Gli interventi di cooperazione in ambito sanitario
Ferrara, 17 maggio 2011

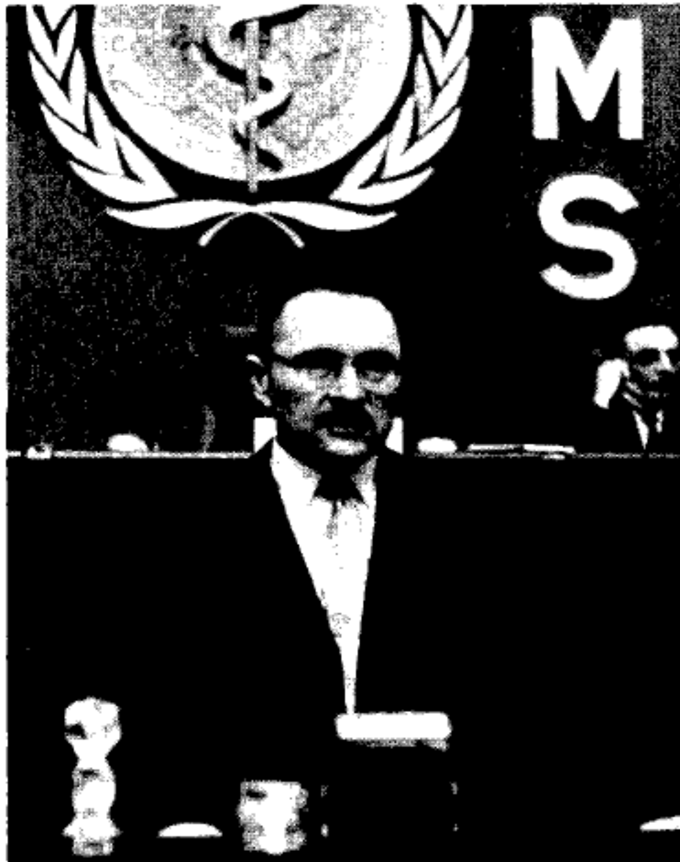
Gli interventi finalizzati alla riduzione della mortalità materno-infantile.

Il Global Immunization Vision and Strategy dell’OMS

Giovanni Gabutti

Dipartimento di Medicina Clinica e Sperimentale
Università degli Studi di Ferrara

Programma di Eradicazione del Vaiolo



WHO, 1958

- **1958** - **Assemblea Mondiale della Sanità: viene proposta l'eradicazione globale del vaiolo**
- **1967** - **L'OMS lancia la campagna per eradicare il vaiolo a livello mondiale**

Il Vaiolo è eradicato!

- 1977 - Ultimo caso di vaiolo naturale (Ali Maow Maalin)
- 1980 - L'Assemblea Mondiale della Sanità annuncia formalmente l'eradicazione del vaiolo

The Expanded Programme on Immunization (EPI)

L'EPI nasce nel 1974 dall'OMS, con lo scopo di condurre una lotta senza confini a sei malattie infettive: tubercolosi, difterite, tetano neonatale, pertosse, poliomielite e morbillo. All'epoca solo il 5% dei bambini dei Paesi in via di sviluppo era raggiunto da queste vaccinazioni. Successivamente il programma è stato allargato ad altre 2 patologie: febbre gialla ed epatite B

Storie di successo per l'immunizzazione…..

- **1974 – l'Expanded Programme on Immunization (EPI) viene lanciato dall'OMS dopo il successo ottenuto contro il vaiolo**
- **1978 – la dichiarazione di Alma-Ata proclama l'immunizzazione come componente essenziale dei programmi di sanità pubblica**
- **1988 – l'iniziativa di eradicazione della Polio viene lanciata all'Assemblea Mondiale della Sanità**
- **1990 – la Children's Vaccine Initiative è lanciata al Summit Mondiale per i Bambini**
- **2000 – parte la Global Alliance for Vaccines and Immunization (GAVI)**

Ma anche storie di problemi e di sfide…..

Principali cause di morte nei bambini di età inferiore ai 5 anni
Paesi in Via di Sviluppo, 1995

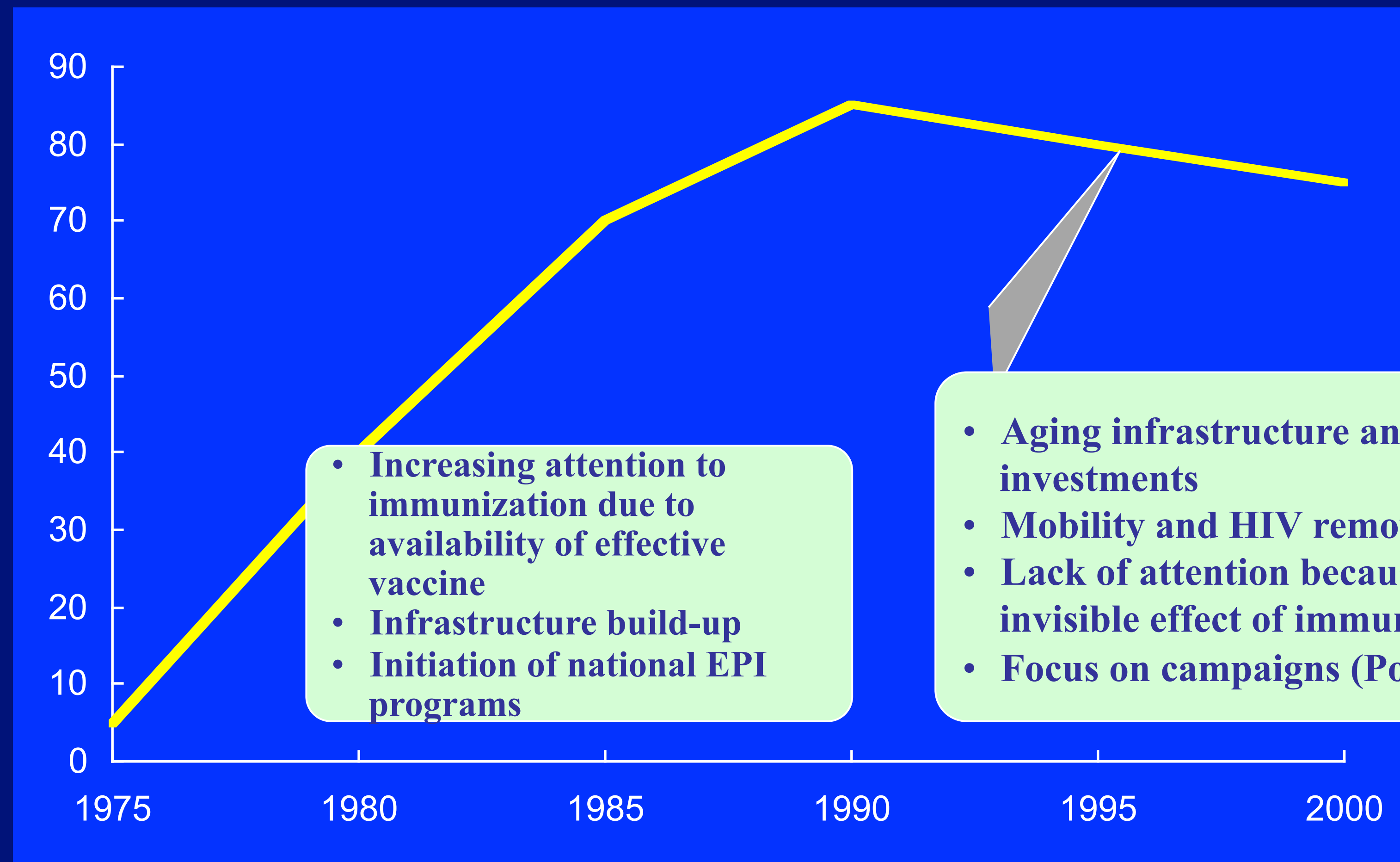
(fonte: World Health Organization, The World Health Report, 1997)

Causa di morte	Numero (milioni)	% del totale
Diarrea (escl. neonatale)	2.1	18.8
Infez. acuta basse vie respiratorie	1.5	13.4
Altre cause neo- e perinatali	1.1	9.8
Prematurità	1.1	9.8
Morbillo	1.1	9.8
Asfissia alla nascita	0.9	8.0
Anomalie congenite	0.5	4.5
Tetano neonatale	0.5	4.5
Trauma alla nascita	0.4	3.6
Sepsi neonatale e meningite	0.4	3.6
Pertosse	0.4	3.6
Tubercolosi	0.1	0.9
Altro	1.1	9.8
TOTALE	11.2	100

Riassumendo….
(alla fine degli Anni Novanta)

- **10 milioni di morti in bambini sotto i 5 anni**
- **3 milioni di questi muoiono per malattie prevenibili mediante vaccino**
- **I vaccini salvano 3 milioni di vite dei bambini ogni anno**
- **Ma più di 30 milioni di bambini non ricevono alcun vaccino**
- **Di conseguenza, i vaccini potrebbero salvare oltre 3 milioni in più di vite di bambini ogni anno**

Trends in global immunization coverage



The Three Gaps

- **ACCESS**
  - 30 million children un-immunized per year
  - stagnant or falling coverage in some regions
- **EQUITY**
  - many immunized kids in developing countries do not get important newer vaccines (hep B, Hib)
- **INVESTMENT**
  - too little investment in vaccines which primarily impact developing countries

Global partnership: GAVI

- The Global Alliance for Vaccines and Immunization (GAVI) is a public-private partnership focused on increasing access to vaccines among children in the poorest countries

- Partners include national governments, UNICEF, WHO, The World Bank, the Bill & Melinda Gates Foundation, the vaccine industry, public health institutions, and NGOs

- GAVI focuses on those areas in which no one partner can work effectively alone and to add value to what partners are already doing

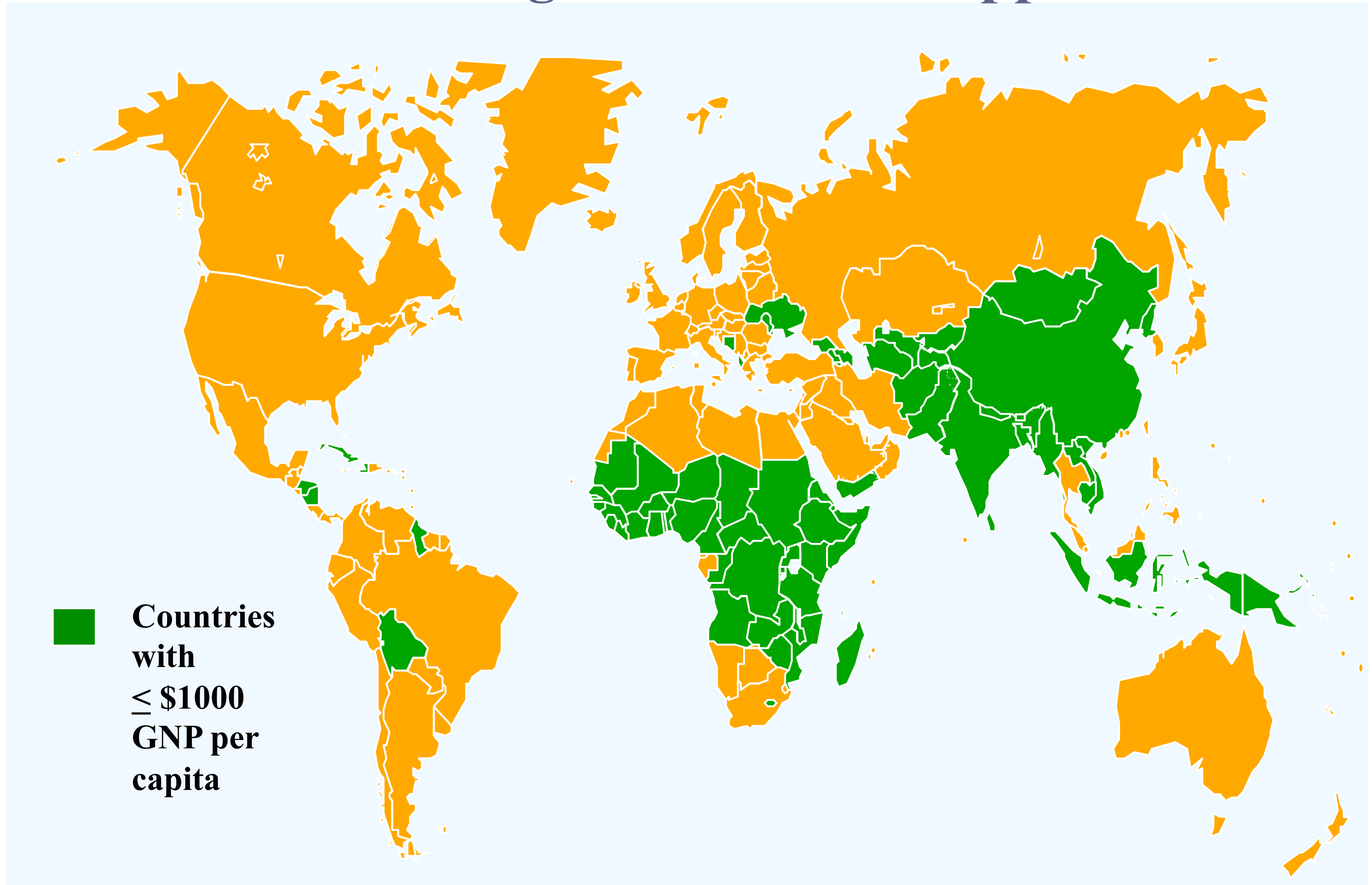
Global Alliance for Vaccines and Immunization (GAVI)

Obiettivi del GAVI

L’immunizzazione è un diritto di ogni bambino

- Migliorare l’accesso a servizi di vaccinazione sostenibili
- Espandere l’uso di tutti i vaccini esistenti
- Accelerare la ricerca e lo sviluppo dei vaccini, con particolare attenzione ai bisogni dei paesi in via di sviluppo
- L’immunizzazione è parte integrante dei sistemi sanitari e dello svilupppo: rafforzare i sistemi sanitari ed i servizi di immunizzazione

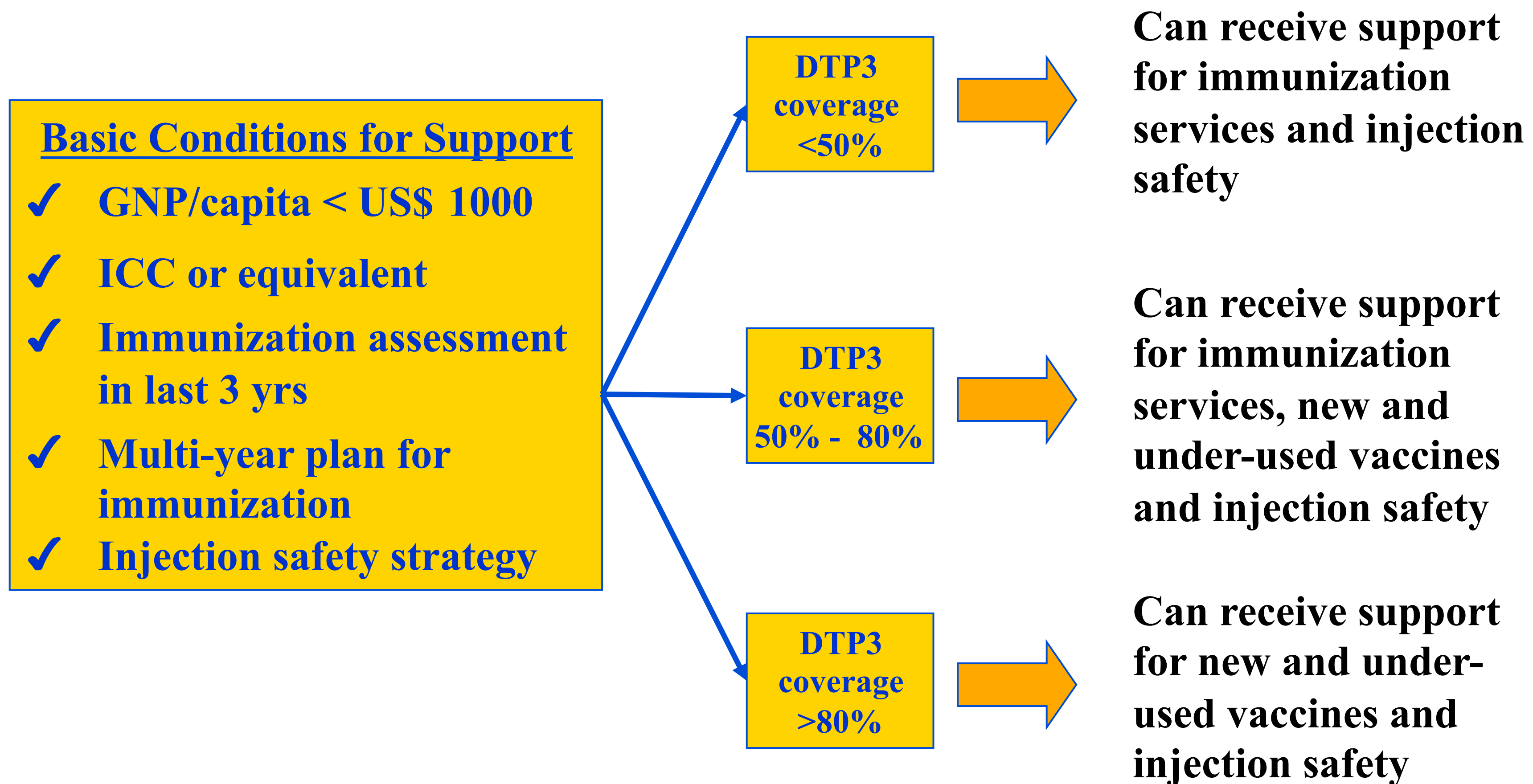
Countries eligible for GAVI support



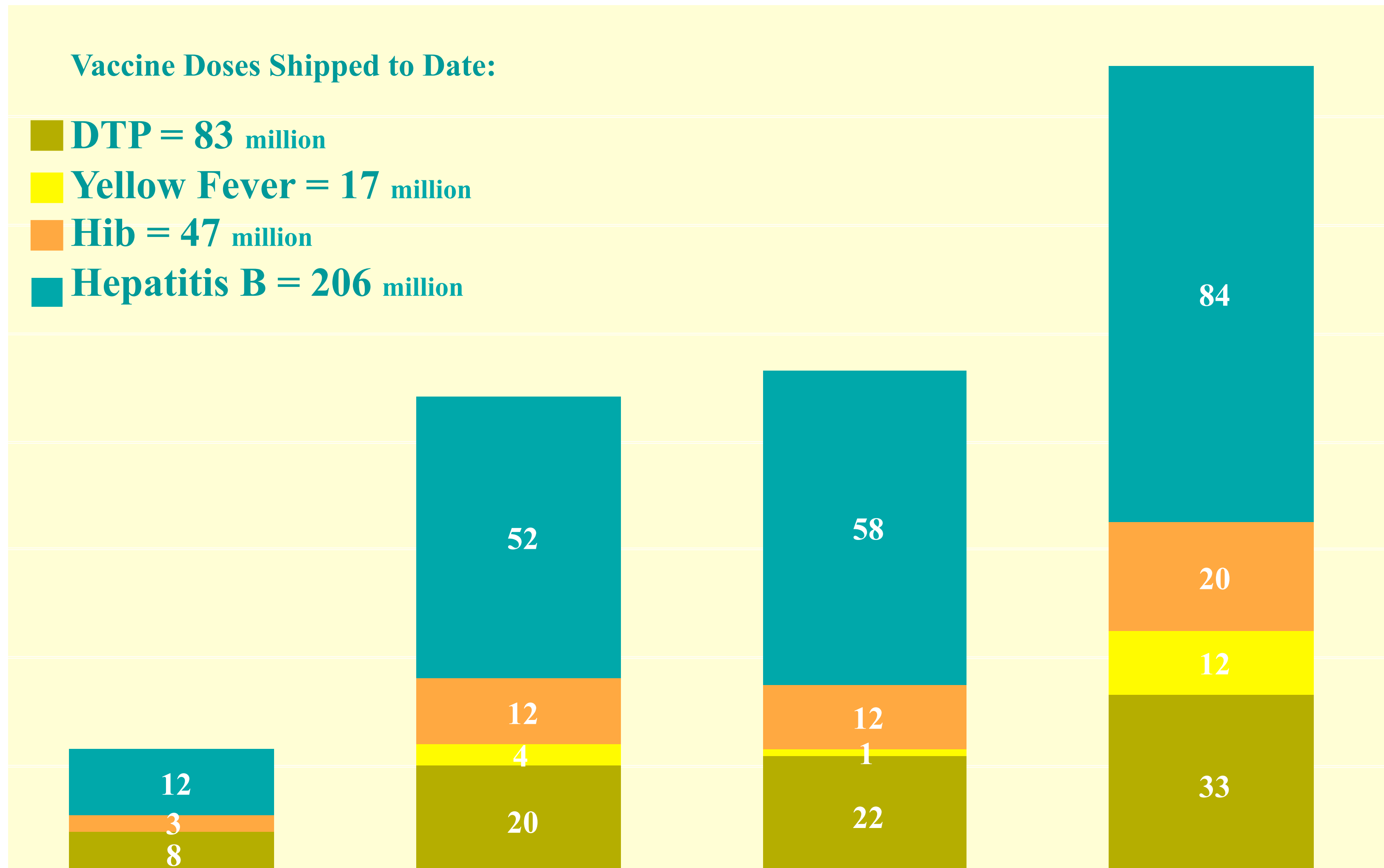
Global Fund For Children's Vaccines

- Il Fondo Globale per i Vaccini dei Bambini è stato stabilito con una donazione iniziale di 750 milioni di dollari per 5 anni dalla Fondazione Bill & Melinda Gates; donazioni aggiuntive sono state impegnate da USA, regno Unito, Norvegia, and Paesi Bassi
- Necessità di reperire un totale di 1.8 miliardi di dollari
- Il Fondo ha 3 sotto-conti separati:
  1) Acquisto di nuovi vaccini
  2) Supporto per rafforzare l'accesso e l'infrastruttura
  3) Supporto per migliorare i sistemi di immunizzazione e le tecnologie (supporto per la sicurezza delle iniezioni)

Criteria for support
What will the FUND finance ?



A few results in 5 years
The Progress: Delivery of Vaccine Doses is rising



SOURCE: GAVI Secretariat, 2004

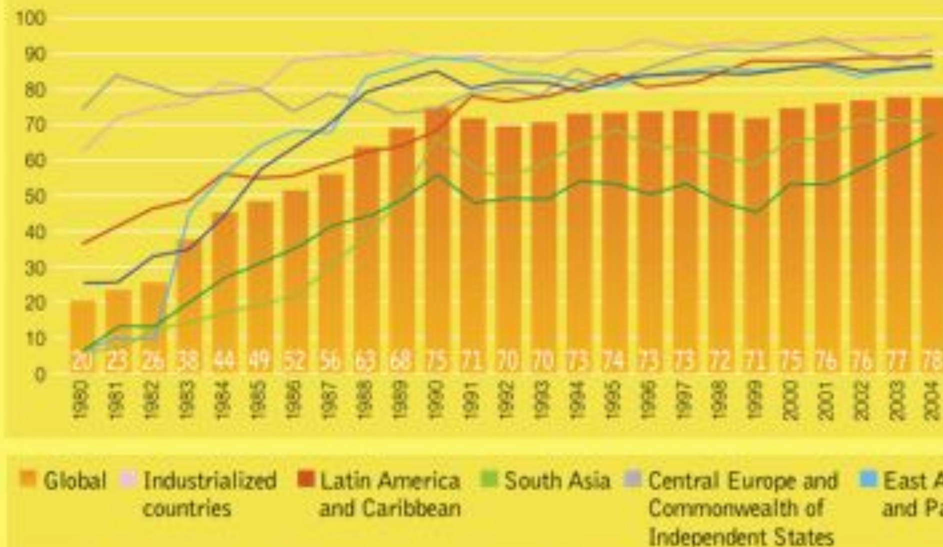
In summary…at the end of 2005 - Phase 1 GAVI support (2001-2005):

- ✓ 15 million more children reached with basic vaccines
- ✓ 99 million more children reached with new vaccines
- ✓ More than 1 billion auto-disabled syringes supplied to ensure safe administration of vaccines
- ✓ Nearly 1.7 million future deaths prevented
- ✓ Number of unimmunized children down to 27 million a year

SOURCE: WHO Department of Immunization, Vaccines and Biologicals (IVB) Estimates

Global Immunization 1980-2004, DTP3 coverage

global coverage at 78% in 2004



27 million infants not immunized (DTP3), 2004

Global | Industrialized countries | Latin America and Caribbean | South Asia | Central Europe and Commonwealth of Independent States | East Asia and Pacific | Middle-East and North Africa | Sub-Saharan Africa

Source: WHO/UNICEF estimates, 2005. 192 WHO Member States. Data as of February 2006.

Deaths due to vaccine-preventable diseases

- Estimated number of deaths in 2002 from diseases preventable by vaccines currently recommended by WHO[2]: 2.1 million, of which 1.4 million were children under age five. Among these childhood deaths, over 500 000 were caused by measles, nearly 400 000 by *Haemophilus influenzae* type b (Hib), nearly 300 000 by pertussis (whooping cough) and 180 000 by neonatal tetanus.

- Estimated number of deaths due to rotavirus, meningococcus and pneumococcus in 2002: 2.1 million, of which 1.1 million were children.

[2] Diphtheria, tetanus, pertussis, polio, measles, hepatitis B, *Haemophilus influenzae* type b (Hib) and yellow fever.

Future of GAVI and The Fund?

NOW		5 to 10 YEARS FROM NOW
Focus on: Hepatitis B Hib Yellow Fever Safe Syringes	Vaccine Procurement	Focus on new vaccines: PNEUMO ROTA MENING-A
Country situation: 60% COVERAGE 60% WASTAGE 60% SAFETY	Program Strengthening	Improved management: 80% COVERAGE 10% WASTAGE 100% SAFETY

Probable prices of new vaccines

	Developed countries	Developing countries
Hib/Combos	20$ / dose	3$/dose
Pneumo	50$ / dose	5$?/dose
Rotavirus	?	7$?/dose
HPV	100 $ / dose	?

Ulteriori sviluppi….

2000 - **Millennium Development Goals**
ridurre di due terzi, tra il 1990 e il 2015, la mortalità dei bambini sotto i 5 anni

2002 - **UNGASS/World Fit for Children**
ridurre le morti per morbillo del 50% entro il 2005 rispetto ai valori del 1999

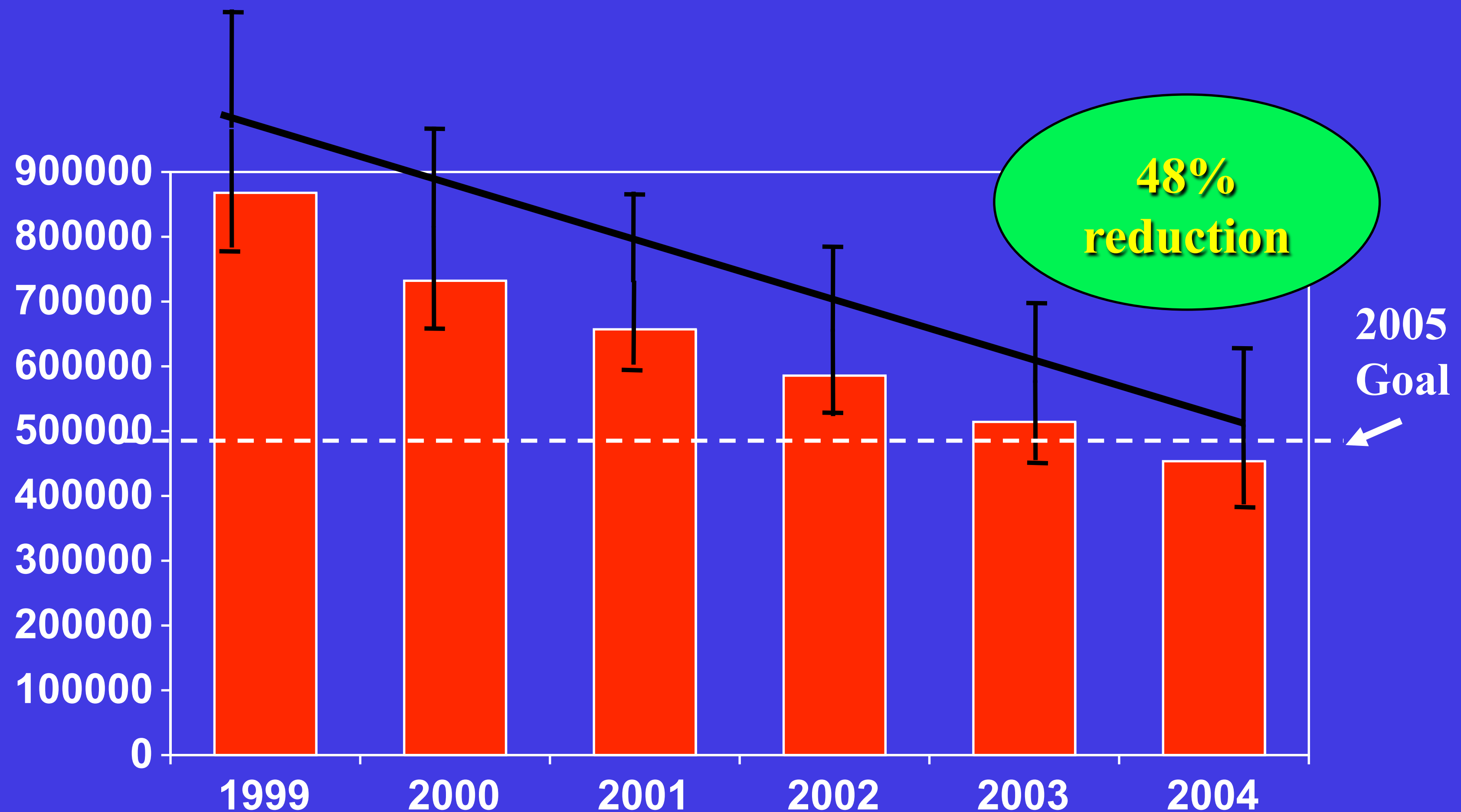
2005 – **Global Immunization Vision and Strategy** **adottata dagli Stati Membri dell'Assemblea Mondiale della Sanità**

The Millennium Development Goals (MDGs) are eight goals to be achieved by 2015 that respond to the world's main development challenges. The MDGs are drawn from the actions and targets contained in the **Millennium Declaration** that was adopted by 189 nations-and signed by 147 heads of state and governments during the **UN Millennium Summit** in September 2000.

The eight MDGs break down into **21 quantifiable targets** that are measured by **60 indicators**.

- Goal 1: Eradicate extreme poverty and hunger
- Goal 2: Achieve universal primary education
- Goal 3: Promote gender equality and empower women
- Goal 4: Reduce child mortality
- Goal 5: Improve maternal health
- Goal 6: Combat HIV/AIDS, malaria and other diseases
- Goal 7: Ensure environmental sustainability
- Goal 8: Develop a Global Partnership for Development

Progress toward reducing global measles mortality by half by 2005, all ages, 1999-2004



High-low lines indicate uncertainty bounds

Source: Wkly Epid Rec 10 March 2006; 86:90-4

Measles is one of the leading killers of children worldwide. An estimated 540 children die each day from the disease.

There is a solution. Measles is easily preventable with a safe and effective vaccine. It costs less than $1 to vaccinate a child.

Since 2001, the Measles Initiative has saved lives by supporting the vaccination of more than 600 million children in more than 60 countries.

Between 2000 and 2007, measles deaths fell by 74% globally and by 89% in Africa alone. Click here to learn more.

But, our work is not over. Millions of children are still unprotected. Our goal is to reduce measles deaths worldwide by 90% by 2010.

You can help. Donate today. Together, this is a problem we can solve.

Examples of Success: Decrease in Measles Deaths

2000 : 750 000 deaths

Data source: WHO/IVB, November 2008

2007 : 197 000 deaths

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

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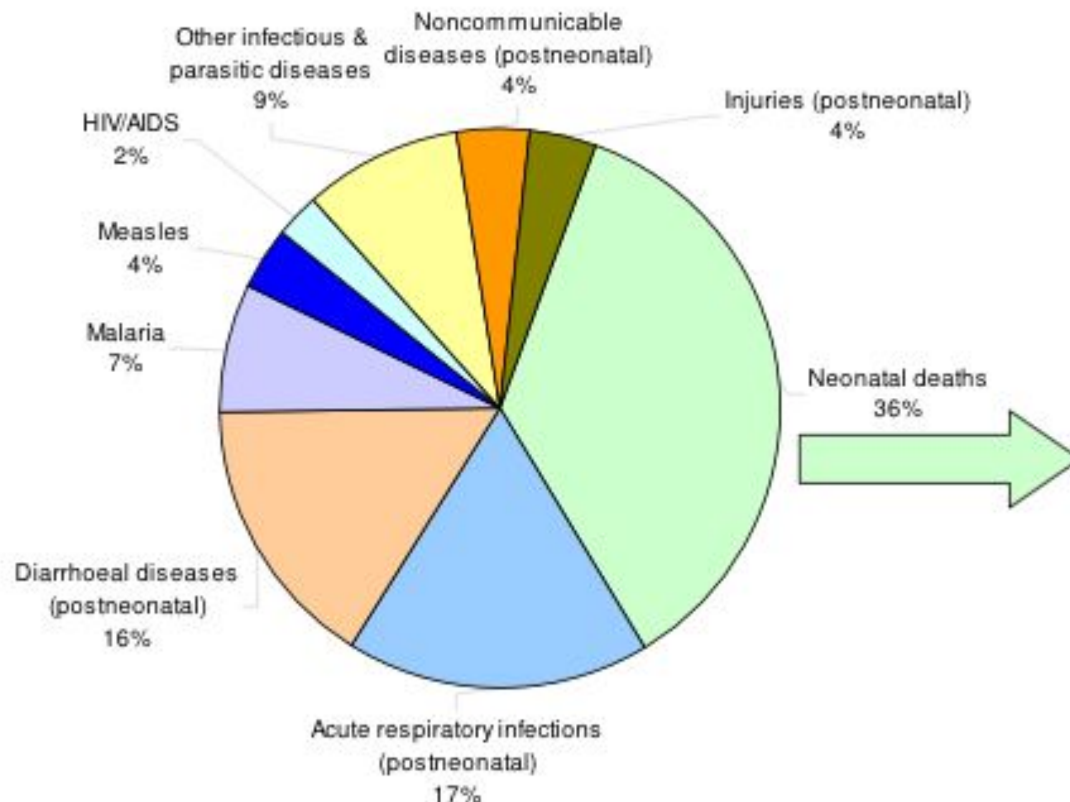
● = 1000 death

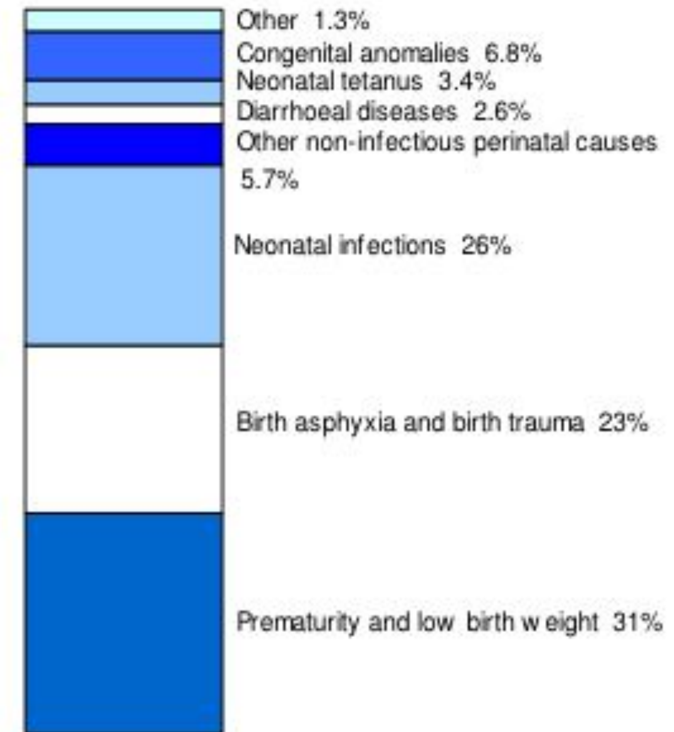
Dots are randomly distributed in countries.

Causes of death in neonates and children under five in the world (2004)

Deaths among children under five



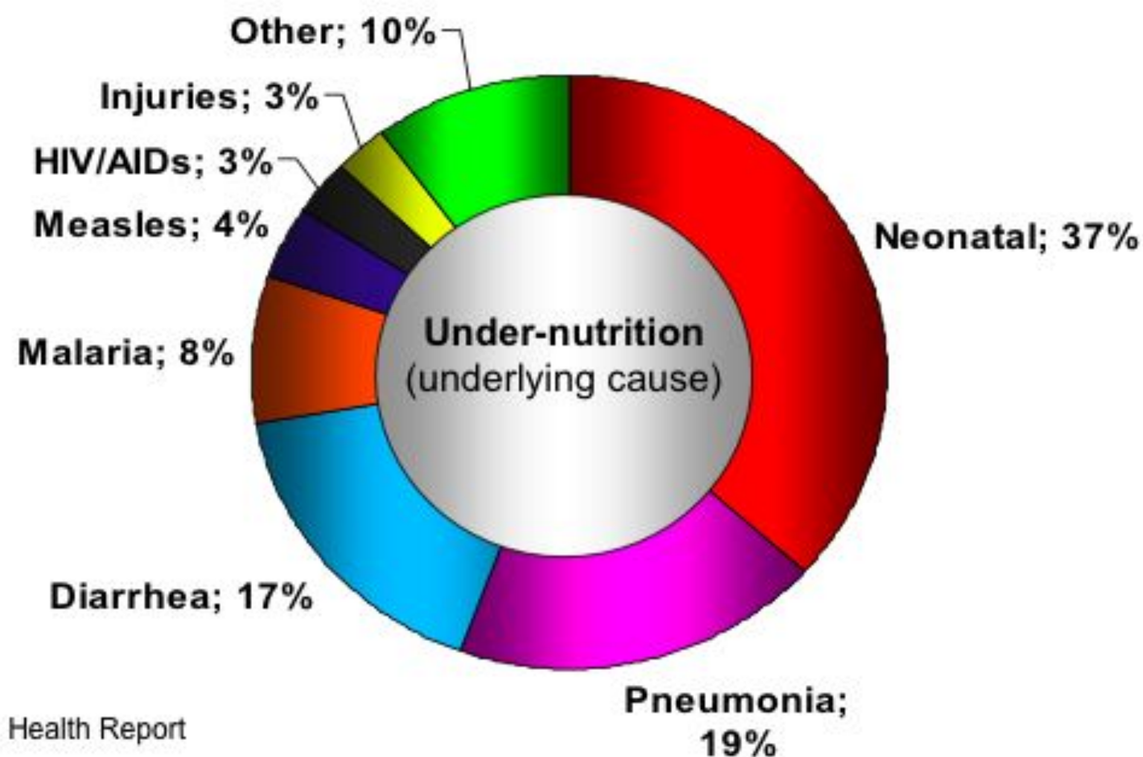
Neonatal deaths



35% of under-five deaths are due to the presence of undernutrition[2]

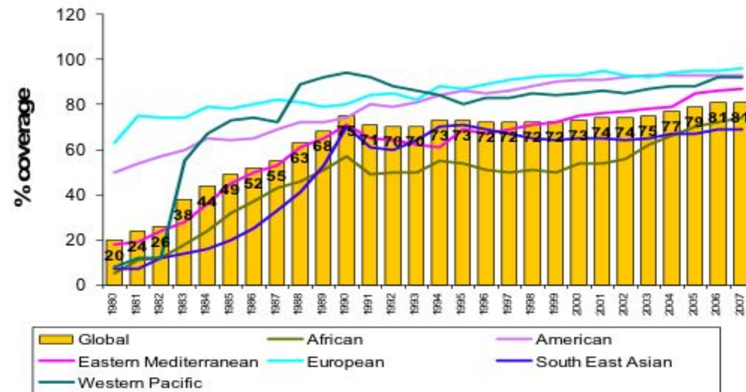
Sources: (1) WHO. The Global Burden of Disease: 2004 update (2008); (2) For undernutrition: Black et al. Lancet, 2008

Cause of Deaths Among Under Fives



Source: 2005 World Health Report

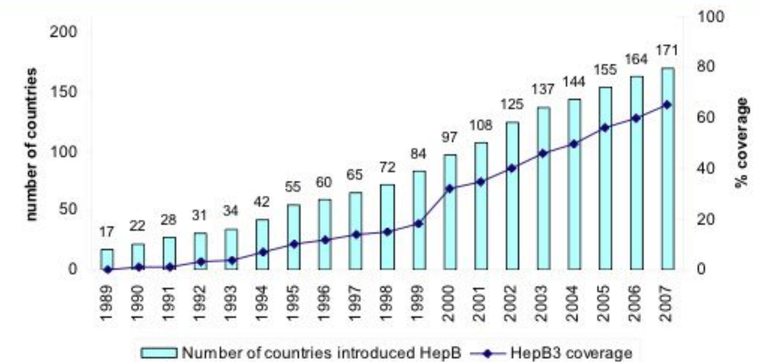
Global Immunization 1980-2007, DTP3 coverage global coverage at 81% in 2007



Source: WHO/UNICEF coverage estimates, 1980-2007, as of August 2008
193 WHO Member States.

Slide Date: September 08

Number of countries introduced HepB vaccine* and global infant HepB3 coverage, 1989-2007



* Includes India and Sudan where Introduction is part of the country excluding 3 countries where HepB administered for adolescence

Source: WHO/UNICEF coverage estimates 1980-2007, August 2008,
193 WHO Member States. Date of slide: 21 August 2008

Number of Unvaccinated Children (DTP3) by Year and WHO regions, 2000-2007

number (millions)

0
5
10
15
20
25
30
35
40

33.6 32.8 32.9 31 28.8 26.5 24.6 24.1

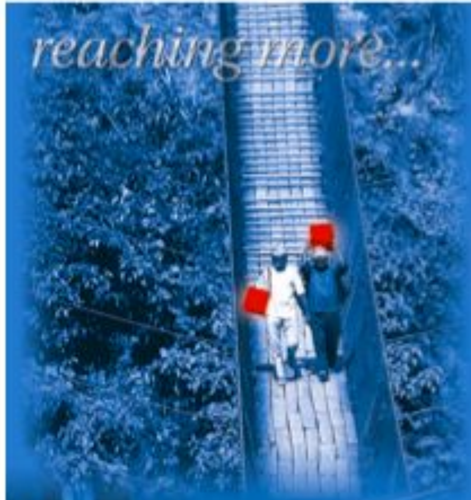
2000 2001 2002 2003 2004 2005 2006 2007

China 1.2 million
Bangladesh 04 million
Indonesia 1.1 million
India 9.7 million
Pakistan 0.7 million
Uganda 0.5 million
Niger 0.4 million
DR Congo 0.4 million
Ethiopia 0.8 million
Nigeria 2.4 million

Major Concern: Lack of progress to reduce the number of un-reached

African
American
Eastern Mediterranean
European
South East Asian
Western Pacific

Source: WHO/UNICEF coverage estimates 1980-2007, August 2008 Date of slide: 21 August 2008



GIVS

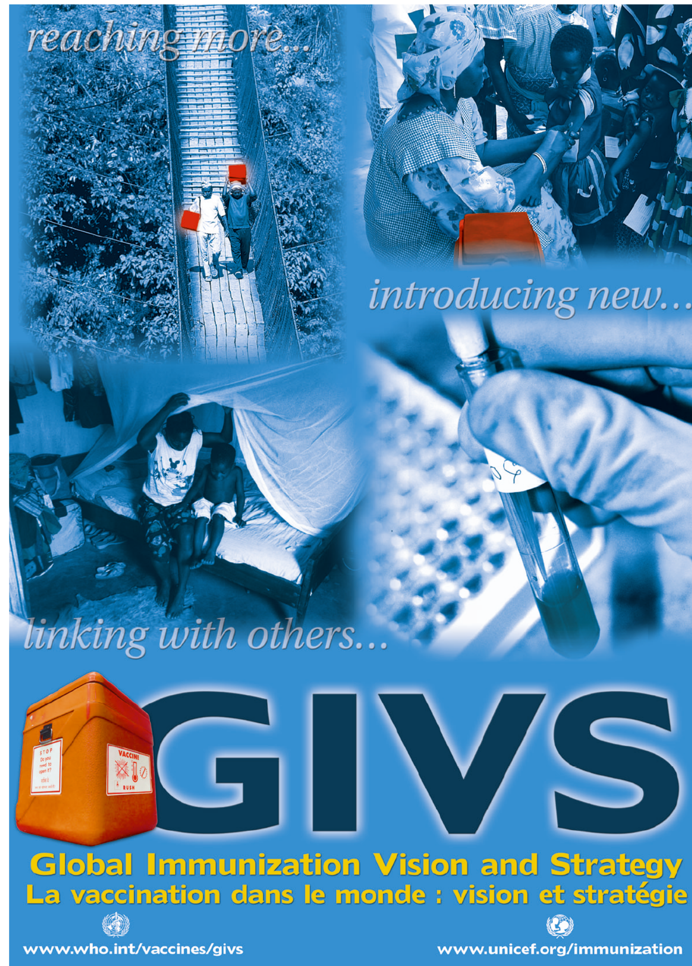
Global Immunization Vision and Strategy

La vaccination dans le monde : vision et stratégie

www.who.int/vaccines/givs

www.unicef.org/immunization

Global Immunization Vision and Strategy



Sviluppata congiuntamente da OMS, UNICEF e altri partners

Aree Strategiche Globali:

1. **Proteggere più persone in un mondo che cambia**

2. **Introdurre nuovi vaccini e nuove tecnologie**

3. **Integrare l'immunizzazione, altri interventi correlati e la sorveglianza nel contesto del sistema sanitario**

4. **L'immunizzazione nel contesto dell'interdipendenza globale**

What is new about the GIVS?

1. Focuses unprecedented attention on reaching the hard-to-reach.
2. Ensures the widespread use of under-utilized and new vaccines.
3. Expands immunization beyond infants and women of child-bearing age.
4. Promotes the strategic use of school contacts for immunizations.
5. Includes delivering additional health interventions at immunization contacts.
6. Focuses on improving basic managerial skills of immunization staff.

GIVS
Global Immunization Vision and Strategy 2006–2015

Immunization is one of the most successful and cost-effective health interventions ever. It has eradicated smallpox, lowered the global incidence of polio so far by 99% and achieved dramatic reductions in illness, disability and death from diphtheria, tetanus, whooping cough and measles. In 2003 alone, it is estimated that immunization averted more than 2 million deaths.

We are alarmed that globally and in some regions immunization coverage has increased only marginally since the early 1990s.

There are still millions of people who do not benefit from the protection that vaccination provides. They are at risk of life-threatening illness every day. An estimated 27 million infants and 40 million pregnant women were not immunized in 2003. Approximately 2.5 million children under five years of age die every year as a result of diseases that can be prevented by vaccination using currently available or new vaccines.

In spring 2005, the Member States of WHO and the Executive Board of UNICEF approved this Global Immunization Vision and Strategy. The Strategy will enable global stakeholders to address the serious challenges foreseen in immunization over the next decade: these include financing new and underused vaccines, ensuring adequate supply and access for all people who require and deserve the protection of vaccines, whether rich or poor.

Vision: A world in 2015 in which:

- *immunization is highly valued;*
- *every child, adolescent and adult has equal access to immunization as provided for in their national schedule;*
- *more people are protected against more diseases;*
- *immunization and related interventions are sustained in conditions of diverse social values, changing demographics and economies, and evolving diseases;*
- *immunization is seen as crucial for the wider strengthening of health systems and a major element of efforts to attain the Millennium Development Goals;*
- *vaccines are put to best use in improving health and security globally; and*
- *solidarity among the global community guarantees equitable access for all people to the vaccines they need.*

Goals

Between 2006 and 2015, all those working on immunization and related product development should strive to prevent morbidity and mortality by achieving the following goals and targets.

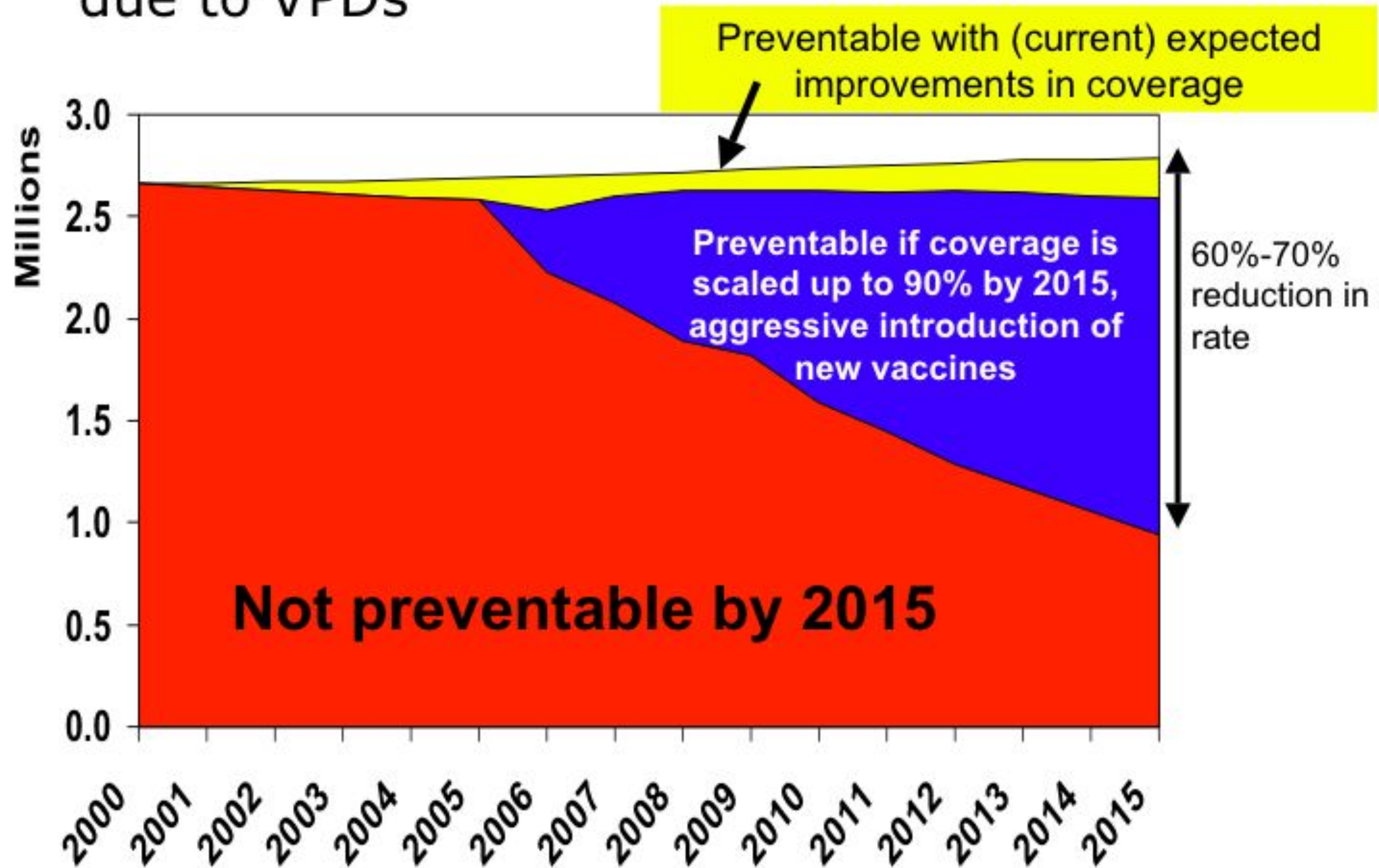
By 2010 or earlier

- **Increase coverage.** Countries will reach at least 90% national vaccination coverage and at least 80% vaccination coverage in every district or equivalent administrative unit.
- **Reduce measles mortality.** Globally, mortality due to measles will have been reduced by 90% compared to the 2000 level.

By 2015 or earlier *(as the case may be)*

- **Sustain coverage.** The vaccination coverage goal reached in 2010 will have been sustained.
- **Reduce morbidity and mortality.** Global childhood morbidity and mortality due to vaccine-preventable diseases will have been reduced by at least two thirds compared to 2000 levels.
- **Ensure access to vaccines of assured quality.** Every person eligible for immunization included in national programmes will have been offered vaccination with vaccines of assured quality according to established national schedules.
- **Introduce new vaccines.** Immunization with newly introduced vaccines will have been offered to the entire eligible population within five years of the introduction of these new vaccines in national programmes.
- **Ensure capacity for surveillance and monitoring.** All countries will have developed the capacity at all levels to conduct case-based surveillance of vaccine-preventable diseases, supported by laboratory confirmation where necessary, in order to measure vaccine coverage accurately and use these data appropriately.
- **Strengthen systems.** All national immunization plans will have been formulated as an integral component of sector-wide plans for human resources, financing and logistics.
- **Assure sustainability.** All national immunization plans will have been formulated, costed and implemented so as to ensure that human resources, funding and supplies are adequate.

Projected Changes in Under-five mortality due to VPDs



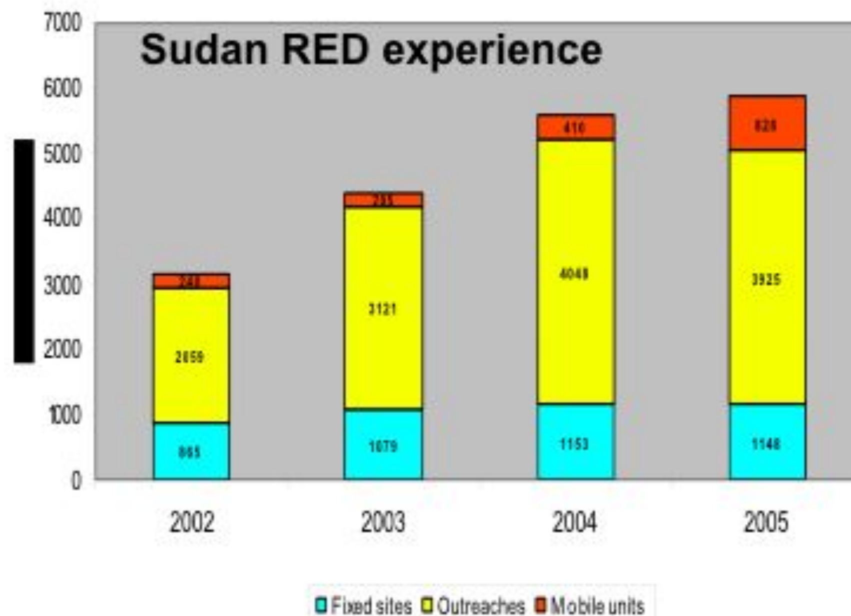
Strategic Area I: Protecting more people in a changing world

Protecting more people in a changing world covers the key strategies needed to reach more people with immunization services, especially those who are hard to reach and those who are eligible for newly introduced vaccines. The aims are to ensure that every infant has at least four contacts with immunization services, to expand immunization to other age groups in an effort to maximize the impact of existing vaccines, and to improve vaccine-management systems in order to ensure immunization safety, including the availability of safe and effective vaccines at all times. The strategies in this area seek to prioritize underserved populations and areas and will use the "reaching every district" approach.

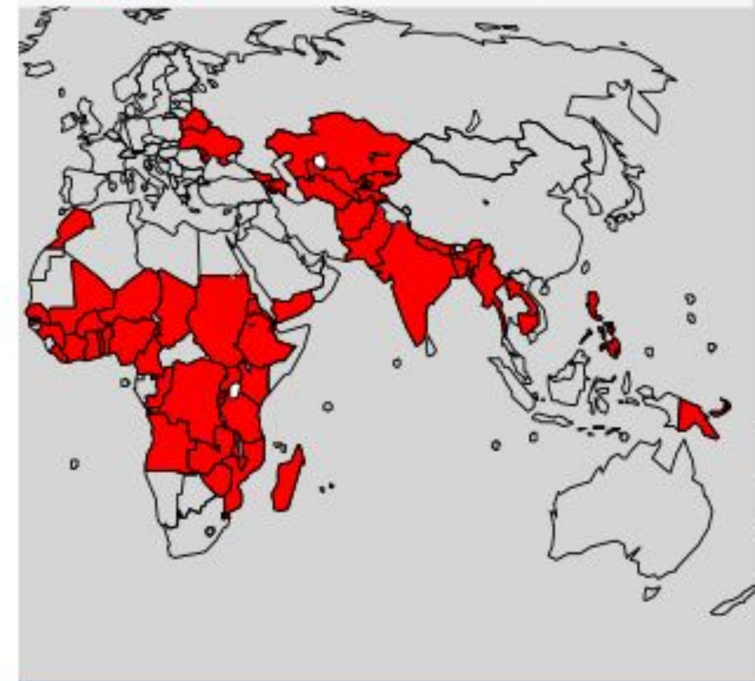
- **Strategy 1:** Use a combination of approaches to reach everybody targeted for immunization
- **Strategy 2:** Increase community demand for immunization
- **Strategy 3:** Ensure that unreached people are reached in every district at least four times a year
- **Strategy 4:** Expand vaccination beyond the traditional target group
- **Strategy 5:** Improve vaccine, immunization and injection safety
- **Strategy 6:** Improve and strengthen vaccine-management systems
- **Strategy 7:** Evaluate and strengthen national immunization programmes

The Reach Every District (RED) Strategy for Routine Immunization Strengthening

- Re-establishment of outreach services



Launched in 2002, RED strategy is being implemented in 53 countries



Strategic Area II: Introducing new vaccines and technologies

Introducing new vaccines and technologies focuses on the need to promote the development of high-priority new vaccines and technologies and to enable countries to decide on and proceed with their introduction. The strategies in this area aim to ensure that countries have the evidence base and capacity to evaluate the need, and establish priorities, for the introduction of new vaccines and technologies, and a supply of new vaccines and technologies adequate to meet their needs, with the necessary financial resources. They also aim to ensure that new vaccines will be offered to the entire eligible population within five years of being introduced into the national programme, and that future vaccines against diseases of public health importance are researched, developed and made available, especially for disadvantaged populations with a high disease burden.

- **Strategy 8:** Strengthen country capacity to determine and set policies and priorities for new vaccines and technologies
- **Strategy 9:** Ensure effective and sustainable introduction of new vaccines and technologies
- **Strategy 10:** Promote research and development of vaccines against diseases of public health importance

Strategic Area III: Integrating immunization, other linked health interventions and surveillance in the health systems context

Integrating immunization, other linked health interventions and surveillance in the health systems context emphasizes the role of immunization in strengthening health systems through the benefits that accrue to the whole system as a result of building human resource capacity, improving logistics and securing financial resources. The aim is to link immunization with other potentially life-saving interventions in order to accelerate reduction in child mortality. The component strategies also aim to improve disease surveillance and programme monitoring so as to strengthen not only immunization programmes but the health system as a whole, and to ensure that immunization is included in emergency preparedness plans and activities for complex humanitarian emergencies.

- **Strategy 11:** Strengthen immunization programmes within the context of health systems development
- **Strategy 12:** Improve management of human resources
- **Strategy 13:** Assess and develop appropriate interventions for integration
- **Strategy 14:** Maximize the synergy from integrating interventions
- **Strategy 15:** Sustain the benefits of integrated interventions
- **Strategy 16:** Strengthen monitoring of coverage and case-based surveillance
- **Strategy 17:** Strengthen laboratory capacity through the creation of laboratory networks
- **Strategy 18:** Strengthen the management, analysis, interpretation, use and exchange of data at all levels
- **Strategy 19:** Provide access to immunization services in complex humanitarian emergencies

Strategic Area IV: Immunizing in the context of global interdependence

Immunizing in the context of global interdependence builds on the recognition that equity in access to vaccines and related financing and equal availability of information are in every country's interest. The component strategies in this area aim to increase awareness of, and respond to, the reality that every country is vulnerable to the impact of global issues and events on vaccine supply, financing, collaboration of partners, communication and epidemic preparedness.

- **Strategy 20:** Ensure reliable global supply of affordable vaccines of assured quality
- **Strategy 21:** Ensure adequate and sustainable financing of national immunization systems
- **Strategy 22:** Improve communication and dissemination of information
- **Strategy 23:** Define and recognize the roles, responsibilities and accountability of partners
- **Strategy 24:** Include vaccines in global epidemic preparedness plans and measures

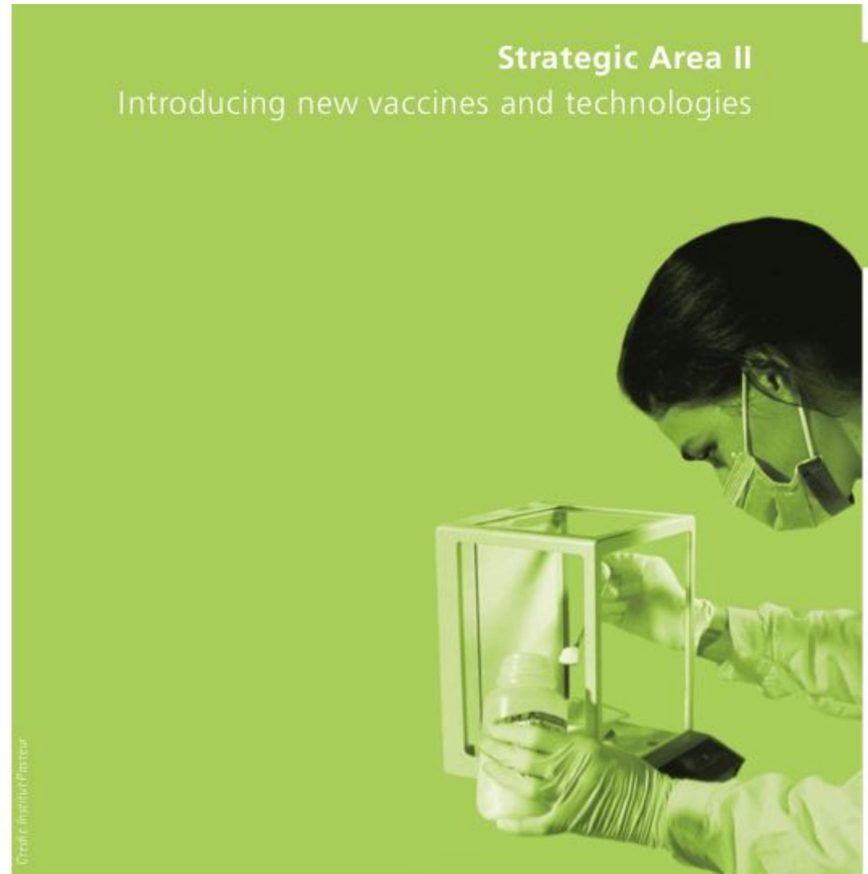
Strategic framework for 2006–2015

Realizing the vision

Strategic Area I

Protecting more people in a changing world covers the key strategies needed to reach more people with immunization services, especially those who are hard to reach and those who are eligible for newly introduced vaccines.

Realizing the vision



Strategic Area II

Introducing new vaccines and technologies focuses on the need to promote the development of high priority new vaccines and technologies and to enable countries to decide on and proceed with their introduction.

Current and future vaccines and technologies

Current vaccines

- BCG [a]
- Cholera (inactivated and live) [b]
- DTP and DTP-based combinations [a]
- *Haemophilus influenzae* type b [a]
- Hepatitis A [a]
- Hepatitis B [a]
- Influenza [a]
- Japanese encephalitis (inactivated and live) [b]
- Measles [a]
- Meningococcus (polysaccharide and conjugate) [a]
- Mumps [a]
- Pneumococcus (polysaccharide and conjugate) [a]
- Polio (OPV and IPV) [a]
- Pseudomonas [b]
- Rabies [b]
- Rift Valley fever [b]
- Rubella [a]
- Tetanus toxoid [a]
- Tick-borne encephalitis [b]
- Typhoid [b]
- Varicella [a]
- Yellow fever [a]

Available but underused immunization supportive technologies

- Pre-filled injection devices
- Vaccine vial monitors on all vaccines

[a] *Available for immediate use in routine immunization.*
[b] *Available for specific regions or circumstances.*

New or improved vaccines anticipated by 2015

- Dengue [d]
- DTaP (with two P antigens) [d]
- Enterotoxigenic *Escherichia coli* (ETEC) [d]
- Group A streptococcus [d]
- Human papilloma virus [c]
- Influenza for pandemic response
- Japanese encephalitis (improved) [c]
- Malaria [d]
- Measles (aerosol) [c]
- Meningococcus A (multi-serotype conjugate) [c]
- New combinations of existing vaccines [d]
- Pneumococcus (improved conjugate or protein-based) [c]
- Polio (inactivated vaccines based on Sabin strains) [c]
- Polio (monovalent OPV type 1) [d]
- Respiratory syncytial virus [d]
- Rotavirus [c]
- Severe acute respiratory syndrome (SARS) [d]
- Shigella [d]
- Typhoid (conjugate) [d]
- West Nile fever [d]

New immunization supportive technologies anticipated by 2015

- Jet injectors
- Thermostable vaccines
- Vaccine aerosols
- Vaccine nasal sprays
- Vaccine patches

[c] *In a late stage of development.*
[d] *Licensing expected in 2010–2015.*

Realizing the vision

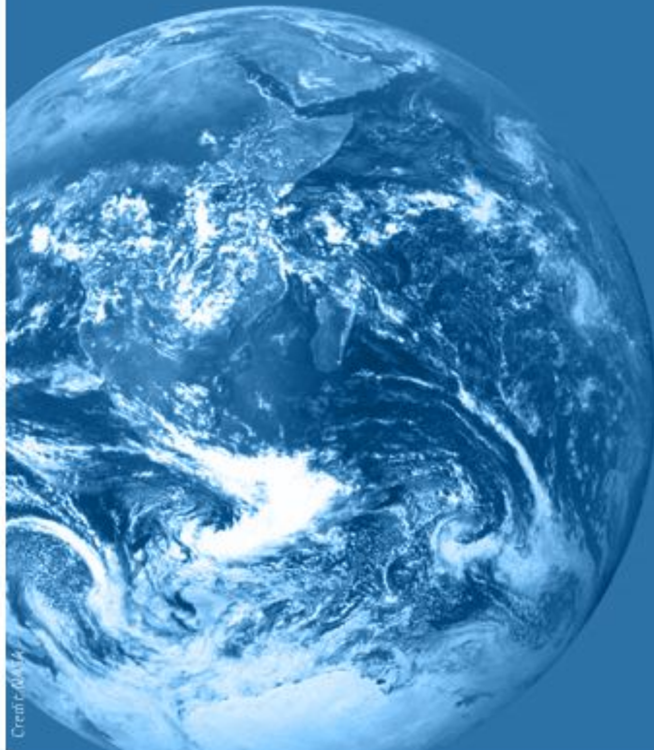
Strategic Area III

Integrating immunization, other linked health interventions and surveillance in the health systems context emphasizes the role of immunization in strengthening health systems through the benefits that accrue to the whole system as a result of building human resource capacity, improving logistics and securing financial resources. The aim is to link immunization with other potentially life-saving interventions in order to accelerate reduction in child mortality. The component strategies also aim to improve disease surveillance and programme monitoring so as to strengthen not only immunization programmes but the health system as a whole, and to ensure that immunization is included in emergency preparedness plans and activities for complex humanitarian emergencies.

Realizing the vision

Strategic Area IV

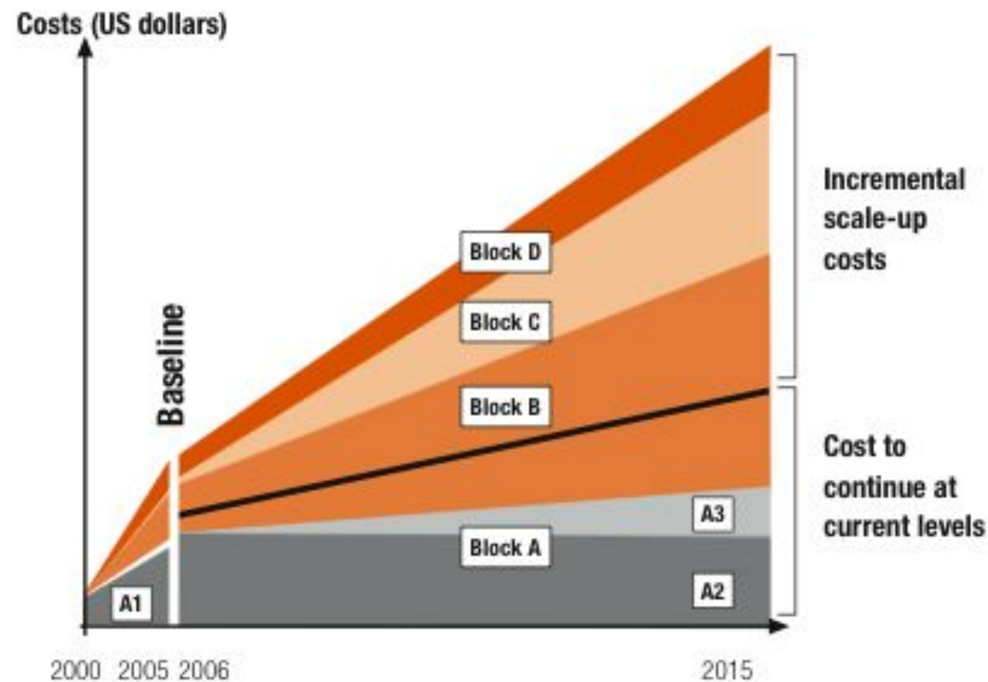
Immunizing in the context of global interdependence



Strategic Area IV

Immunizing in the context of global interdependence builds on the recognition that equity in access to vaccines and related financing and equal availability of information are in every country's interest. The component strategies in this area aim to increase awareness of, and respond to, the reality that every country is vulnerable to the impact of global issues and events on vaccine supply, financing, collaboration of partners, communication and epidemic preparedness.

Fig. 1. **GIVS costing blocks**



Block A: maintenance of current routine system (baseline cost)

Current levels of investment in immunization were estimated using available data from 40 Financial Sustainability Plans (Block A1), and extrapolated for the period 2006–2015 by accounting for the impact of inflation and population increases (Block A3). They assume no change in vaccination schedules and no improvement in immunization coverage levels (Block A2). This does not include campaigns or vaccine costs.

Block B: vaccine costs

Vaccine costs were estimated by using coverage targets, population projections and applying the most recent available data on unit prices of different vaccine presentations. The estimates account for wastage rates and the need for buffer stock. The cost of safe injection equipment is bundled in the vaccine cost estimates. The element "below the line" represents the vaccine costs to continue immunization at 2005 levels, and "above the line" is the vaccine portion of scaling-up.

Block C: scaling-up of routine system

This is estimated using an ingredients-based approach. See Table 3.

Block D: campaigns

A schedule of needed campaigns was generated based on a combination of the projections of vaccine coverage and the required epidemiological coverage required to rapidly reduce the burden of disease. Campaign costs include both operational costs and vaccine costs.

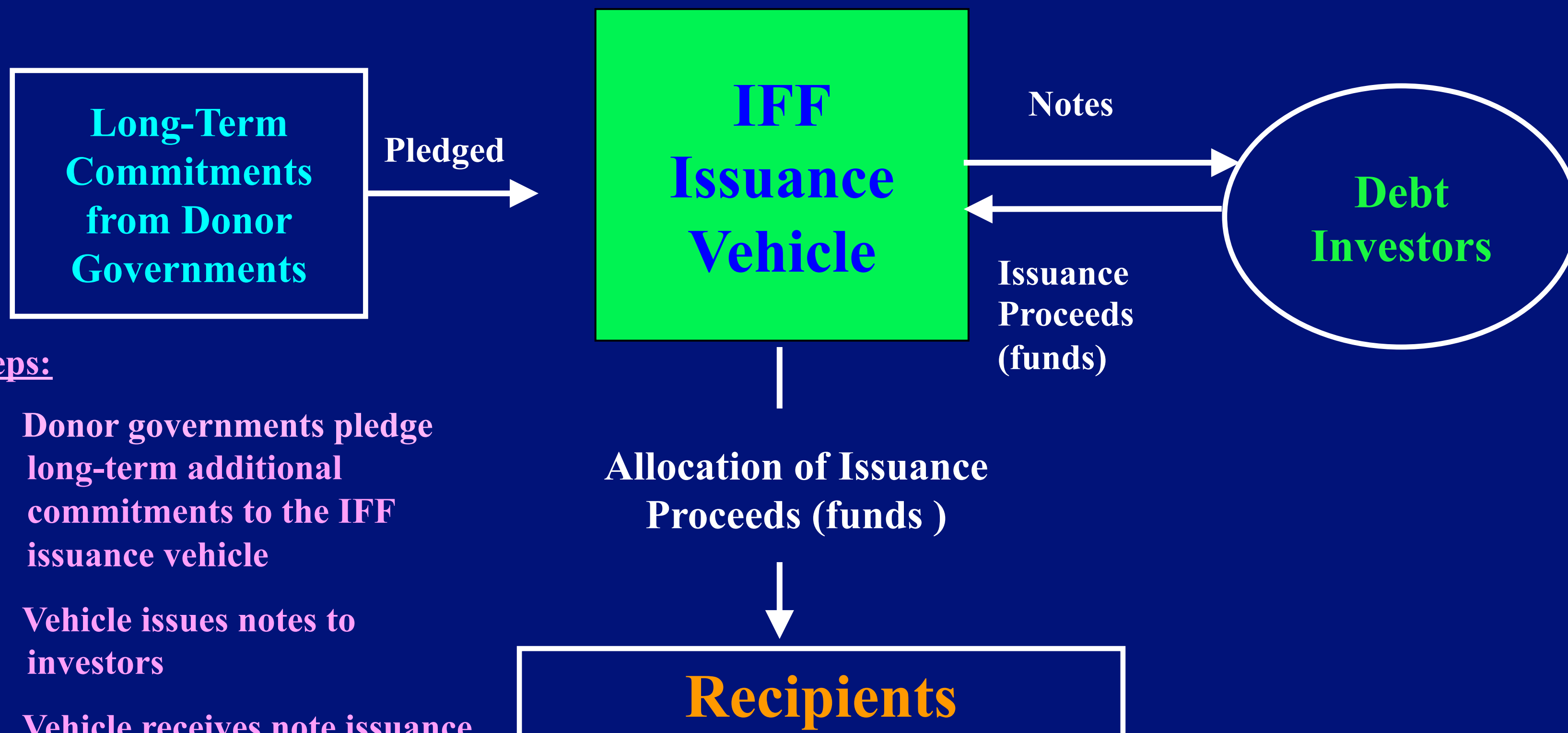
Table 2. **Vaccine cost assumptions, 2005–2015**

Vaccine	Average doses per course	Number of doses per vial	Packed cubic volume per dose (ml)	Actual weighted average price in 2005 per dose (US$)	Projected price in 2010 per dose (US$)	Projected price in 2015 per dose (US$)	% of vaccine price charged for freight	Average vaccine wastage rate (%)
Routine								
Baccillus Calmette-Guérin (BCG)	1	20	1	0.09	0.11	0.13	0.7	50
Diphtheria-tetanus-pertussis (DTP)	3	10	3	0.14	0.35	0.45	1.5	25
Measles (MCV)	1 or 2	10	3	0.17	0.22	0.29	2.0	40
Oral polio (OPV)	3 or 4	10	2.5	0.11	0.16		1.1	30
Tetanus toxoid (TT)	2	10	3	0.07	0.08	0.92	1.2	25
Underused								
DTP-Hib	3	1	32.3	2.38	1.53	1.14	4.8	15
DTP-HepB	3	10	3	1.27	1.02	0.78	2.5	25
DTP-HepB-Hib	3	1	19.4	3.65	2.56	1.92	5.5	10
Hepatitis B (HepB)	3 or 4	10	2.9	0.27	0.30	0.35	2.7	25
Haemophilus influenzae type b (Hib)	3	2	4.8	2.38	1.53	1.14	9.5	15
Measles rubella (MR)	1 or 2	10	3	0.49	0.71	0.92	7.3	40
Yellow fever (YF)	1	10	2.45	0.80	0.65	0.07	2.4	40
New								
Meningococcal conjugate	1	10	2.5		0.44	0.58	3.7	25
Japanese encephalitis (JE)	1	1	60		3.02	2.96	4.5	25
Pneumococcal conjugate	3	1	40		5.00	4.00	2.5	5
Rotavirus	3	1	11.5		5.75	1.88	6.0	5
Campaigns								
Measles	1	20	3	0.17	0.17	0.22	2.0	20
Meningococcal	1	6	2.5	0.37	0.44	0.58	3.7	15
TT	3	20	3	0.05	0.06	0.10	1.0	20
YF	1	10	2.45	0.06	0.07	0.77	0.2	15

A new initiative

Advanced Purchase Commitments

A new initiative :
the International Financing Facility



Steps:

1. Donor governments pledge long-term additional commitments to the IFF issuance vehicle
2. Vehicle issues notes to investors
3. Vehicle receives note issuance proceeds
4. Proceeds are allocated to recipients

About IFFIm

The International Finance Facility for Immunisation was launched in 2006 thanks to the initiative of the United Kingdom Government. IFFIm is also supported by France, Italy, Spain, Sweden, Norway and South Africa who have together pledged to contribute US$ 5.3 billion to IFFIm over 20 years. This strong financial base enables IFFIm to have a triple-A rating from the three major rating agencies.

IFFIm raises finance by issuing bonds in the capital markets and so converts the long-term government pledges into immediately available cash resources. The long-term government pledges will be used to repay the IFFIm bonds. The World Bank acts as financial adviser and treasury manager to IFFIm.

Offerings so far

In total IFFIm has so far raised more than US$ 1.6 billion for GAVI programmes through three offerings. IFFIm's initial offering in November 2006 raised US$1 billion among institutional investors globally. A second offering in March 2008 raised the equivalent of US$ 223 million from private individuals in Japan. A third offering to Japanese retail investors in February 2009 raised US$ 429 million equivalent.

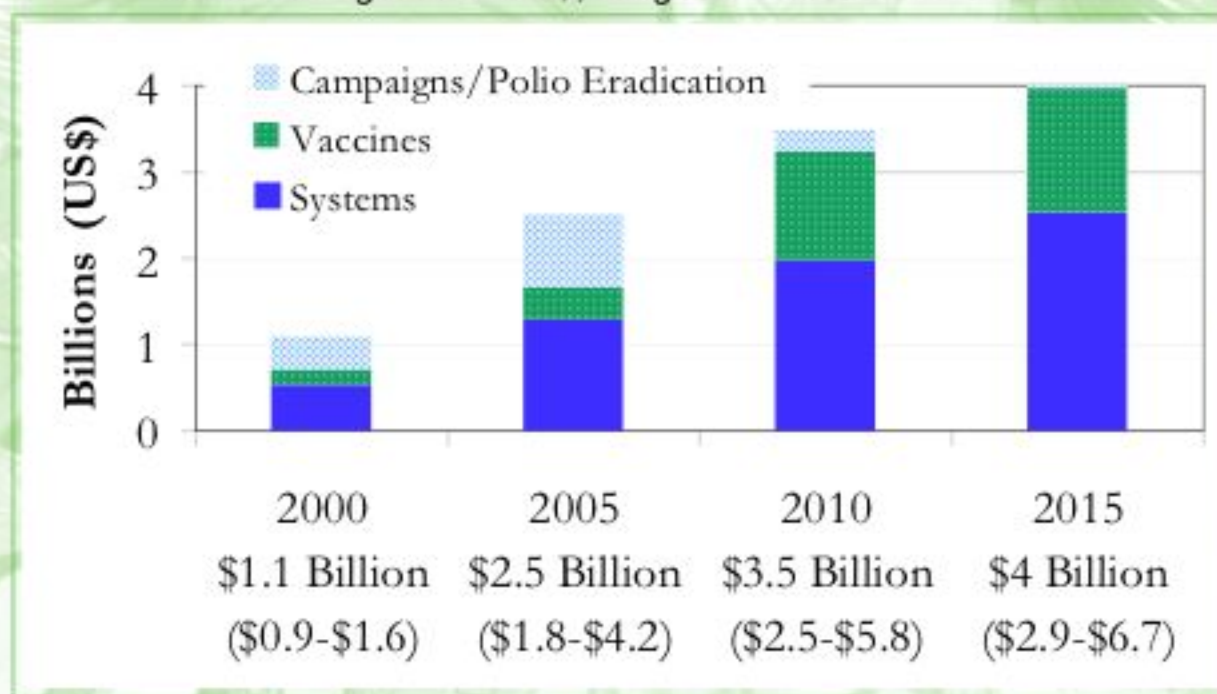
IFFIm was established as a charity with the Charity Commission for England and Wales (UK charity registration number 1115413) and registered in England and Wales as a company (registration number 5857343).

Donors

IFFIm's financial base consists of legally binding grants from its sovereign sponsors (initially France, Italy, Norway, Spain, Sweden and the United Kingdom, South Africa joined in March 2007, Brazil is expected to follow suit). By signing the grant agreements, these countries have agreed to pay these obligations in a specified schedule of payments over 20 years.

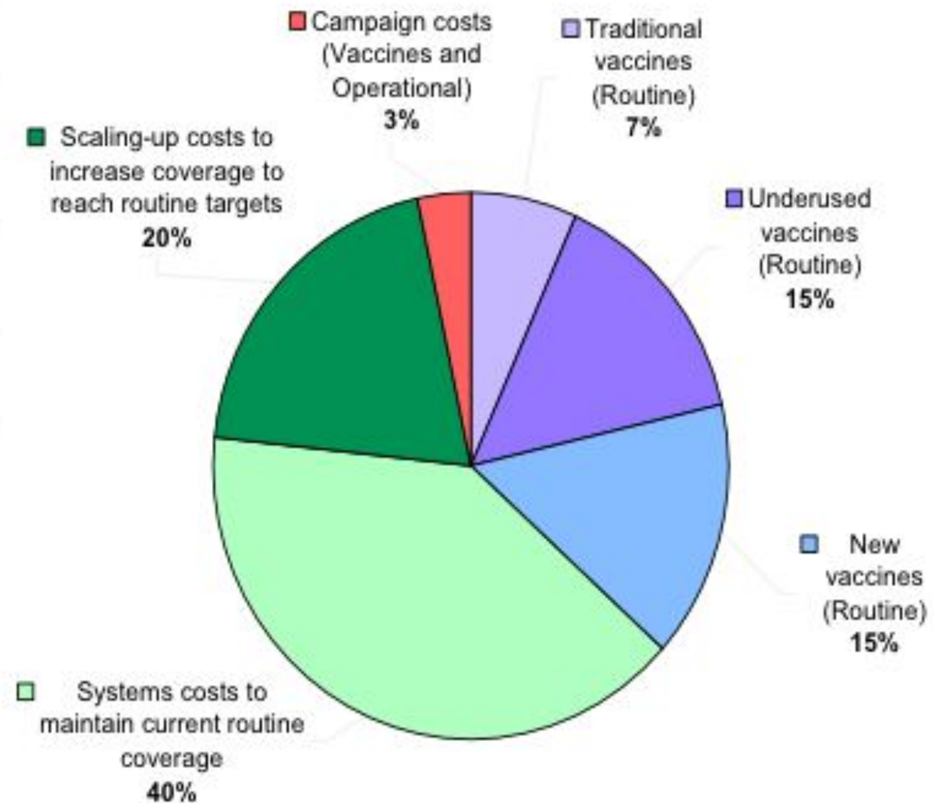
To date, the sponsoring countries have committed to pay the following amounts:

- **United Kingdom** has committed a total of £1,380,000,000 over 20 years;
- **France** has committed €372,800,000 over 15 years and an additional €867,160,000 over 19 years;
- **Italy** has committed a total of €473,450,000 over 20 years;
- **Spain** has committed a total of €189,500,000 over 20 years;
- **Sweden** has committed a total of SEK 276,150,000 over 15 years;
- **Norway** has committed a total of US$27,000,000 over 5 years;
- **South Africa** has committed a total of US$20,000,000 over 20 years;
- **Other** donors are expected to follow suit. Brazil for example, has announced that it will pay $20 million over 20 years.


Estimated (annual) spending 2000-2005 and forecasted expenditures 2010-2015
for immunization programmes in 72 low-income countries
Note : all figures in US$; ranges indicated in brackets
Campaigns/Polio Eradication
Vaccines
Systems
Billions (US$)
4
3
2
1
0
2000
$1.1 Billion
($0.9-$1.6)
2005
$2.5 Billion
($1.8-$4.2)
2010
$3.5 Billion
($2.5-$5.8)
2015
$4 Billion
($2.9-$6.7)

GIVS – Total Costs for 2009-2015

	Delhi 2005	New York 2009
	2006-2015	**2009-2015**
72 poorest	$35.5 bn	**$27.9 bn**
45 LMIC	$40.6 bn	**$30.6 bn**
117 countries	$76.1 bn	**$58.5 bn**



In 72 poorest countries

Funding the Unfinished Mandate

	Funding Scenario (2009-2015) [2]	
	Worst Case [3]	Best Case [3]
	US$ Bn	US$ Bn
National Governments [1]	$11.0	$13.5
GAVI Fund [1,4]	$4.6	$7.4
Mulitlaterals (WHO & UNICEF) [1]	$0.6	$1.8
Other	$0.4	$0.9
Funding Gaps	**$11.3**	**$4.4**
Unmet needs (% of requirements)	**40.6%**	**15.6%**

1. - Includes contributions from bilateral agencies

2. - For the 72 poorest countries. Extrapolated from the funding scenarios of 50 of the 72 countries based on their 5 year multi-year plan for immunization (cMYP)

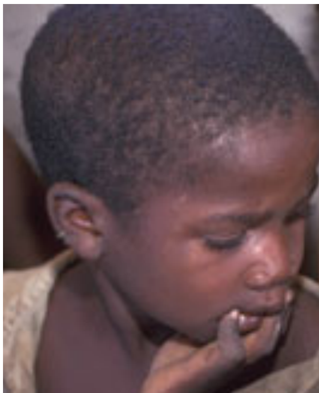
3. - Worst case = assuming only committed funds. Best case = assumes optimial resource mobilization and needed funds are secured

4. - Includes only GAVI funds expected to go directly to countries that are immunization specific (excludes support for HSS, agency overheads and vaccines not included in the original GIVS costing exercise).

Specific Program Funding gaps

- **Measles** — Total requirement of approx. **US$ 392 million** by end 2015. Current funding gap stands at **US$ 243 million** of which **US$ 80 million** to meet the target of a 90% measles death reduction by 2010 (figures exclude India)
- **Meningitis** — Total requirement of **US$ 570 million** by end 2015 of which GAVI to finance US$ 369 million. Countries ready to introduce and co-finance (Yaoundé declaration, September 2008). Current funding gap stands at **US$ 460 million** of which **US$ 285 million** carried by GAVI
- **Yellow Fever** — Total requirement of **US$ 365 million** by end 2013 of which GAVI to finance US$ 271 million. Current funding gap stands at **US$ 227 million** of which **US$ 226.3 million** carried by GAVI
- **MNT** — Total requirement of **US$ 281 million** by end 2012. Current funding gap stands at **US$ 241 million**
- **Polio** — Total requirement of **US$ 2.1 billion** by end 2013. Current funding gap stands at **US$ 875 million**

Possiamo salvare 2.7 milioni di vite in più ogni anno!



IMMUNIZATION STRATEGIES + FINANCIAL AND HUMAN RESOURCES + PARTNERSHIPS + COMMITMENT = MILLIONS MORE LIVES SAVED

BY 2015, IMMUNIZATION COULD BE PREVENTING 4-5 MILLION CHILD DEATHS PER YEAR

Trends in Global Under 5 Mortality

Number of <5 deaths

20
18
16
14
12
10
8
6
4
2
0

1960 1970 1980 1990 2000 2007 2015

Progress Towards Global Immunization Goals - 2009

Summary presentation of key indicators

Updated August 2010

World Health Organization

Global Immunization 1980-2009, DTP3 coverage

global coverage at 82% in 2009

% coverage

0
20
40
60
80
100

20 23 25 38 44 49 52 55 64 68 75 71 70 70 73 73 72 72 72 73 74 74 74 75 77 79 80 81 81 82

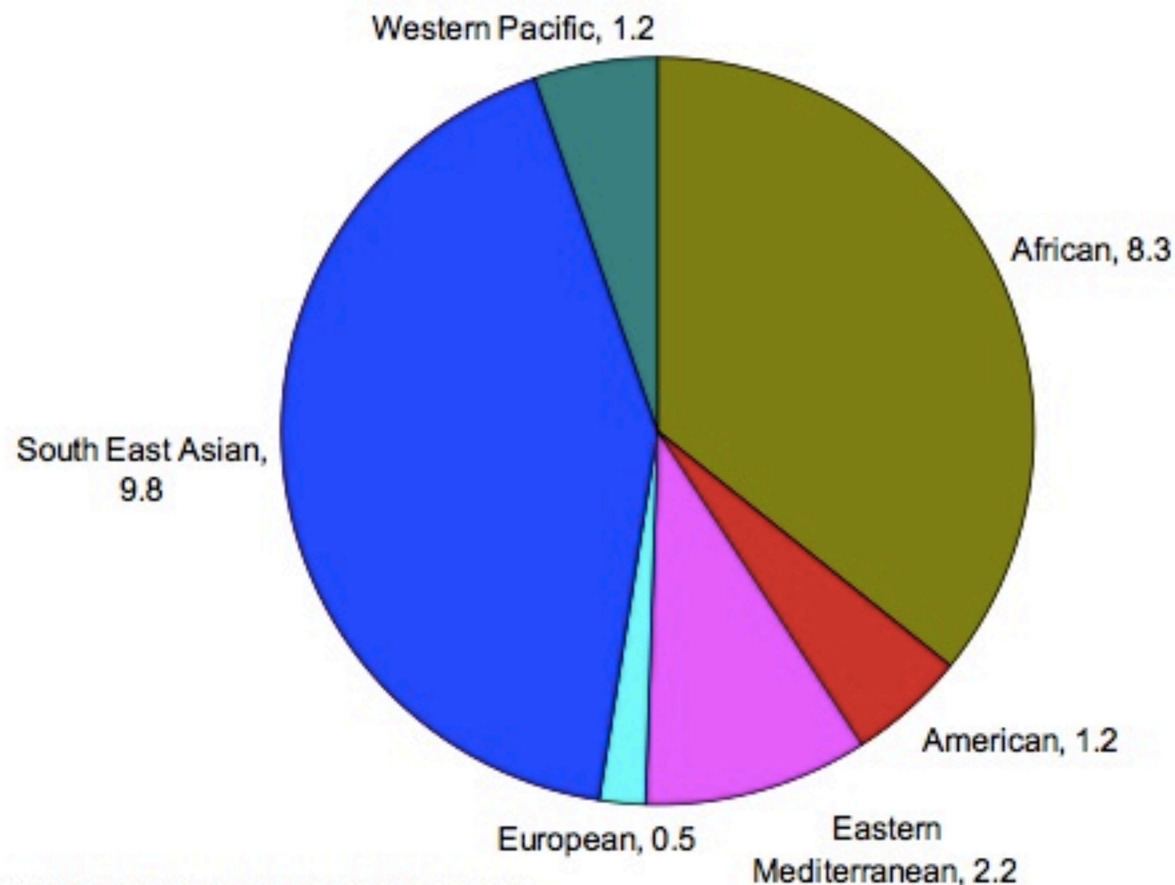
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

Global
African
American
Eastern Mediterranean
European
South East Asian
Western Pacific

rce: WHO/UNICEF coverage estimates 1980-2009, July 2010 Date of slide: 13 July 2010

World Health Organization

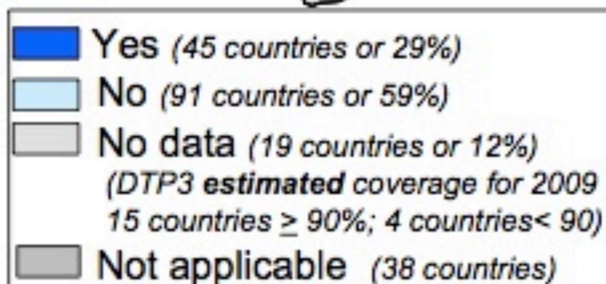
23.2 million infants not immunized (DTP3), 2009



rce: WHO/UNICEF coverage estimates 1980-2009, July 2010 Date of slide: 13 July 2010

World Health Organization

"Developing"* countries with all districts achieving at least 80% DTP3 coverage, 2009



5 developing countries and economies in
sition per *UN World Economic & Social Survey,*
0 classification

rce: WHO/UNICEF estimates and WHO/IVB database, July
0.

WHO Member States. Date of slide :10 September 2010

The boundaries and names shown and the designations used on this map do
imply the expression of any opinion whatsoever on the part of the World He
Organization concerning the legal status of any country, territory, city or ar
its authorities, or concerning the delimitation of its frontiers or boundaries.
lines on maps represent approximate border lines for which there may not y
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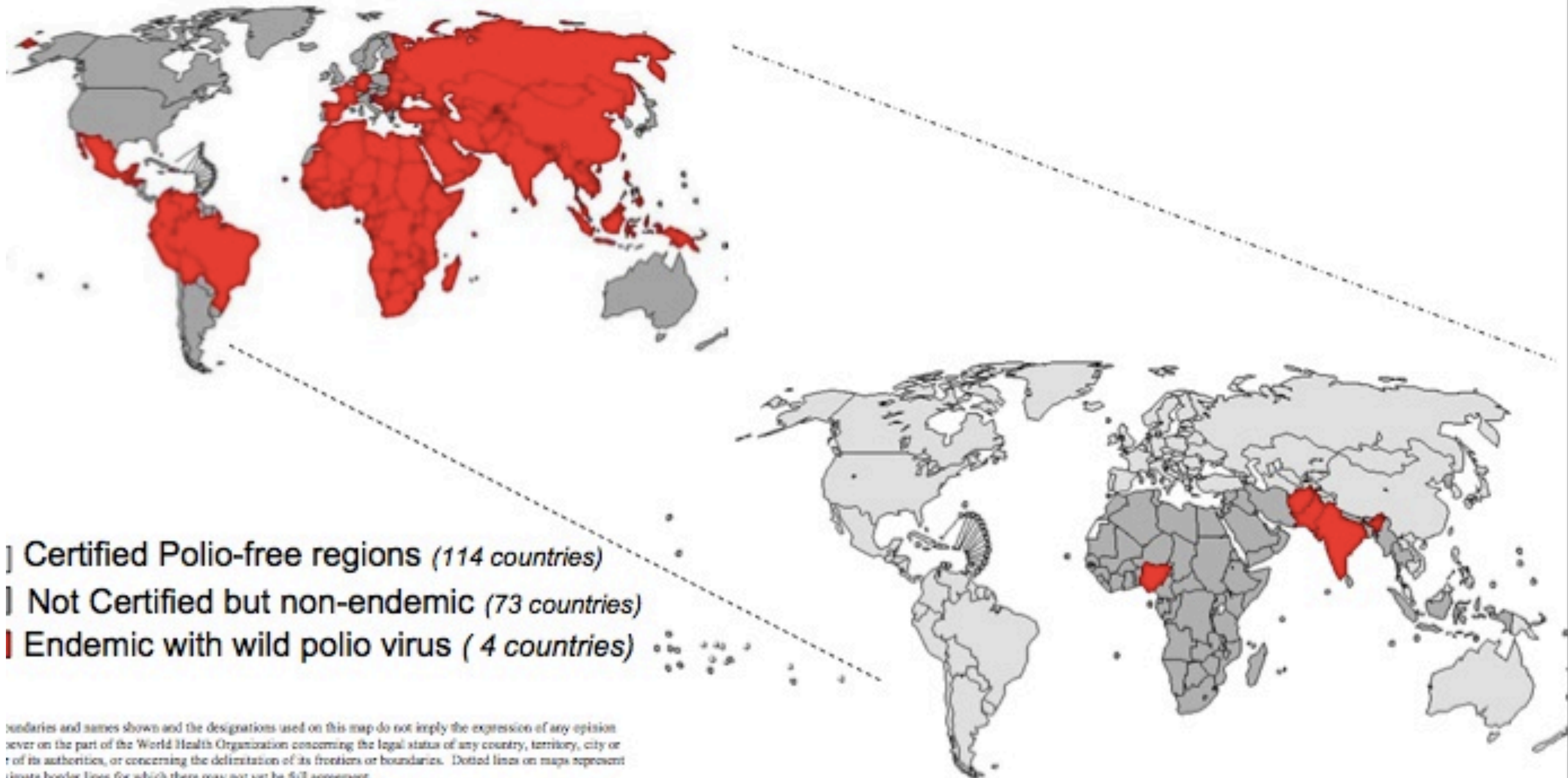
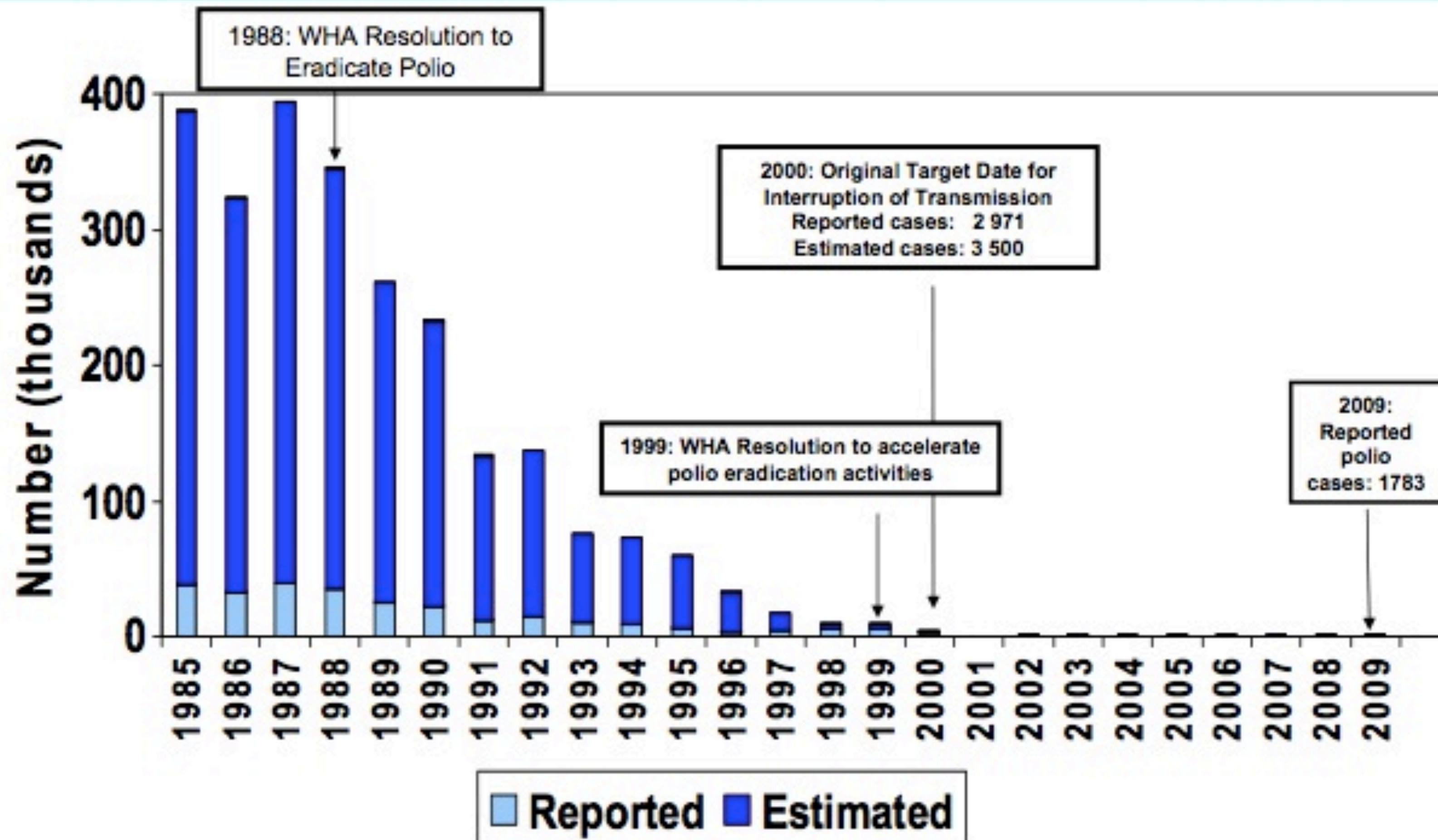
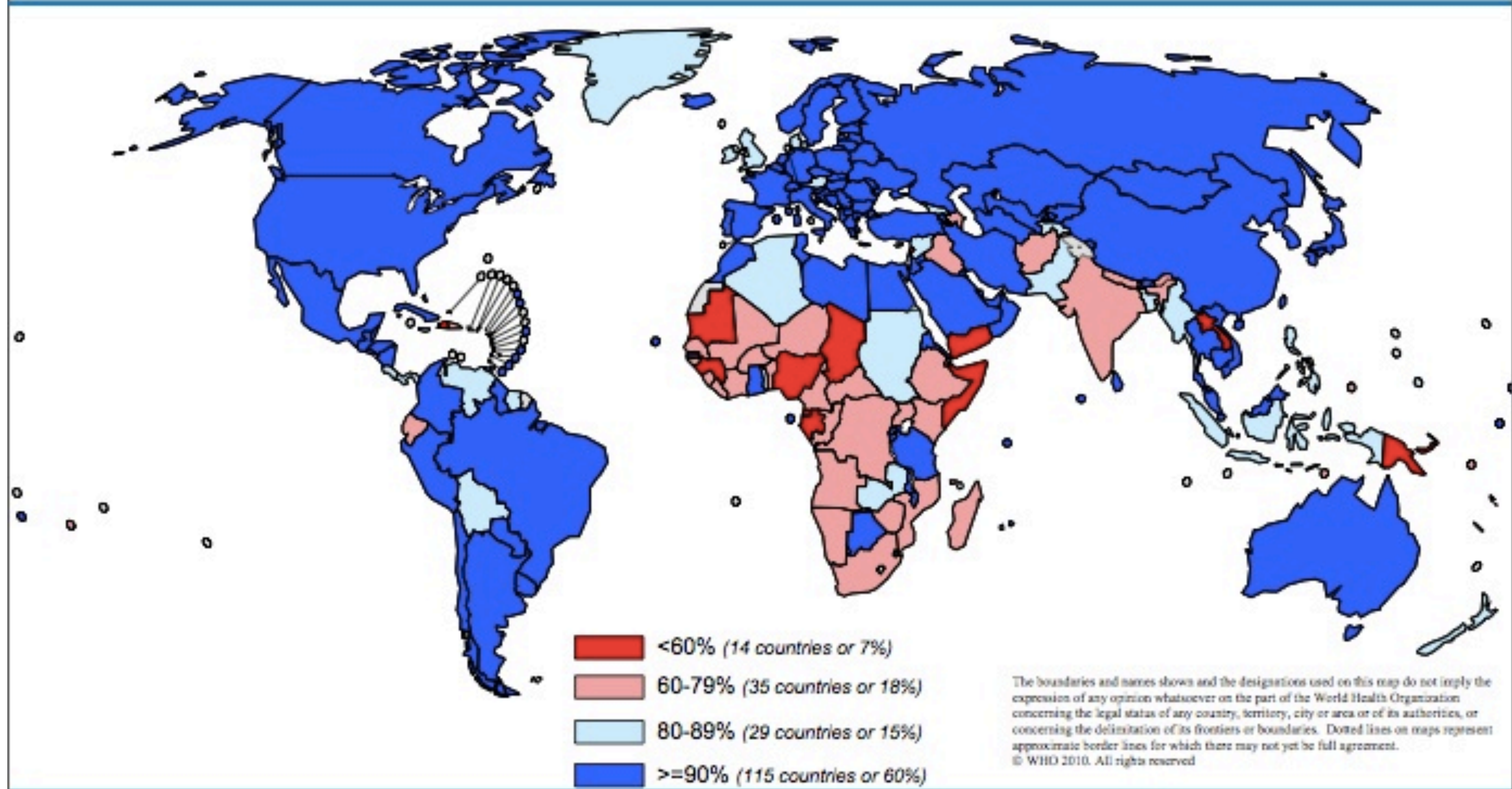
Polio Eradication Progress, 1988 – 2009



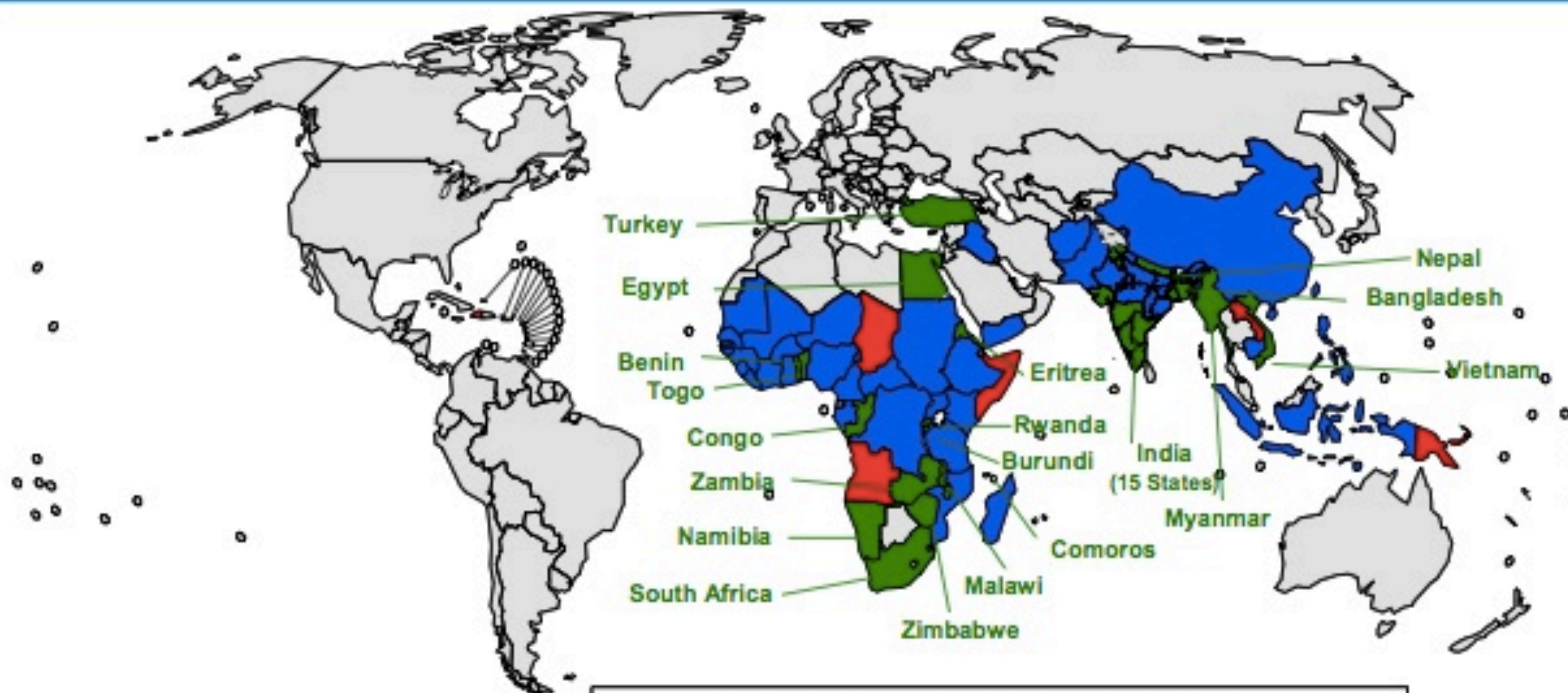
Progress in Polio Eradication, Estimated and Reported Polio Cases, 1985-2009



Immunization coverage with measles containing vaccines in infants, 2009



*Plus 15 states in India



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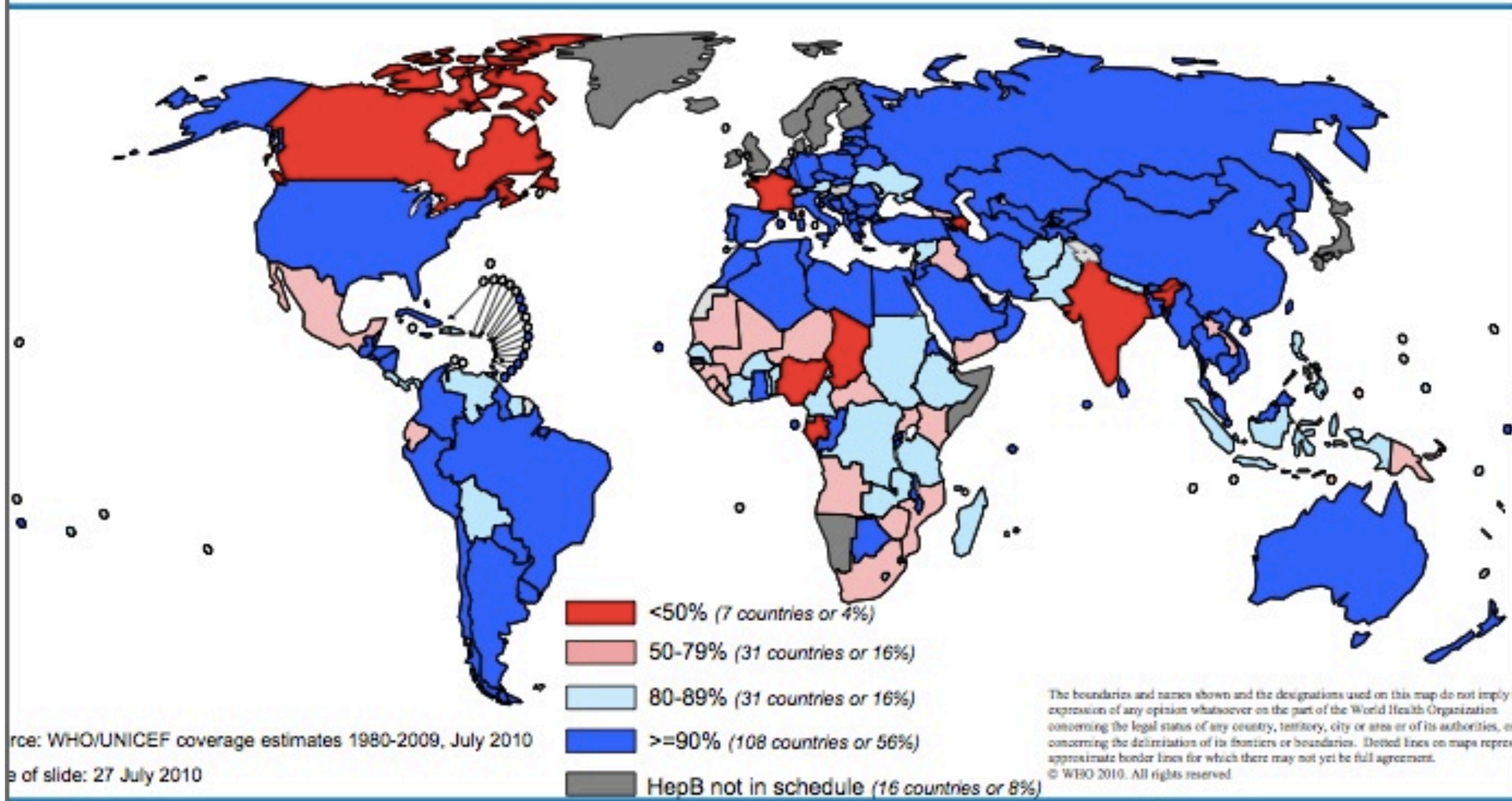
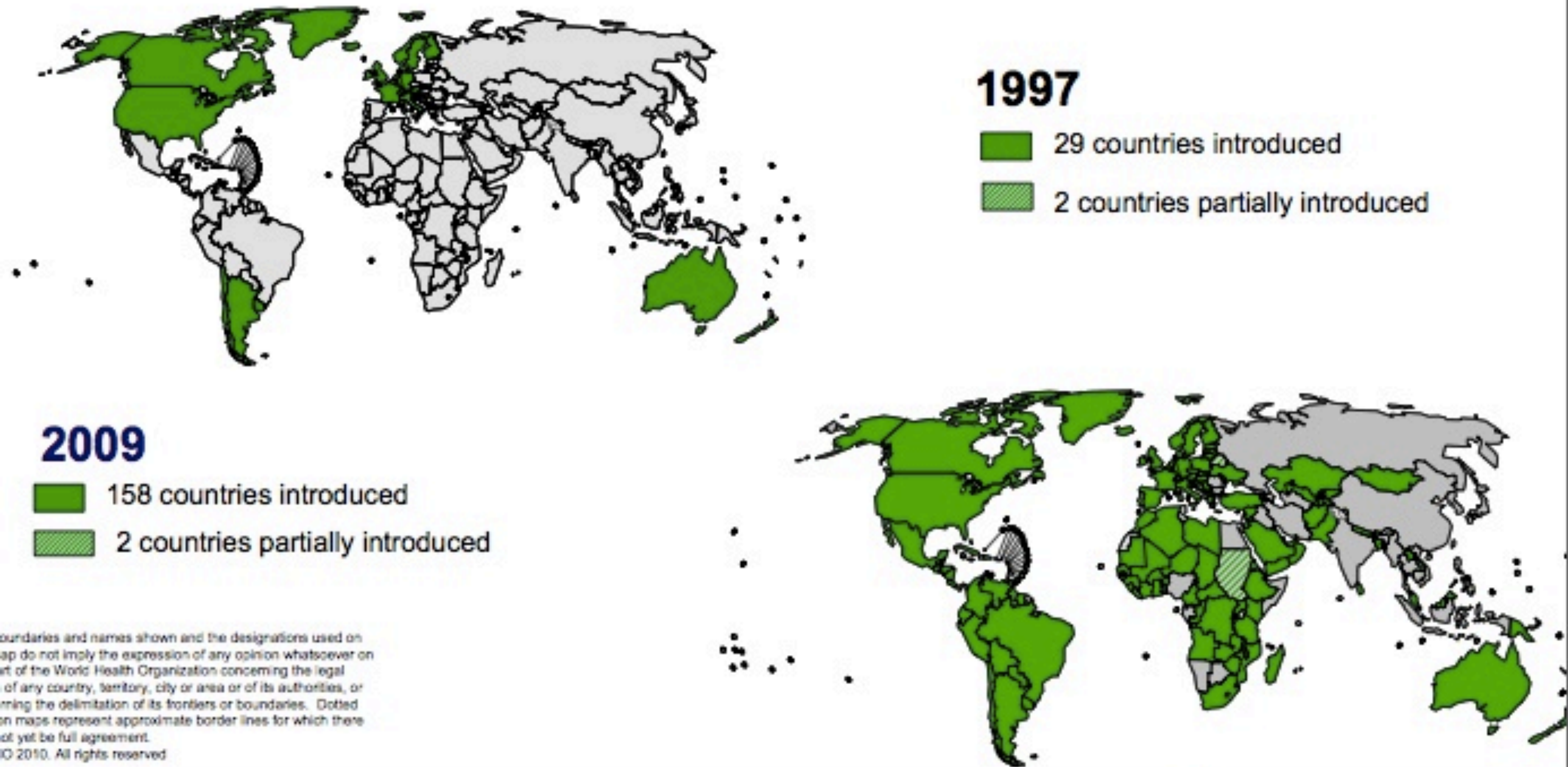
- MNT eliminated prior to 2000 *(135 countries)*
- MNT eliminated since 2000 *(18 countries & 15 States in India)*
- MNT eliminated in 50 - 99% of districts *(34 countries)*
- MNT eliminated in < 50% of districts *(6 countries)*

Source: WHO/UNICEF estimates and WHO/IVB database, May 2010
193 WHO Member States. Data as of June 2010

Immunization coverage with 3rd dose of HepB vaccines in infants, 2009



Countries having introduced Hib vaccine in 1997 and 2009



Links

- WHO Immunization: http://www.who.int/immunization/en/
- WHO Immunization Funding: http://www.who.int/immunization/funding/en
- : WHO GIVS: http://www.who.int/immunization/givs/en/index.html
- WHO Yellow Fever: http://www.who.int/csr/disease/yellowfev/en/index.html
- UNICEF GIVS: http://www.unicef.org/immunization/index_27089.html
- GIVS cost & impact study: http://www.who.int/bulletin/volumes/86/1/07-045096.pdf
- September 2008 - Measles funding statement: http://www.measlesinitiative.org/docs/mi-funding-statement.pdf
- September 2008 - Yaoundé declaration on elimination of Meningococcal Meningitis Type A Epidemics as a Public Health Problem in Africa: http://www.who.int/immunization/newsroom/yaounde_declaration.pdf
- Polio funding: http://www.polioeradication.org/fundingbackground.asp#FRR
- GAVI: www.gavialliance.org
- IFFIm: www.iffim.com
- AMCs: http://www.vaccineamc.org

Grazie dell'attenzione!