccine Fund in addressing, or not addressing, vaccine-preventable disease emergencies such as meningitis and yellow fever outbreaks.

New funding priorities and policies for Vaccine Fund resources will be proposed by 2005, taking into account new disease burden data and new technological opportunities.

10) MONITORING PROGRESS

Target: By end 2004, process to monitor progress of GAVI and respond to emerging needs established and ongoing.

While the focus on performance and results has been built into the system of providing funding support to countries, it hasn't had commensurate attention in the alliance itself. A system to monitor GAVI – as opposed to monitoring country performance, which is handled by current mechanisms – needs to be developed. This system will draw upon existing sources of data; including country progress reports, DQAs, FSPs, the UNICEF/WHO Joint Reporting Form, and other existing measurement tools. GAVI will also need to measure its contributions to reaching the MDGs.

Furthermore, GAVI needs to set in place adequate mechanisms to respond to new opportunities and problems that emerge. Everything from vaccine supply stockouts in countries to difficulties in reaching marginalized groups or deficient information systems should trigger action where countries – with support from their ICCs – have to decide what they can do themselves to alleviate such constraints, partners have to consider how they can assist and, as a last resort the Alliance may have to respond. Operational research to capture best practices, evaluate their appropriateness in other settings, and implement them in other settings could be a key component.

Work plan development process

Based upon the GAVI Board decision on the Strategic Framework in July 2003, each of the identified responsible partners or entities will collaborate and consult as necessary to identify appropriate implementers, activities, budgets and timelines to reach the relevant targets. This work will be supported and facilitated by the GAVI Secretariat.

The full GAVI work plan 2004-05 will be presented to the GAVI Board for decision in December 2003.

Financing Envelope

The 2003 GAVI work plan contains activities budgeted at a total of $14.5 million including $8 million in funding from donors and partners earmarked for GAVI related activities, $3 million in Board member dues and $3.5 million funded by the Gates Foundation, channeled through The Vaccine Fund.

The Board member dues ($300,000 for each paying Board member per year) have funded the core Secretariat activities, in order for the Secretariat to not compete with partners for its own funding.

Some donors, notably the Netherlands, Norway and the Children's Vaccine Program (CVP) provide support directly to UNICEF, WHO and the World Bank to implement GAVI- related activities.

In order to create an integrated and transparent budget system and minimize transaction costs it has been suggested that all funding for the GAVI 2004-2005 work plan be channeled through The Vaccine Fund.

The funding of the 2004-05 work plan is based on the following principles:

Sources of Work Plan funding

- Board member dues of $300,000 annually per paying Board member to cover core GAVI Secretariat costs
- GAVI-related support from Norway, the Netherlands and CVP to WHO, UNICEF and The World Bank
- Vaccine Fund resources to fund the remaining costs
- *Ad hoc* support for studies etc.

Recipients of Work Plan funding

- GAVI partner
- GAVI entity
- GAVI Secretariat (including VPP)

The Vaccine Fund finances its own management with an annual budget of approximately $9.2 million. In addition, $2.1 million is allocated for external fees related to managing the investment portfolio, $2 million is allocated for UNICEF overhead fees related to the Supply Division and the administration of the Vaccine Fund trust account, and $ 880,000 is allocated for GAVI partnership fees, consulting expenses, and ADIPs start-up expenses. The Vaccine Fund's country support and ADIP funding are not considered to be part of the GAVI Work Plan budget.

Proposed financing

Based on the funding sources and budgets of the GAVI Work Plan 2003 the table below gives an indication of the two year funding for the GAVI Work Plan 2004-05.

CURRENT SOURCE OF FUNDING	TWO-YEAR BUDGET (IN MILLION US$)
CVP, Netherlands, Norway	37.7
Board member dues	6.0
Gates Foundation thru VF	7.0
TOTAL	**50.7**
Vaccine Fund management budget (financed by VF)	28.0
TOTAL incl. VF management	78.7

A) STRENGTHENING SERVICE DELIVERY

1. HEALTH INFORMATION AND MONITORING SYSTEMS FOR ACTION (*GAVI objectives # 1, 2*)

GAVI added value	Targets	Responsibility*
Coordination Stimulate partner action to help countries improve information systems Create link to health systems, MDGs and Health Metrics Network Funding Incentives for better data through performance-based grants and need for improved vaccine forecasting Innovation DQA proving to be good tool for diagnosing specific system weaknesses Need for tool for countries to self-assess identified: DQS Advocacy Promote importance of accurate information system as management tool Promote coordination between HMIS and EPI specific reporting in countries Maintain links with MDGs, Health Metrics Network	By mid 2004, DQS methodology and other tools finalized.	**WHO**
	By end 2005, all countries with failed DQAs have received timely and adequate support	**WHO**
	By end 2005, DQS systematically used by at least 10 countries	**WHO**
	By end 2005, HMIS and EPI specific reporting coordinated, where possible	**WHO**

2. CONTRIBUTING TO ALLEVIATING SYSTEM-WIDE BARRIERS (*GAVI objectives # 1,2*)

GAVI added value	Targets	Responsibility
Coordination ICCs to be better utilized and integrated; RWG to be better utilized Funding ISS: better targeted and, or extended Innovation collaboration with other global partnerships operational research to identify and validate best practices Advocacy Use GAVI's high level visibility to raise awareness of cross-cutting barriers and forge cooperation at global and national levels	By mid 2004: Agreement by major health sector stakeholders on joint efforts to address health systems barriers.	**NORAD**[1]
	By end 2004: ICCs strengthened with stronger links to NGOs and higher level national health coordination committees	**NORAD**[1]
	By end 2004: Efforts in 10 high-performing and 10 low-performing countries undertaken, lessons learned, documented and best practices shared.	**NORAD**[1]

** Responsibility does not imply that this partner or entity implements all relevant activities. Instead, the responsible partner or entity will lead the work plan development in the relevant area(s), and identify implementers for each activity (this particularly applies where the Secretariat is the lead, but where key partners have a strong role in planning).*

[1] In collaboration with DFID, Netherlands

[1] Facilitating Board decision

A) STRENGTHENING SERVICE DELIVERY *(cont.)*

3. ENHANCED EFFORTS IN LARGE POPULATION COUNTRIES (*GAVI objectives # 1, 2, 5*)

GAVI added value	Targets	Responsibility
Coordination (global) Increase partner's role and accountability in priority countries Coordination (country) Strengthen and further define role of ICCs, especially in relation to SWAps Funding Increased ISS funding, Explore new financial mechanisms Innovation Pilot new financial mechanisms and strategies Operational research and analysis of "well working" practices Advocacy Communicate the importance of reaching the MDGs through increased immunization coverage Advocacy to mobilize political and financial commitment to achieving country targets	By mid 2004, seven countries (Bangladesh, DR Congo, Ethiopia, India, Indonesia, Nigeria, Pakistan) have made analysis of the barriers and possible solutions and have agreed with their ICCs on action plans.	**UNICEF**
	By end 2004, GAVI and partners have established new policies to support the seven countries	**Secretariat**[2]
	By end 2005: Lessons from ADCs applied in countries as appropriate.	**UNICEF**
	By end 2005: The countries are back on track or show signs of getting back on track in immunization coverage	**UNICEF**

[2] Facilitating Board decision

B) ENSURING ACCESS TO VACCINES AND RELATED PRODUCTS

4. ADEQUATE SUPPLY OF EXISTING VACCINES AND RELATED PRODUCTS (*GAVI objective # 2*)

GAVI added value	Targets	Responsibility
Coordination Stronger coordination between program, finance and supply through VPP. Funding: Explore and define various mechanisms through which VF resources can best optimize contracting strategies, for example, as a guarantor. Innovation Influence late stage R&D by giving clear signals to industry about needed products and quantities. Advocacy and communications Advocacy with donors and countries on the importance of multi-year funding to ensure an uninterrupted supply of vaccines and injection safety equipment.	By end 2005, completed vaccine tendering process for period 2007-09 (or longer) utilizing innovative strategies to ensure affordable and secure supply. (Note: Given the introduction of new manufacturers in 2006, it may prove to be more effective to implement the next round of procurement in 2006, in order to have time to work with the new manufacturers and give them the full benefit of competing for the next round.)	**VPP**
	By end 2005, minimal divergence between vaccine forecasts and uptake.	**VPP**
	By end 2005, timeline for achieving end to combination vaccine supply problems by diversifying sources of existing product	**VPP**
	By end 2005: Vaccine Fund role, if any, in routine vaccines defined.	**VPP**
	By end 2005: Strategic plan for product requirements for 2005-15 (to include, e.g., IPV, acellular pertussis, rotavirus, pneumo, rubella, mening, preferred presentation such as monodose)	**VPP**

5. LATE STAGE DEVELOPMENT OF PRIORITIZED VACCINES AND TECHNOLOGIES (*GAVI objective # 4*)

GAVI added value	Targets	Responsibility
Coordination Key partners brought together with shared goals and targets Funding Selected projects funded by Vaccine Fund Innovation Public sector effort with private sector thinking Advocacy Commitment to develop priority vaccines	By end 2004: [*Decision on technology ADIP to be made by end 2003, if one is established*]: Technology ADIP up and running with established milestones.	Secretariat[3]
	By end 2005: [pending confirmation with ADIPs] Establish the public health benefit and demand for rotavirus and pneumo vaccines (not only for the 75 VF countries).	Secretariat[3]
	By end 2005: Proposed plan for next stage of ADIPs or post-ADIPs (i.e., continuation of ADIP or transition to other approach)	Secretariat[3]

[3] Secretariat provides support to GAVI Board Management Committee and interfaces with ADIP teams.

C) SECURING LONG-TERM FINANCING

6. MANAGING THE PROCESS FOR COUNTRY SUPPORT FROM THE VACCINE FUND (*GAVI objectives # 1, 2)*

GAVI added value	Targets	Responsibility
Coordination Defining the role of the GAVI/VF country support in relation to other initiatives and health sector actors globally and in-country through ICCs. Funding Ongoing support according to policies decided by the GAVI Board in three areas; immunization services, new and under-used vaccines and for injection safety. Innovation The concept of working together towards specific targets, based on evidence, division of work, defining the role of GAVI and immunization partners in relation to health sector partners and activities (such as SWAps and health sector reforms) **The** lead partner concept could be applied country-by-country. Terms of reference for lead partners need to be developed. Advocacy Communication efforts to generate and maintain interest from countries, to publish, analyze and compare results, to share experiences and information.	By end 2005, all eligible countries will have applied, been approved for and received continued support for ISS, new vaccines and injection safety, based on satisfactory proposals and progress reports.	**Secretariat**
	By end 2005, DQAs conducted in relevant countries (DQA schedule available)	**Secretariat**
	By end 2005: coverage surveys carried out when needed for allocation of performance-based grants	**Secretariat**

7. FINANCIAL SUSTAINABILITY (*GAVI objectives # 2, 4, 5*)

GAVI added value	Targets	Responsibility
Coordination FS planning at global, regional and country level; at regional level to monitor and inform priorities Funding Adequate support critical; countries also need support for advocacy, improved efficiency, address weak financial management Innovation Clear identification of issues Tool for countries to address funding issues and facilitate financing Integrate financial sustainability planning into country MYPs and mobilize PRSP partners as part of strategy implementation Work remains to integrate FSP process, institutionalize FSPs, further assessment, monitor progress, provide analysis Advocacy Raising awareness of need for long-term financial commitments to immunization. Improve understanding of cost-effectiveness of vaccination as an important deliverable of the health system.	By end 2005, all countries have developed their financial sustainability plans according to schedule with lessons learned and experiences shared with countries and partners.	**FTF**
	By end 2005, all countries assisted to integrate FSPs into their national PRSPs (Poverty Reduction Strategy Papers) and MTEFs (Medium-term Expenditure Frameworks).	**FTF**
	By end 2005, financial sustainability work transferred to partner(s); role of World Bank explored and defined.	**FTF**

C) SECURING LONG-TERM FINANCING *(cont.)*

8. RECAPITALIZATION OF THE VACCINE FUND (*GAVI objectives # 1, 2, 3, 4, 5*)

GAVI added value	Targets	Responsibility
Coordination Coordination among GAVI Partners in fundraising efforts Fundraising strategy based on GAVI long-term strategic vision, linking recapitalization with plans to use VF resources. Innovation Establish innovative uses for recapitalized Vaccine Fund with new "Challenge Grant" program in which countries can submit proposals in defined areas. Purchase of next-generation vaccines. Advocacy Generate excitement about Vaccine Fund as a truly groundbreaking international development mechanism.	By end 2004, long-term resource mobilization plan fully aligned with long-term GAVI strategic planning	**Vaccine Fund**
	By end 2005: Assured long-term funding from current and new donors.	**Vaccine Fund**
	By end 2004, new funding priorities and policies defined for 2006-2015, based on GAVI strategic directions.	**Vaccine Fund**

D) STRATEGIC PLANNING

9. SETTING PRIORITIES (*GAVI objectives # 1, 2, 3, 4, 5*)

GAVI added value	Targets	Responsibility
Coordination Based on shared value of the Alliance partners. Funding Contingent upon recapitalization of VF. Innovation Flexibility. Long-term financial commitments. Advocacy and communications Exploiting long-term commitments to promote longer term donor commitments	By end 2004, process for strategic planning and priority-setting process established and ongoing.	**Secretariat**
	By end 2005, long-term (through 2015) strategic plan, including Vaccine Fund priorities and policies, developed and approved.	**Secretariat**
	By end 2005, GAVI 2006-07 work plan developed and approved.	**Secretariat**

10. MONITORING PROGRESS (*GAVI objectives # 1,2,3,4,5*)

GAVI added value	Targets	Responsibility
Coordination Ability to draw upon existing sources of data and adjust action to emerging needs. Funding Recapitalization of VF depends upon continued success. Innovation GAVI monitoring (IRC) and reward functions stimulate and document improved performance. Advocacy and communications Call attention to areas where increased action is needed.	By end 2004, process to monitor progress of GAVI and respond to emerging needs established and ongoing.	**Secretariat**

Annex: What is GAVI?

GAVI is a public-private partnership in which partners work together to achieve greater effectiveness and synergies through enhanced coordination, consensus building and coherence with the goal of increasing access to vaccines among children in poor countries.

While all agree on this definition, in this broad alliance many partners have different perceptions, depending upon where they sit. Some, especially at the country level, view GAVI simply as a funding agency. Others consider it a potential threat to the commitment of implementing partners in immunization and health. Still others consider it a necessary catalyst for partners to increase their commitment to immunization and to reduce transaction costs at the country level. Varying perceptions is within the nature of an alliance in which each partner is autonomous, self-governed and with its own priorities.

GAVI mission, objectives, milestones

Mission *[est. 1999]*
"To save children's lives and protect peoples health through the widespread use of vaccines."

Strategic objectives *[est. 1999]*
1. Improve access to sustainable immunization services
2. Expand the use of all existing safe and cost-effective vaccines, and *[add. 2001]* promote delivery of other appropriate interventions at immunization contacts
3. *[add. 2001]* Support the national and international accelerated disease control targets for vaccine-preventable diseases
4. Accelerate the development and introduction of new vaccines and technologies
5. Accelerate R&D efforts for vaccines needed primarily in developing countries
6. Make immunization coverage a centerpiece in international development efforts

Milestones *[est. 1999]*
1. *[rev. 2003]* By 2010 or sooner all countries will have routine immunization coverage at 90% nationally with at least 80% coverage in every district.
2. By 2002, 80% of all countries with adequate delivery systems will have introduced hepatitis B vaccine. By 2007, all countries.
3. By 2005, 50% of poorest countries with high disease burdens and adequate delivery systems will have introduced Hib vaccine.
4. By 2005, the world will be certified polio-free.
5. By 2005, the vaccine efficacy and 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.

GAVI goals in context

The shared goals of the alliance are embedded in the goals of the wider development community. For example, the Millennium Development Goals include the following goal: "By 2015, reduce by two thirds the under-five mortality rate." Currently, out of the estimated 10 million annual childhood deaths, 2 million children die annually from vaccine-preventable illnesses. Increasing access to current vaccines will clearly have an impact on reducing under-five mortality.

In addition, the UN Special Session on Children document, "A world fit for children", includes the goal by 2010 to: "Ensure full immunization of children under one year of age, at 90 per cent coverage nationally, with at least 80 per cent coverage in every district or equivalent administrative unit."

Evolution of GAVI

As the challenges have been clarified, GAVI has modified its building blocks. The original mission, strategic objectives, and milestones were adopted at the Proto-Board meeting in July 1999. An additional objective and milestone related to accelerated disease control initiatives were added in 2001 (objectives 2 and 3, milestone 4), and the access milestone (milestone 1) was modified in 2003 to align it with the UN Special Session on Children's goals and the MDGs.

The main GAVI structures were also established through decisions at the Proto-Board meeting in July 1999: The Board, Working Group, Secretariat and three task forces (Advocacy, Country Coordination, Financing). Over time a new Research & Development Task Force was added; the Country Coordination Task Force evolved into the Implementation Task Force; and Regional Working Groups were added under auspices of the Implementation Task Force. In addition, new structures were created: the Vaccine Provision Project (VPP) and the Accelerated Development and Introduction Plans (ADIPs).

The GAVI Board adopted grant policies for The Vaccine Fund in the spring of 2000, and established mechanisms for reviewing country proposals and monitoring progress. Policies have been adjusted based on experience, and monitoring mechanisms have been developed and refined based on the realities facing countries' programs [see box]. The country support process through The Vaccine Fund has been one of the most productive aspects of the Alliance.

Funding support and monitoring mechanisms

Basic conditions for support from The Vaccine Fund *[est. 2000]*

- National GNI per capita <$1000
- Multiyear immunization plan
- National coordination mechanism such as an Inter-agency Coordinating Committee (ICC)
- Recent assessment of national immunization services (w/in 3 years)
- *[add. 2001]* Injection safety plan

Available resources *[est. 2000]*

- Funding to improve immunization services (in the form of performance-based grants) for countries with <80% DTP3 coverage.
- New and under-used vaccines (hepatitis B, *Haemophilus influenzae* type b, yellow fever) for countries with >50% DTP3 coverage.
- *[add. 2002]* Safe injection supplies for all EPI vaccines *[rev. 2002]* for all countries.
- *[add. 2002]* Funding to support ADIPs for the development and introduction of pneumococcal and rotavirus vaccines.

Review and monitoring mechanisms

- *[est. 2000]* Guidelines and forms for applying to GAVI and Vaccine Fund for support
- *[est. 2000]* Independent Review Committee (IRC) to review country proposals.
- *[est. 2001]* Forms to report annual progress
- *[est. 2001]* Data Quality Audits (DQAs) to assess accuracy of reported immunization data.
- *[est. 2002]* Monitoring team of the IRC to review progress reports.
- *[est. 2002]* Financial Sustainability Plans to assist countries in identifying long-term funding needs and sources.

The Vaccine Fund commitments through 2005

By the end of 2003, it is anticipated that $279 million worth of resources will have been disbursed from the Vaccine Fund (based on projections):

- $110 million in immunization services and injection safety support to 50 and 66 countries, respectively.
- $154 million in new and under-used vaccines, with 52 countries receiving hepatitis B, 12 countries receiving Hib, and 18 countries receiving yellow fever.
- $15 million to ADIPs.

In 2004-05, it is anticipated that an additional $432 million worth of resources will be disbursed from the Vaccine Fund (based on projections), bringing the cumulative total by the end of 2005 to $711 million:

- $298 million in immunization services support (including injection safety)
- $368 million in new and under-used vaccines
- $45 million to ADIPs.

Annex 2

GAVI Board Sub-Group Review of Task Forces

Annex 2a: Final Recommendations

Introduction

Since its inception, GAVI has established task forces to address specific issues on behalf of the alliance. Currently four task forces are in operation:

- Research and Development
- Financing
- Advocacy and Communication
- Implementation

At its March 6, 2003 meeting, the GAVI Board called for a review of the future role of current task forces in light of the evolving GAVI strategic directions and capacity of partners to take on specific activities. Consequently, a Board Sub-Group (CDC, DFID, WHO, UNF) was established with the following terms of reference:

- To assess the functions, outputs and life cycles of the Task Forces against their original tasks, terms of reference and GAVI "added value" role
- To make recommendations to the Board on the future of each of the existing Task Forces at the July GAVI Board meeting.

Methods

Information on the terms of reference, structure and mechanisms, previous reviews, current work plan and major achievements, and GAVI value-added activities were collected from each of the four task forces. This information was compiled into 1-2 page summaries, which identified emerging issues and made preliminary conclusions for each task force. Separate summaries were prepared for the Regional Working Groups. These summaries were shared with the GAVI Secretariat and Working Group, and the Board Subgroup on work planning in late April 2003, and are appended to this document.

Draft recommendations for each task force were prepared and shared with selected members of the GAVI Board, Secretariat, Working Group, Task Force chairpersons and coordinators, Regional Working Group coordinators, and selected other partners. Each was interviewed (when feasible) and given the opportunity to comment in writing. The subgroup had one formal meeting in Geneva, and multiple teleconferences.

Findings

1. Task forces have served very effectively as a forum to engage multiple partners in GAVI activities. A fundamental GAVI added value is collaboration and consensus building, yet GAVI provides limited opportunities for partner participation outside the Board and Working Group. The task forces allow all partners to have a voice in GAVI; have brought a wide range of ideas, commitment, energy, and creativity to assigned tasks; and have been critical for coordination and consensus building in areas of financing, advocacy, communication, research, and monitoring and evaluation. These forums have provided neutral venues in which all partners can contribute, and have strengthened both collaboration and accountability beyond that exercised by the individual partners.

2. Task forces have developed important products, which have substantially contributed to GAVI value-added, such as the ADIPs, financial sustainability planning process, immunization financing toolkit, advocacy resource kit, training materials, Data Quality Audit (DQA) process, core indicators, and modification of the performance based funding mechanism.

3. As task forces are currently overseen by the Secretariat, much of the work of the task forces is not visible to the Board. This has been a source of frustration for some task forces.

4. This review generally affirmed the strong role of Regional Working Groups (RWGs) in coordinating GAVI activities and serving as a bridge between global and country level activities. The Regional Working Groups are increasingly relied upon by the Secretariat, Working Group and task forces to coordinate support, consultation, financial sustainability planning and monitoring in their respective regions.

Recommendations

General

1. The Sub-Group recommends that the Board formally acknowledges and commends all the task forces for their pioneering work, enthusiasm and initiative and many concrete contributions to the GAVI process, particularly in the critical start up phase of GAVI.

2. Research and development, financing and economics of immunization, advocacy and communication and the challenge of implementation will remain priority concerns of GAVI. The establishment of a task force is one mechanism for taking important issues forward. The Board should also explore other mechanisms (such as contracting specific agencies for discrete time-limited activities and facilitating the establishment of fora for consensus building) to identify the most appropriate way to take forward each issue.

3. For future task forces, a mechanism of timely oversight and feedback to and by the Board should be clearly established, to avoid confusion about the remit of the task force, to provide guidance on work and to establish accountability for completing work plans.

Specific Recommendations on Task Forces

1. **Research & Development Task Force** (R&DTF): As its work has been completed, it is recommended that this task force be terminated as scheduled at the end of July 2003. Follow up on the report of the New Technologies Working Group of the R&DTF should be led by the Secretariat, with involvement of appropriate partners, and presented to the Board in November. In the future ad hoc time-limited groups could be established, as and when needed, to tackle specific issues.

2. **Financing Task Force** (FTF): FTF work to address the financing gaps for immunization and new vaccines still requires a lot of nurturing. It is recommended to extend the mandate of the FTF through to the end of 2005. Ongoing efforts of the FTF to build capacity and

commitment for financial sustainability planning, and transition activities to partners should continue during this period.

Given that economics and financing of immunization is a very broad subject, for 2004-05, it is recommended that the FTF remain focused with clear time-limited outputs and should seek the advice and guidance of the Board or Executive Committee of the Board (if created), as and when it intends to take on additional responsibilities and mandates. The FTF should not automatically assume responsibility for all issues related to the economics of vaccines and immunization.

3. **Advocacy & Communication Task Force** (ACTF): The ACTF has been working at two levels, at a global level to coordinate global level promotion of the importance of vaccines and immunization; and by supporting countries to help them develop capacity for advocacy at the national level. In addition, the ACTF has assisted with GAVI's own communications, in response to limited capacity within GAVI Secretariat.

   Whilst there is wide consensus that advocacy and communication (A&C) are critical to the success of GAVI, the Sub-Group felt that the existing task force is not the best mechanism to take forward these three roles. The review concluded that the ACTF should not continue in the existing form. The approach recommended is:

   a) For *global level advocacy*: Establish a small global advocacy coordination mechanism for the major players in advocacy to coordinate their messages and efforts about the value and importance of immunization. The role of this group would be to ensure that efforts to approach key leaders, international agencies and global audiences are coordinated, coherent and consistent. This would involve agreeing on communication strategies; and sharing information on plans, approaches, messages and results. The key members would be the core of the existing ACTF Global sub-group (which has already built up collaborative working relationships) – i.e. UNICEF, WHO, Vaccine Fund, GAVI and PATH/CVP. This might be called the "Global Advocacy Coordination Group" or similar. The GAVI Board might want to ask for periodic updates (e.g. annually) on the strategy agreed and progress with implementing it in this key area of added value.

   b) *For supporting country level advocacy* – ICCs should take the lead role in coordination of advocacy and communication at country level. Providing support for countries on A&C including skills building of the type that ACTF has started, could be provided by one of the following:

   - Delegating this to one partner as being within their existing remit – UNICEF is seen as best placed by many for this role. The lead partner can and should continue to involve other agencies in the work as appropriate, and learn and/or build on work done by existing groups such as the "Communications and Advocacy Group for Polio Eradication and Immunization".
   - Subcontracting an agency to lead on country capacity building.
   - Asking the RWGs to agree which agency will lead within their region and for that agency to coordinate efforts of all partners.

   c) *For communications about GAVI*: GAVI Secretariat should take responsibility for their own communications, for example on the nature of GAVI and its achievements. This should be feasible, as a new member of staff has been appointed to the Secretariat responsible for communications. They should ensure their efforts are coordinated with the Vaccine Fund and with other partners, through the global coordination arrangement at a) above.

4. **Implementation Task Force** (ITF): The ITF has served as an important mechanism for partner collaboration at both the global and regional levels and developing and establishing common strategies for increasing access, training, managing data, supplies, and monitoring and evaluation. It is felt that this function should continue.

To reduce the risk of the task force drifting towards becoming "a new institution" it is proposed that:

a) The ITF should cease to exist in its current form after December 2003. The ITF should use the remaining six months to complete its work plan, and to engage partners (particularly those who are neither represented on the Board or Working Group) on transitioning arrangements to ensure that a forum for collaboration and consultation would be continued in the form of an annual partners' meeting, with periodic conference calls in between, to discuss operational and technical issues related to developing and enhancing the common application of best immunization practices. WHO is the logical candidate to lead this forum.

b) Technical and country support work on specific GAVI generated tasks, for example, DQAs, FSPs, monitoring and evaluation should be sub-contracted to GAVI-partner agencies to carry out. The Board or the Executive Committee of the Board (if created) would review and approve the proposals for such sub-contracts.

c) Ad hoc time limited groups could be established to address specific technical implementation issues that require the collectivity of the GAVI family.

5. **Regional working groups:** Regional working groups provide an important forum for networking, coordination, consensus building, and advocacy at the regional and sub-regional level, and bridge for information flow between country and global levels. To fulfil these functions effectively there is a need for GAVI to provide limited financial support for coordination and consultation roles. However, RWGs should not have implementing functions, but rather help coordinate implementation activities of partners. Specific GAVI value-added tasks requiring implementation at country, sub-regional, or regional levels should be sub-contracted to a RWG partner to carry out with appropriate funding and accountability.

Annex 2b: Background summary *(April 25, 2003)*

Name	**Research & Development Task Force (R&DTF)**
Start-End Date	Nov 1999 (pre task force); June 2000 – July 2003
TOR	To catalyze action in R&D in support of GAVI's overall objectives #3 and #4. Specifically to coordinate global research initiatives for: • A limited number of disease-specific new vaccine programs • Development of a limited number of new technologies to improve safety, effectiveness, utility or performance of immunization in developing countries
Main Achievements	• Selecting the 3 GAVI priority diseases (pneumo, rota, mening) • Selecting the 3 GAVI priority technologies (Stabilization; Non-invasive test; Defanging) • Opening of Window 3 • Facilitating the development of the rota and pneumo ADIPs (Accelerated Development and Introduction Plan) • Facilitating the development of the New Technologies agenda/ADIPs • Review the R&D field yearly during the Global Vaccine Research Forum
Structure	Three co-chairs (Industry, Academia, WHO); a Co-ordinator (WHO staff); 7 core members (geographical reps); 3 ad hoc members for technology
Mechanism	Monthly teleconference calls; Annual review meeting; Ad hoc special meetings
Previous Reviews or Evaluations	John Marshall TF Work plan review (April 2002) re. GAVI objectives & milestones
Added-Value	Strengthened partnership and consensus on R&D agenda (3 diseases; 3 techs) resulted in major funding (Window 3); Unlikely this would have been achieved without the co-ordination facilitated by the R&D TF.
Fit with Strategic Priorities 2004/05	R&D TF will cease to exist, but follow-up work by ADIPs, Mening Vaccine Project (MVP) and Tech projects will be consistent with GAVI objectives #3 & #4.
Collaboration with other TFs	Initially numerous exchanges with TFCC, ACTF and FTF to share info/set-up. Linkage with FTF re. McKinsey study on ADIPs. Not worked with RWGs but rather thru WHO Regional Offices re. ADIPs and this will continue.
Transition/ Hand-over Plans	The ADIPs, MVP and new technology projects will take forward the effort to accelerate R&D for the selected vaccines and technologies. Oversight will come from sub-groups of the GAVI Board.
Emerging Issues & Preliminary Conclusions	• If all goes according to plan the R&D TF will have successfully completed its TORs by July 2003. • May be an interim administrative need to assist with final approval & establishment of new technology projects (or ADIPs). Anticipate that this can be handled informally by the R&D Co-ordinator (but if process is lengthy then may need funding for a part-time staff person). • Recommend that the R&F TF be disbanded in July 2003 as planned.

Name	**Financing Task Force (FTF)**
Start-End Date	Proto-Board Meeting (July 1999) – no end-date (Board directive TF's up to 2 yrs; can be extended following in-depth review). Note: The FTF TORs read: "The Task Force is expected to be in existence for a limited duration and will review its role and terms of reference in one year's time." (The FTF did review its role after one year, and more formally in Sept. 2002. It concluded it was important to continue – but this is clearly a self-affirmation!)
TOR	• To increase the understanding of why there is inadequate funding for vaccines and immunization in the poorest countries; • To identify and assess strategies which will improve the capacity of governments, donors and development banks to finance the improvement and expansion of national immunization programs; • To identify and assess financial strategies to stimulate R&D and production of affordable, priority vaccines.
Main Achievements	• Financial Sustainability Planning (FSP) process: – Consensus building on definition & process, and now implementation; – Development of a range of technical guidance & information materials – FSP Guidelines, "The Briefcase"; HIPC case studies; Q&A on Development Loans for Immunization etc. • Economic and financial incentives work: – Initiation and management of McKinsey analysis which led to the development of the ADIPs; – Engagement of high-level policy-makers around new financing mechanisms (capital market mechanisms, buy-downs etc). • Mercer Lessons Learned study on GAVI Forecasting & Procurement (resulted in VPP) • Immunization Financing Database –including the development of standardized costing methodologies. • FTF as a forum to open dialogue and debate and force new thinking about immunization financing.
Structure	Two co-chairs (World Bank & USAID); Task Force Co-ordinator (private consultant, through World Bank with funding from GAVI Secretariat). No secretarial support. To help institutionalize FTF activities within partner organizations, FTF sponsors two positions: Global Financial Sustainability Coordinator (est. July 2002 through WHO, with support from Development Grant Facility funds); and Immunization Financing Database Coordinator (est. June 2001 through WHO, with 2003 support from industry and stopgap funding). Core group of 14 members (reps key institutions & skills) One sub-group (Database Development Team) (4 previous subgroups disbanded following Sept 2002 evaluation – now groups constituted as needed); "Out of Box Group" – high-level experts private & public sector to advise on novel mechanisms to accelerate development & intro of new vaccines (e.g. capital market mechanisms). Initiated by FTF but group reports to the Board.
Mechanism	2-3 formal meetings of core FTF group per year; minimum monthly telecons, more frequent prior to Board meetings and major activities (e.g. workshops); frequent email; Web site (www.gaviftf.info); FTF Forum 2000-2002 (major meeting w/ 100+ participants to discuss FTF-related work with health and financing experts); FTF Flyer (third issue April 2003).
Previous Reviews or Evaluations	• John Marshall work plan Review (April 2002) re. GAVI Objectives. • Karen Caines Review (Sept. 2002) of priorities, performance and operations/management of FTF.

Name	**Financing Task Force** *(cont.)*
Added-Value	Financing issue was not being addressed and was beyond the scope of any one partner. FTF brings together the strengths of all partners and draws on expertise outside of immunization circle. Charting new territory and creating new processes in support of immunization financing (e.g. FSPs) and new vaccine introduction and development, both of which are critical to GAVI goals.
Fit with Strategic Priorities 2004/05	Yes, ensuring adequate financing to meet national program objectives is likely to be a GAVI priority for 2004/05 and beyond; ensuring availability of financing mechanisms and incentives for new vaccine development and introduction is fundamental for GAVI's success.
Collaboration with other TFs	Linkage with R&D TF re. McKinsey study of ADIPs. Initial collaboration with ACTF and ITF Capacity Building Sub-Group (2001-2) not fruitful; Have engaged ACTF in recent planning of advocacy effort re. FSPs but FTF to lead with partners. In the development of FSPs, have relied heavily on RWGs and have found them to be a very productive and efficient mechanism for providing technical assistance and "on-the-ground" intelligence
Transition/ Hand-over Plans	Conscious operating practice to plan hand-off of "projects" to partners, however, currently this is limited by need for partners to strengthen capacity & ramp up funding to address financing issues ("staffing/programming up" to take on activities).
Emerging Issues & Preliminary Conclusions	• Protracted 2003 work planning process and lack of clarity caused activities scheduled for fall/winter 2002/03 to be postponed, and in some cases, dropped altogether. • UNICEF participation in FTF hampered by lack of consistent representation (~9+ different core members since start-up). Limited ability to engage Unicom's strengths & commitment to FTF work, esp. financial sustainability. • To "mainstream" FTF activities successfully, partners need to strengthen technical capacity, begin funding and incorporate financing issues into core work plans. • Concern that commitment and accountability for activities currently managed by FTF may be difficult to sustain once activities are handed over to countries/partners (potential for loss of momentum if transition is not carefully prepared). • Without taking on any additional requests from the GAVI Board, the FTF estimates that 2 more years are required for it to complete its current portfolio of work and transition activities to partners. The workload in the next year alone to support the FSP process and consolidate learning is very considerable (and critical re. sustainability of new vaccine introduction). • Consistent with Caines Review conclusions – FTF is an extremely active and productive TF handling a heavy workload in a "gap" area. The FTF is well organized and has adjusted management processes in light of review recommendations.

Name	**Advocacy & Communication Task Force (ACTF)**
Start-End Date	Started in July 1999 using CVP funds already at UNICEF; ongoing, although funds only available from CVP through June 30, 2004 so this is an effective end date unless GAVI Secretariat provides funding
TOR	Responsible for building and communicating a common vision for global immunization among partner agencies and world immunization community. Provides leadership in promoting immunization and is responsive to regional and country needs for advocacy and communication support. Original TOR is evolving with a shift from emphasis on global activities where some success has been achieved toward prioritization of regional and country activities.
Main Achievements	• Successful branding of GAVI and what GAVI represents • Coordination of advocacy efforts • Communication products [e.g. Advocacy Kit, brochures, videos, website, training materials, etc] • Regional workshops for advocacy and communication specialists • Building on communication experience of polio eradication initiative • Embarking on significant advocacy effort to build public trust and promote value of vaccines
Structure	Co-ordinator (UNICEF staff); two sub-groups: (1) Sub-group for Global Advocacy (SGA), chaired by UNICEF, provides A&C support to GAVI objectives at global level including resource mobilization; and (2) the Country Support Sub-group (CSS), chaired by CVP, supports ICCs and Regional Working Groups (RWGs) in immunization advocacy and communication. ACTF composed of 17 core members representing 11+ organizations.
Mechanism	Teleconferences and meetings about once/month. Regional workshops started in 2002 with 2 scheduled for 2003.
Previous Reviews or Evaluations	Review by Warren Feek (May 2002). Includes assessment of ACTF performance against the advocacy and communication challenge; sets forth both strategic and operational recommendations. Review included interviews, questionnaire, materials. ACTF evolving as response to recommendations.
Added-Value	Advocacy and messages (in various forms) increase access to vaccines; increase support for vaccines and new vaccines in particular; highlight value of vaccines and cost-effectiveness of vaccines. Difficulty is in measuring the effect of successful communications which do not stand alone from other interventions.
Fit with Strategic Priorities 2004/05	Advocacy and communications are critical to the success of strategic priorities. A&C needed to increase awareness of major issues: access to and quality of immunization services, meeting coverage targets, reducing financial gap, ensuring adequate supply of vaccines. Also critical to fundraising and continuation of Vaccine Fund.
Collaboration with other TFs	SGA works with FTF. CSS works closely with ITF.
Transition/ Hand-over Plans	No plans formulated at present; however as the communications capacity of partners at country level improves, some countries may assume full responsibility for their communication activities.
Emerging Issues & Preliminary Conclusions	• Global versus country level activities (events vs ongoing A&C) – confusion over what should be focus of ACTF vs. GAVI Sec vs. partner core functions? • Mission not universally clear (same issues as above) • Further complicated by fact that ACTF has not received any "GAVI" funds for its work plan. • Inadequate integration of A&C activities with other GAVI supported activities • How best to operationalize A&C objectives

Name	**Implementation Task Force (ITF)** *Previously Task Force for Country Coordination (TFCC – 1/00 thru 6/02)*
Start-End Date	Start: June 2002 (as ITF) Review: by mid 2004 to inform need for continuation, new TOR, or discontinue
TOR	Strategic objectives: • Coordination – of GAVI partner activities (global, regional, country); of support to regions and countries to improve access to sustainable immunization services and meet disease control targets • "Think-tank" to provide feedback and advice to Board and Working Group on country level issues • Monitoring and evaluation (M&E) – develop/strengthen tools to monitor & evaluate immunization performance, particularly against GAVI milestones • Capacity building – identify, prioritize and coordinate to capacity building for immunization across health services
Main Achievements	• Established a collaborative framework to set immunization program priorities (global, regional countries) – ITF is a neutral forum for partners • Developed first global work plan (2002-3) identifying technical and operational support needs for country immunization programs in each region • Developed global training partnership to share tools and set priorities • M&E: developed core indicators of immunization systems; developed, field tested and analyzed DQA; developed proposal to modify performance based funding (approved by Board) and proposal to evaluate performance based funding; developing options for performance based funding. • Capacity building work plan brings issues such as vaccine management into capacity building plans at regional/country levels • Reaching every district (RED) strategy developed, now being field tested by partners as broad approach to improving immunization coverage
Structure	ITF Core group with two sub-groups – M&E and capacity building. Core group includes wide range of partners (WHO and World Bank – co-chairs; UNICEF, USAID, NORAD, DFID, CDC, CVP/PATH, GAVI Sect, Vaccine Fund, IFPMA) plus representatives from 7 GAVI Regional/Sub-regional Working Groups (RWGs). One coordinator, based in and funded by WHO.
Mechanism	Biweekly teleconferences of core and each subgroup; 2 annual meetings of core group. Tasks done by standing or ad-hoc subgroups (e.g. Access, training). Circulate monthly "Information Update" of TF and Country activities (via e-mail)
Previous Reviews or Evaluations	Situation analysis of current operations – Oct/Nov 2001 – led to evolution of TFCC to ITF. Analysis of Task Forces and work plans (John Marshall on behalf of GAVI Sect) – April 2002
Added-Value	• Coordination and consensus building – ITF has created forum for partners working at operational level; only GAVI forum for regional level participation, and for some partners. • Country support – ITF provides focus to determine needs and to identify and fund technical support for countries, through RWGs • Stimulate more and better – Develops consensus on key programmatic issues, including vaccine management, wastage and waste management; priorities for capacity building; strategy to reach every district; etc • Innovation –supported development and use of DQAs; core indicators
Fit with Strategic Priorities 2004/05 *(based on current draft strategic planning document (3 April))*	• Increase access, etc – major focus of ITF, through development of RED strategy, and of RWG work plans to provide technical support and strengthen monitoring of coverage in VF funded countries; • GAVI enhanced efforts in some countries –ITF supports monitoring impact of VF funds, and works with RWGs to define priority countries, implement RED, and provide targeted support • Adequate vaccine supply – ITF is focusing attention on vaccine management issues (including stock-outs and wastage)

Name	**Implementation Task Force** *(cont.)*
Collaboration with other TFs	Coordinators hold regular teleconferences (ITF, FTF and ACTF) and are invited to participate in TF meetings, conference calls (often do former, rarely latter) More discussion needed during work plan development in areas where responsibilities could overlap.
Transition / Hand-over Plans	Current TORs recommend review by mid-2004
Emerging Issues & Preliminary Conclusions	• ITF has been a useful forum for partner collaboration on immunization work, including developing consensus on strategies to strengthen immunization. It engages multiple partners and levels, and has stimulated more work on key issues such as cold chain, safety, etc. It provides a neutral mechanism for combining and coordinating efforts of partners and for representation of regional and country programmatic issues. • ITF has started work on most tasks in the current TOR; some are finished (core indicators), others ongoing (RED, how to evaluate impact on health systems), others are longer term (training coordination, study of impact of performance based funding). • If it continues, ITF should update current objectives and TOR to fit with the new GAVI strategic directions. Once there is clear agreement with Board and Secretariat on ITF roles and work plan, need to ensure adequate funding for ITF (and RWGs) to support GAVI added value • Need to consider improving efficiency of ITF, through stronger management to ensure key activities are implemented as planned, scaling down size and clarifying purpose of meetings and reconsidering roles and working arrangements of subgroups. • RWGs play an important role in bridging from GAVI Secretariat and Board to country operations. RWGs participate in ITF and in 2003 received some GAVI funding through ITF, but RWG roles are not defined by ITF TORs (rather by TORs developed by each RWG, with consensus common functions agreed to at ITF meeting April 2002). • Roles and responsibilities of RWGs in GAVI context need to be more clearly defined (see RWG summary sheet)

Name	**Regional working groups (RWGs)**
Start-End Date	GAVI first defined roles in 2001. Ongoing.
TOR	Developed by each RWG but with agreement (since April 02) on common roles: • Coordination of partner agency inputs and their activities at country level • Oversight on provision of technical support to national immunization programs • Support to ICC, technical subcommittees and partner representatives at country level (technical updates, information clearinghouse) • Monitoring of performance of national immunization programs, including progress toward GAVI milestones, and feedback • Reflection of country views and input to policy at regional and global fora
Main Achievements	• Coordinate technical support for GAVI/VF applications, reporting, monitoring and evaluation, injection safety, financial sustainability planning, and for immunization program activities such as training, vaccine management, etc. • High proportion of VF eligible countries have had VF support approved. • Identify priority countries for immunization advisors (and partner support).
Structure	Core group of partners, usually led by WHO and UNICEF regional staff. Funding support by partners; in 2003 received some stopgap GAVI funds channeled through ITF.
Mechanism	Regular teleconferences and meetings (1 + times annually). Activities defined through work plans developed for ITF. Specific country needs often supported by partner agencies (WHO, UNICEF, CVP). Primary staff funded by partners (WHO, UNICEF, CDC), including some with polio eradication funds.
Previous Reviews or Evaluations	Situation analysis of TFCC and RWGs in October 2001included TORs of RWGs and considerations of role in GAVI.
Added-Value	• Coordination of support for activities required by GAVI/VF (such as applications and DQAs) and other activities stimulated by GAVI to improve immunization activities for countries in region. • Provides forum for making needs of countries and region known to ITF and hence to higher GAVI structures. • Country knowledge enables RWG to identify countries needing additional support, and types of support required. • Stimulate more and better – increasingly forum to identify problem areas and focus on regional and country issues, such as vaccine management.
Fit with Strategic Priorities 2004/05	• Increase access, etc – main focus for identifying need, manpower, and funding for technical support to countries. Forum to identify and transfer best practices within regions. • GAVI enhanced efforts in some countries – RWGs can identify priority countries, coordinate review of key issues; promote RED or other strategies to improve immunization. • Coordinate support for FSP development (but limited capacity in this area) • Increasing focus on vaccine management at country level.
Collaboration with other TFs	Work closely with ITF, including work planning. Supporting FTF efforts in FSPs through coordinating technical support and regional country training activities. Little or none with ACTF.
Transition/ Hand-over Plans	None at present
Emerging Issues & Preliminary Conclusions	• Need to more clearly define roles and responsibilities of RWGs within GAVI structure. Increasingly GAVI tasks are delegated to RWGs, but without mandate or resources. Must clarify whether have mainly coordinating role, or role in management and evaluation of GAVI processes and outcomes • Need to clarify what are core partner activities vs. GAVI value added • Need to ensure that human resources and funding are available to meet their agreed roles in achieving GAVI value added. • Need to consider whether to keep GAVI and routine immunization focus or link with other coordination efforts e.g. in accelerated disease control. • Consider ways to improve feedback from regions and countries to the Working Group, Secretariat and Board.

Annex 3

Proposal for improved GAVI Board operations

Background

By nearly all accounts, the GAVI partnership has been a success and the GAVI Board has offered the partnership valuable and important start-up advice, strategic decision-making and operational guidance. The success is due in part to the broad make-up of the alliance and a Board that is willing to take on decision-making in open, transparent and collective manner. The spirit and process of collective discussion, wide participation in decision-making, and active engagement of senior leadership from across the world must continue to guide this alliance as we move forward to address the critical strategic issues facing the global immunization system today.

As GAVI moves beyond its successful start-up phase, it has become clear that the alliance requires clarity and decisiveness in its planning, gathering of technical, partner and country input, and decision-making that is hard to obtain without high-level engagement and activity of board members. The Board has worked both as a committee of the whole and with ad hoc sub-committees to address a variety of issues and to make alliance decisions.

The GAVI Board has functioned through a number of sub-groups, including a sub-group to develop the 2003 Work Plan and the Strategic Framework for the 2004-05 Work Plan, a sub-group to review the Task Forces and Regional Working Groups and a sub-group to recruit the GAVI Executive Secretary. In addition two standing groups have been created: the ADIP Management Committee and the VPP Oversight Committee. The sub-groups have often had difficulty performing their functions, meeting regularly, and staying engaged. In some cases, there seems to be overlap in content areas.

Board meetings are supposed to occur only twice a year, but in 2002 and 2003 an extra meeting was needed. Board teleconferences have been required on an almost monthly basis. Furthermore, participation in various sub-groups has required Board members to attend additional teleconferences and meetings.

The development of the 2003 Work Plan and the Strategic Framework for 2004-05 has proven to be a particularly demanding exercise. Furthermore, continued and regular high-level guidance is required to develop the 2004-05 work plan, manage its implementation and monitor progress.

Included in the GAVI Review[4] presented at the June 2002 Board meeting in Paris was a recommendation to create a number of standing sub-groups of the Board in order to improve efficiency of Board functions. At that time, the Board decided not to accept that recommendation but instead to rely upon ad hoc sub-groups as needs arise. However, with the growing complexity of GAVI the Board may wish to again consider new options to improve efficiency.

Proposal to create a GAVI Board Executive Committee

An Executive Committee of the GAVI Board (GAVI EC) could smooth the ongoing planning, management and monitoring of GAVI activities that are central to the functioning of the

[4] From "Report of the External Review of the Functions and Interactions of the GAVI Working Group, Secretariat and Board", by Karen Caines and Hatib N'Jie. May 2002 [http://www.vaccinealliance.org/site_repository/resources/gavi_review_report_final.doc]

Alliance. The EC would facilitate a closer supervision and implementation of GAVI's activities, including Secretariat functions. It would streamline the operations of the Board by removing some of the more day-to-day management responsibilities, allowing the Board to focus solely on big issues and decisions; in fact the EC would inform and facilitate decision-making by the Board, who will retain all GAVI decision-making responsibilities. See below for a description of the functions of the GAVI Board.

In establishing a GAVI EC, every effort must be made to assure that the full range of GAVI partners remain fully empowered in the Alliance, that transparency is enhanced and not lessened. If an EC is adopted, it will be important to maintain the engaged commitment of all Board members. Success of the EC will be measured by the development of clear, effective and streamlined planning processes, facilitating the work and decision-making of the Board, and reduction in the transaction costs of GAVI processes.

The EC would fulfill the functions delegated to it by the Board (see below for suggested functions), with support from the Secretariat. The establishment of the EC would not change the current functions of the Working Group, which supports the Secretariat (see Annex).

GAVI Board functions[5]

The Board is the governing body of the Alliance and expresses the highest political commitment of partners. The Board:

- reviews, approves and updates joint objectives and milestones;
- considers the recommendations of the Independent Review Committee and approves support for country immunization programs, requests funds to be disbursed by The Vaccine Fund;
- notes and monitors the commitments of Partners to undertake certain strategies and activities;
- approves budgets of the Secretariat and any task force that might be established by the Board;
- contributes, through its members, to fundraising and advocacy activities;
- nominates the Executive Secretary and submits its name to the host organization for appointment;
- shape strategic vision and direction for the Alliance (ultimate decision-maker);
- provides highest level policy decisions stimulating GAVI partners to adopt new approaches and behaviors (e.g. alignment);
- resolves issues among partners.

GAVI EC functions:

1. Report on proposed strategic priorities to the full Board and make recommendations regarding their adoption.
2. Based on approved priorities, guide and oversee the process of strategic planning and the development of the GAVI work plan.
3. Report to the full Board on key ongoing strategic and operational issues facing the Alliance.
4. Report to the full Board on progress and outcomes, ensuring alignment with strategic objectives and values in a transparent manner
5. Review and act on recommendations of the IRC on country proposals, and request payments from The Vaccine Fund between full Board meetings.
6. Report to the full Board on any major issues or conflicts arising from a systematic review of Alliance strategies and plans vis à vis the strategies and plans of The Vaccine Fund.
7. Be responsible for any other functions delegated to it by the full Board.

[5]From "GAVI and The Vaccine Fund – Roles and Responsibilities", prepared the GAVI Working Group and adopted by the GAVI Board, November 2001. [http://www.vaccinealliance.org/site_repository/resources/gavir&r_revised.doc]

Membership of the EC:

The EC will consist of seven Board members with no alternates – EC effectiveness requires high-level involvement. These will include the five renewable members of the Board (WHO, UNICEF, the World Bank, the Vaccine Fund and the Bill & Melinda Gates Foundation) and two members who will represent developing countries, and OECD countries who would serve two-year terms. The Chair of the Board will propose the two rotating members to the Board for approval. The Chair of the Board should also be the chair of the EC. If any member of the EC is unable to participate in a meeting or teleconference an alternate will not be able to participate.

Extension of Board member terms

Currently each rotating Board member serves for a period of two years. This has allowed substantial involvement of the various constituencies. On the other hand, as GAVI operations grow in complexity, a two-year period may be too short to fully maximize on contributions from Board members. It takes some time for new Board members to become conversant with all of the issues and to develop a strong communication network with their constituencies. For this reason an extension of Board membership from two to three years should be considered.

This would apply to new members only; the terms of current members will end as scheduled.

Annex: Functions of the Secretariat and the Working Group[6]

Functions of the **Secretariat**:

- Managing the review of country proposals: working with the partners to identify Independent Review Committee members; correspondence with members; hosting the 10-day proposal review sessions two to three times per year; preparing documentation for the reviews; preparing documentation for presentation to the Board; drafting and managing correspondence with countries regarding the outcome of reviews.
- Servicing the Board: working with the Board Chair to finalize meeting dates, locations and agendas; preparing all correspondence with Board members; drafting and publishing the reports of the meetings and teleconferences; working with constituencies to nominate new members; providing human resource and financial support to developing country health ministry members.
- Servicing the Working Group: Managing all teleconferences and meetings; drafting meeting and teleconference agendas and reports.
- Preparing and disseminating consistent documentation on GAVI policies and procedures.
- Managing the website and quarterly publication.
- Arranging the Partners' Meeting every two years.

Functions of the **Working Group**:

- Communicating major Board decisions – such as new Fund policies and country proposal decisions – to partner constituencies at the regional and national levels.
- Acting as a bridge between the Alliance and operations of individual organizations ensuring operations are consistent with GAVI and Partner objectives
- Monitor progress to identify issues arising from Partners (including task forces, regional working groups, countries) that require Board decisions
- Prepare background documentation for Board to make decisions – preferred practice is to provide more than one recommendation
- Oversee operations of GAVI structures, including involvement in the appropriate task forces, and identify important structural issues for Board decision

[6] From "GAVI and The Vaccine Fund – Roles and Responsibilities"

Annex 4

Analysis of first-round Financial Sustainability Plans

Annex 4a: Cover note to GAVI Board members *(July 2003)*

Dear GAVI Board Members,

The attached documents from the Financing Task Force (FTF) seek to provide the Board with preliminary information based on analyses of the first Financial Sustainability Plans (FSPs) from 10 countries receiving Vaccine Fund grants.

In these documents—an Executive Summary and an Annex with detailed analysis—the FTF has focused on presenting a full set of information with a minimum of commentary and has included a thorough presentation of the strengths and limitations of the data.

There is much important information relevant to financial sustainability that is not available for inclusion in this report. For example, because the FSPs were submitted in late 2002 and reviewed in 2003, there is not yet systematic information about progress on implementation of the plans. In addition, we do not have an analysis of the political feasibility of increasing resources for immunization, either in grant-recipient or in donor countries.

The many partners and individuals who have worked on all aspects of GAVI's financial sustainability efforts are hopeful that this document responds adequately to the GAVI Board's request to the FTF for a report and options for future action following the preparation of first-round FSPs.

Making the transition from VF support to governments and partners will be a challenge. To be successful, each partner will need to take a number of specific actions. Rather than prepare a prescriptive list of recommendations, the FTF has provided a number of options and specific actions that GAVI partners may wish to consider.

At the Board meeting, we look forward to a discussion on how GAVI partners can each support national efforts to improve immunization financing.

The GAVI Financing Task Force

Annex 4b: Executive summary

The GAVI Financing Task Force prepared this paper to provide detailed background to the GAVI Board to inform its near-term decision-making. We present aggregate and cross-country analyses based on data on immunization program-specific expenditures and financing from 8 to 10 Financial Sustainability Plans (FSPs)[7] submitted in November 2002 by "first-round" Vaccine Fund grant recipients. To enrich the analysis, we supplement the FSP data with information from commissioned "rapid assessment" case studies on financing prospects for three countries and other sources. FSP data are from: Cambodia, Côte d'Ivoire, Ghana, Guyana, Kenya, Kyrgyzstan, Lao PDR, Mali, Mozambique and Rwanda; for some analyses, Mozambique and Kyrgyzstan, are excluded because of missing data. Case studies focused on Kenya, Cambodia and Ghana. All findings and inferences from the analyses presented here should be considered with a clear understanding of both the strengths and limitations of the data.[8]

The paper documents eight main findings:

1. **Total spending is up.** In the 10 countries, spending on immunization by governments and their development partners has increased during the short period since the start-up of GAVI and the Vaccine Fund, from $34 million to $62 million. This includes an increment of about $4 million from government sources and $7 million from multilateral agencies and bilateral agencies, *in addition to* the $15 million from the Vaccine Fund. The remainder comes from other sources including NGOs. The reasons for the increases are not fully known, but may be explained in part by funding for immunization campaigns in several countries, as well as characteristic fluctuations in donor disbursements.

2. **Governments are spending more on vaccines**. Across 8 countries, government spending on vaccines increased by about $1.5 million between the most recent "pre-Vaccine Fund" year and the period after the start-up of Vaccine Fund support.

3. **Overall budget impact of immunization remains small although introduction of pentavalent vaccines does increase costs substantially**. Even with the increased spending, immunization represents a small share of total spending on health by both national governments and donor agencies. In the period before the Vaccine Fund, the National Immunization Program (NIP) represented 1.8 percent of total health spending on average across the 8 countries; in the period after the Vaccine Fund initiated support, the NIP accounted for 3.2 percent of total health spending. In the countries included in this analysis, this translates into total health spending of about $18 per capita, of which about $0.60 per capita is for routine plus supplemental program-specific costs, or $0.36 for routine costs only. Spending on immunization represents less than 0.2 percent of GDP.

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[7] Recognizing the urgency of starting to plan for the financial arrangements after the conclusion of the current round of Vaccine Fund support, GAVI requires that governments receiving Vaccine Fund resources work with program partners to develop a Financial Sustainability Plan (FSP) in their second year of support. The FSP is a document that assesses the key financing challenges facing the national immunization program, and describes the government's approach to mobilizing and effectively using financial resources to support medium- and long-term program objectives.

[8] The FSPs have provided in-depth information on financing and expenditures for immunization and the next round of FSPs from 22 countries will greatly increase the knowledge base. However, several caveats are noteworthy:

- current findings are based on a short observation period (less than 2 years) for only 10 countries, which may not be representative either over time or across a broader range of countries; variation across countries with respect to funding for immunization campaigns may particularly limit the ability to calculate meaningful averages;
- countries introducing new vaccines are at different stages of implementation, and therefore their cost structures are not strictly comparable;
- to permit cross-country comparison, most expenditure data were limited to immunization program-specific figures. **Because of the focus on program-specific costs, the contribution of the national government to the immunization program is not fully accounted for, and estimates under-represent spending on key inputs such as personnel and facilities, which are shared across multiple health programs. This means that any estimates of costs will be underestimates of the total costs of delivering immunization services, probably by an order of about one-third;**
- information on financing does not fully capture the original source of funds in cases where money for immunization is channeled through multilateral organizations, pooled funding, or budget support.

The largest budget impact has accompanied the introduction of relatively expensive vaccines. In the case of Ghana, which has the longest experience with pentavalent introduction among the Vaccine Fund recipients, immunization program-specific costs have increased by a factor of 3.8 between the pre-Vaccine Fund and the Vaccine Fund periods. Similar increases in program-specific costs are anticipated in other countries introducing the pentavalent product.

4. **Vaccine costs account for an increasingly large share of National Immunization Program costs.** In countries introducing new and underused vaccines, expenditures on vaccines have become an increasing share of total spending – from 33 to 52 percent of total program-specific expenditures between the pre-Vaccine Fund and the Vaccine Fund periods. This increase is a logical consequence of using the current immunization system to deliver new products and protecting children against a wider range of diseases. This is also particularly evident in countries introducing the pentavalent formulation, reflecting its higher price.

5. **Accelerated Disease Control campaigns account for a large share of National Immunization Program costs**. On average across 9 countries, about one-third of total program-specific expenditures are dedicated to campaigns, including the polio eradication and measles control campaigns. In some countries, campaigns account for more than half of NIP-specific spending, which in part reflects the coincidence between the timing of the FSP analyses and the polio and measles "catch up" campaigns. Funding for campaigns is largely from external sources, such as Rotary, American Red Cross, the UN Foundation and others.

6. **Poor financial management constrains programs in some countries**. Spending patterns over time, as well as qualitative reports, suggest that cumbersome and inefficient financial reporting and disbursement mechanisms on the part of partners and governments limit the ability to execute programs in the optimal manner.

7. **Future financing is vulnerable**. The gap between the resources required and the resources secured is growing, and the transition from the Vaccine Fund to other sources of financing for routine immunization is unclear so far. The ability to finance immunization varies substantially from country to country depending in part on their economic prospects and in part on the choice of vaccines. On average across the 8 countries included in the analysis, the average annual resource requirements during the years following current Vaccine Fund commitments amount to US$98 million per year. Of that, only $34 million (35 percent) is financed by sources that currently can be considered secure. Financing vulnerability is exacerbated by the presence of other new pressures that are likely to be placed on the health budget, particularly if countries are expected to sustain recurrent expenditures following support from the Global Fund to Fight AIDS, TB and Malaria. The ability to finance medium- and long-term increases in resource requirements as immunization programs grow and improve – a core determinant of the success or failure of GAVI and the Vaccine Fund – depends on concerted and specific actions by governments and development partners.

8. **Governments and partners consider development of Financial Sustainability Plans to be valuable**. An evaluation of the first-round FSP process found that most in-country respondents appreciated knowing – often for the first time – the national immunization programs' cost structure. They appreciated the opportunity to initiate a constructive and informed dialogue across government agencies, and with development partners. Countries indicated that the FSP process has been particularly valuable in exploring and developing strategies to face future financing challenges.

Recommendations for Consideration

Keeping in mind the preliminary nature of these findings, the Financing Task Force submits several recommendations to the GAVI Board for its consideration.

Four of the main findings from this round of FSPs are positive with respect to GAVI's aims: spending on immunization program specific inputs by partners and governments has increased; governments are spending more on vaccines; the overall budget impact of immunization remains small; and governments and partners consider the financial sustainability planning process valuable.

Other data from the FSPs also carry some cautionary messages: vaccine costs account for an increasingly large share of NIP costs; poor financial management constrains programs; and future financing is vulnerable. These early alerts highlight that new and/or more concerted efforts are required to increase the chances that the benefits of GAVI and the Vaccine Fund will be realized and sustained into the future.

An additional finding from the FSPs is that Accelerated Disease Control programs account for a large share of NIP costs. This finding may bear further analysis.

Findings to date from 10 countries submitting FSPs in November 2002 suggest that while progress is being made toward adequate and predictable funding for immunization, managing the transition of financial responsibility from the Vaccine Fund to governments and their partners will be complex and is in no way assured at the present time. The transition, upon which much of the Vaccine Fund strategy is based, will require input from all GAVI partners. Financing an expanding and improving immunization program in the face of increasing competition for scarce budget resources presents a challenge in the best of situations, and will be particularly difficult for several of the countries included in this analysis.

Success of the Global Alliance for Vaccines and Immunization depends in large measure on tackling major financing challenges. For countries and their partners to successfully mobilize and effectively use funding for a better immunization program, each partner will need to determine what specific actions it can take at the global, regional, and/or national level.

The GAVI Board is asked to consider the following recommendations:

1. **Request** GAVI Partners to identify within their respective organizations and constituencies and report back to the GAVI Board on specific actions and analyses that each partner can take to support countries in the financial sustainability planning process, and facilitate the transition of financial responsibility from the Vaccine Fund to countries and their partners. Based on the findings to date, these actions could focus on the following areas:

    a) Increasing the resources available to the health sector in general, and the immunization program in particular, in recognition of the cost-effectiveness of the intervention and the potential improvements in child health;

    b) Increasing the length over which budgetary commitments can be made to the immunization program, perhaps through development of new funding instruments and/or linking with existing aid transfer mechanisms that have a relatively long time horizon;

    c) Improving management of the introduction of newer and more expensive vaccines; this includes improving efficiency of program and vaccine management, as well as improving forecasting and procurement as part of an integrated approach to maintain vaccine prices at affordable levels; and

    d) Strengthening national government capacity in financial management and planning for the social sectors.

2. **Request** one or more GAVI Partners to review and monitor progress in the implementation of the first round FSPs and report back to the Board on the findings of the second round of submissions. The focus of the report would be on:

a) New findings from the second round of 22 countries

b) Identification of countries facing the most significant challenges, and in-depth analysis of financing prospects

c) Options for action

The Board may also wish to consider the following two specific actions:

1. **Convene** a meeting to analyze the combined impact of current investment strategies and initiatives in global health, including GAVI/Vaccine Fund, Global Fund to Fight AIDS, TB and Malaria, Global Alliance for Improved Nutrition, Roll Back Malaria and others.

2. **Request** that a GAVI partner coordinate an analysis of the financial and programmatic impact of current investment strategies for supporting both routine and supplemental immunization efforts.

Annex 4c: Immunization program expenditures, financing and future financial prospects

Analysis of First-Round Financial Sustainability Plans

Introduction

The Financing Task Force of the Global Alliance for Vaccines and Immunization prepared this paper to provide detailed background to the GAVI Board to inform its near-term decision-making. In it, we present aggregate and cross-country analyses based on data on immunization program-specific expenditures and financing from 8 to 10 Financial Sustainability Plans (FSPs) submitted in November 2002 by "first-round" Vaccine Fund grant recipients. To enrich the analysis, we supplement the FSP data with information from commissioned "rapid assessment" case studies on financing prospects for three countries, and the evaluation of the first-round FSP process. FSP data are from: Cambodia, Côte d'Ivoire, Ghana, Guyana, Kenya, Kyrgyzstan, Lao PDR, Mali, Mozambique and Rwanda; for some analyses Mozambique and Kyrgyzstan are excluded because of missing data. Case studies focused on Cambodia, Ghana and Kenya.

These analyses, while preliminary in nature, seek to be an early step in providing a strong empirical foundation for the GAVI Board's pioneering actions to address financial sustainability challenges.

The paper is divided into five sections:

Section I. *The Importance of Financial Sustainability Planning for Vaccine Fund Recipients*

While all Ministries of Health and immunization program managers should consider how to sustain program financing over the long term, such planning is particularly important for recipients of Vaccine Fund resources because of the way the Fund works.

The Vaccine Fund is designed to be a catalyst to increase the financial resources for national immunization programs in a step-wise fashion. The Vaccine Fund provides an initial allocation of resources to support national priorities. These national priorities may include strengthening of immunization systems (leading to increased coverage and quality with cost-effective health interventions) and/or introduction of newer vaccines, some of which are common in industrialized countries but not yet in widespread use in the developing world. Once that initial allocation is disbursed (over a five- to eight-year period), it currently is expected that no additional funds will be made available for the types of activities covered under the initial allocation. It is expected that in each country a combination of domestic and external resources

will be mobilized to take up where the Vaccine Fund leaves off. A core challenge of planning for the program's future, then, is determining the actions needed to mobilize those new resources and to ensure that programs are restructured to efficiently use the resources available.

The Vaccine Fund's intent is to become a long-term tool in the global immunization effort. As the Vaccine Fund phases out of providing the initial types of support, its focus is to evolve to support the next stage of national priorities. These priorities may be, for example, additional strengthening of the system to expand coverage to 90 percent or higher, and/or introduction of vaccines now in the late stages of product development in the countries where such introduction is justified epidemiologically and is backed by effective and efficient management capacity. For example, the Vaccine Fund may provide some countries with resources to introduce anticipated new vaccines, such as those against rotavirus, pneumococcus or meningococcal A. Again, subject to fulfillment of the requirements of the program, that support (which may also potentially be dedicated to new means to improve program performance) will be for a specific period – five to eight years – with the expectation that other sources of funding will take on the additional costs at the end of Vaccine Fund support.

After that second commitment, the Vaccine Fund would again support the implementation of the next set of national priorities, which may include the introduction of vaccines that are now in the early stages of development, but show great promise for the future. These potentially include vaccines against malaria, tuberculosis, HIV/AIDS. As currently envisioned, the Vaccine Fund would (subject to the fulfillment of the requirements of the program) once again provide resources for a five- to eight-year period, and then phase out as domestic and external resources fill the gap.

The Vaccine Fund will benefit immunization programs – and many generations of children – only if financing of immunization programs changes significantly: New resources will need to be mobilized and phased-in, and both existing and new sources of funding will have to respond to program needs. The feasibility of this approach needs to be assessed, and this paper seeks to make an initial contribution to that assessment.

Recognizing the urgency of starting to plan for the financial arrangements after the conclusion of the current round of Vaccine Fund support, GAVI requires that governments receiving Vaccine Fund resources work with program partners to assess prospects for financial sustainability of their immunization programs, and to identify and address key challenges and opportunities. This is being initiated through the development of a country's Financial Sustainability Plan (FSP). The first 12 of these FSPs were submitted in November 2002 to the GAVI Secretariat, and are now in the early stages of implementation. Of those, 10 plans had data of sufficient quality to warrant analysis and presentation in this report.

Section II. *GAVI's Support of Financial Sustainability Planning*

During the past two years, GAVI has made important advances in supporting countries' efforts to ensure the stability of their routine immunization programs over the medium- and long-term. The major steps included:

- **Shifting the focus to shared responsibility**. GAVI partners accepted the operational definition of financial sustainability as **"the ability of a country to mobilize and efficiently use domestic and supplementary external resources on a reliable basis to achieve current and future target levels of immunization performance in terms of access, utilization, quality, safety and equity."** This shifted the discourse away from a single-minded focus on governments' self-sufficiency in financing of vaccines, and toward the task of matching resources with requirements as programmatic ambitions expand; and sharing the responsibility between countries and partners. Background documents and meeting reports are available upon request. (June 2000-June 2001)

- **Building in-country capacity by developing tools, training and technical support**. To assist in the process of building planning capacity in the countries receiving Vaccine Fund support, GAVI prepared, pre-tested and revised guidelines for financial sustainability planning, and developed multiple tools for assessing elements of financial sustainability, costing and projecting resource requirements and financing. These have been accompanied by workshop-based training efforts, as well as by on-the-ground technical assistance in specialized areas. Training materials and reports from training events, as well as an evaluation of the FSP process, are available upon request. (September 2001-November 2002)

- **Reviewing and providing feedback to countries on their Financial Sustainability Plans**. GAVI reviewed the 12 FSPs submitted by first-round countries, and provided detailed feedback to countries on the quality of the data and projections, analysis of the funding gap and need for development of action plans. Reports from those reviews, including assessments of the quality of the data, are available upon request. (November 2002-April 2003)

- **Compiling a global immunization financing database**. GAVI developed the basis for a global database on immunization costs and financing, to support country- and global-level decision making. Documents describing the database are available upon request. (October 2001-present)

- **Supporting implementation**. As the financial sustainability planning process proceeds among the 22 second-round countries, GAVI has committed to high levels of support for the refinement and implementation of the Financial Sustainability Plans of the first-round countries. The primary task for implementation involves strategic advocacy for resource mobilization among national governments and donors; secondary tasks are improving the efficiency of programs and streamlining financial management. (November 2002-present)

Section III. *Limitations of the Analysis*

Inferences from the first-round FSPs should be drawn only with a clear understanding of the limitations of the data, and their preliminary nature (some of the figures will be updated in the near future). The data are, first and foremost, from a small number of countries that do not necessarily represent the broader set of low-income countries eligible for Vaccine Fund grants.

Second, the 10 (and, in some analyses, eight) countries whose data forms the basis for the analyses presented here provided relatively good data, without major inconsistencies or questionable figures, but no claims are made that the data are perfect.

Third, on the expenditures side, valid comparisons across countries can be made only for program-specific costs. Therefore, the figures must be interpreted in that light; they understate the total value of resources required to deliver immunization services, probably by an order of about one-third because they exclude shared costs (see Box 1 on the following page).

Fourth, inclusion of spending on supplemental immunization activities, such as the polio eradication and measles "catch up" efforts, complicates the process of making comparisons. On the one hand, spending on supplemental immunization activities can represent a large share of total program spending, and needs to be considered as part of the total picture. On the other hand, supplemental activities are punctual interventions with a short time horizon (e.g. polio eradication will end in the next years and measles campaigns are not conducted annually). Virtually all campaign-oriented funding is external, often from non Official Development Assistance sources (such as Rotary and the United Nations Foundation). There are major fluctuations in campaign-related spending across countries and over time.

Fifth, countries using Vaccine Fund resources to introduce underused vaccines are at different stages of implementation – some have introduced the vaccines on a broad scale, while others are just beginning – and operate with different vaccination schedules, in differing socioeconomic and

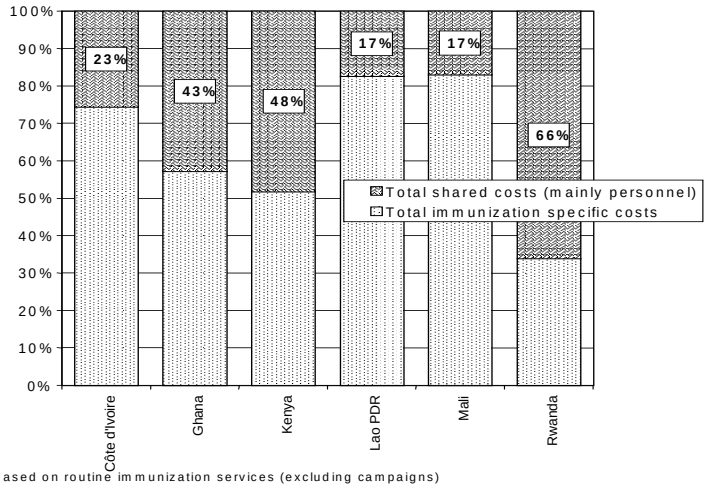
geographic contexts. Therefore, the impact of new vaccine introduction on cost structures is not strictly comparable.

Sixth, on the financing side, because the countries were asked to report only the source of financing closest to the end use, transfers of bilateral donor agency resources to multilateral agencies (such as WHO or UNICEF), or to a health fund or the national treasuries (through pooled funds or budget support) are not attributed to the donor countries. This is of particular (and growing) significance in countries receiving bilateral aid through sector-wide approach (SWAp) programs and national budget support. **In addition, again because of the focus on program-specific costs, the contribution of the national government to the immunization program is not fully accounted for; figures presented do not include spending on key inputs such as personnel and facilities, which are shared across multiple health programs.**

Box 1: *Program-specific Costs vs. Total Costs*

Because of variation in the organization of health service delivery and in accounting systems, it is impossible to make valid comparisons of total (rather than program-specific) costs of immunization programs across countries. However, in the small number of countries for which good estimates can be made, it appears that costs not captured in the analyses here account for about 33 percent on average (one-third) of total costs for the routine immunization services and 60 percent of personnel costs. Almost all of these costs are borne by the national or sub-national governments.

The figure below, based on data from 6 countries (Ghana, Côte d'Ivoire, Kenya, Lao PDR, Mali and Rwanda), shows the distribution of total immunization program costs between program-specific and shared costs. Wages and benefits make up the largest part of the shared costs.



* Based on routine immunization services (excluding campaigns)

Two other important limitations are worth mention: We have only two "snapshot" years, and therefore can draw no strong inferences about trends. And we are limited by the availability of international data, so some information about health spending in 2002 had to be estimated.

Section IV. *Main Findings*

A. Spending on Immunization

1. Levels and Patterns of Spending on Immunization

For the 8 countries that are the subject of this analysis, there was an overall doubling in total spending on immunization, as well as in spending on immunization program-specific costs relative to total health spending and national income. In absolute terms, spending increased in each country in the sample between the most recent year before the Vaccine Fund support

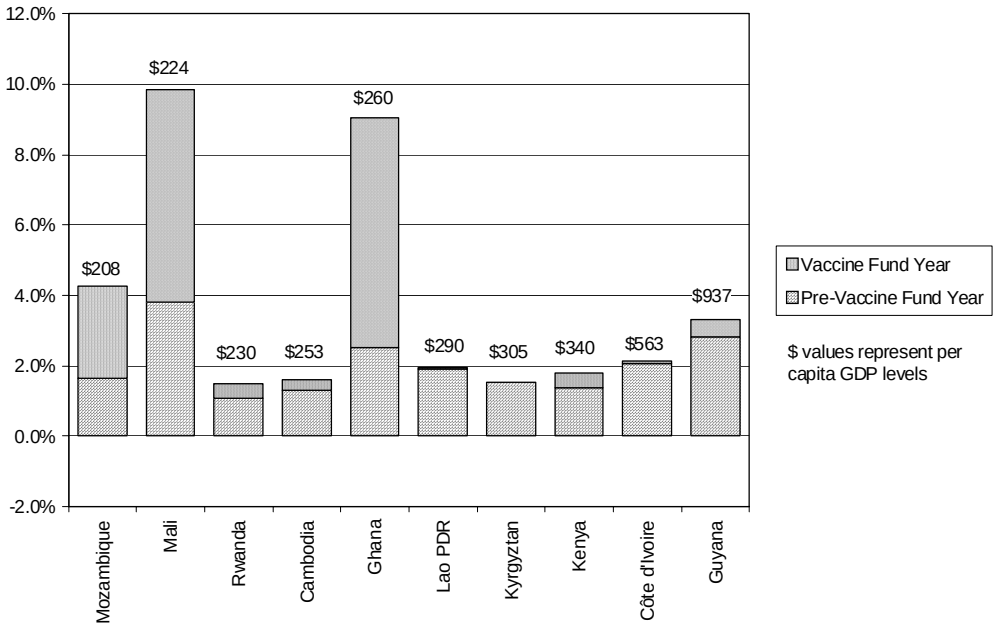
entered and the year after Vaccine Fund resources were received.[9] Between the pre-Vaccine Fund and the Vaccine Fund years, spending on the National Immunization Program increased by almost 50 percent as a share of government health spending. (See Table 1.)

Table 1: *Indicators of Spending on Immunization Before and After Initial Vaccine Fund Grants*

Indicator	National Immunization Program (routine + supplemental activities)		Routine Immunization Services Only	
	Pre-VF	VF	Pre-VF	VF
Total spending (million dollars)	34	62	20	39
Share of total health spending (%)	1.8	3.2	1.0	2.0
Share of gov't health spending (%)	5.4	9.6	3.2	6.0
Relative to GDP (%)	0.10	0.18	0.06	0.11
Cost per capita (dollars)	0.33	0.58	0.19	0.36

Major variations are seen across the countries in the sample, as shown in Figure 1. Ghana, an early introducer of pentavalent vaccines with full-scale implementation (not phased), has seen an approximate increase in NIP spending by a factor of 3.8; Mozambique, which introduced a tetravalent formulation (DTP+HepB), has experienced an increase in NIP spending by a factor of 2.4; and Mali experienced an increase in NIP spending by a factor of 2.6 largely on supplemental activities to combat polio, measles and meningitis outbreaks, and on introduction of HepB sponsored by Japan International Cooperation Agency (JICA). The expenditure changes in these countries have a strong effect on the overall averages.

Figure 1. *Variation in NIP program-specific expenditures as a share of total health expenditure (%)*



Immunization program-specific funding represents relatively little of the overall health sector budget. Even with the increases associated with new Vaccine Fund and other spending, on average across the eight countries, program-specific costs represented only about 3.2 percent of total health spending and 9.6 percent of government health spending. In the countries included in this analysis, this translates into total health spending of about $18 per capita, of which

[9] Throughout, comparisons are made between the "pre-Vaccine Fund year" – the latest year for which budget figures are available *before* the onset of Vaccine Fund support – and the "Vaccine Fund year" – the most recent year during which Vaccine Fund support was being used in the program.

about $0.60 per capita is for routine plus supplemental program-specific costs, or $0.36 for routine costs only. Spending on immunization represents less than 0.2 percent of GDP.

Again, the picture is different for certain countries. Ghana has seen the share of total health spending on immunization go from about 2 percent to over 8 percent. In Mali, immunization program-specific expenditures now account for almost 10 percent of total health spending; a few years ago, immunization represented only about 4 percent of health spending.

Main Findings

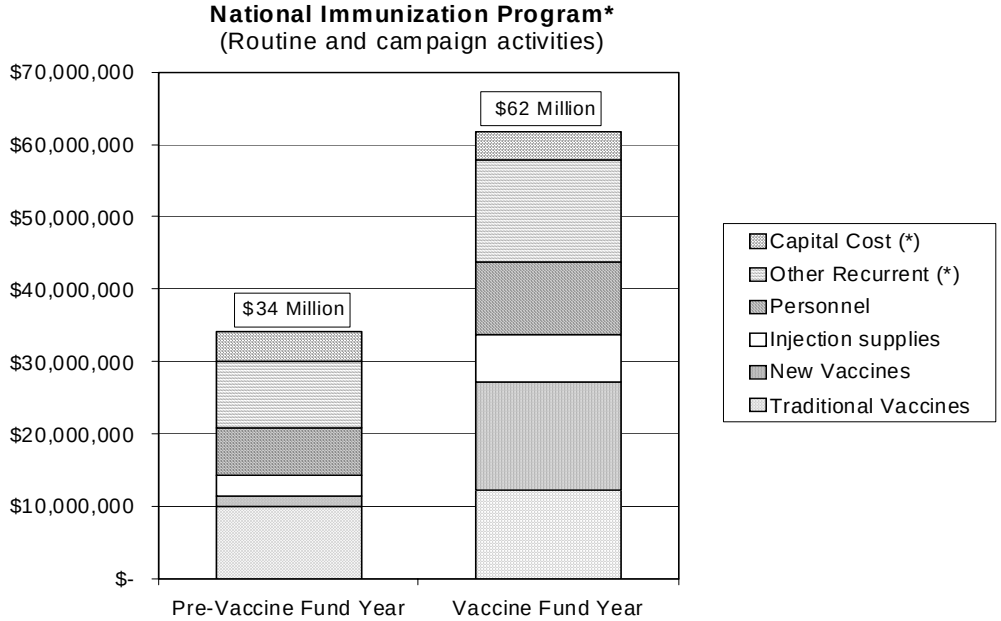
Total spending is up. Spending on immunization by governments and their development partners has increased during the short period since the start-up of GAVI and the Vaccine Fund, from $34 million to $62 million. Budget impact remains small, although introduction of newer vaccines does increase costs substantially.

2. Changes in Program Costs

Along with the increases in spending on immunization, the GAVI era is witnessing changes in the composition of program costs. As shown in Figure 2, as total spending across the countries in the sample approximately doubled, the major cost drivers were the newer vaccines, injection supplies, personnel and other recurrent costs (transport, maintenance and overhead, training, social mobilization, and disease surveillance).

Introduction of newer vaccines is a primary driver of the increases in spending. Before the Vaccine Fund support, vaccines accounted for 34 percent of NIP specific spending; currently, vaccines account for 44 percent of NIP specific spending. As would be expected, by far the largest changes occur in the countries that have introduced newer vaccines. Among those countries, Ghana, which has the longest track record among the "early introducers," shows a very large increase in the recurrent cost burden associated with vaccine procurement. Similar findings can be expected for Rwanda and Kenya this year as vaccine introduction increases towards full implementation.

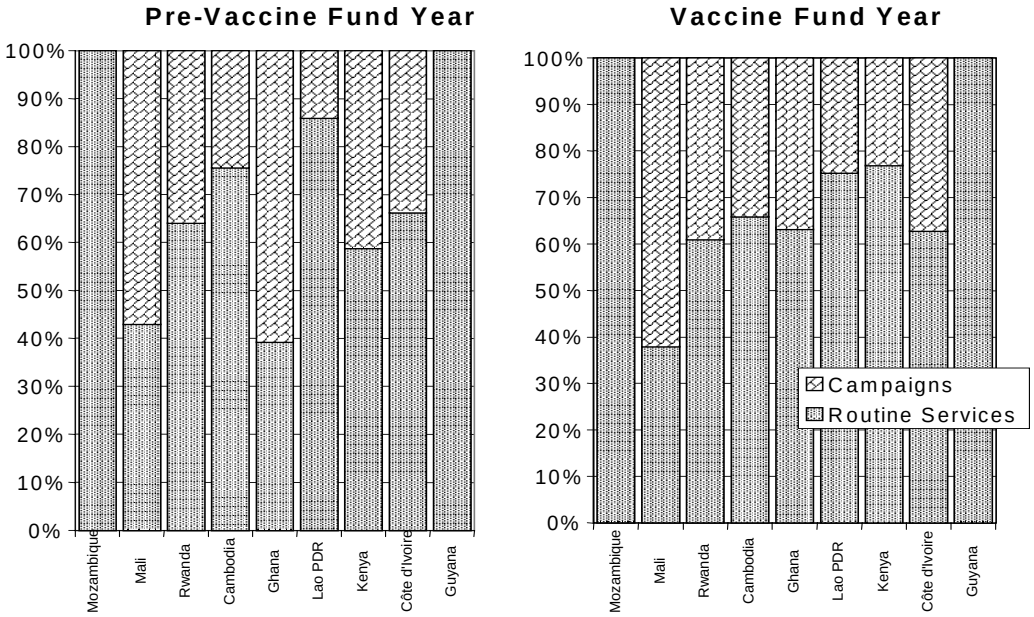
Figure 2. *Total NIP program-specific spending by inputs (US$)*



(*) Other recurrent program specific costs include spending on tranportation (fuel...), cold chain maintenance and building overhead, training, social mobilization and disease surveillance. Capital costs include the annual value of cold chain equipment and vehicles.
* Program specific costs based on 8 countries: Cambodia, Côte d'Ivoire, Ghana, Guyana, Kenya, Lao PDR, Mali, Rwanda

The FSP data show the significance that campaigns have as a share of total costs. These supplemental activities include polio eradication, accelerated measles control, MNT (maternal and neonatal tetanus) elimination, meningitis and yellow fever. On average across the 9 countries, about one-third of total program-specific expenditures are dedicated to supplemental immunization activities. In some countries, this rises to more than half of NIP-specific spending. (See Figure 3.) This may be due in part to the coincidence between the timing of the FSP analyses and the polio and measles "catch up" campaigns in several countries.

Figure 3. *Relative program-specific spending on routine services and campaigns across countries*

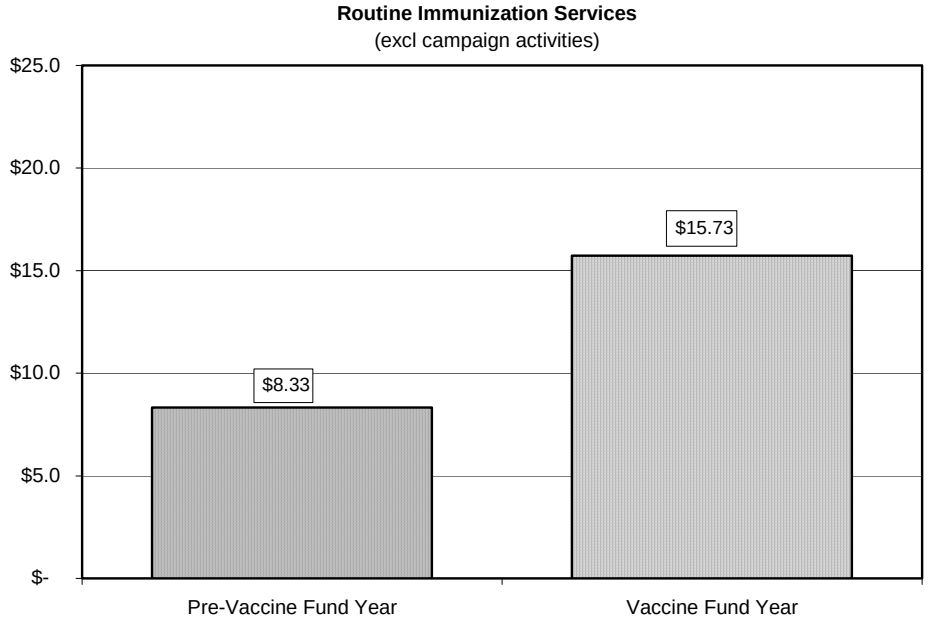


* Program specific costs. Countries ranked in increasing order of per capita GDP

Because the program-specific costs have increased by two-fold, on average, but coverage has not increased at the same rate, the program-specific cost per DPT3 child[10] among countries in the sample has also almost doubled – looking at routine immunization alone from about $8 per child to almost $16 per child (see Figure 4). However, the pre-Vaccine Fund and first Vaccine Fund year comparisons must be interpreted in light of the increased protection against disease that children now benefit from in the countries introducing HepB, hib and/or yellow fever, and the reduced risk of harm given the wider use of safer injection practices.

[10] The cost per DTP3 child is conventionally known as the "cost per fully-immunized child," and is estimated by dividing the total costs by the total number of children having received all three doses of DTP vaccine.

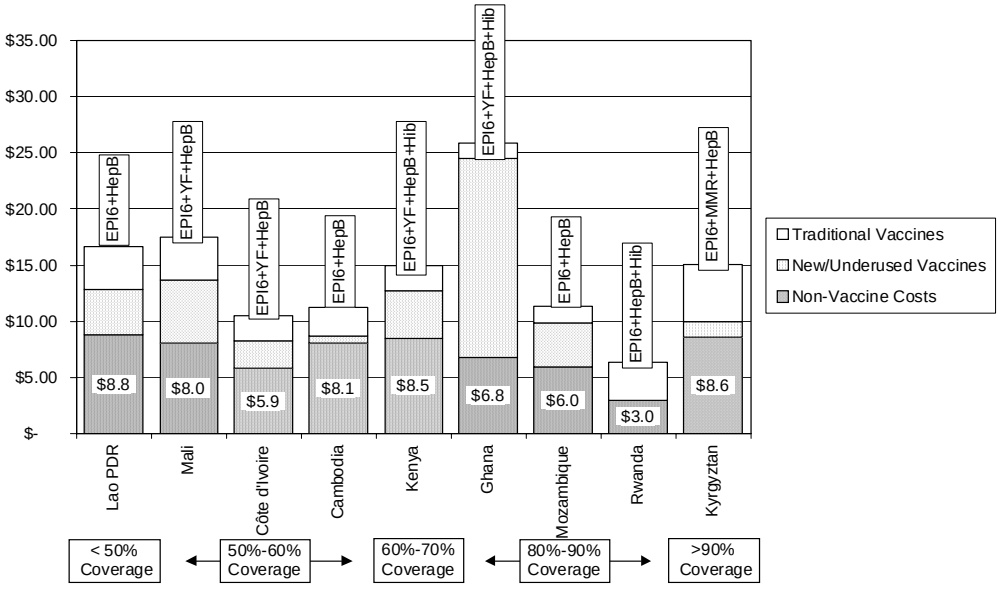
Figure 4. *Average program-specific cost per DTP3 child for routine immunization program (not including campaigns)*



* Program specific costs based on 8 countries: Cambodia, Cote d'Ivoire, Ghana, Guyana, Kenya, Lao PDR, Mali, Rwanda

As shown in Figure 5, the cost per DTP3 child varies widely across the sample of countries, although not in ways that are easy to explain by differences in antigen combinations or coverage levels alone. This suggests that there are multiple other factors – including scale, population distribution, program management, extent of wastage, cost-effectiveness of program strategies, and others –that impact total program costs in important ways.

Figure 5. *Routine program-specific cost per DTP3 child across countries during the Vaccine Fund year (US$)*



Main Findings

Vaccine costs increasingly dominate immunization program-specific spending. In countries introducing new and underused vaccines, expenditures on vaccines have become an increasing share of total spending, moving from 33 to 52 percent of total program-specific expenditures between the pre-Vaccine Fund and the Vaccine Fund periods. Again, this is particularly evident in countries introducing the pentavalent formulation, reflecting its higher price.

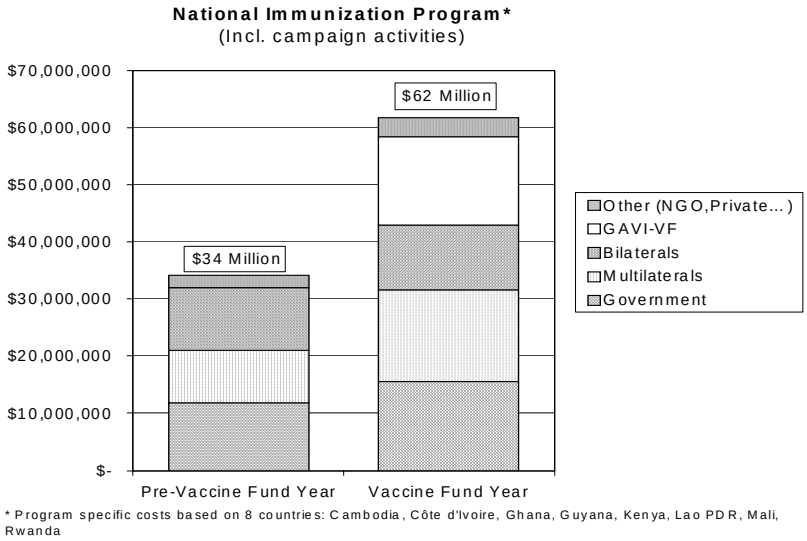
Campaigns account for a large share of National Immunization Program costs. On average across the 9 countries in this analysis, about one-third of total program-specific expenditures are dedicated to campaigns. In some countries, this rises to more than half of NIP-specific spending.

B. Financing Immunization

1. Levels and Patterns of Financing of Immunization

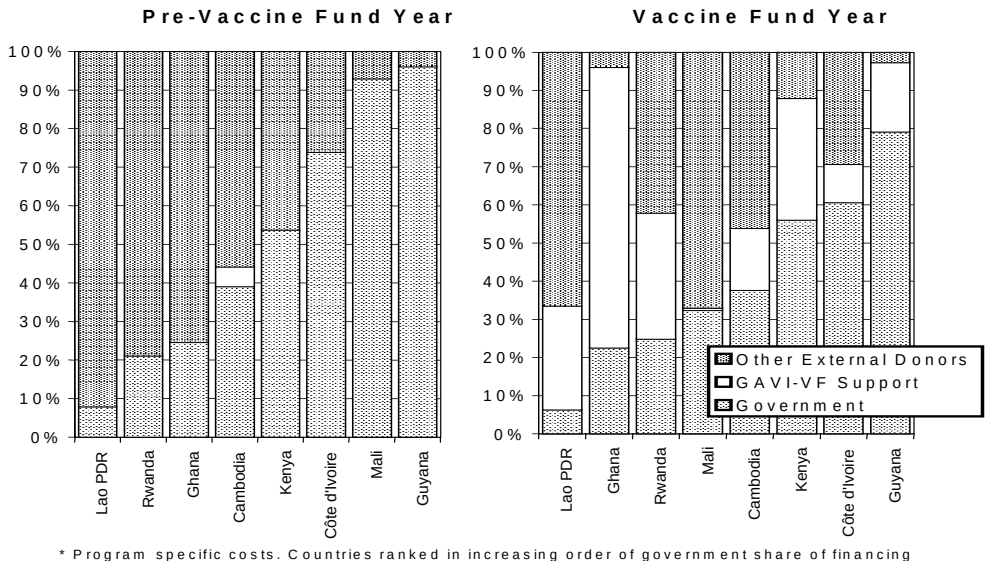
Earlier we showed that spending on immunization increased on average in the 8-country sample. Here, we look at where that money came from, and find that contributions from all sources of funding increased in recent years. These sources include, government (which may include development bank lending and direct budget support from donors), bilateral donor agencies (direct), multilateral agencies (UNICEF and WHO) with either own-budget or funding from bilateral donors, and the Vaccine Fund. Of the funding sources, only direct bilateral donor funding has remained constant as Vaccine Fund resources have entered the picture, although it is likely that bilateral funding may have increased but is not fully accounted for because some of it flows through national budget support. National government financing, in particular, has increased (see Figure 6).

Figure 6. *Total NIP financing by source (US$)*



Government spending has increased in absolute dollar terms. Relative to other sources, however, the balance has shifted modestly in all countries toward external funding (including Vaccine Fund support) and away from own-funding by the national government (see Figure 7). On average, governments contributed about half (54 percent) of all financing for routine immunization services before the Vaccine Fund entered the scene – a figure that has decreased by a 14 percentage points (to 40 percent) with the introduction of Vaccine Fund support. This is an unsurprising finding, given that there were no immediate co-financing requirements with the availability of Vaccine Fund grants.

Figure 7. *Routine program-specific financing by source across countries (relative %)*[11]



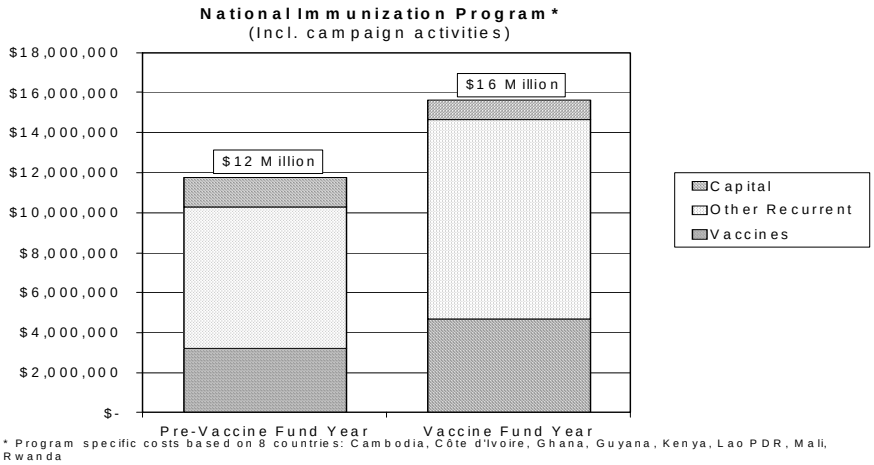
Main Finding

The increase in NIP specific spending has been financed by a combination of support, including an increment of about $4 million from government sources and $7 million from multilateral and bilateral agencies, *in addition to* the $15 million from the Vaccine Fund – the remaining from other sources including NGOs.

2. Changes in Immunization Financing: Program Inputs

As governments have increased their financial commitments to the immunization programs between the pre-Vaccine Fund and current periods with Vaccine Fund support, those increases have been seen across all of the major program inputs, including vaccines for the routine immunization. As shown in Figure 8, the aggregate increase in immunization program funding from government sources of about $4 million overall included an increment of about $1.5 million for vaccines.

Figure 8. *Total NIP program-specific financing from government sources (US$)*



[11] Note: The Cambodia FSP included some Vaccine Fund support in the pre-Vaccine Fund year.

While increasing in dollar value, the *relative* degree of own-financing of vaccines by government has decreased because of the expansion in the program's overall base of financing – and particularly because of the Vaccine Fund's contributions to vaccine procurement. Before the Vaccine Fund, on average across the eight countries in the sample, governments financed 43 percent of vaccine purchases for routine services (excluding vaccines for campaigns); after Vaccine Fund grants became available, the average own-financing declined to 23 percent (see Table 2).

Table 2 *Government Financing of Vaccines Before and After Start of Vaccine Fund Support (% of total)*

Time Period	NIP	Routine Only
Pre-VF	26	43
VF	18	23

Main Finding

Governments are spending more on vaccines. Across the 8 countries, government spending on vaccines increased by about $1.5 million between the most recent "pre-Vaccine Fund" year and the period after the start-up of Vaccine Fund support.

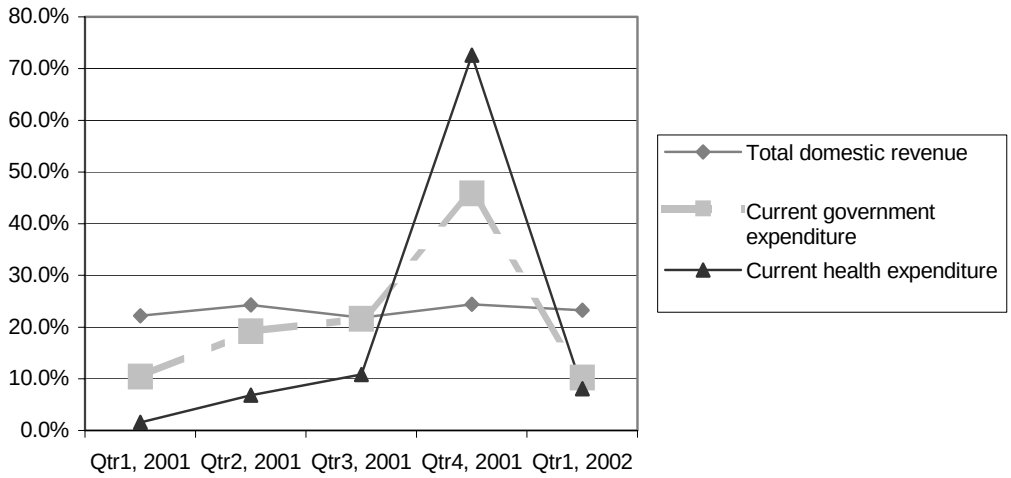
3. Financial Management

Although the findings are difficult to quantify or aggregate, financial management challenges were prominent throughout the Financial Sustainability Plans. Most of the countries reported major constraints on the effectiveness of the immunization program associated with budgeting and disbursement. In particular, lack of timely disbursements of both domestic and external funds is cited by several countries as problematic.

Reports from Ghana, Cambodia and Lao PDR outline how the late disbursement of funding affects program implementation—including routine immunization coverage and campaign social mobilization—at peripheral levels. Although funds may be available at the central level, the unreliability of disbursement in terms of timing and amounts results in ad hoc planning by districts. One reason for the late disbursement of new funds is that districts are slow in liquidating current funds – this reflects both poor financial management systems (i.e. the inability of districts to report back on use of funds in a timely manner) and poor absorptive capacity at lower levels. These problems are accentuated in those countries undergoing decentralization where districts, responsible for planning, budgeting and implementation, have limited financial management systems in place. In addition, cash flows peaks do not correspond to the optimal time for outreach and campaign activities as determined by the weather in all three countries and this can have a negative impact on coverage. Proper financial management systems are needed to help manage the process and ensure timely disbursement.

Figure 9, which is based on data from Cambodia shows dramatically uneven spending over a 15-month period. This is the result of unsatisfactory procedures for reporting expenses and accessing new funds. For the immunization program, funds are required in the first two quarters of the year during the dry season, but new annual allocations are usually not available until late in the year during the rainy season—when program implementation is at its most challenging. This has led to the need for the program to eliminate one or more rounds of outreach, with consequent negative impacts on coverage.

Figure 9. *Expenditure patterns in Cambodia*



Source: 2001 MOH expenditure book and 2002 financial reports

Main Finding

Poor financial management constrains programs in some countries. Spending patterns over time, as well as qualitative reports, suggest that cumbersome and inefficient financial reporting and disbursement mechanisms limit the ability to execute programs in the optimal manner.

C. Future Resource Requirements and Prospects for Financing

A major task in financial sustainability planning is projecting the future resource requirements, based on "best-guess" estimates about inputs required to achieve realistic program performance targets based on NIP multi-year plans; and then determining how much and which of those future requirements will be met through currently-known sources of financing. The latter part of the exercise – making realistic projections of future financing – is made particularly difficult because both national governments and external funders are limited in their ability to commit resources beyond the annual budget cycle. (The Vaccine Fund is a notable exception to the year-by-year commitment patterns of most external funders. Loans from the World Bank and other development banks, which are counted as government funding, are also multi-year commitments.)

Despite the conceptual and empirical difficulties of the exercise, in most of the countries undertaking financial sustainability planning during 2002, the projections proved to be valuable in highlighting some near-term funding gaps, and in initiating a data-based discussion of how governments will transition away from Vaccine Fund support in three to five years.

Across the eight countries included in the analysis, the resources required during the remainder of the period of current Vaccine Fund support total close to US$435 million, or about US$91 million per year. Of that, US$66 million (70 percent) will be financed annually using

Table 3. *Vaccine Fund Period Support -- Aggregate resource needs and gaps during the remaining period of Vaccine Fund support (US$ millions)*

Remaining VF Period	Total	Annual Avg.
Resource Requirements	$ 435	$ 91
New/Underused Vaccines ($)	$ 161	$ 34
Secure Funding (of which)	$ 320	$ 66
Government	$ 102	$ 21
GAVI-VF	$ 157	$ 33
Other Donors	$ 61	$ 12
Funding Gap	$ 115	$ 25

currently known and secure[12] sources, leaving a gap of about US$25 million a year, on average (see Table 3).

After the current Vaccine Fund commitment comes to an end (for most countries, in three to five years), the funding gap increases greatly because of three factors: One, neither national governments nor most donors can make budgetary commitments far in advance. Two, most countries have not yet lined up a strategy for making a financial transition from the Vaccine Fund to other sources of financing. And three, program costs will continue to increase as population, coverage and new vaccine use expands. As the case studies point out, there is added uncertainty associated with increased pressure on the health budget that is likely to come from sources outside of the immunization program, particularly in responding to the HIV/AIDS program needs.

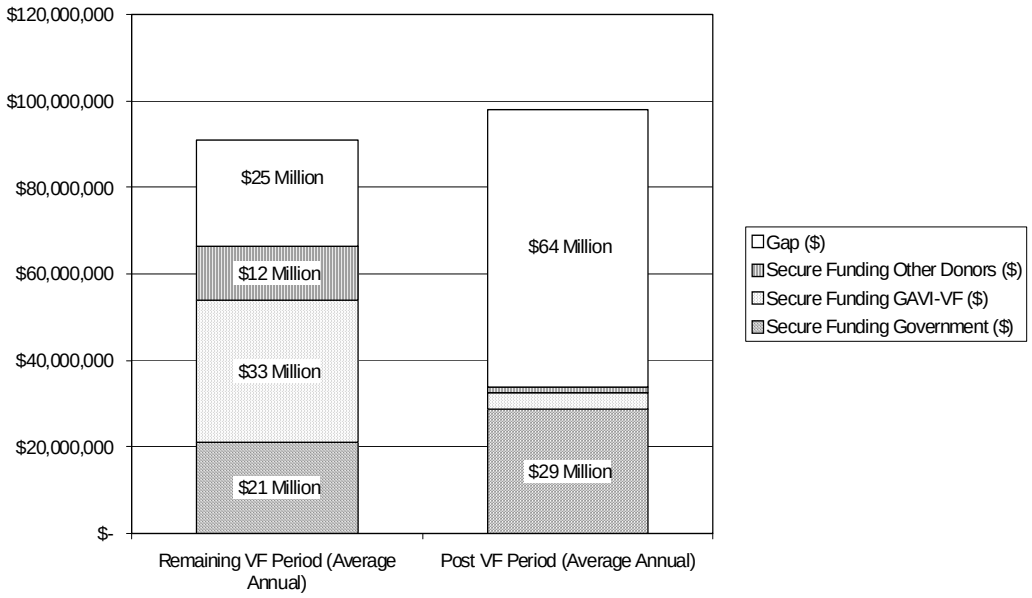
Thus, across the eight countries, the average annual resource requirements during the years following current VF commitments amount to US$98 million per year. Of that, only $34 million (35 percent) is financed by sources that currently can be considered secure. This is represented in Table 4 and Figure 10. As might be expected, when the projected gaps are estimated year-by-year, there is a dramatic increase between the last year of Vaccine Fund support and the first year after.

Table 4 *Post-Vaccine Fund Support -- Aggregate resource needs and gaps during the period after the current Vaccine Fund commitment (US$ millions)*

Post-VF Period	Total	Annual Avg.
Resource Requirements	$ 336	$ 98
New/Underused Vaccines ($)	$ 133	$ 38
Secure Funding (of which)	$ 114	$ 34
Government	$ 94	$ 29
GAVI-VF	$ 16	$ 4
Other Donors	$ 4	$ 1
Funding Gap	$ 222	$ 64

[12] "Secure" refers to funds that are committed in writing.

Figure 10. *Future program-specific resource needs, financing and gaps*[13]



To fill that gap, countries have proposed a variety of strategies, with a heavy emphasis on advocacy among domestic policymakers and donors with long-standing relationships to the program and the country. Financial sustainability planning teams also have proposed actions to increase efficiency, primarily by addressing wastage problems (thereby decreasing the resource requirements compared to what they otherwise would be); and to streamline financial management (as several countries realized that irregularities in the flow of funds greatly exacerbated budget constraints).

Rapid assessments commissioned from the Institute for Health Systems Development (UK) examined in more depth the feasibility of mobilizing additional resources over the near and medium term in Cambodia, Ghana and Kenya. Main factors considered were the extent to which resources were likely to be mobilized through economic expansion, reallocation of public budgets, utilization of the proceeds of debt relief (under the Heavily Indebted Poor Country Program), and/or increases or reallocations in donor funding.

Schematically, the relationship between these factors and medium-term sustainability is represented in Table 5, where black cells represent low probability of closing the resource gap, white cells represent high probability, and grays represent intermediate situations. In very general terms, full success in achieving long-term sustainability will likely require multiple factors to favor greater funding for immunization: a larger public sector budget resulting from economic growth, greater government commitment to immunization in particular, and greater donor commitment to immunization. At the same time, it is very possible for significant progress toward sustainability of the immunization program to be made even in the absence of economic growth (which is to a large extent outside of the control of policymakers in poor countries[14]). For most countries, this would require an increased emphasis on immunization *both* by governments and by development partners.

[13] Note: The Post-Vaccine Period gaps include data from countries that assumed the Vaccine Fund support will continue beyond current commitments.

[14] Increasingly, economists are recognizing that the prospects for development of poor countries are largely determined by the policies and practices in rich countries, including trade regimes that are largely influenced by high-income constituencies.

Table 5 *Stylized Summary of Impact on Sustainability of Economic Growth, Donor Commitments and Resource Allocation Practices*

Donor commitments	Changes in donor allocations	No economic growth		Moderate economic growth	
		No shift to EPI	Shift to EPI	No shift to EPI	Shift to EPI
No change in total donor commitments	No shift to EPI				
	Shift to EPI				
Increase in total donor commitments	No shift to EPI				
	Shift to EPI				

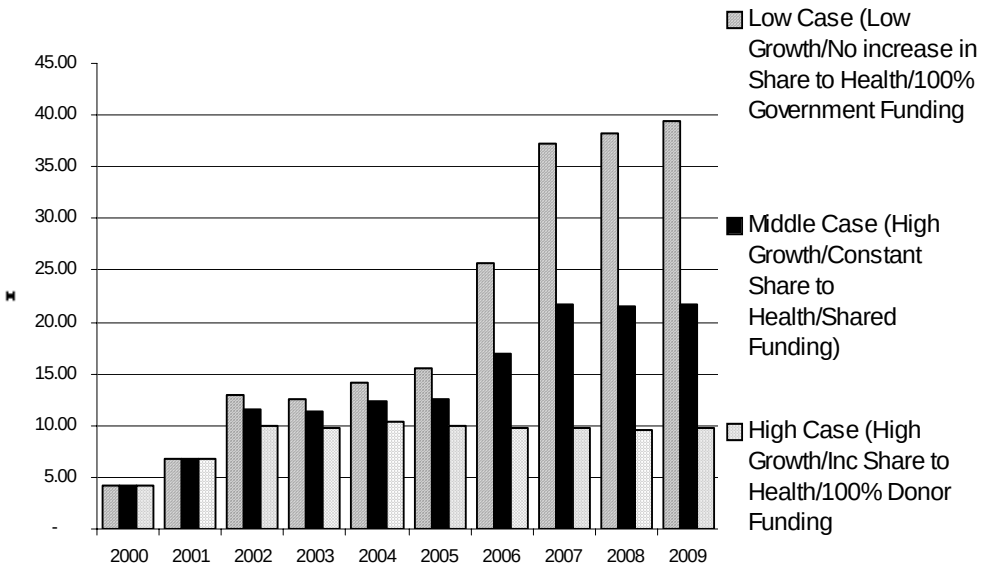
The country case studies were conducted in a short period of time using information available in official documents. Therefore, the findings should be considered simply as indicative, rather than as definitive. Much additional work would be required to provide a complete report on each of the countries.

The picture of the feasibility of closing the resource gap varies greatly by country, as one would expect. In Kenya, for example, where the macroeconomists predict very modest growth over the medium term and donors have in recent years been unwilling to play a significant role in health systems development because of concerns about corrupt practices, closing the gap appears to be represent a very large challenge and would take a major about-face by both the government and its development partners.

In Kenya, between 2006, the last year of the current Vaccine Fund commitment, and 2007, the projected gap between secure funding and program requirements increases from about $15 million to more than US$25 million. Extending to 2009, the total resource requirements are expected to increase to more than US$45 million, with a gap now projected to be close to US$30 million.

Figure 11 shows how much of the domestic health budget would be required to fill the projected funding gap in Kenya under each of three scenarios: the "low case," in which there is no macroeconomic growth, no increase in the size of the health budget out of total government spending, and no donor contributions; the "middle case," in which the country experiences an economic expansion and benefits from donor contributions, but there is no change in the health budget, relative to other sectors; and the "high case," in which the economy grows, the health budget grows disproportionately, and donors play a heavy role. Under the "low case," filling the funding gap that emerges by 2007 would require up to 40 percent of government health spending. Under the "middle case," 20 percent of government health spending would be required to fill the gap. Under the "high case," a more modest – but still significant – 10 percent of the health budget would be required to fill the gap.

Figure 11. *Kenya: Share of domestic funding for health required to ensure financing gap is filled under with various scenarios*



Around 2009, the Government of Kenya will also likely be faced with the need to sustain initiatives started under a grant from the Global Fund to Fight AIDS, TB and Malaria, whose recurrent costs are estimated at slightly more than US$60 million per year (in addition to what the government now dedicates to HIV/AIDS programs). Thus, financial sustainability of immunization will be largely dependent on country's economic growth trajectory as well as relationships with donors, and will under any scenario require a major, sustained and effective advocacy effort.

The picture from the rapid assessment case studies appears to be dramatically different and more favorable in Cambodia, largely because the projected funding gap itself is much smaller, estimated at US$4.5 million annually by 2009. Under both the "middle case" and a "high case" scenario (similar to the ones described above), filling the funding gap would require 4 percent or less of the health budget – a range that appears to be well within a feasible range. Under the "low case" scenario, between 10 and 12 percent of the health budget would have to be devoted to immunization program-specific inputs. Unlike in Kenya, where sustaining the Global Fund investments would require 160 percent of what would be required to fully fund the immunization program, the recurrent cost burden of Global Fund investments in Cambodia are estimated at only about US$4.5 million, roughly equal to the requirements of the immunization program.

To maintain and increase the program improvements stimulated by the Vaccine Fund grant and technical support from GAVI and its partners, some countries clearly face an uphill struggle. Budget (and program management) pressures are being brought to bear from a combination of developments: from within the program, expansion of the program and of safe injection practices, introduction of new vaccines, participation in global campaigns; from within the health sector, requirements associated with HIV/AIDS, TB, malaria and other programs; and from outside the health sector, uncertainty about economic prospects and donor priorities. Funding prospects depend heavily on economic growth, and commitment to immunization by both governments and partners. Given the existing constraints on public spending and the multiple (and rapidly increasing) demands on the treasury, funding immunization will require a major and deep commitment across a broad set of individuals and agencies.

Main Finding

Future financing may be vulnerable. The gap between the resources required and the resources secured is growing, and the transition from the Vaccine Fund to other sources of financing for routine immunization is unclear. The ability to finance immunization varies substantially to country to country depending in part on economic circumstances and in part on choice of vaccines. Financing vulnerability is exacerbated by the presence of other new pressures that are likely to be placed on the health budget, particularly in countries receiving support from the Global Fund to Fight AIDS, TB and Malaria. The ability to finance medium- and long-term increases in resource requirements as programs grow and improve depends on concerted and specific actions by governments and development partners.

D. The Value of the FSP Process

An evaluation of the first-round countries' experiences with financial sustainability planning, which was commissioned by DFID and NORAD and conducted in early 2003 by the Institute for Health Systems Development (IHSD, UK) and Centre for Health and Social Development (HESO, Norway), highlighted the perceived value of assembling basic financial information, and sharing it among key stakeholders.

Although the data-intensive process of preparing an FSP required a major commitment of time and effort on the part of in-country teams, in virtually all countries EPI managers and other national officials reported that the effort was more than equaled by the benefits. Most indicated that they had not previously had an understanding of their own programs' cost structure, fully comprehended the financial challenges that will emerge over the next three to five years, or realized the connections among resource mobilization, program efficiency and streamlining of disbursement systems.

In general, participants in the FSP process felt that the program objectives would benefit from newly available information about actual costs, and that the FSP process had contributed to building capacity in an important area. Importantly, the FSP process built professional bridges between the Ministries of Health and Finance, resulting in improved communication.

Main Finding

Governments consider development of Financial Sustainability Plans to be valuable. Government officials appreciated knowing – often for the first time – the national immunization programs' cost structure, and appreciated the opportunity to initiate a constructive and informed dialogue across government agencies, and with development partners.

Section V. *Recommended Actions*

Keeping in mind the preliminary nature of these findings, the Financing Task Force submits several recommendations to the GAVI Board for its consideration.

Four of the main findings from this round of FSPs are positive with respect to GAVI's aims suggesting progress is being made on financial sustainability issues: spending on immunization program specific inputs by partners and governments has increased; governments are spending more on vaccines; the overall budget impact of immunization remains small; and governments and partners consider the financial sustainability planning process valuable.

Other data from the FSPs also carry some cautionary messages: vaccine costs account for an increasingly large share of National Immunization Program costs; poor financial management constrains programs; and future financing is vulnerable. These early alerts highlight that new and/or more concerted efforts are required to increase the chances that the benefits of GAVI and the Vaccine Fund will be realized and sustained into the future.

An additional finding from the FSPs is that Accelerated Disease Control Programs account for a large share of the National Immunization Program costs. This finding may bear further analysis.

Findings to date from 10 countries submitting FSPs in November 2002 suggest that while progress is being made toward adequate and predictable funding for immunization managing the transition of financial responsibility from the Vaccine Fund to government and their partners will be complex and is in no way assured at the present time. The transition, upon which much of the Vaccine Fund strategy is based, will require input from all GAVI partners. Financing an expanding and improving immunization program in the face of increasing competition for scarce budget resources presents a challenge in the best of situations, and will be particularly difficult for several of the countries included in this analysis.

Success of the Global Alliance for Vaccines and Immunization depends in large measure on tackling major financing challenges. For countries and their partners to successfully mobilize and effectively use funding for a better immunization program, each partner will need to determine what specific actions it can take at the global, regional, and/or national level.

The GAVI Board is asked to consider the following recommendations:

(1) Request GAVI partners to identify within their respective organizations and constituencies and report back to the GAVI Board on specific actions and analyses that each partner can take to support countries in the financial sustainability planning process, and facilitate the transition of financial responsibility from the Vaccine Fund to countries and their partners. Based on the findings to date, these actions could focus on the following areas:

a) Increasing the resources available to the health sector in general, and the immunization program in particular, in recognition of the cost-effectiveness of the intervention and the potential improvements in child health;

b) Increasing the length over which budgetary commitments can be made to the immunization program, perhaps through development of new funding instruments and/or linking with existing aid transfer mechanisms that have a relatively long time horizon;

c) Improving management of the introduction of newer and more expensive vaccines; this includes improving efficiency of program and vaccine management, as well as improving forecasting and procurement as part of an integrated approach to maintain vaccine prices at affordable levels; and

d) Strengthening national government capacity in financial management and planning for the social sectors.

(2) Request one or more GAVI partners to review and monitor progress in the implementation of the first round FSPs and report back to the Board on the findings of the second round of submissions. The focus of the report would be on:

a) New findings from the second round of 22 countries

b) Identification of countries facing the most significant challenges, and in-depth analysis of financing prospects

c) Options for action

The Board may also wish to consider the following two specific actions:

(1) Convene a meeting to analyze the combined impact of current investment strategies in global health, including GAVI/Vaccine Fund, Global Fund to Fight AIDS, TB and Malaria, and others.

(2) Request that a GAVI partner coordinate an analysis of the financial and programmatic impact of current investment strategies for supporting both routine and supplemental immunization efforts.

Possible Specific Actions that GAVI Partners Could Consider

Based on the findings from the FSPs and the aforementioned recommendations, the FTF offers a number of possible actions for GAVI Partners' consideration.

Vaccine costs increasingly dominate immunization program-specific costs.

- Encourage countries to build national capacity to efficiently forecast vaccine needs, and manage and use vaccine stocks.
- Encourage all partners to support national efforts to efficiently manage and use vaccine stocks.
- Work with vaccine manufacturers to ensure vaccines are affordable.

Supplemental immunization represents substantial portions of NIP costs.

- Analyze the impact of funding patterns and donor priorities at the global level on the efficiency of national immunization programs.

Poor financial management constrains programs in some settings.

- Encourage countries to document impact of financial management limitations, and to address high priority problems.
- Encourage partners to support national efforts to build national capacity for financial management and planning in the social sectors.

Future financing may be vulnerable.

- Encourage all partners to effectively communicate the cost-effectiveness of immunization and to ensure that donor and technical agencies' corporate policies and investment strategies reflect a high priority to immunization.
- Encourage bilateral agencies to ensure adequate resources for immunization within bilateral health financing arrangements. In countries in which a sector-wide approach is in place, ensure that the resource allocation priority-setting process gives adequate weight to cost-effectiveness criteria.
- Increase advocacy to mobilize and secure resources at the global and national level. Engage and encourage agency staff through strong messages from leadership.
- Encourage bilateral and funding partners to advocate and/or make administrative changes to both increase the period over which financial commitments can be made and expand the resources devoted to routine immunization services.
- Encourage multilateral agencies to strengthen national capacity and increase funding for technical improvements in immunization programs that are aimed at optimizing program efficiency and vaccine utilization, enhancing the accuracy of demand forecasts, and improving procurement.
- Encourage countries to explore alternative sources of funding as necessary, with special attention to credits and loans.
- Encourage multilateral agencies to continuously reinforce with staff and clients the importance of including support to immunization within Poverty Reduction Strategy Credits, traditional development loans, IDA credits and other financial instruments.
- Encourage all GAVI partners who are also engaged with the Global Fund for AIDS, TB and Malaria to analyze the joint financial impact of those two programs, projecting forward three to five years.
- Encourage and support countries in the implementation of their Financial Sustainability Plans.

Annex 5

Data Quality Audit Progress report, 2002

Implementation Task Force (ITF)
Monitoring & Evaluation Sub-group

Executive summary

Between June and December 2002, Data Quality Audits (DQAs) were executed in 14 Vaccine Fund eligible countries (receiving GAVI Immunization Services Strengthening funding) by two independent companies: PricewaterhouseCoopers (5 Francophone countries in Africa, Haiti, and Mozambique) and the Liverpool Associates in Tropical Health consortium (5 anglophone countries in Africa, Bangladesh, and Tajikistan). The standard methodology was applied in all countries and consisted of an assessment of the immunization system reporting accuracy and quality at the national EPI office, and in a representative sample of 4 districts and 24 health units (HUs).

The DTP3 reporting accuracy (verifying the 2001 calendar year) measured by the national verification factor (VF) ratio ranged from to 0.40 to 1.06. Five countries were above the .80 validation threshold (allowing the country to receive ISS reward support); 2 countries were very close to the threshold (between .75 and .80), and 7 countries had lower values (below 0.60). The major source of low verifiability originated from health units; reasons for non-verifiability mainly included non-availability of tally sheets (country range: 0 to 48% of HUs) and discrepant information between HU and district (country range: 0 to 40% of HUs). In 5 countries, discrepancies between district and national levels contributed to non- verifiable information (15 to 75% of total). Discrepancies between DTP3 doses provided to the global level and audited figures were also observed at national level.

The level of national VFs correlated strongly with the country DTP3 coverage, indicating that countries with most need are also the least likely to qualify for reward funds (linked with passing the DQA) and will have the greatest challenges to improve their systems.

The quality of immunization reporting was measured by quality indices (QI) (from 0 to 100%) for national, district and health unit level, based on questions or observations on several components of the systems: recording practices, storage and reporting practices, monitoring and evaluation (M&E), denominators and system design.

The average values of all indices were about 60% and were relatively consistent, indicating a need for strengthening reporting at all levels. Overall, lower scores (<50%) were observed more often at HU level (5 countries) than at district and national levels. The weakest component was M&E at HU level, which shows that major efforts are needed to improve this component of reporting systems.

The most important weaknesses in reporting systems were seen at health unit and district levels, and included poor implementation of feedback and supervision at all levels, with infrequent written records or analysis and discussion of information; the absence of monitoring charts in 62% of the HUs and 54% of the districts; inadequate monitoring of vaccine stock books; poor adverse event monitoring system implementation; lack of monitoring of injection supplies; unsafe computer practices, and poor monitoring of completeness and timeliness at district level.

Because of inadequate maintenance of ledger books, unopened vial wastage calculation was only possible in 6 countries and in 6 out of 56 districts, indicating a major difficulty in vaccine management. The calculation of wastage at HU level was possible in only 30% of HUs and showed an average DTP wastage of 32%.

A strong correlation between the VFs and district and HU QIs was observed, particularly the M&E and reporting components. Hence, a good system as measured by the VF is best related to the system quality indices at the district and health facility levels, which will need the most support for the country to pass the DQA.

The average DQA cost was US$ 54,848 per audit including the training of the auditors.

Overall the 2002 DQA experience met the two main objectives that the GAVI partners wanted to fulfil; as a verification tool, it classifies reasonably the audited countries and proves that there is a respectable degree of equity. The validity of Verification Factor is affirmed by demonstrating that it correlates with program success (DTP3 coverage) and with Quality Indices at HU and district level. As an assessment of the reporting systems, the DQA demonstrates usefulness at global and country level, by identifying the gaps where the main efforts are needed, not only for the performance-based system to become operational, but to improve each country's system. Peripheral levels are most in need of improvement and partners' support should be most strongly reinforced at this level. Those countries that fail will need urgent technical / financial assistance from the GAVI partners to improve their systems.

Based on the 2002 experience, it is recommended that the DQA scheme should be continued as endorsed by the Board in 2001 with a few minor modifications: these include flexibility for countries whose VF is below but close to the threshold. This means that half of audited countries in 2002 would be eligible to get the first reward in 2003, provided that they have shown an increase in DTP3 coverage from 2001 to 2002. Then, for the countries that fail, schedule a second DQA when the country is ready, but not systematically the subsequent year provided an access to rewards is still possible by other means. A last modification is to propose a lighter methodological version of the current one for the second DQA.

Several revisions of the DQA should be considered, including simplifying the spreadsheets, adding tables that compile and summarize results at district and health facility levels, and reconsidering how to best assess vaccine wastage at national and district levels, and completeness of reporting at health facility level.

Finally, it is recommended that GAVI partners support efforts to strengthen immunization reporting systems, by disseminating findings of the 2002 DQA, guiding development and pilot testing of training modules targeted at district and health facility levels, identifying funding mechanisms and technical support to assist countries, and completing development of a self-assessment tool for use by countries to assess district and health facility reporting systems.

Submitted 17 April 2003

Introduction

At the request of the GAVI Working Group, the Monitoring & Evaluation subgroup of the Implementation Task Force is submitting this progress report on the Data Quality Assessment (DQA), in order to:

- Inform the GAVI Board and partners on the implementation and the lessons learned of the DQA scheme, 2002
- Provide information to assist countries and partners with improving immunization reporting systems

Background

In February 2002, the GAVI Board approved the following scheme, based on the 2001 pilot DQA experience:

- a DQA will be conducted during the second year of investment in all countries with ISS support, with the exception of countries receiving small amount of ISS Funds, and will result in a classification of the immunization reporting system as "validated" or "not validated" so that:
  - In countries where reporting systems are classified "validated" by the DQA, the reward payment in the subsequent year will be based on reported DTP3 figures endorsed by the ICC; and
  - In countries where reporting systems are classified "not validated" by the DQA, a second DQA will be conducted in the subsequent year. If the system is again classified as "not validated", the reward payment will be deferred until reporting is improved or validated by another method (vaccine coverage survey).
- All subsequent reward payments for all countries will be based on validated increases in DTP3.

The DQA Process

In 2001 the DQA was tested by an independent consortium (LATH consortium) in 8 countries. Subsequently the standard DQA methodology was revised, (available on the GAVI website: http://www.vaccinealliance.org/reference/itf_docs.html). The revised DQA was scheduled to be conducted in all 16 countries which had successfully applied for immunization services strengthening (ISS) funding in one of the first three rounds of GAVI applications (presenting a 1999 baseline), with the exception of Azerbaijan, Sâo Tomé and Sierra Leone, whose ISS support amounts were considered too small to justify the cost of a DQA.

Between June and December 2002, fourteen DQAs were executed out of the 16 DQAs planned. Two additional DQAs were completed in February 2003. In 4 countries the planned DQA could not be conducted due to political/security reasons (Pakistan, Liberia, Nigeria, Madagascar) and these were replaced by Bangladesh, Guinea, Ethiopia and Sudan, all of which had been approved for ISS funding in 2001, using a 2000 baseline.

To conduct the audits, two independent companies were selected: PricewaterhouseCoopers were assigned 7 Francophone countries and Mozambique while the LATH consortium (Liverpool Associates in Tropical Health, together with Eurohealth Group and Deloitte&Touche) were assigned 7 anglophone countries and Tajikistan. The standard methodology was applied in all countries.

At the end of each audit, country findings and recommendations were discussed with national health authorities and where possible with the ICC. At each stage, findings were discussed with district health officers and immunization staff in each health facility. A country report

summarizing the country results was submitted to the GAVI secretariat and the national authorities by the audit company. Spreadsheets with all the data were also provided to the Secretariat and to WHO. These spreadsheets were compiled into a single database by CDC and WHO, and analyzed to produce the summary findings in this report. The current progress report presents the DQA 2002 outcomes and the main findings on the reporting systems. Based on this experience, a number of proposed revisions to the tool and the reward scheme are proposed. In additions, the report proposes activities of global partners and countries to strengthen immunization reporting systems.

Results

1. Accuracy of 2001 reported figures

1.1 Verification factors.
The main measure of DTP3 reporting accuracy is the national verification factor (VF) ratio, whose value determines the classification of the reporting system of the country, being validated with a VF of .80 and above. This ratio is made of the *numerator*, which is based on recounted values of DTP3 vaccinations (under one year of age) in 6 health units in each of four districts (random selection) and the *denominator* being the DTP3 vaccinations for these health units reported to the district level (*the complete VF formula is available in the DQA manual*).

The ratios for each district are adjusted to account for differences in DTP3 recorded at the district level compared to that reported at the national level. This ratio can be broken down into 4 district VF ratios, for each corresponding district. The recount is done from the primary paper records (tally sheet or register) showing that an individual vaccination has been given. Reported DTP3 doses were verified for the whole 2001 year. Ratios under one indicate inability to verify all reported DTP3 (over-reporting) and ratios over one suggest more doses were given than the number reported (underreporting).

VF values, with 95% confidence intervals (CI) were obtained for all countries visited (Table 1). In all countries, all 4 districts were visited but in a few countries, the number of facilities was lower than planned, mainly because of small number of HU per district (Mozambique, Tajikistan, Ghana) or impossibility to visit the HU (e.g. in Cameroon due to a car accident).

Out of the 14 DQAs, 5 countries passed (VF>.80), 2 were borderline (VF between .75 and .79) and 7 failed. At the DQA review meeting in October 2002, it was recommended that the two countries with values .75-.79 be allowed to pass this DQA (see Recommendations). Combining the first two subgroups, 50% of countries passed the DQA and 50% failed. This distribution and the range of results gives credibility to the use of the VF threshold as a decision point. Four out of the 7 countries with a “passing” VF had a DQA in 2001.

Table 1: *DTP3 coverage and Verification Factor values (national and range of district values) in 14 audited countries, 2002*

Country	No districts visited	No HU visited	DTP3 Coverage 2001 (%) WHO UNICEF estimates	Reported (JRF)	VF (95% CI)	VF District Range*
Tajikistan	4	19	83	96.7	1.06 (.95-1.17)	0.97-1.13
Bangladesh	4	24	83	97	.97 (.90-1.05)	0.92-1.03
Tanzania	4	24	85	87	.90 (.68–1.12)	0.68-0.97
Rwanda	4	22	86	77	.89 (.45–1.33)	0.66-1.31
Ghana	4	21	80	76	.87 (.53–1.22)	0.69-1.17
Uganda	4	24	60	60	.79 (.49–1.09)	0.68-1.09
Mali	4	24	51	68	.77 (.47–1.07)	0.64-1.06
Burkina Faso	4	24	41	68	.58 (.19-.96)	0.21-0.76
Guinea	4	22	43	64	.57 (.01-1.1)	0.0–0.92
Mozambique	4	14	80	80	.55 (.09–1.2)	0.07-1.06
Cameroon	4	19	43	43	.54 (.07-1.00)	0.23-0.63
Côted'Ivoire	4	24	57	57	.53 (0.0–1.06)	0.05-0.81
Kenya	4	24	76	66	.49 (.08-.91)	0.24-0.80
Haiti	4	15	43	52	.40 (0.0-.88)	0.04-0.70
2002, 14DQAs	56	298				

* Range of values of verification factors in 4 districts

As with the pilot DQAs in 2001, the 95% confidence interval (CI) of the VF are generally very wide, however the wideness decreases with higher values of the VF due to uniformly high verification factors in all 4 districts in these countries. This wideness of the CI still raises issues of its validity for the classification of countries.

The range of the district VFs indicates whether the country was uniformly successful or not, and shows that in highest performing countries all districts had high verification factors (Tajikistan, Bangladesh), and that even in countries failing the DQA, there were some very high performing districts (e.g. Guinea & Mozambique).

The level of national verification factors correlated strongly with the country DTP3 coverage, indicating that countries with stronger immunization programs (high DTP3) were more likely to verify their reported DTP3 doses. Conversely, all countries with weaker programs (lower DTP3) failed to pass the DQA (see section 2.6). One exception was Mozambique, which had high coverage but a low verification factor.

1.2 Determinants of the national verification factors

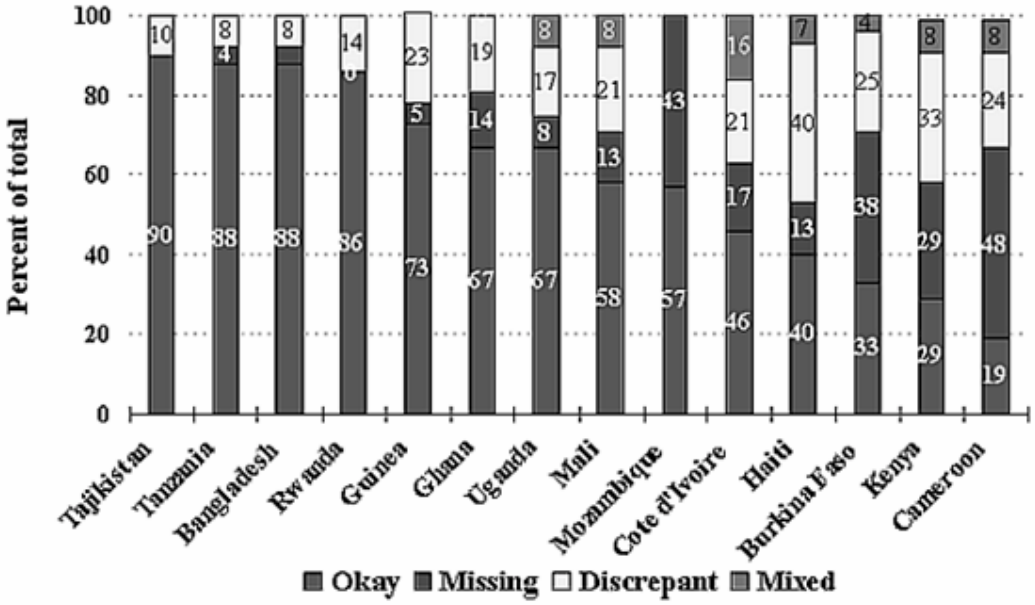
1.2.1 Health Unit level

Visited health units (HU) were classified into 4 categories based on the HU recounted/reported ratio and review of monthly recounted and reported DTP3 doses:

1. Good match (**okay**) with a ratio of 85% or more
2. **Missing** data, based on a ratio <85% and monthly blanks/missing/NAs (not available) as the primary cause of low ratio
3. **Discrepant**, with the ratio < 85% and the monthly recounted information available but did not match reported DTP3 doses
4. **Mixed**: ratio < 85% due to both missing and discrepant information. (Note: vertical axis in graph gives % health units in each category (totaling 100%).

In best performing districts 86% or more health units had good match of recorded and reported data, decreasing to only 19% in the weakest country. In most countries, missing and discrepant data both contributed to the differences between recounted and reported data. In some countries, the amount of missing information reached almost half of reported DTP3s (Figure 1).

Figure 1: *Distribution of health unit verification category for 14 countries, DQA 2002*

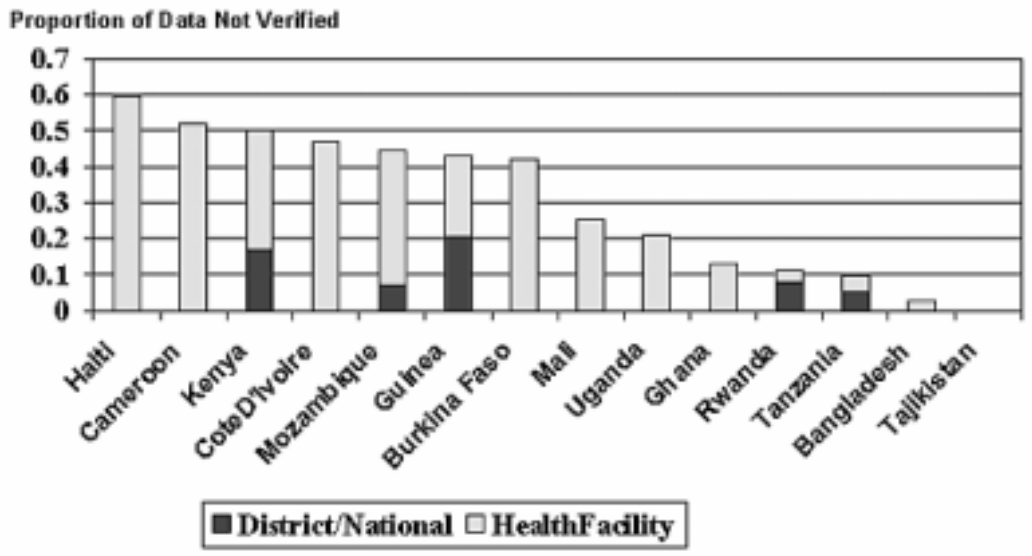


As an encouraging finding, the auditors reported that about half of all health units (53%) did have all individual recording forms (tally sheets or registers) available for 2001 (quality question at health unit level). This ranged from 21% of health facilities in Mozambique to 82% in Rwanda and Tanzania.

1.2.2 Difference in district figures found at district and national level

The national VF also takes into account discrepancies between reports and tabulations at the district level and district values found at national level. In some countries, those discrepancies accounted for a high proportion of the non-verified DTP3 values (Figure 2). For Kenya and Guinea, this had a significant impact on the VF, and Guinea might have passed if these discrepancies had not occurred.

Figure 2: *Proportion of data not verified, by audited level (health unit and district)*



1.3 Creative accounting

Auditors were specifically asked to state in the report if they had seen indications of fraud, as defined by falsification of reports. This was observed in only one country, with no influence on the calculation as the falsification (in one HU) "wrongly" included 2000 data (and not audited 2001 values). Apart from this episode, no case of intentional over-reporting was reported. However, auditors mentioned that to definitely rule out cheating would probably be extremely difficult and would require more lengthy examination.

The following examples highlight several situations of detected over-reporting. They pose the problem of the exhaustive verification and the limits of a standard methodology. The question remains whether these situations reflect deliberate intention to increase the figures.

In Bangladesh, a "cross-check" of the recount from the tally sheets was made against the recording of child immunizations in the register in one district, and identified some inconsistencies between the reported vaccinations from the tally sheets and the vaccinations recorded in the register, with a relatively higher reported value than recorded immunizations in the register. This was not picked up by the VF (which is based on the tally sheets) but suggests potential data inflation that might require further investigation.

In one district in Haiti, the reported number of doses found at the department level was substantially higher than the corresponding number found at the lower (district and health unit) levels. This over-reporting might have arisen from the inclusion of campaign numbers with the routine vaccination reports.

In Kenya, all four districts had different figures at district and national level, the greatest disparity being seen in a district where a difference of 11,984 DTP3 (national tabulation compared to district tabulation) was due to errors in data entry (8 months recorded twice).

1.4 Difference between JRF and national figures

At national level, the auditors cross checked the 2001 Joint Reporting Form figures (sent to WHO/UNICEF by 15 May 2002) with the last national tabulation available at national level (total for 2001) and documented discrepancies in 8 (57%) countries.

Table 2: *DTP3 under ones annual (2001) values, comparison of JRF and last national tabulation.*

Country	JRF figure (May 2002)	Last national tabulation (audit)
Tajikistan	155,738	155,738
Bangladesh	3,097,460	3,244,559
Tanzania	1,192,180	1,192,180
Rwanda	252,370	231,323
Ghana	575,499	575,348
Uganda	611,983	626,268
Mali	286,180	255,361
Burkina Faso	323,986	323,986
Guinea	210,579	205,839
Mozambique	566,300	566,300
Cameroon	269,321	275,171
Côte d'Ivoire	383,323	390,841
Kenya	767,243	768,708
Haiti	144,944	137,207

In 6 countries the match was perfect or very close (including Kenya). In 4 countries the JRF figure was lower, which was likely explained by late reporting or reporting from areas not included in the JRF figure (Bangladesh). In 4 countries, the JRF figure was higher than the DQA tabulation, and the national counterpart could not provide any explanation to the auditors about the difference. This poses a technical problem because the JRF figure cannot exactly be verified in a number of countries (the administrative JRF figure will be the basis of the rewards calculation), and might also represent an over-reporting at national level (not measured in the VF).

In Bangladesh, an additional factor made the calculation more complex as the auditors found out that the country was reporting all individual child immunizations including DTP3 as one figure for children under one and children over one year of age.

2. Assessment of the reporting systems

The DQA provides a comprehensive assessment of the immunization information systems and encompasses a number of specific areas, including the accuracy of coverage data, wastage, immunization safety monitoring, etc. The primary qualitative outcome measures consist of quality indices (QI) (expressed in %), based on a number of questions or observations (one point per question answered YES) posed at national (45 questions), district (38 questions) and health unit levels (33 questions). These questions/observations were grouped into several components:

- recording practices
- storage and reporting practices
- monitoring and evaluation (M&E)
- denominators (at district and national levels)
- design of the system (only at national level)

A particular set of questions related to an exercise asked to the health workers at HU level, measuring their knowledge in correctly completing the national child health card for all 20 children hypothetically coming for vaccination on that day. The results for each question are summarized in the following tables; the questions are presented in full in annex 1.

2.1 Summary statistics of the quality indices (QIs)

The average National QI was 64%, with a range between 47 and 76 % (14 countries). Mean values of district QIs in the 14 countries ranged from 35 to 85%, and individual district values ranged from 14 to 94% (56 districts). The overall district QI average was 62%. Mean HU QIs ranged from 23 to 83% in the 14 countries, and individual HU QIs ranged from 0 to 96%. The overall HU average was 58% (298 HUs).

The average values of all indices were relatively consistent (about 60%) which indicates a need for strengthening reporting at all levels, and that the QI is a coherent approach.

2.2 Quality indices results

A wide range of QI was observed between countries but also within countries, often showing highly varying (non-consistent) patterns between levels (Table 3). For example, Tanzania and Kenya had similar QIs at country level (68%), but Tanzania had the highest scores at district and health facility levels (over 80%), while Kenya had an intermediate district score (60%) and low score in health facilities (45%)

QI scores are not well correlated between levels: national scores were independent of district and HU scores, while district and HU scores are weakly correlated with each other. Almost all different patterns may be identified (1) peripheral weakness in the implementation of good national systems (e.g. Uganda); (2) relatively poor system at all levels (e.g. Haiti); (3) relatively good system at all levels (Tanzania); (4) poor national system with well functioning periphery (Tajikistan). This indicates the need to examine the information from each level independently.

Table 3: *Quality indices (%) at national, average district and HU level, by country*

Country	QI national	Average QI district (%)	Average QI HU (%)
Tajikistan	47	76	62
Bangladesh	51	70	71
Tanzania	68	85	83
Rwanda	67	57	70
Ghana	59	57	58
Uganda	71	47	59
Mali	71	69	49
Burkina Faso	64	67	50
Guinea	60	60	71
Mozambique	67	50	42
Cameroon	72	57	51
Côte d'Ivoire	76	68	48
Kenya	68	60	45
Haiti	61	35	41

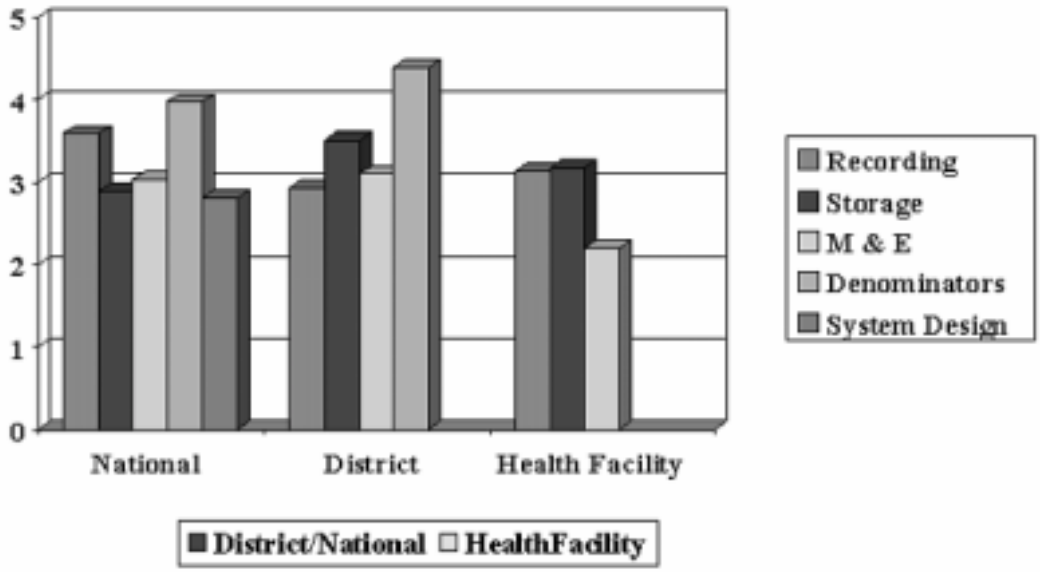
Overall, lower scores (<50%) were observed more often at HU level (5 countries) than at district level (2 countries) and national level (1 country).

2.3 Component Scores of Quality Indices

Each quality question relates to one of the 5 components of the reporting system. Average values of each component were obtained by normalizing the values of each index to a scale from 0 to 5,

whatever the number of questions that were posed (Figure 3). For district and HU, these represent the average scores for all districts and HUs.

Figure 3: *Average values of national, district and HU QI components, 14 countries, DQA 2002.*



Scores for questions related to the denominators were highest, which may indicate that the problems related to the denominators are relatively well known. The weakest component was M&E at HU level, which shows that major efforts are needed to improve this component of reporting systems (see section 2.6).

2.4 Responses to each of the specific questions in the QIs

The following tables show the proportion of questions answered YES (missing not counted), by reporting system component and level, for the audited 14 countries, 56 districts and 298 HUs. For HU level, the country range represents the minimum and maximum average country values, indicating whether some countries have high achievement in this area and conversely whether all countries face major difficulties. By looking at the questions one by one, one is able to identify the major gaps and weaknesses. The overall picture gives a diagnosis of reporting systems in VF countries and can guide further actions at global, regional and country level.

2.4.1 Recording practices

Recording practices included questions on coverage data (tally sheet and registers), vaccine stock (ledger books), injection supplies stock, the use of vaccination cards, and recording practices observed during immunization sessions.

Table 4.1 *Responses to questions about recording practices – 14 countries*

	Recording – Health Unit (N=296 Health units)	% YES	Country range *
Vaccine and Supply Stock System	Implement stock system for injection supplies	26	0-77
	System to monitor vaccine batch/expiry	31	0-96
	DTP ledger complete	32	0-68
	TT ledger Up-to-date	42	0-73
	DTP ledger Up-to-date	44	0-82
Vaccination procedures	Vaccine card test – DTP1	55	4-96
	Vaccine card test – Measles	57	0-96
	Vaccine card test – DTP3	60	8-92
	Observed vaccination – gave date to return	71	50-100
	Observed vaccination – correct record completion	82	60-100
	Observed vaccination – correct vaccine given	90	75-100
Forms/ Registers	Tally sheets available– TT	72	38-96
	Register for TT doses	79	25-100
	Tally sheets on desk – DTP	82	40-96
	Register for individual information DTP doses	91	74-100

* Range of average health unit responses among 14 countries

	Recording – District (N=56 districts)	% YES
Recording practices	Procedure for late reports	21
	Date of receipt on reports	31
	System to process reports	88
Stock system	Ledger system for AD syringes	43
	DTP vaccine receipts complete	57
	TT vaccine ledger up-to-date	68
	DTP vaccine ledger up-to-date	70

	Recording – National (N=14 countries	% YES
Recording practices	Written procedure for late reports	7
	Reports with time/date stamp	46
	System to process reports	86
Stock system	DTP ledger up-to-date	79
	TT vaccine ledger up-to-date	85
	DTP ledger complete	86

Conclusions recording practices:

- A major problem is the proper recording of vaccine stock at all levels, impeding the correct calculation of wastage and proper vaccine management. At HU level, ledger books were rarely up to date and wastage calculations were not possible. Vaccine stock ledgers were better maintained at district levels (57-70%), and best at national level.
- Stock management of safety supplies and vaccines (batch expiry) needs major improvement. Safety supply monitoring was not implemented at all in 5 countries.
- Procedures to deal with late reporting represent a significant problem at district and national level.
- About half of the interviewed health workers did not succeed (100% score) in the vaccine card exercise (HU level), which reflects a major concern regarding the proper administration of correct vaccines.
- The scores for use of tally sheets and registers, and systems to process reports were relatively high and of less concern.

2.4.2 Storage and reporting

Storing and reporting practices include questions on the proper use of computers at district and national level, availability of forms, date and signature on reports, filing and sending procedures, and implementation of adverse events reporting.

Table 4.2: *Responses to questions about storage and reporting practices*

	Storage and reporting – health unit	**% YES**	**Country range**
System design	Functioning adverse events reporting	11	0-36
	Method to send reports on time	91	73-100
Filing	Individual recording forms# for whole year	53	21-82
	All health unit reports available	57	33-95
	One location for storage	74	43-100
	Reports filed by date	76	38-100
Date / signing reports	Health unit reports at unit with date stamp	67	14-95
	Health unit reports at district with date stamp	72	0-100
	Health unit reports at district signed	74	0-100

tally sheets or registers used for recounting

	Storage and reporting – district	% YES
Computer procedures	Computer backup – last within one week *	0
	Computer – functioning network *	0
	Computer backup – written backup *	5
	Computer backup – can reproduce electronic file *	39
System design	System for reporting adverse events functioning	20
	Method to report to national	89
Dating / signing reports	District report dated (at national)	61
	District report signed (at district)	69
	District report signed (at national)	69
	District report dated (at district)	71
Filing	File for each health unit	82

* Low proportion of districts answered these questions

	Storage / Reporting– National	% YES
Computer procedures	Computer backup procedure	21
	Data transfer protocol (if multiple computers	30
	Recent computer backup	38
Filing	District specific filing	85
	District file by year / report period	92

Conclusions storing - reporting practices:

- Computer use was encountered in all countries at national level but in only one-third of the districts. At both levels, safe computer practices were usually not observed.
- Adverse events reporting is not yet implemented (at district and HU level) in the majority of countries (see also System Design at national level)
- Organization of the files was generally found to be satisfactory
- Availability of forms (reports and tally sheets) was variable, but in the context of verification still insufficient to meet GAVI targets.
- Proper dating and signing of the forms at HF and district could also be improved

2.4.3 Monitoring and evaluation

M&E questions include questions on supervision, feedback, monitoring charts, completeness and timeliness recording, wastage calculations, and the setting and availability of targets. At district level, 2 questions about the use of the same report and tally sheet format by the HU were included in the M&E component, although this question was placed in another component (system design) at national level.

Table 4.3 *Responses to questions about Monitoring and Evaluation practices*

	Monitoring and evaluation – health unit	% YES	Country range
Supervision / feedback	Dated feedback within 4 months	19	0-100
	Dated supervisory visit in last 4 months	28	0-68
Charting	Up-to-date chart for pregnant women	24	0-73
	Up-to-date chart/table for children	38	7-86
Targets	Health unit with pregnant women target	57	0-100
	Collect information on new births	68	17-100
	Health unit with child target	68	21-100

	Monitoring and evaluation – districts	% YES
Supervision / feedback	Routine feedback with analysis / discussion	27
	Date last feedback < 4 months	43
	Routine feedback format	50
	Written supervision schedule	68
Charting	Printed charts/tables with dates	32
	Publication with charts/tables	45
	Chart on completeness displayed	45
	Chart on coverage displayed	46
Targets	District target pregnant women	76
	District target children	93

	Monitoring and evaluation– National	% YES
Vaccine wastage	National wastage calculation done correctly	15
	DTP wastage available in Joint Reporting Form	36
Charting	Date on each produced chart	29
	Up-to-date performance chart available	29
	Timeliness chart displayed	57
Supervision / Feedback	Last feedback within 3 months	46
	Feedback contains analysis/discussion	58
	Schedule for routine feedback	64
	Publications with 2001 data	79
Other	List tabulation formats	64
	Can reproduce totals in JRF	69
	Records of reports received	86

Conclusions Monitoring and evaluation:

- Monitoring charts are usually considered to be the basic instrument to monitor coverage progress throughout the year: they were used properly in only 38% of the HU, although many more HU (68%) did know their target populations. This weakness is also found at higher levels (46% of districts and 29% of countries displayed the monitoring charts).
- Feedback and supervision were poorly implemented at all levels, with infrequent written records of visits or analysis and discussion of information. Standard format and scheduling of feedback received slightly higher scores.
- National wastage calculation was usually not correctly done – the calculation refers sometimes to country usage and often the proper information is not collected from the lower levels. This is reflected on the scarce availability of the indicator in the Joint Reporting Form, and poses the question of the quality of available data.
- Monitoring of completeness and timeliness is variable, far from being satisfactory as a whole.

2.4.4 Denominators

Denominator scores were compiled only at the district and national levels, and include their availability, the consistency with WHO definitions, their annual adjustments, and their consistency.

Table 4.4 *Responses to questions about denominator practices*

Denominators – districts	**% YES**
District denominator same as national – DTP	40
Denominator different from last year – TT	75
Best denominator for TT	79
Denominator different from last year – DTP	86
Denominator calculated per country definition – TT	86
Best denominator for DTP	87
Only use one denominator for all tabulations	88
Denominator calculated per country definition – DTP	96

Denominator– National	**% YES**
All district DTP coverage < 100 %	29
All district TT2+ coverage < 100 %	70
DTP denominator consistent with WHO definition	71
Best denominator used in current year – DTP	86
Best denominator used in current year – TT	85
TT denominator consistent with WHO definition	92
Denominator different from previous year – DTP	100
Denominator different than in current year – TT	100
Denominator calculate by current country definition – DTP	100
Denominator calculated by current country definition – TT	100

Conclusions Denominators:

- Overall, this area posed fewer problems, in terms of availability of data. The main issue was frequent the discrepancy between district and national figures (60% of districts).
- On a positive note, all countries were found to update their denominators annually
- However, fewer than one-third of countries reported all district coverage values lower than 100%, which is an indicator that inaccurate population figures are used, but one that is often beyond the control of the users.

2.4.5 System design

Questions on the system design were compiled only at national level, and include questions on the presence/absence of a number of fields in the reporting forms (wastage, injection supplies), integration with other health services, and consistency of forms used (although this also relates to implementation at lower levels).

Table 4.5 *Responses to questions about system design*

	System design– National	**% YES**
System design	Written system for adverse events	14
	Integrated reporting – District to national	57
	Official regulation re. reporting from private, NGOs	64
	Integrated reporting – Health units to districts	71
	Reporting of injection supplies	71
	Monitor separate lots of vaccine	93
Reporting forms	Reporting form includes wastage	21
	Reporting form has space for # health units	64
	Written instructions for forms	79
	DTP recorded separately for <1year (vs. >1year)	93
	TT recorded separately for pregnant women	100
Consistent formats	Monthly report for districts are same format	57
	Tally sheets use same format	62
	Monthly report use same format	89

Conclusions System design:

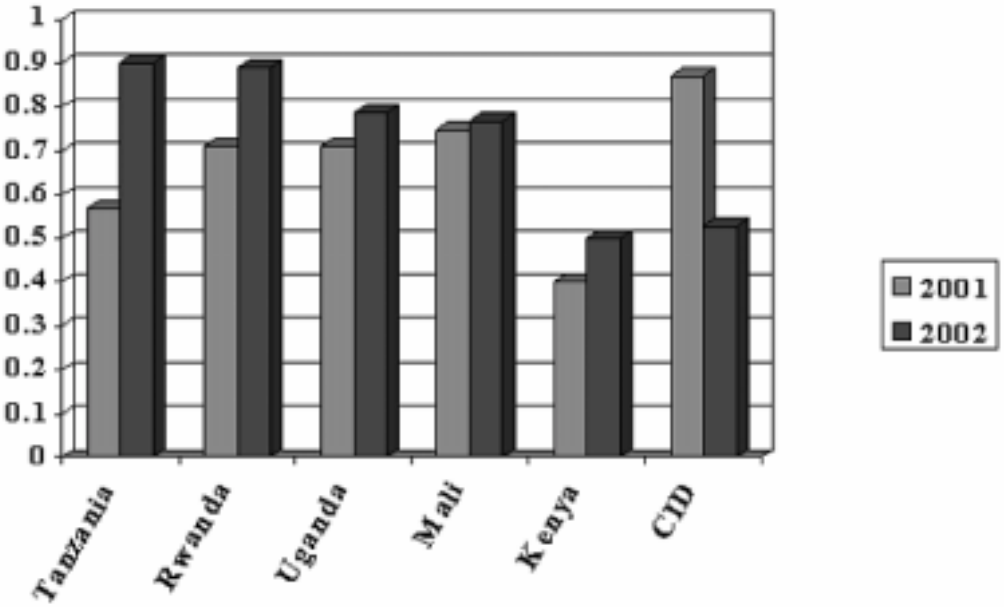
- The monitoring of adverse events following immunization is not yet implemented in most countries
- Correct country wastage calculation would need to collect wastage information from lower levels which is usually not done
- In many countries reporting system is duplicated (usually one to the EPI program, the other to the HIS). Although a universal recommendation, movements towards integration still need to be reinforced.
- The format of reports (same used by all entities) is not yet optimal
- The monitoring of injection supplies was better at the national than at district or HF levels, but was still only done in 71% of countries.
- The designs of the forms contain elements with a varying degree of satisfaction: only one country does not report infants (<1 year) separately, and all report TT immunizations for

pregnant woman separately. The number of HU reporting is not often found as a separate field on the district report, causing difficulty to evaluate completeness. And as already mentioned, it is not usually possible to record wastage and adverse events.

2.5 Improvements from 2001

In six countries a DQA was undertaken as a field test in 2001 and repeated (as a real GAVI DQA) in 2002. Although the methodology is not strictly comparable (the 2001 test experience was used to refine the methods and the tool), the overall design of the DQA remained the same and it is interesting to compare the sequential results from these countries. In 5 of the 6 countries, the VF improved, of which 4 "passed" their second DQA (including the two in the .75-.79 range)(figure 4).

Figure 4: *Verification factors in 6 countries with 2 consecutive DQAs, 2001 and 2002*



The example of Tanzania is most dramatic, and was paralleled by an improvement in QIs at national, district and HF levels. Other increases were smaller and within the range of the 95% confidence intervals for each country. Côte d'Ivoire showed a large decrease, which may be due to the fact that the DQA in 2001 did not reflect all accuracy problems detected. Although not in the Company report, a number of major accuracy problems were noted but not included in the figures (source: LATH consortium consultant, personal notes).

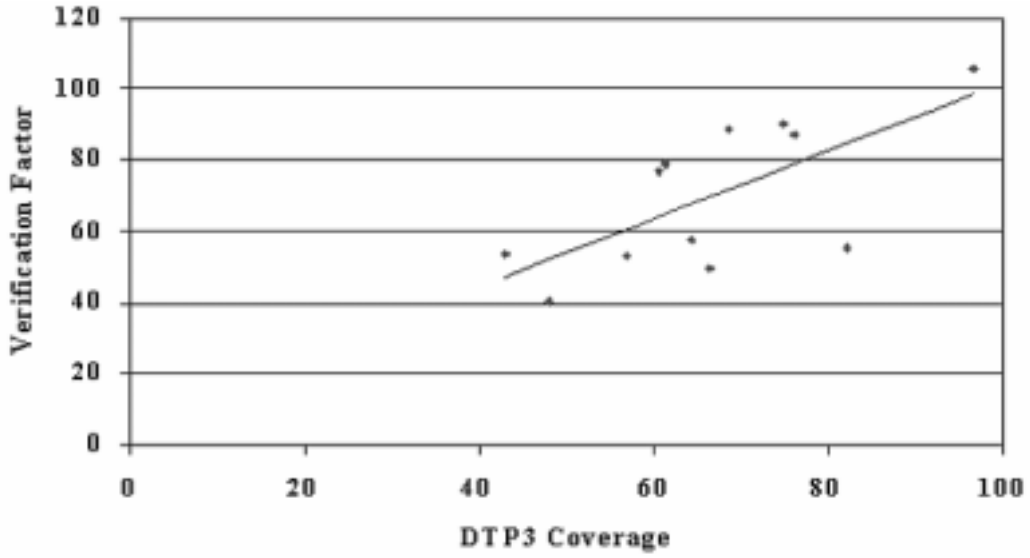
Although the sampling and the wide confidence intervals of the VF prevent firm conclusions, it appears that some countries have been able to make substantive changes within a year. It can also be concluded that 2 DQAs are often necessary for a country to pass, and in a number of the countries, one year will not be enough time to improve the reporting system sufficiently.

2.6 Correlation analyses

The correlation between major DQA indicators (DTP3 coverage, as a measure of program effectiveness; verification factors; and quality indices at national, district and health facility levels) was analyzed in order to understand the determinants of the VF.

The strongest correlation was found between DTP3 national coverage and the VF (correlation coefficient 0.76) (Figure 5 and Table 5).

Figure 5: *Correlation between national DTP3 coverage (reported coverage) and verification factors - DQA 2002*



This indicates that higher performing countries based on DTP3 coverage are also more likely to have higher VFs, and that weakest countries will probably fail the first DQA. This is logical, as the performance of a country should be paired with better reporting and monitoring systems, contributing to the better performance. But this finding also means that countries in most need are also not likely to get rewards (linked with a pass in the DQA) and will have the greatest challenges to improve their systems.

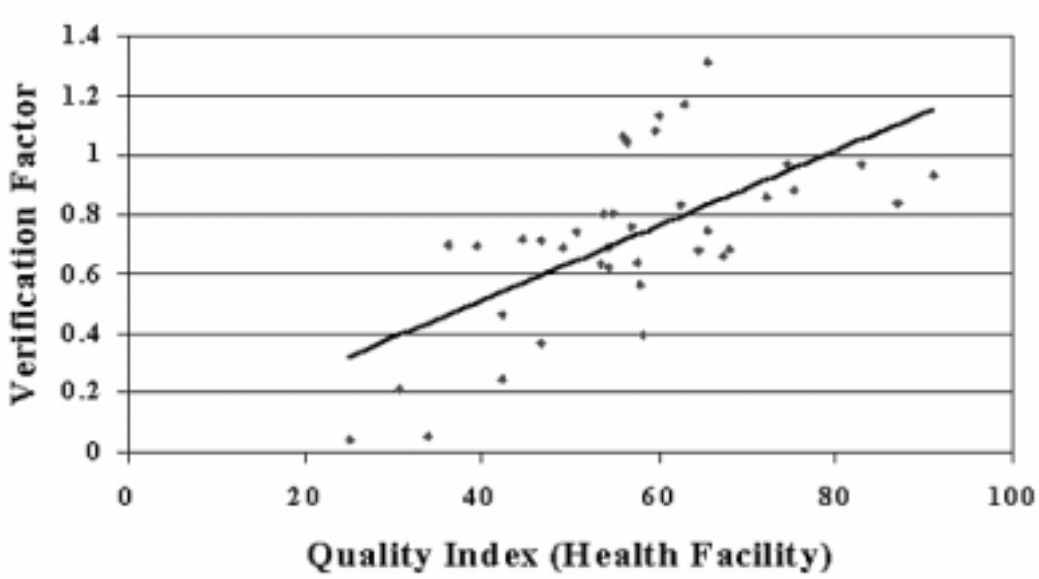
There was a negative correlation between the VFs and national QI, but a strong correlation between the VFs and district and HU QIs, particularly the M&E and reporting components. Hence, a good system as measured by the VF is best related to the system quality indices at the district and health facility levels, which will need the most support for the country to pass the DQA.

Similar analysis at district level showed the same results (figure 6).

Table 5 *Correlation analyses for associated variables with national and district VF, DQA 2002 (single regression analysis).*

	Correlation coefficient	**p value**
Country VF with		
2001 national DTP3 coverage (reported)	.76	0.002
2001 national DTP3 coverage (WHO/UNICEF estimates)	.70	0.006
QI national	-.54	0.04
QI district	0.45	<0.001
QI District M & E component	0.46	<0.001
QI HU	0.46	<0.001
QI HU M&E component	0.43	<0.001
QI HU Storage and reporting component	0.43	<0.001
District VF with		
2001 national DTP3 coverage (reported)	.40	
2001 national DTP3 coverage (WHO/UNICEF estimates)	.43	
QI national	-.23	
QI district	.35	
QI District M & E component	.37	
QI District recording	.27	
QI HU	0.37	<0.001
QI HU recording	0.26	<0.001
QI HU Storage and reporting component	0.37	<0.001

Figure 6: *Correlation between HU Quality Index (average per district) and District Verification Factor - DQA 2002*



2.7 Completeness/timeliness

Completeness of reporting from the district to national level was high (avg. 83%), and was low in only one country (12.9%, Haiti). In contrast, timeliness of reporting (reports sent on time) was low (avg. 19%), and was above 50% in only 4 countries.

Table 6 *Completeness and timeliness of district reporting to national level*

Country	District – national	
	Completeness (%)	Timeliness (%)
Tajikistan	96.9	86
Bangladesh	97.8	2.7
Tanzania	NA	NA
Rwanda	94.0	NA
Ghana	99.8	NA
Uganda	94.5	53.3
Mali	99.6	54.7
Burkina Faso	100	12.6
Guinea	98.7	0.0
Mozambique	97.7	NA
Cameroon	98.3	NA
Côte d'Ivoire	91.1	1.1
Kenya	86.8	55.5
Haiti	12.9	NA

In Tanzania, the auditors reported that the national level did not monitor timeliness and completeness of reporting. The completeness figure of Haiti reflects the non- availability of district reports at national level; the completeness based on district yearly tabulations would be

much higher (but not verifiable). Timeliness was usually very low and not verifiable (and not recorded) in a high number of countries.

The completeness of HU reporting to district was not consistently collected, making an interpretation impossible. Timeliness of HU reporting to district was usually not available as many district reports lacked dates of reporting.

2.8 Vaccine Wastage

Auditors calculated unopened vial wastage (or system wastage) at national and district level (vial lost, broken, expired, missing inventory) and global wastage (unopened and opened vial wastage- or administrated wastage) at health unit level. This was based on auditing the ledger books and searching for any loss indicated at national and district level during 2001, and for HU, comparing doses issued in 2001 with the total number of immunizations reported (DTP) during the year. The DQA should be potentially able to document and determine the level of global wastage at the health unit with excellent accuracy.

Table 7 *Vaccine wastage proportions at national, district and HU level, by country, DQA 2002*

	Wastage national level	**Wastage district level**		**Wastage HU level**	
Country	*(%)*	*n districts where calculation possible*	*Average of districts (%)*	*n HU where calculation possible**	*Average of HU (%)*
Tajikistan	NA	0	-	7	44
Bangladesh	NA	0	-	12	53
Tanzania	2.0	0	-	14	26
Rwanda	NA	1	3	14	32
Ghana	1.2	0	-	2	29
Uganda	NA	1	2	13	22
Mali	0.5	0	-	3	21
Burkina Faso	3.1	1	0	4	23
Guinea	NA	0	-	11	15
Mozambique	NA	0	-	0	
Cameroon	NA	1	0	0	
Côte d'Ivoire	0.1	0	-	6	37
Kenya	0.0	2	0	2	49
Haiti	NA	0	-	2	64
Average	**1.15**	**6**	**1 (0-3)**	**90 (30%)**	**32 (0-80)**

**Five HU with negative wastage were excluded.*

Unopened vial wastage calculation was only possible in 6 countries and in 6 out of 56 districts. This indicates a major difficulty in vaccine management: ledger books that are poorly maintained, not available, or not complete make the wastage calculation impossible. The calculation was possible in only 30% of HU, and this is consistent with the low responses on quality questions at the health facilities, which check the quality of vaccine ledgers. Vaccine wastage was more frequently available at health facilities in high performing than in low performing countries.

However, the average results from the facilities where the calculation was possible show expected results of 32%, which should be interpreted cautiously as vaccine presentation and strategies differ in different countries.

This demonstrates that to monitor wastage at any level will necessitate strong efforts to implement recommended procedures and in staff training, and that this will preclude interpretation of many results at global level. The DQA is one of the tools that can help in monitoring the progress in wastage measurement and wastage proportions.

3. Major Conclusions on Reporting Systems

1. All countries show substantial problems with reporting systems
2. In general, the quality of reporting systems correlates with vaccine coverage (program quality)

3. Reporting quality at district and health facility levels are most predictive of country coverage and verification factors
4. Areas with greatest need for improvement are:
   4.1. Charting / monitoring coverage
   4.2. Supervision and feedback
   4.3. AEFI reporting
   4.4. Wastage calculation and monitoring/vaccine stock ledgers maintenance
   4.5. Monitoring of injection supplies
   4.6. Timeliness and methods for handling late reports
   4.7. Computer procedures
   4.8. Setting health facility vaccination targets
   4.9. District Vs national denominators

   These needs are greatest at District and HU level. For each of these areas, some countries do perform well, and could potentially serve as examples for poorly performing countries, possibly through peer training.

5. Potential roles of alliance partners and Regions in supporting improvement of reporting systems.

   Alliance partners and regional working groups can provide support to improve immunization reporting systems by providing guidance (incl. training modules and data systems) in the following areas:

   Measuring wastage
   Late reporting procedures
   Charting of data
   Supervision, feedback and analysis
   Design of forms/report formats
   Develop and implement a self-assessment tool (measuring data quality and pointing out problems) for country/district

6. Communication of findings of DQA

   The findings of the 2002 DQA should be disseminated to regional and country offices, and should be used to guide development of training materials to strengthen reporting systems. These training materials should be piloted and evaluated in one or more countries that failed the initial DQA.

7. Roles of Country level

   Stimulate district management to improve weak areas
   Support supervision and feedback
   Implementation of DQA recommendations
   Avoid duplication of reports and stimulate integration of reporting systems

4. Cost of the DQA

The overall cost of the DQA experience in 2002 was US$ 748,223, or US$ 54,848 per audit (14 audits, as of February 2003). This includes costs for training of the auditors. No substantive difference was observed in costs between the companies.

Conclusions

The DQAs performed in 2002 will have an impact on a country's support in 2003, allowing a country to receive the first reward funding should its coverage increase and the country pass the DQA. Overall the DQA experience met the two main objectives that the GAVI partners wanted the DQA to fulfil, based on the Board approved scheme: as a verification tool, it classifies reasonably the audited countries and provides a respectable degree of equity, despite remaining large confidence intervals and drawbacks in the verification of all situations. Hence some flexibility in the threshold is further proposed (see Recommendations).

The validity of Verification Factor is affirmed by demonstrating that it correlates with program success (DTP3 coverage) and with Quality Indices at HU and district level. Countries that reported the lowest coverage have the weakest reporting systems and additional ways to assure steady funding support should be considered to allow these countries to improve their reporting systems to obtain reward funding.

As an assessment of the reporting systems, the DQA demonstrates usefulness at global and country level, by identifying the gaps where the main efforts are needed, not only for the performance-based system to become operational, but to improve each country's system. The qualitative information on system summarized by the quality indices, however, has limited meaning unless one looks at each question separately and draw conclusions from responses to specific questions. Peripheral levels are most in need of improvement and partners' support should be most strongly reinforced at this level. As the DQA is a comprehensive exercise, subsequent DQAs probably do not need to include all questions and measures but a selection of them. Further analysis of the 2002 DQA may allow identification of questions which best predict overall quality indices and verification factors and which should be included in a shorter version of the DQA.

Those countries that fail the DQA will need urgent technical/financial assistance from the GAVI partners to improve their systems. It is recognized that in a number of countries, improvements will take time and a DQA may not be likely to show significant improvement if repeated in the next year. It is therefore cost saving to schedule the next DQA when the country is ready, provided an access to rewards is still possible by other means.

Finally it must be noted that countries were in general enthusiastic about DQAs, understanding the need for accountability, and that they were interested in results, not only the VF and its financial implications but also the qualitative findings. It remains for the countries and partners to identify the most effective methods to improve the reporting systems.

Recommendations

I. ITF Recommendations on the DQA scheme for DTP3 verification

- As planned initially, a first DQA should be conducted in all countries during the 1st or 2nd year of ISS funding with the exception of countries receiving a small amount of ISS support.
- For this first DQA, the verification factor is the measure to determine first rewards and the threshold should be maintained at 80%.
  For those countries below but close to the threshold (75% or more), it is proposed that they receive the first reward with one or more of the following stipulations (to be determined by IMC):
  - The IMC should consider the progress in other performance indicators
  - A second DQA should be carried out the following year
  - The country should submit a report on the activities performed to improve the reporting system.

- The second DQA should not be carried out systematically in the subsequent year in those countries that failed, but at the country's demand.
- For those countries that are below 75%, the 3rd investment should still be paid, but may be spread over several years. There is no (first) reward payment made unless the country shows adequate reporting system by repeat DQA, or validates its coverage by a coverage survey, according to determined criteria. Subsequent rewards can only be given after the country has passed a second DQA.
- The second DQA may be a lighter methodological version of the current one, but all levels of the health systems must still be evaluated.

II. Recommendations on how to improve the DQA tool

- Spreadsheets should be simplified
- Add table showing summary data for all HU and districts to DQA spreadsheets in order to facilitate summary analyses and communication of strong and weak areas of each program. These could also summarize responses to each quality question to better guide country planning to improve reporting systems
- If possible, reduce the number of questions; produce a "DQA light" for use after a first DQA.
- Reconsider how to best evaluate vaccine wastage at national and district levels
- Reexamine questions on completeness of reporting at district and health facility levels

III. Recommendations to GAVI Partners and Regional Working Groups

- Disseminate findings of DQAs to regional and country offices.
- Develop (or adapt) training modules for district and health facility level reporting systems, focusing on weaknesses identified in 2002 DQAs
- Pilot training modules in low performing countries
- Identify mechanisms (funding, technical support) to assist countries to improve immunization reporting
- Complete development of a self-assessment tool to permit countries to evaluate district and health facility reporting systems
- Consider how to integrate DQA 2002 findings into proposed alternative funding mechanisms based on additional indicators

Annex: Basic information on countries having undertaken a DQA

Country	GAVI proposal accepted baseline 1999 (% DTP3)	GAVI proposal accepted baseline 1999 (DTP3 numbers)	Projected figures 2001 (application) (DTP3 numbers)	Reported figures 2001 (JRF) (DTP3 numbers)	Difference reported figures 2001 and projected (DTP3 numbers)	Change reported figures 2001-2000 (JRF) (DTP3 numbers)	WHO/UNICEF estimates (%DTP 3) 1999	2000	2001
Tajikistan	65	101,245	126,243	155,738	29,495	+7,046	82	83	83
Bangladesh	67	2,478,415*†	2,679,232	3,097,460	418,228	+212,688	81	83	83
Tanzania	74	952,973	1,074,283	1,192,280	117,997	+135,677	76	79	85
Rwanda	57	187,203	277,914	251,847	-26,067	+36,349	85	90	86
Ghana	73	567,197	620,117	575,499	-44,618	-41,888	72	84	80
Uganda	54	525,995	617,012	611,983	-5,029	+82,970	54	53	60
Mali	48	186,795	205,543	286,180	80,637	+65,584	44	40	51
Burkina Faso	42	198,790	286,195	323,986	37,791	+57,069	41	41	41
Guinea	57	164,561*	207,750	210,579	2,829	+27,180	46	46	43
Mozambique	73	503,164	549,322	566,300	16,978	-23,587	81	88	80
Cameroun	48	283,922	394,587	269,321	-125,266	-56,706	48	53	43
Côte d'Ivoire	56	262,235	364,775	383,323	18,548	-78,030	62	72	57
Kenya	64	825,592†	954,502	767,430	-187,072	+153,118	76	76	76
Haiti	59	155,662	218,484	144,944	-73,540	-19,408	43	43	43

* replacement country, 2000 baseline
† baseline from coverage survey

In two countries (Bangladesh and Kenya) coverage survey data were used to define the baseline. In 2001 WHO/UNICEF estimates are still significantly different from reported data (difference of 14 and 10% respectively) with a potentially high impact on rewards.

Annex 6

Human Resources and Immunization

1. Context:

Work both within and outside of GAVI has increasingly highlighted the importance of addressing the gap in human resources for health (HRH) if there are to be sustainable gains in the delivery of immunization services, particularly in low-income developing countries.

Of particular relevance, the GAVI Board-commissioned McKinsey study "Achieving our immunization goals" (final report submitted April 2003) identified "management and human resources" as one of 5 performance drivers critical to achieving the 80/80 goal. The McKinsey study also found that the HR gap was the most prevalent of the 5 major barriers associated with these performance drivers (major or minor barrier in 40 GAVI countries).

While there is broad consensus among GAVI Board members and stakeholders on the importance of addressing the HR gap, discussions at the Board meeting of November 2002, and the subsequent December 2002 paper from the U.K. Department for International Development (DFID) on this issue, recognized the need for additional work to "identify GAVI's role in this complex and wide ranging issue".

2. DFID Proposals and GAVI Board Request:

The DFID paper of December 2002 identified the central issue for GAVI as "how to ensure that there is the HR capacity to deliver the proposed expansion of immunization coverage in developing countries" noting that this HR capacity included ensuring: adequate numbers in the right locations, appropriate skills, and incentives and motivation to deliver intended services.

The DFID paper strongly suggested that GAVI not tackle the issue of HR for immunization directly and in isolation. Alternatively, DFID proposed GAVI "challenge the countries and the international HR work to ensure that they are addressing the needs of immunization within the broader HR context and strategy".

DFID further proposed that WHO and UNICEF:

1. Work with WHO's Department of Health Services (OSD) to ensure that the current country case studies (assessment framework and policy work) consider the HR implications and needs for expanding immunization services.
2. Interact with other current initiatives on HR, including the Rockefeller led "Joint Learning Initiative", to ensure they address the needs of immunization.
3. Collate innovative approaches to immunization delivery at country level, particularly in the area of HR constraints (DFID further suggested to await the results of the McKinsey study that was also doing this work).

The remainder of this paper reports on actions that have been taken in response to the DFID proposals and considers other steps GAVI might take to help countries address HR constraints in the short term, within the GAVI Strategic Framework 2004-5.

3. Analysis of Opportunities for GAVI through the DFID-Proposed Processes:

3.1 Collaboration with OSD/WHO:

Actions: since January 2003 a series of meetings have been held with the relevant teams of OSD/WHO to fully understand the country study process and OSD's ongoing work in analyzing and strengthening HR for health. Important collaborations have been established, with VAB/WHO now on the OSD working group for HR gap analysis and working with Director OSD on strategic approaches to GAVI's short-medium term HR concerns.

Analysis: Continued close collaboration with the HR work of OSD will be important to embedding the needs of immunization in long-term strengthening work on HR for health. The HR needs for immunization strengthening can readily be incorporated into both Phase 1 and 2 activities in the country case studies. Of note for GAVI, however, these studies currently cover a limited number of countries (6). Although local and cross-cutting factors have caused delays, all are now on track (i.e. Chad, Cote d'Ivoire, Jamaica, Mozambique, Sri Lanka, Zimbabwe).

Timeframe: 3-5 years for country level impact on immunization delivery.
Initial impact will be in 6 countries with a limited proportion of total burden of unimmunized children.

3.2 Collaboration with Rockefeller "Joint Learning Initiative (JLI)":

Actions: in January 2003, meetings were held with Rockefeller Foundation in New York to discuss collaboration. By March 2003, it was agreed to include immunization in the HR work of JLI Working Group 5 on "Diseases of Poverty"[15]. Specifically, WG5 will support an in-depth study on how the polio initiative has addressed the HR gap to achieve very high OPV coverage globally and establish a global surveillance and laboratory network.

Analysis: given the broad participation in the JLI, this collaboration provides a substantial opportunity to ensure the HR needs of immunization are promoted with an important group of development stakeholders. In addition, it has been agreed with WG5 that the commissioned work on polio and HR should specifically evaluate the lessons that can be drawn from the polio experience to sustainably reach an additional 10 million children with other vaccines. Thus, this work could provide GAVI with a valuable, independent analysis of how the strategic approaches of polio eradication might be applied to achieving the 80/80 and other targets.

Timeframe: 1 year for study completion and report. 3-5 years for application of JLI findings to countries. Impact on GAVI target countries unclear.

3.3 Innovative Approaches to Immunization (incl. the McKinsey Report):

Actions: since January 2003, the discussions, findings and recommendations of the McKinsey work in the area of human resources for immunization have been followed and the findings analyzed. Some of the original data sources on "best practices" have been revisited to clarify their role in addressing HR constraints.

Analysis: A limited number of well-documented "best practices" and innovative approaches have been identified which specifically addressed HR gaps. Particularly notable experiences include: (a) enhancing the role of NGO networks (e.g. BRAC in Bangladesh) and (b) engaging communities through extensive social mobilization (e.g. "Dokter Kecil" program in Indonesia). While the further documentation of these and other experiences will be valuable, most experts have cautioned the wholesale application of "best practices" outside the country where they had

[15] The aim of Working Group 5 (WG5) is: 'To analyse the current and future needs for human resources to fight select diseases of poverty, using a supply and demand lens, and to explore new models for control within an integrated health system'.

been developed. The McKinsey report[16] also identified 18 countries where the consultants felt HR constituted a "major barrier" to enhancing immunization coverage and 17 where it was a "minor barrier". Linking findings from the McKinsey report to the GAVI Strategic Framework for 2004-5 could provide opportunities for enhancing HR for health in a limited number of countries in the short-medium term.

Timeframe: 1-2 years for impact on immunization delivery in 7-10 countries.

4. Opportunities to Strengthen HR within the GAVI Strategic Framework 2004-5

Recognizing that HR gaps are a "major barrier" to improving immunization coverage, and the increasing opportunities to enhance GAVI's collaborative work in HR strengthening, consideration must be given to firmly anchoring and highlighting this area of work within the GAVI Strategic Framework 2004-5. The current structure[17] of the framework outlines four GAVI priorities:

- strengthening service delivery,
- ensuring access to vaccines and related products,
- securing long-term financing, and
- strategic planning.

Within the priority "Strengthening Service Delivery", two of the three areas of work offer possibilities for augmenting the GAVI focus on HR:

- Contributing to alleviation of system-wide barriers
- Enhanced efforts in large population countries

Potential HR Opportunities in "Contributing to alleviation of system-wide barriers": The importance of addressing HR gaps is already alluded to in the Framework and within this specific area. Recognizing, however, that HR gaps appear to be the most prevalent of the "system wide barriers", it would seem appropriate to define a specific HR Target in this area for each of 2004 and 2005. In addition, the proposed 20 country studies could focus on areas where HR gaps have been identified as a potential or known constraint, whether major or minor, to improving immunization coverage.

Potential HR Opportunity in "Enhanced Efforts in Large Population Countries" (Bangladesh, DR Congo, Ethiopia, India, Indonesia, Nigeria, Pakistan): While additional work is needed to analyze the barriers in each of these countries, the McKinsey study suggested that HR gaps were a major (4) or minor (2) constraint to raising coverage in 6 of the 7 proposed. Consequently, the large population country focus may provide another important opportunity within the Strategic Framework 2004-5 to embed GAVI's future work on HR strengthening. Furthermore, GAVI partners (e.g. WHO and UNICEF) already provide country-level Technical Assistance in all of the proposed large population countries, with a substantial presence in 6 of them. This technical assistance could be retrained to contribute to the GAVI HR program of work. Given the prevalence of HR gaps as a barrier in the proposed large population countries, it might be appropriate to define a specific HR Target in this area. Alternatively, HR targets could be established on a country-by-country basis, if HR gaps are found to be substantial during the proposed analysis of major barriers in these places (current Target 1 under "Enhanced Efforts in Large Population Countries").

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[16] 'Achieving Our Immunization Goals – Supporting Exhibits for Final Report to the GAVI Board' McKinsey and Company, April 2003. For list of countries by 'barrier' see page 57; for analysis of best practises see pages 40-41; for comparison of barriers by country see pages 32-36.

[17] GAVI Strategic Framework 2004-2005. Draft at 3 July 2003. GAVI Secretariat, UNICEF/Geneva.

Should the GAVI Board decide to better anchor and highlight its emphasis on HR gaps in the Strategic Framework 2004-2005, a number of major issues could then be resolved to move to implementation:

1. Strategic Approach to HR Strengthening: in consultation with the broader agenda and stakeholders in the area of HR strengthening, GAVI's strategic, catalytic or other advantages could be clearly defined as a basis for its program of work in HRH strengthening. Most importantly, the practicalities of integrating GAVI's short-term objectives and needs within the longer term HR work, could be resolved.
2. Work plan and Budget: a GAVI work plan and budget for its HR work would need to be developed with specific targets, activities, responsible officers, etc. This could be done within the overall GAVI Work plan and Budget 2004-2005, but with a defined HR area given the importance of this specific barrier to GAVI's goals. This work plan would be expected to include steps for implementing specific "short term revitalization HR plans" such as that proposed by OSD[18] (NOTE: these plans are currently being tailored to provide specific policy approaches for countries with good HRH numbers but poor distribution vs. countries with low skills vs. countries with absolute HRH deficiencies, etc.).
3. Oversight/Coordinating Mechanism: given the importance and complexity of this area of work, GAVI would need to give particular attention to ensuring a coordinating mechanism that would ensure strong linkages with the broader work being on HR in general and HRH in particular. At the same time, however, this mechanism would need to support a rapid approach in at least a limited number of countries (e.g. a subset of the 7 proposed "large population countries" or 20 proposed "study" countries under "addressing system wide barriers to access".
4. Responsibilities: recognizing the specific strengths of the various GAVI partners (both existing and potential), it may be necessary to review and complement the current proposals for responsible agencies/individuals, should it be decided to focus on HR gaps within the broader barriers. Another possibility might be to divide responsibilities by barrier, in accordance with the strength of each partner to address various barriers (few partners would be expected to have strengths across all barriers).

[18] 'Revitalizing human resources for health: short, medium and longer term solutions'. GAVI Briefing Paper, May 2003. Department for Health Services, WHO/Geneva.

Annex 7

Country eligibility for support from GAVI and The Vaccine Fund

Background

Since the launch of The Vaccine Fund, GAVI partners have defined basic eligibility for support according to World Bank economic data: all countries with less than or equal to US$1000 Gross National Product (GNP) were considered eligible – 74 countries in all. It was decided that regardless of whether these 74 countries saw their incomes rise above US$ 1000, they would remain on the list of countries eligible for support from GAVI and The Vaccine Fund.

When Timor-Leste (originally called East Timor) was formed in 2002, the Board at its Paris meeting decided to add it to the eligibility list, bringing the total to 75 countries.

The World Bank has since changed its terminology from GNP/capita to Gross National Income (or GNI)/capita. This alteration, however, does not have an impact on the numbers or the ranking.

With the new World Bank economic data for 2002 (published 1 July 2003 to apply for one year), it is again time to review the list of eligible countries. Furthermore, questions have been raised whether countries such as Serbia and Montenegro, Iraq, the Philippines and Syria should be considered eligible.

Discussion

According to the World Bank GNI figures for 2002, GNI/capita estimates for Serbia and Montenegro, the Philippines and Syria put these countries above the $1,000 GNI/capita threshold.

Two countries have fallen below $1000 GNI/capita: Equatorial Guinea with $700 GNI/capita and Kiribati with $810 GNI/capita, as well as the West Bank and Gaza with $930 GNI/capita (see attached table). It could be noted that income figures could fluctuate rather considerably between years.

If the above two countries plus the West Bank and Gaza are made eligible the potential 5-year commitment of GAVI and Vaccine Fund support to these countries could be estimated to $ 15.3 million:

Country	**est. 5-year commitment (mill US$)**
Equatorial Guinea	1.4
Kiribati	0.2
West Bank and Gaza	13.7
Total	**15.3**

There are no precise World Bank data available for Iraq; it is estimated to be lower middle income ($746 to $2,975). However, as considerable bilateral and multilateral support is now being provided to Iraq – including a recent announcement of $3.3 million from USAID and $1.85 million from DFID to help restore routine immunization[19] - there would seem to be little

[19] UNICEF press release, 16 June 2003.

added value for GAVI to include Iraq under present circumstances. Furthermore the experience from Afghanistan has shown that countries undergoing considerable reconstruction may not actually benefit greatly from the kind of support available from GAVI and The Vaccine Fund as partners are already providing expanding support to such countries.

Considerations for the GAVI Board

The Working Group recommends the Board not to change the basic eligibility criterion of $1000 GNI/per capita.

It also requests the Board to consider either of two options:

1. Expand the list of eligible countries now, based on GNI <$1000 per capita, to include Equatorial Guinea, Kiribati, and the West Bank and Gaza, with no further expansion of the list in the future.

   or

2. Wait with a decision on the list of eligible countries until after the first five-year phase of GAVI and Vaccine fund support, i.e. until 2005, in order to align it with policies for the next phase of country support.

Countries with GNI/capita <$1000[20] (*July 3rd 2003*)

Country	**GNI/Capita (USD) 2002**[21]	**Birth Cohort (thousands) 2001**[22]	**DTP3 Coverage (percent) 2001**[23]
Congo, DR	90	2507	32
Ethiopia	100	2848	51
Burundi	100	284	64
Sierra Leone	140	232	38
Liberia	150	583	62
Guinea-Bissau	160	55	47
Malawi	160	525	90
Eritrea	160	152	65
Niger	170	625	31
Tajikistan	180	149	97
Chad	220	396	27
Mozambique	210	795	80
Chad	220	396	27
Burkina Faso	220	558	68
Rwanda	230	320	77
Nepal	230	821	72
Madagascar	240	696	37
Mali	240	120	51
Uganda	250	1222	60
Central African Republic	260	144	23
Cambodia	270	479	60
Togo	270	182	43
Ghana	270	653	76
Tanzania	280	1393	87
Kyrgyz Republic	290	101	99
São Tomé and Principe	290	5	92
Nigeria	290	4702	n/a
Lao, PDR	310	197	40
Gambia	320	51	96

[20] Gross National Income (GNI) in current prices measures the total domestic and foreign value added claimed by residents, and comprises GDP plus net receipts of primary income (compensation of employees and property income) from nonresident sources
[21] Downloaded from website on 3 July 2003: http://www.worldbank.org/data/databytopic/GNIPC.pdf
[22] From UN data
[23] From Joint Reporting Form (WHO and Unicef)

Country	GNI/Capita (USD) 2002[24]	Birth Cohort (thousands) 2001[25]	DTP3 Coverage (percent) 2001[26]
Zambia	330	448	n/a
Sudan	350	1098	71
Kenya	360	1080	80
Bangladesh	360	4284	65
Benin	380	269	84
Comoros	390	28	70
Mauritania	410	120	61
Guinea	410	20	57
Pakistan	410	5340	76
Vietnam	430	1586	98
Mongolia	440	57	95
Haiti	440	256	52
Uzbekistan	450	533	97
Moldova	460	50	90
Lesotho	470	63	72
India	480	25112	64
Yemen	490	953	76
Senegal	490	369	52
Papua New Guinea	530	160	43
Cameroon	560	558	97
Solomon Islands	570	18	78
Bhutan	590	75	88
Côte d'Ivoire	610	581	57
Georgia	650	56	86
Angola	660	697	41
Equatorial Guinea **(new)**	700	20	32
Congo, Republic of	700	2507	31
Azerbaijan	710	107	98
Indonesia	710	4440	76
Ukraine	770	400	99
Armenia	790	36	94
Kiribati **(new)**	810	4	85
Guyana	840	17	85
Sri Lanka	840	332	99
Bolivia	900	267	91
Djibouti	900	25	53
Honduras	920	204	95
West Bank and Gaza **(new)**	930	130	n/a
China	940	18841	79
Afghanistan	n/a	1078	45
Cuba	n/a	134	99
Korea, DPR	n/a	387	62
Myanmar	n/a	1173	78
Nicaragua	n/a	173	92
Somalia	n/a	481	33
Zimbabwe	480	459	75

[24] Downloaded from website on 3 July 2003: http://www.worldbank.org/data/databytopic/GNIPC.pdf
[25] From UN data
[26] From Joint Reporting Form (WHO and Unicef)

Countries with GNI/capita >$1000

Country	GNI/Capita (USD) 2002[27]	Birth Cohort (thousands) 2001[28]	DTP3 Coverage (percent) 2001[29]
Philippines	1020		
Vanatu	1080		
Syrian Arab republic	1130		
Paraguay	1170		
Swaziland	1180		
Morocco	1190		
Turkmenistan	1200		
Belarus	1360		
Bosnia and Herzegovina[30]	1270		
Cape Verde	1290		
Albania[5]	1380		
Serbia and Montenegro	1400		

[27] Downloaded from website on 3 July 2003: http://www.worldbank.org/data/databytopic/GNIPC.pdf
[28] From UN data
[29] From Joint Reporting Form (WHO and Unicef)
[30] These countries were eligible at the outset and will not lose their eligibility

Annex 8

GAVI Board turnover

Technical Institutes

The term of the US Centers for Disease Control and Prevention (CDC) ended December 2002. At that time, the only candidate for the seat, the International Vaccine Institute, indicated that it may not be able to pay the $300,000 annual Board membership fee. During its December 2002 teleconference, the Board: "Agreed that the annual Board fees of $300,000 to support the administrative costs of the Secretariat cannot be waived … If the IVI is unable to pay this fee, another nominee will need to be identified and the CDC would continue as an observer to the Board until the seat is filled."

After further consultation, the IVI has made it clear that it will be unable to pay the fee. Therefore it is proposed that a new recruitment process be conducted for the seat, and that the CDC would remain in the seat until the end of 2003.

OECD Countries

The term of the United Kingdom (DFID) ends with the July 2003 Board meeting. France, represented by Secretary of State for Foreign Affairs Renaud Muselier, has been nominated to fill this seat. It is recommended that the Board accept this candidate, especially considering the recent announcement by France of its substantial commitment to The Vaccine Fund.

R&D Institutes

The term of Institut Pasteur ends with the July 2003 Board meeting. The GAVI Secretariat received six nominations from R&D institutes for consideration. The candidates were assessed using the following criteria:

1. Knowledge and experience in vaccine development (R & D)
2. Managerial experience
3. Developing country experience
4. Ability to pay Board seat fee (only applicable to OECD country candidates)
5. Geographical distribution on GAVI Board

Following is a summary of each candidate, in alphabetical order.

Gothenburg University, Sweden - *Represented by Professor Jan Roland Holmgren, M.D.*
Prof. Holmgren has a very strong background in science and in the field of vaccine development, he is the only applicant that has actually taken a vaccine from concept to disease control - namely in the cholera vaccine, now used widely in cholera control. He has strong experience in management and has lived in a developing country (Bangladesh). Sweden is likely to pay the fee. Europe has currently one rotating seat on the GAVI Board.

IAVI, U.S.A. - *Represented by: Dr. Seth Berkley, M.D., President*
Seth Berkley's background is in public health. He has strong experience in management of vaccine development being the founding President of IAVI which is dedicated to AIDS vaccine development. Some experience in developing countries and has been dedicated to developing country health issues for two decades. The Institute would not be able to pay the fee. Currently

there is a strong representation from the Americas in the GAVI Board (3 seats out of 10 rotating ones)

Istituto Superiore di Sanita, Italy - *Represented by Professor Antonio Cassone, M.D.*
Professor Cassone has a professional experience in immunology with relevance to vaccine development and in vaccine trials. Strong management background and limited developing country experience. He has assured that the Institute can pay the fee. Europe has currently one rotating member seat in GAVI Board.

London School of Hygiene & Tropical Medicine, U.K. - *Represented by: Professor Brian Greenwood, M.D.*
Brian Greenwood has strong experience in vaccine development in the area of clinical trials. Strong managerial experience. Has spent a substantial period of his professional life in developing countries. The Institute has indicated that they not able to pay the fee. Europe has one Representative on the GAVI Board.

National Public Health Institute (KTL), Finland - *Represented by Professor Helena Mäkelä, M.D.*
Helena Mäkelä has an excellent background in immunology and vaccine development. She has quite strong management experience and has been concerned and actively working for years on issues relevant to developing countries. The candidature has indicated its ability to pay the fee. Currently there is one rotating seat on the Board from Europe and that is the UK (OECD country).

The Oswaldo Cruz Foundation, Brazil - *Represented by: Dr. Paulo Marchiori Buss, President*
Paulo Buss is a public health expert with limited background in vaccine research and development but his institution is deeply involved in vaccine development and production. He has an excellent management background. He lives in a developing country. As an institution from a developing country the fee of US$ 300,000 would be waived. Currently there is a strong representation from the Americas in the GAVI Board (3 seats out of 10 rotating ones), but no one from Latin America since Cuba vacated its seat at the end of last year.

Conclusion:
There are several strong candidates for consideration. It is anticipated that the incoming R & D representative would chair the ADIP Management Committee, as its current Chair Rick Klausner has expressed a desire to rotate off. Therefore we consider it of key importance that the R&D representative have strong experience in vaccine development. It is therefore recommended that Professor Jan Holmgren of Sweden be represented on the R & D seat on the GAVI Board. His CV is attached as an annex. In addition, the University is likely to pay the fee through funds from the Swedish government.

Annex: Brief biosketch for Prof. Jan Holmgren, M.D., Ph.D.

Jan Holmgren, MD, PhD is since 1981 professor in medical microbiology and head of the Department of Medical Microbiology and Immunology at Gothenburg University, Sweden. Since 2001 he is also the first director of the Gothenburg University Vaccine Research Institute (GUVAX) started by the university with support from the Wallenberg Foundation.

Dr. Holmgren is the author or co-author of more than 300 original works and near 200 invited review articles in international medical-scientific journals and books in the fields of vaccinology, immunology, microbiology, and biotechnology.

Dr. Holmgren´s work on cholera has resulted in the development of a now internationally widely registered oral cholera vaccine, which is the only cholera vaccine recommended by WHO. Indeed, as an almost unique achievement and experience, Dr. Holmgren has lead this work all the way from (i) undertaking early pioneering fundamental research on the mechanisms of disease and immunity; to based on this, (ii) formulating and testing preclinically a new type of vaccine designed to give rise to protective antibacterial and antitoxic immunity locally in the gut; then in collaboration with industrial partners (iii) developing and validating appropriate large-scale manufacturing and quality control methods for the vaccine; and then (iv) initiating and participating in all stages of clinical evaluation of the vaccine both in cholera endemic and non-endemic populations (phase 1,2, 3 and even phase 4). Dr. Holmgren has also for a long time been very active in technology transfer and scientific support and collaboration with developing countries to promote local production of cholera and other vaccines in countries such as Vietnam, India and Indonesia.

In recent years Dr. Holmgren´s work has also importantly included evaluation of the use of cholera toxin B subunit (CTB) in mucosal immunotherapy interventions in diabetes and other autoimmune and allergic disorders and the use of cholera toxin- and CTB-coadministered antigens for dendritic cell vaccination or immunotherapy purposes. Dr. Holmgren currently leads active research programs in both of these areas and in the area of vaccine development against mucosal infections including sexually transmitted diseases.

Dr. Holmgren is an elected member of the Swedish royal academies for science (Medicine class) and engineering (Biotechnology class) and has received many national and international distinctions and awards, especially for his work on cholera toxin and mucosal vaccine development, e.g. the Louis-Jeantet Prize for medicine 1994. He also has served and serves on the boards of directors for many national and international foundations, institutes and biotech companies, including as current appointments e.g. The Knut and Alice Wallenberg Foundation (Sweden) BOD, The International Vaccine Institute (IVI) BOD (vice-Chair), GAVI´s Task Force for R&D, and the DOMI program (IVI and the Bill and Melinda Gates foundation) for cholera, typhoid and shigella vaccines (Chair).

Annex 9

List of participants

UNICEF

**Ms. Carol Bellamy, Executive Director, Chair of the GAVI Board
**Dr. Jean-Marie Okwo-Bele, Senior Advisor and Team Leader of Immunization Plus
*Dr. Maria Otelia Costales, Health Adviser
Dr. Paul Richard Fife, Senior Health Adviser
Mr. Stephen Jarrett, Deputy Director Supply Division
Ms. Heidi Larson, Senior Communications Officer
Ms. Marilena Viviani, Senior Programme Funding Officer

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**Dr. Mamphela Ramphele, Managing Director
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Ms. Ruth Levine, Senior Fellow, Center for Global Development
Ms. Violaine Mitchell, Co-ordinator, GAVI Financing Task Force

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**Dr. Richard Klausner, Executive Director of Global Health
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WHO

**Dr. Gro Harlem Brundtland, Director-General
**Dr. A. Asamoa-Baah, Executive Director, Health Technology and Pharmaceuticals
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BRAC
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Dr. Chris Elias, President

Vaccine Industry

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Industrialized countries
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Ms. Alice Albright, Vice President & CFO, The Vaccine Fund, Washington
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Mr. Alex Palacios, Executive Vice President, Resource Mobilization, Washington

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