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# Achieving our immunization goal

GAVI

Final report

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# Background for study

As most readers are aware, early immunization appears to be one of the most cost effective health interventions available. Especially for populations in highly burdened areas, access to immunization has a large beneficial impact on children's health, secondary benefits on the general population's health, and longer-term economic benefits on poverty. To date, the relationship between the need, cost, and impact of increased access to immunization is not fully established. Dramatically increasing immunization coverage is likely to be costly but attainable. And, the impact in terms of lives saved is expected to be very significant; perhaps in the order of 1 in 20 children dying from preventable diseases today in the unvaccinated population.

Thus, GAVI and its partners have committed help countries achieve the 80/80<sup>1</sup> goal and are working to reach it. Achieving the 80/80 goal is challenging. It requires countries to address coverage drivers and barriers across diverse areas from increasing local awareness to building out infrastructure. Fifty-six of the 75 Vaccine Fund eligible countries must increase coverage to meet the target by reaching some of the 31 million unimmunized children. The target requires improvement in hundreds of districts across the world. Prior to this study, some observers questioned whether current efforts were sufficient to reach and sustain vaccination rates at target levels, hence requiring alternative strategies.

At the Global Alliance for Vaccines and Immunization (GAVI) Board teleconference in October 2002, the Board asked McKinsey and Company (McKinsey) to develop "a strategic framework to increase access to routine immunization within the overall health sector." The study was to be conducted in three phases in collaboration with wide range of GAVI partners (Exhibits 1-3). A first phase focused on understanding the current coverage situation and forecasting the likely evolution over the coming years. A second phase looked at strategic options for GAVI to reach the coverage goal. The report highlights the most attractive options based on input from a wide range of stakeholders including more than 15 developing countries, over 90 international and regional experts, bilaterals, various others, and the Board. A third phase synthesized the findings and articulated implications for management structures at the global, regional and country levels.

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<sup>1</sup> The 80/80 target refers to 80 percent district level DTP3 coverage in 80 percent of all countries

The project recommendations were presented to the GAVI Board at its meeting in New York in March 2003. This report takes into account the outcome of that meeting. Input is welcome, as the Access Topic will again be raised at the July 2003 Board meeting.

We want to thank everyone who supported McKinsey in this challenging effort.

## Executive summary

Global estimates indicate that as many as 34 million infants are not immunized every year. Of these, 31 million are found in Vaccine Fund (VF) eligible countries. Providing immunization to these children has the potential to save about 2 million additional lives per year and reduce global under-5 mortality by 20 percent.

Over the last two years, we have seen signs of a modest increase in global immunization coverage rates<sup>2</sup>. While the specific drivers of the increase are unclear, country interviewees often cite GAVI/VF mechanisms as partly behind this development (e.g., Immunization Service Strengthening (ISS) funding, multi-year plans).

Country multi-year plans project that coverage will increase throughout the current planning period to 2005. Straight extrapolation of individual country plans suggests most countries would reach the UNGASS<sup>3</sup> target of 80 percent coverage in every district by 2007 to 2008. However, our estimates of coverage evolution suggest 80 percent of VF-eligible countries will only reach 80 percent coverage after 2010, if ever. Thus, more efforts than those in current plans will be required from countries and from GAVI partners.

To meet coverage aspirations, country-specific and health sector barriers as well as global drivers need to be addressed. Effective interventions seen at both levels provide opportunities to accelerate coverage increases. However, localized and tailored solutions are required to ensure sustainable improvements in coverage that eventually benefit the entire health system. A set of best practice interventions has been documented on the country and international level.

Countries have been grouped according to the most important barriers as a means to provide management focus and insights for GAVI partners. For example, we have grouped countries with multiple barriers likely to require integrated turn-around approaches, implying high investments and slower expected coverage growth in return. On the other hand, another group of countries facing more limited barriers could benefit from narrower approaches and more rapid coverage growth can be expected. At the global level, great challenges, such as those posed by HIV/AIDS and the costs of introducing new vaccines, may slow coverage increases. Newer vaccines and the positive spillover from polio investments in

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<sup>2</sup> Immunization coverage in this report generally refers to DTP-3 coverage that has been used as indicator for routine immunization.

<sup>3</sup> United Nations General Assembly Special Session

equipment and personnel training, on the other hand, could speed up coverage increases.

## **KEY ELEMENTS OF THE PROPOSED GAVI STRATEGY**

The challenge for GAVI partners and participating countries is not developing new plans, but the hard work of achieving the plans already in place. It is apparent that some countries will achieve their goals with current GAVI mechanisms and support while others will fall short. The critical issue is whether GAVI and partners will pursue additional actions to help countries reach their targets and if so, how?

The first step in defining GAVI's coverage strategy is formulating the objective underlying the strategy. Based on the current situation and our discussions with partners, we believe GAVI can meet the 80 percent district level coverage goal before 2010 by encouraging and supporting countries to pursue their own targets. This will promote progress towards Millennium Development Goals<sup>4</sup>.

The differences among the barriers to increased coverage between countries (and sometimes within them) mean that GAVI may need to move beyond one-size-fits-all solutions. As a result, we have proposed a strategic and managerial framework for GAVI's partners to apply their collective leadership and local capacity over time in a flexible and value-added way to drive the greatest level of sustainable immunization.

The proposed strategy is shaped by the following design principles:

- ¶ Local solutions that reflect country (or sub-national) challenges
- ¶ Country ownership of goals and plans
- ¶ Targeted supplemental partner assistance
- ¶ Targeted incremental financial support
- ¶ Increased leverage of country's experiences and expertise
- ¶ Flexibility in responding to the evolving situation by GAVI's partners

There are three major areas that define how GAVI's partners could accelerate coverage growth. First, the Alliance should consider whether and how to assist countries that fall behind their own coverage targets. Second, the Alliance should

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<sup>4</sup> At the Millennium Summit in September 2000, the states of the United Nations commonly accepted the Millennium Development Goals as a framework for measuring development progress and elimination of poverty. The fourth goal calls for reducing the under-five mortality rate by two-thirds between 1990 and 2015.

explore additional initiatives that benefit all countries or specific segments of countries with common expansion levers. Third, GAVI's partners should explore how to leverage existing and new financial resources to close the funding gap to reach the immunization goal. Specifically:

- ¶ *Enhanced efforts in countries that fall behind their own targets.* Today, 14 countries are not meeting their own immunization targets, and it is likely that in the future more countries will fall behind. In some of these countries, incremental financial or non-financial support could unlock coverage increases. Rather than launching a large-scale new program, GAVI's partners could explore different ways to support coverage increases within the context of ongoing activities through directly supporting countries lagging their own plans. This support could be structured in a simple three-step process: 1) countries and GAVI partners need to reaffirm their local commitment to immunization as an important part of health care service delivery; 2) they would develop a joint assessment of the health service delivery and immunization barriers and potential solutions which would result in a specific set of actions and resource requirements for GAVI review; and 3) they would undertake the agreed enhanced efforts on a collaborative and integrated basis. GAVI does not have to successfully help every country to reach the overall coverage goals, but a high success rate is required making this a critical activity.
  
- ¶ *Cross-cutting activities to increase coverage across countries or in specific segments of countries.* We have identified opportunities to focus existing initiatives on countries where they are most needed. For example, GAVI's partners could focus their advocacy efforts, Financial Sustainability Plans (FSPs), and Data Quality Audits (DQAs) on country segments with specific barriers in these areas, while not excluding other countries from these activities. We have also identified opportunities to strengthen activities in the areas of vaccine economics, training, and knowledge sharing between countries.
  
- ¶ *Helping countries leverage financial resources.* On a macro level, growth of 8 to 9 percent per year in immunization spending will be required to meet the coverage targets. This represents a substantial funding challenge in aggregate that needs to be met. GAVI partners and countries will assess gaps between required and available resources to accelerate coverage growth where coverage is lagging plans. In some cases, where financing is a primary barrier, the Alliance could assume a role as a catalyst to encourage reallocation of existing bilateral or multilateral support or to secure additional funding.

## **EXPECTED IMPACT**

Based on our analysis, we believe the proposed actions, if successfully executed, would enable VF-eligible countries to realize the ambition of 80 percent coverage at the district level by 2010. This entails scaling up efforts to immunize between 20 and 25 million of the 34 million children who are not immunized globally; thereby reducing the number of children lacking immunization by over 70 percent and preventing another 600 to 700 thousand deaths each year from 2010. This requires an increase in the aggregated global spending on immunization (plus new vaccines) in the 75 poorest countries at a rate of 8 to 9 percent per year. If countries can pick up half this increase internally short term, then the total spending would be an incremental USD 70 million to USD 100 million in 2004 and USD 100 million to USD 200 million each year starting in 2005.



# Main report

Over the past several months, McKinsey has worked with a number of GAVI partners on assessing the current coverage situation and defining strategies to expand coverage and meet the 80/80 immunization goal.

The following report synthesizes our findings and recommendations. The report references supporting exhibits that are attached. These present detailed findings and underlying analysis.

## **SYNTHESIS OF SITUATION ANALYSIS**

In 1999, the GAVI alliance was formed. Soon thereafter, the Board endorsed the 80/80 target set by UNGASS and formulated an ambition to achieve it by 2005. In 2001, after the target was set, the officially reported coverage in VF-eligible countries was reduced from 76 to 65 percent. This increased the immunization coverage gap by 10 million children.<sup>5</sup> In 2002, the global UNGASS target for 2010 of 90 percent national—and 80 percent district coverage was set to support the Millennium Development Goal of reducing the mortality of infants under the age of five by two thirds in the period between 2000 and 2015.

We are starting to see early signs of increasing coverage. Since the inception of the Alliance, routine immunization has received more attention, and interviews reveal indications of a third global upswing in coverage following the EPI (Expanded Program in Immunization) and UCI (Universal Childhood Immunization). GAVI has requested, approved, and funded a variety of country plans through the ISS and the vaccine purchase programs. These multi-year plans, typically extending to 2005, reveal countries' current focus on immunization and ambition to significantly increase their coverage levels. In many cases, these plans are supported by detailed analyses of the drivers of increased coverage, and in most cases, countries are attempting to expand coverage in a sustainable and integrated fashion. However, not all countries are expected to reach the coverage goal of at least 80 percent in every district by 2005.

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<sup>5</sup> Implementation of UNICEF and WHO "best estimates" in countries lead to downward revisions in coverage data in about 15 out of the 74 VF-eligible countries. Among them, India and China account for 80 percent of the 11 points revision.

## Current coverage and likely evolution

Each year, 34 million newborns do not receive the basic six vaccines. Thirty-one million of them live in VF-eligible countries. They account for approximately 2.2 million or 20 percent of the 11 million global deaths among children under the age of five. Drawing on the expertise of GAVI partner's field personnel and direct interviews with countries, the McKinsey team has projected country-by-country coverage to assess the likelihood of achieving GAVI's goal. Through this process, the team identified the major drivers of coverage expansion in each country, reviewed the country's planned activities to expand coverage, and modified countries' forecasts accordingly. Downward revisions have been made in 27 of the 75 countries in the study. The forecast is presented as a "base case" for coverage development going forward. (Exhibits 4-24)

In addition, there are a number of higher-level uncertainties regarding the potential to dramatically increase or decrease the evolution of coverage across many countries. On the negative side, these include vaccine supply shortages, longer than expected polio eradication, resource drain from HIV/AIDS-related efforts, emergency situations, potential vaccine supply shortage, and increasing immunization program costs. Potential upsides for immunization include broader access to new and combination vaccines and the positive spillover effects of polio seen in some cases. These uncertainties have been accounted for in the base case where possible.

As presented to the Board in December 2002, the findings suggest significant progress. Extrapolation of current country plans indicates that 80 percent of VF-eligible countries are on their way to exceed the 80 percent coverage in every district by 2007 to 2008<sup>6</sup>. Although this is later than the 2005 target, the underlying country plans probably represent the upper level of achievable coverage increase in many countries. Not all countries will meet the aspirations and not all plans will achieve the aspired 80 percent district coverage level. Whereas country plans target immunization for an additional 16 million children in 2005, this number is likely to fall short at 8 million children (Table 1). Thus, VF-eligible countries appear more likely to reach the 80 percent district level coverage target by 2010 to 2012, at the earliest. This calculation is obviously highly uncertain since it requires extrapolation beyond the planning period of most country plans.

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<sup>6</sup> Team used a proxy of 90 percent national coverage for 80 percent coverage in every district because full district level coverage data is currently available only in a few of the submitted plans.

**Table 1: Number of children without basic immunization in VF-eligible countries (Millions).**

Region	Current (2001)	Countries' plans 2005	Base case 2005	Base case 2010	Shortfall of plans vs. base case 2005
AFRO	10.7	5.8	8.2	4.0	2.4
AMRO	0.2	<0.1	0.2	<0.1	0.1
EMRO	3.8	1.7	2.8	2.0	1.1
EURO	0.1	<0.1	0.1	<0.1	0.1
SEARO	11.8	5.8	8.8	5.0	3.0
WPRO	4.3	1.5	2.9	1.0	1.4
<b>Total</b>	30.9	14.9	23.0	12-13	8.1

### Key drivers of large differences in coverage

Countries with different coverage performance have been compared on a number of dimensions to identify general performance drivers (Exhibits 25-38). While we conclude that the challenges faced by countries are very different, as highlighted in our barrier assessment, some drivers are shared. They include:

- ¶ *Negative cycle that reinforces low political commitment in many low-performing countries.* In countries with decreasing and/or lagging immunization coverage, the basic platform of commitment at different levels of government is often not in place, or major distractions prevent decision makers from focusing on routine immunization. As a result, financial resources are not used and managed efficiently, which in turn erodes delivery system quality. Over time, community demand for services decreases due to poor quality and the unreliable provision of services. Central political commitment to immunization remains low because the community does not demand the service and a negatively reinforcing cycle is established.
- ¶ *The specific types and magnitude of barriers vary between and within countries.* Our barrier assessment presented to the Board in December shows that some countries face a broad set of barriers across their entire health service delivery system (a segment we call Turnarounds), whereas other countries face a more limited set of constraints in their health services (i.e., Selective Interventions). Differences within countries can be equally significant, necessitating sub-national examination. Understanding the actual prevalence of these barriers, both measured at a country level and against the number of unimmunized children, is important for guiding managerial actions and decision-making. Table 2 summarizes our assessment of these barriers.

**Table 2: Prevalence of primary *and* secondary barriers for immunization scale-up**

<b>Barriers</b>	<b># of countries</b>	<b># of uninmmunized (Millions)</b>	<b>Comment</b>
<b>Political and financial commitment</b>	30	19	Primary barrier in 14 countries. Often one of the major barriers in turnaround countries
<b>Physical infrastructure and equipment</b>	30	14	Primary barrier in 16 countries along with lack of commitment and management in turnarounds
<b>Monitoring and information system</b>	33	26	Primary barrier in 8 countries. One of the major barriers in large countries such as India and China
<b>Management and human resources</b>	40	25	Primary barrier in 18 countries. The most frequent overall barrier
<b>Social mobilization and demand creation</b>	21	17	Barrier often prevalent as secondary and tertiary constraint linked to political commitment

- ¶ *Best practice countries have established a virtuous cycle that reinforces demand and commitment to high quality services.* Countries that have successfully increased and sustained high coverage generally have a platform of political commitment and willingness to invest in primary health care, including child and prenatal health care. As a result, key drivers of quality services are put in place, which reinforce community demand. There are both centralized and decentralized successful models. Decentralized models typically require monitoring and strong second/third level management to ensure district performance.
- ¶ *In most successful countries, immunization is an important part of an integrated primary health service delivery system.* Interviews with country representatives suggest that there are at least three key drivers of integrated thinking at the country level. First, integrating immunization into primary healthcare services is cheaper in the long term (due to no parallel service lines). Second, the ability to deliver an integrated package significantly increases community demand. In interviews, it was emphasized that communities demand the provision of additional health services along with immunization, which is often their only contact with primary health care services (e.g., areas dependent on remote out-reach programs). Third, it is often difficult to attract health workers for isolated

immunization, as they preferred working with a broader set of both preventive and curative tasks at a local/community level.

### **Current strategies used to increase coverage and impact**

The efforts led by countries that are successful at increasing coverage could serve as a potentially rich menu of techniques that could be applied in a cost effective manner. Our interviews with representatives from more than 20 countries indicate that, e.g., alternative resources from the private sector and NGOs are increasingly contributing to increased coverage and that some ICCs are successfully integrating immunization into a broader health package. The innovative and effective approaches used by countries to raise immunization coverage include (Exhibits 39-44)

- ¶ *Using the private sector to increase contact points can offset some infrastructure weaknesses.* In Malawi, a USAID, funded public/private partnership with Tea Plantations, resulted in expanded health care facilities and services for employees without access to primary healthcare. In certain districts, about 30 percent of the population has gained access to immunization and vitamin A supplements.
- ¶ *District level micro planning can increase service quality and reliability.* Management and human resource barriers at a district level often lead to poor and unreliable services. However, district level micro planning can directly address these barriers and improve the effectiveness and quality of service delivery. In Nigeria, for example, UNICEF recorded 10 to 30 percent annual increases in coverage in selected districts as a result of rigorous district level micro planning as part of a broader Child Survival program.
- ¶ *District performance competitions can be leveraged to overcome managerial barriers and improve quality of services.* In Indonesia and Tanzania, monitoring data from clinics and other health performance indicators are benchmarked to share learning and encourage a sense of competition. Provinces in Indonesia have seen coverage increases of between 4 and 9 percent in one year using this approach. In an interview, the MoH in Tanzania pointed out that high district empowerment combined with peer competition is an important driver of high coverage in Tanzania.
- ¶ *Social marketing methods can be applied to national communication strategies to raise immunization coverage.* A national communication strategy developed by UNICEF was introduced in Nepal in 2002 adopts a new immunization theme each quarter. Immunization is promoted through mass media and inter-personal communications, via health

workers, local leaders, traffic-police, and rickshaw drivers, among others. The Government of Nepal is a leading investor in this successful campaign.

- ¶ *NGO and governmental collaboration can help overcome both delivery- and demand-related barriers.* In Bangladesh, e.g., the national NGO “BRAC” is involved in conducting training programs for community leaders (Headmasters and Imams) to allow them to actively participate in planning, delivering, and monitoring immunization. Surveys from over 10 districts in Bangladesh show that NGO involvement in immunization has been a key driver in sustaining high coverage. This is confirmed by surveys in some other countries indicating that NGOs can have significantly higher credibility among communities than the government and that it is much easier for them to raise the profile of interventions such as immunization within the community.
- ¶ *Innovative, community level programs can be highly effective in overcoming demand barriers.* In Indonesia, the “little doctors” program trains children to increase the awareness of immunization among families in remote communities. In some districts, sustainable increases of 33 to 81 percent in coverage have been observed in the first two years of the program. This is only one of several approaches used to mobilize community demand. Other highly effective channeling approaches are seen in measles and polio campaigns that leverage schools, the private sector, and other non-traditional channels.

At an international level, initiatives targeting major diseases pose valuable approaches for scaling up health interventions. Several global initiatives targeting diseases such as polio or river blindness are known for their distinctive strengths and track records. Even if their objective is different than GAVI’s, helpful best practices could be abstracted by assessing key performance areas across initiatives.

## **STRATEGY OVERVIEW**

As we mentioned before, the challenge for GAVI partners and participating countries is not developing new plans, but it is rather the hard work of achieving plans already in place. It is apparent that some countries will achieve their goals with current GAVI mechanisms and support while others will fall short. The critical issue is whether GAVI and partners will pursue additional actions to help countries reach their targets and if so, how?

The differences among the barriers to increased coverage between countries (and sometimes within them) mean that GAVI will need to move beyond one-size-fits-

all solutions. As a result, we need to define GAVI's involvement and develop a strategic and managerial framework for GAVI's partners to marshal and apply their collective leadership and local capacity over time in a flexible and value-added way to drive the greatest level of sustainable immunization.

The first step in defining GAVI's coverage strategy is formulating the objective underlying the strategy. Based on the current situation and our discussions with partners, we believe GAVI can make a substantial contribution by encouraging and supporting countries to pursue their own targets towards 80 percent district level coverage goal before 2010. This will support the work towards the Millennium Development Goals and is consistent with most countries set targets. Since the likely evolution of immunization coverage across countries is lower than the UNGASS targets, GAVI would need to selectively increase support to drive country coverage programs.

Based on the current situation and forecasts, the strategy moving forward will have to address four main pillars:

- ¶ Design principles
- ¶ Enhanced efforts in countries
- ¶ Cross-cutting activities to increase coverage in all or specific segments of countries.
- ¶ Need to leverage financial resources

### **Design principles**

The first step in defining GAVI's coverage strategy is formulating the vision and objective underlying the strategy (Exhibits 45-48). Our discussions with partners over the course of the project point towards following options:

- ¶ *Option 1.* GAVI's partners could intervene aggressively to encourage and support countries to reach the 80 percent coverage target in all districts by 2005. This would require countries to raise their ambitions and exceed current plans.
- ¶ *Option 2.* GAVI's partners could rely on the countries' own progress even if their ambition level is not aligned to targets. Although significant progress in immunization could be made, countries are likely to fall short, leaving the Alliance in the potential situation of not even meeting its district level target of 80 percent by 2010 to 12.
- ¶ *Option 3.* GAVI's partners could encourage and support countries to pursue their own targets towards the 80 percent district level coverage target by 2010, which would still support the UNGASS goal. Since this

target is higher than the likely evolution of coverage, GAVI's partners would need to selectively increase support to country coverage programs.

- ¶ *Option 4.* GAVI's partners could replace the 80/80 goal with a target to increase total immunization levels and focus its support on the countries that have the largest number of children without basic vaccinations.

Based on our conversations with GAVI's partners and our own assessment of the Alliance's ability to influence immunization outcomes, we recommend Option 3. That is, we recommend GAVI to support countries to reach their own ambitions, while being prepared and willing to increase partner support selectively in those countries failing to reach their immunization targets in percentage or absolute terms. Based on the country five-year immunization plans, GAVI can monitor progress and identify the countries that are unlikely to reach their 80/80 coverage target by 2005. These countries will need additional resources to increase coverage by more than 50 percentage points over the next three years in an integrated and sustainable fashion.

If GAVI adopts the more passive approach suggested by Option 2, it might not reach its goals even by 2010, which most partners view as an unacceptable outcome. Option 4 would represent a major shift in GAVI's strategy and approach and several significant perception issues related to equity and consistency would have to be addressed. In practice, elements of Option 4 may be subsumed into Option 3, based on our initial view on which countries are likely to struggle in reaching their targets.

A number of design principles are likely to shape the strategy required to achieve the recommended vision and objective. These design principles include:

- ¶ *Local solutions will be necessary.* Since the situation in each country varies significantly, local solutions will be necessary. Local immunization programs are typically integrated into the delivery of other health services. Our situation analysis shows that many countries, especially in the segment of turnarounds, face multiple barriers in their health service delivery system. Without an integrated, broad system-approach, these barriers are difficult to remove. Still, the nature and scope of solutions will have to be defined at a national or sub-national level and ultimately decided by the individual countries.
- ¶ *Country ownership of the goals and plans is essential.* To ensure sustainable, routine immunizations, countries need to own the process and feel accountable for goals and plans. Ultimately, each country will be responsible for most of the funding for their immunization programs. Likewise, countries will largely have to carry the increased cost of scaling up immunization within the broader health care system.



- ¶ *Some countries do not need additional assistance whereas others need heavy support.* Some countries will achieve their goals with currently committed resources. Others will likely require additional support (financial and non-financial) to reach their targets in a timely manner. GAVI's partners must have a clear picture of the real immunization levels and the flexibility and mindset to respond to situations as they emerge.
- ¶ *Additional funding will be required.* While incremental governmental financial commitments will be required, achieving GAVI's goals will likely require additional bilateral and multi-lateral financial support in several countries. Many of these countries already receive other assistance on a bilateral or multi-lateral basis.
- ¶ *Countries experiences are a valuable asset that should be more broadly accessible.* There is a rich base of potential best practices relevant to countries developing local strategies to increase coverage. We have documented some, but many more should be systematically captured and shared.
- ¶ *Need for flexible assistance to empower countries to take ownership of immunization challenge.* GAVI is an alliance designed to capture scale and collaboration benefits. It is not intended to emerge as an alternative provider of vaccination-related services for any given country. Partners will be differentially positioned to help with certain problems in certain countries. GAVI needs the flexibility to marshal the best resources for the situation and ultimately empower countries to reach sustainable immunization targets on their own.

Building from these principles, we believe the Alliance should modify its current approach given three priorities (Exhibits 49-50):

- ¶ GAVI should catalyze enhanced efforts in countries that fall behind their own targets
- ¶ GAVI should prioritize and target cross-cutting activities to increase coverage in all or specific segments of countries
- ¶ GAVI's partners should consider additional financial support in countries where financing is a problem beyond prior country – and donor- commitments.

## **Enhanced efforts targeting countries falling behind their own targets**

Enhanced efforts by partners, catalyzed by GAVI, are likely to be needed in countries significantly missing their targets. Through ongoing discussions, we have learnt that GAVI's partners are clearly concerned about delivering such assistance through a new program-based, large-scale effort. Rather, several partners support an approach based on integrating enhanced efforts into current work, leveraging existing channels and mechanisms to enable coverage growth (Exhibits 51-55). This means that these efforts should be designed on a country-by-country basis and integrated into ongoing activities as much as possible. The overall approach to diagnose the level and type of assistance needed, the menu of solutions, and the planning templates can be standardized. However, the execution of enhanced efforts will likely be very different from country to country.

A three-step process is proposed to structure enhanced efforts in countries in need of additional support. The following three steps would yield a clear go/no-go decision on individual initiatives at the country level:

1. *Reaffirm situation and commitment.* The core objective of any first step would be to engage countries and partners in a process that reaffirms commitment to the immunization goal and builds up governmental and partner momentum to accelerate immunization growth. A clear go/no-go decision would need to follow this phase based on if countries express their commitment to immunization and a clear belief exists that GAVI partners can assist. In some cases, this first step might be sufficient to mobilize already committed resources to help the country move towards its own targets, so no subsequent actions would be required.
2. *Tailor enhanced support plan.* If the required commitment is in place and more assistance is needed, a second phase could be undertaken to identify the key health system barriers to increased coverage growth. Based on the existing barrier analysis, a plan would be developed to support (financially or non-financially) enhanced initiatives. In many cases, the plan could target efforts on a sub-national level.
3. *Provide enhanced efforts.* If gaps remain calling for broader assistance after barriers and solutions are comprehensively assessed, GAVI's partners should move into providing the needed supplemental support to the country in question.

To identify countries in need of enhanced efforts, GAVI needs to put in place a coverage monitoring system that twice a year compares actual coverage to country plans. The Board would propose countries in likely need for enhanced efforts and the ICC's would verify the situation and plan efforts to catch up with the plan.

While countries falling behind their targets receive assistance, countries that reach their targets should receive positive recognition and financial rewards as defined under existing GAVI protocols for ISS.

As a first step, countries that are candidates for additional support should be encouraged to seek out a primary contact organization in the GAVI partnership that would in turn serve as their “facilitating partner.” The facilitating partner will 1) work with the country to confirm actual coverage levels and reaffirm commitment at all relevant levels of the government to meet the multi-year plan targets; 2) assist the country to perform or secure resources to perform the diagnostic; and 3) focus on the country throughout the time period required to remedy the situation or until it is decided to shift the focus elsewhere. Governments are anticipated to turn to and collaborate with the “facilitating partner” of their choice based on prior experience. For guidance purposes, the characteristics of a “facilitating partner” include:

- ¶ Longstanding government relationships and access at the immunization, health sector, and overall levels.
- ¶ Strong relationship and ability to work productively with other GAVI’s partners within the relevant country.
- ¶ ICC membership and ability to work with the government to reform the ICC as required.
- ¶ Ability to commit human resources to up-front diagnostic and solution development work and ongoing implementation support in areas, such as coaching the EPI manager and other health managers, addressing health system barriers, and skills building (e.g., up-front work could be demanding and ongoing support might amount to a 10 percent time commitment from a country-level manager supported by adequate staff resources for multiple years).

Throughout the process, the lead facilitating partners would collaborate with other ICC partners, NGOs and the government. The ICC function should be encouraged to get all stakeholders at the country level involved. Re-visiting the ICC structure and function in countries might also include strengthening the roles of the ICCs in general health sector coordination (e.g., formalizing their relationship to CCM or forming a super ICC/CCM that are enabled to address several health priorities in an integrated way). Providing enhanced efforts will likely demand an incremental commitment of resources from the country and GAVI’s partners. Thus, enhanced efforts should be used selectively. In setting the right “hurdle rate” for selecting countries eligible for the assistance, we propose two approaches:

- ¶ *Offer enhanced efforts in the minimum number of countries required to reach the target 80 percent district level coverage by 2010. At this point,*

only a few VF-eligible countries are missing their targets. Only in a subset of these countries, however, additional GAVI efforts can make a difference. For example, conflicts and other major distractions in some countries make expanding immunization either impossible or poor investments from a health-economic perspective relative to other opportunities. In order to reach the sought-after 80 percent district level coverage, GAVI's partners must ensure that 60 countries reach their plans. Today, as many as 30 of them anticipate difficulties.

- ¶ *Maintain the bar high enough so that GAVI's partners can deliver a high level of attention to the countries where assistance is provided.* GAVI's partners need to define clear prerequisites for when to consider enhanced efforts. As many countries oscillate around their own targets, setting the bar too low will result in additional efforts towards countries that would otherwise reach their ambitions with current support. Setting the bar too low also distracts from clearly needy cases and creates an unwarranted sense of failure.

Based on these two principles, enhanced efforts should be reserved to countries already missing their own targets by more than 10 percent or 100,000 children. In view of this standard, 14 countries are already candidates for additional assistance. In ten of these countries, GAVI's partners could play a significant role in accelerating coverage increases. These ten countries represent 67 percent of all children lacking basic immunization in VF-eligible countries. Including all countries missing their targets would extend GAVI's support to six more countries, where only 2 percent of the children without immunization are found.

The base case projects that an additional 10 to 15 countries will miss their targets by 2005. In total, 8 million children will be "missed" and will not receive any additional assistance. Thus, GAVI's partners should monitor the situation in all countries closely to be prepared to assist as appropriate.

### **Tailor and refine cross-country activities to increase coverage in all or specific segments of countries**

GAVI's partners can do more than provide assistance to countries falling behind their own targets. GAVI's partners can take actions to improve coverage across all or some country segments to increase the likelihood of reaching the 80 percent district coverage by 2010. Moreover, the Alliance would have longer-term impact by contributing to county ownership, sustainability, and integration of immunization into a broader health program.

Today, GAVI's partners are pursuing a number of initiatives with increased immunization coverage as a primary or secondary objective. These include ISS support, FSPs, DQA, promotion of ICCs, and advocacy. Developing a coverage

strategy includes re-visiting these activities and their impact on coverage as well as exploring opportunities to broaden the scope of some activities believed to drive coverage. To identify how GAVI should proceed, a series of options have been evaluated based on their fit with the Alliance and their potential impact on the different countries (Exhibits 56-61).

Based on this assessment, we proposed some adjustments to GAVI's current activities and other cross-cutting initiatives. All of these adjustments would contribute to GAVI's ability to leverage knowledge and know-how on shared issues across segments and countries while focusing on cross-cutting activities with the highest impact. The proposed adjustments to current activities include:

- ¶ *Focused advocacy.* GAVI plays an important role in raising the profile of immunization at the national and international level. GAVI's current impact on advocacy is achieved mainly as a secondary effect of its established processes and mechanisms. The introduction of new vaccines and the FSP process, intended to increase the value and sustainability of immunization, have a clear impact on the impact of advocacy. In some cases, these processes have resulted in countries declaring immunization as a national priority area (e.g., Dakar), highlighting the potential of alliance advocacy. Building on these early success stories, GAVI should increase advocacy efforts and focus on direct activities towards governments and other national decision-makers. Moving forward and according to the proposed "hurdle rate," GAVI should focus on the 14 countries (accounting for 21 percent of children without basic immunization) with political commitment as primary barrier. The currently proposed ACTF activities could be oriented towards these countries to forge a more country-focused advocacy strategy. The ACTF has already started to collaborate with the FTF on an advocacy module linked to the FSP. Thus, the strategy could be linked to the prioritized FSP process proposed below. The idea is not to change the content of current efforts, but to re-visit where they are applied and which countries could benefit the most over time.
- ¶ *Prioritized FSPs.* FSPs have already been prepared in about 12 countries. . The plans have gained a lot of attention and appreciation from stakeholders and are viewed as effective means to increase financial planning and support for immunization at the central governmental level. Countries are currently prioritized based on their original application date for GAVI's support since the FSP is part of the multi-year agreement between GAVI and the countries. Our country assessment indicates a particular need for an early FSP in the 12 countries (accounting for 16 percent of children without basic immunization) with lower than average total spending on health care and with low perceived political and financial commitment.

¶ *Targeted DQAs.* The DQAs are part of GAVI’s efforts to improve monitoring and reporting accuracy and transparency. They are intended to ensure the quality of the data required for GAVI’s performance-based ISS support. GAVI’s reward payments are only disbursed after countries have “passed” their DQA. Today, the quality of reported data varies across countries. We have seen countries such as Indonesia creatively use district-level immunization information to drive improvement of overall immunization levels. Thus, it is critical to monitor progress more closely and improve DQA accuracy. A number of countries have monitoring and evaluation barriers as largely confirmed by the deviations seen in the UNICEF and WHO surveys and the newly established “best estimate” process. GAVI could focus its DQA-related efforts towards these countries in the near term and then expand to include more countries to ensure that rewards are disbursed in a timely manner.

In addition to the proposed adjustments, GAVI should pursue efforts in three other areas increasingly important in securing broader coverage. Even if the efforts would initially focus on VF-eligible countries, their applicability and value could extend to other countries. These efforts include:

¶ *Vaccine Delivery Management and Economics Initiative.* Historically, relatively more attention has been paid to funding immunization than understanding ways to reduce costs. Current GAVI efforts through the FTF and countries’ FSPs have shed considerable light on the drivers of immunization cost and estimated future funding needs. They show that immunization costs vary greatly between countries. Part of the variation can be explained by geographic and demographic differences. However, a significant part of the costs reflects variations in operational effectiveness. Going forward, effective use of financial resources will be increasingly important countries assume the financial burden of newer vaccines. Our rough estimates, based on comparison of EPI program delivery costs between countries and McKinsey’s operations experience, indicate that improving the vaccine delivery system could result in cost savings of 10 to 20 percent of the EPI budget in an average VF-eligible country. This would correspond to USD100 million to USD 300 million in savings based on an estimated annual immunization spending of USD 1 billion to USD 1.4 billion in VF-eligible countries. On top of that, a number of innovations can also reduce costs, e.g., heat stable vaccines, two-temperature cold chain systems (reducing waste), and improved dosage schedules. Given the rising cost of vaccines in most countries, such an initiative could be “self-funding”. To address this potential, GAVI should consider investing in the proposed “Vaccine Delivery Management Economics Initiative” with a research arm and a country

implementation arm. Key activities in each area as well as a proposed organizational model and funding configuration include:

- *Vaccine delivery economics research arm.* A knowledge initiative could be initially focus on understanding cost drivers in vaccine delivery, assessing potential savings from different approaches, and prioritizing how they can be captured at a national level. This would result in a list of focus areas and an “operations research portfolio”.
  - *Country implementation arm.* To demonstrate “proof of concept” for improved vaccine delivery economics, GAVI could fund short “pilots” of limited scale in specific operational areas (e.g., logistics, HR management, and scheduling). Lessons could then be rolled out to other countries.
  - *Organizational setup and funding.* Among the options evaluated, FTF could be expanded to include the initiative or a separate task force hosted by a partner could drive the initiative. We suggest launching the initiative with an initial phase (approximately 6 months) aimed at identifying the most important leverage points for the initiative and developing an organizational structure based on identified focus areas. The funding for the initial phase is estimated at approximately one third to half of the current FTF budget, or USD 1.2 million to USD 2 million over the next 12-month period. Over time, the initiative has the potential to become self-funding based on cost reductions at the country level or reduced vaccine purchase costs by GAVI.
- ¶ *Knowledge-sharing network.* Interviews indicate that innovative approaches to address immunization constraints are often not shared or only after a lengthy delay. Building on both traditional and web-based approaches within the GAVI training sub-group (ITAG), a knowledge management system for rapidly transferring immunization experience between countries could be created with a relatively small investment. At its core, the knowledge management network would have a small knowledge management staff, a knowledge directory available to all EPI managers organized around typical issue areas, and a technology-enabled system for peer-to-peer and GAVI-to-country information sharing.
- The initiative could be hosted (at about USD 300,000 per year in incremental cost) by a GAVI partner organization with training as part of its organization or within the GAVI secretariat.
- ¶ *Training program development and consolidation.* High staff turnover, new technologies, and the overall scale-up of immunization drive an increasing demand for training in VF-eligible countries. Although not empirically linked, countries making progress towards their targets

increasingly invest in training. Moreover, interviews indicate that several countries spend large parts of ISS resources on training while some EPI managers report spending as much as 50 percent of their time in training and meetings. Apparently, an ample number of organizations can supply training (more than 20 organizations provide immunization training at an international level). However, we have learned that it is difficult for countries to choose the right program or combination of programs. In response, GAVI could work on defining the best training program options for countries to meet their coverage targets.

- *GAVI's expertise and capabilities.* GAVI's partners are among the largest international providers of training. GAVI could play an active role in coordinating partners to ensure that all countries' training needs are met. In addition, by establishing a "core curriculum" GAVI could help managers get the right training and perhaps create a personal rewards incentive system.
- *Proposed set up.* The program should be developed through a 4 to 6-month effort driven by a team consisting of major stakeholders and country representatives. The ITAG could identify team members and assist with the set up. A supporting reference group could be established to maintain close links to all partners and the Board.
- *Estimated cost.* The estimated cost of USD 100,000 to USD 200,000 is largely dependent on the size of the team.

### **Leveraging financial resources**

Additional funding will be required to enable enhanced country assistance and cross-cutting initiatives (Exhibits 62-64). This includes:

- ¶ *Funding enhanced efforts.* The funding for additional support towards countries falling behind their targets would cover diagnostic/planning efforts and the "turn-around" program itself. The diagnostic/planning phases should be funded up-front by GAVI/VF to enable countries and partners to get started right away. The funding of additional country activities is by far the largest cost element in the strategy. It is anticipated that countries will dedicate substantial incremental resources, on the order of 40 to 60 percent of costs. In some cases, this will be a re-direction of support already available but untapped. In other cases, the additional support needed might come from bilaterals, other donors, or the VF.
- ¶ *Cross-cutting initiatives.* The funding requirements for cross-cutting efforts are driven by the size and time commitment of the "Vaccine



Delivery Management and Economics Initiative.” The support required for the knowledge-sharing network is small, and the training consolidation initiative should take a limited time. The initiatives would need to be funded through the partner funding mechanism currently applied for task forces. The cost estimate for the initiatives is outlined in the previous section and summarized in Table 3.

**Table 3. Budget estimates between 2003 and 2006 (USD millions)**

<b>Initiative</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>Cumulative 2003-2006</b>
<b>Design of enhanced efforts programs</b>	0.8-1.1	0.7-0.8	0.5-0.6	0	2.0-2.5
<b>Funding of enhanced efforts programs (not all VF)</b>	1-3	70-80	80-90	90-110	151-173
<b>Vaccine Delivery Management and Economics</b>	1.2-2	1-3	1-3	1-3	3.2-8.0
<b>KSN</b>	0.2-0.4	0.2-0.3	0.2-0.3	0.2-0.3	0.6-1.0
<b>Training</b>	0.1-0.4	0	0	0	0.1-0.4
<b>Total</b>	3-7	72-84	82-94	91-113	157-185

## **EXPECTED IMPACT OF THE STRATEGY**

The implementation of the recommended strategy (2003 to 2010) is expected to have a positive outcome both in terms of additional children immunized and deaths averted. Moreover, based on the expected costs, its basic health economic attractiveness is very attractive (rough estimate) (Exhibits 65-68). Implementation should provide 30 to 55 million children with basic immunization and avert between 900,000 and 1.4 million deaths above the projected base case. Three different scenarios have been examined to account for alternative outcomes (calculated over the period 2004-2010):

- ¶ Under the first scenario, GAVI’s partners succeed in helping countries reduce the gap to targets in aggregate by 80 percent. This scenario would result in an additional 40 to 45 million children over the base case receiving immunization and an additional 1.2 to 1.4 million deaths being averted compared to base case.
- ¶ More optimistically, in the second scenario, GAVI’s partners succeed in helping countries in aggregate meet their immunization targets. This would result in additional 50 to 55 million children being immunized compared to base case and an estimated 1.4 to 1.6 million deaths being averted.

- ¶ In a pessimistic scenario, GAVI's partners would only be able to help countries close the gap to their targets by 60%. Even in this scenario, 30 to 35 million additional children would receive immunization and 900,000 to 1.1 million deaths would be averted.

Health economic calculations based on the mentioned scenarios indicate a cost per death averted of USD 1,000 to USD1,100 or an estimated cost per discounted life-year saved of between USD 40 and USD 50. Compared to other interventions, such as malaria bednet programs, which are regarded as highly cost-effective at USD 32 to USD 74 per life-year saved, the recommended strategy seems attractive.

## **GETTING STARTED – KEY ACTIVITIES AND MILESTONES**

At the July Board meeting, GAVI will revisit the proposed vision, objectives, and high-level strategic outline. There are a number of critical decisions that need to be taken at this meeting. The feedback from countries based on this report will be an important input for those decisions.

GAVI partners, with input from the Secretariat, are already beginning to flesh out the details of how enhanced efforts to support countries falling behind can be delivered in practice. To meet immunization coverage objectives, GAVI should start identifying countries and setting up supporting processes to provide enhanced efforts and move into the first commitment-building phase with selected countries. Feedback from these efforts should be expected in June/July.

In addition, it is anticipated that the relevant GAVI Taskforces will have reviewed the cross-cutting recommendations by this point in time. In some cases, Taskforces will be in a position to implement the recommendations, and in other cases the GAVI Board will need to review the proposals and budget requirements at the July Board meeting.

As mentioned earlier, routine reporting of actual immunization levels versus plans must become a staple of GAVI board updates for we believe it is essential to stimulating the interventions necessary for GAVI and the world to reach its immunization goals.

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