

Global Report

**key updates & challenges
including from the Regions**

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**World Health
Organization**

Outline



SCALING UP
delivery of immunization- GVAP

TURNING THE CORNER
for strengthening routine immunization

STRIVING TO INTEGRATE
immunization & other child health interventions

TAILORING MEASLES STRATEGIES to the disease epidemiology

PREPARING FOR THE FUTURE
vaccine pipeline, preferred products characteristics, cholera stockpile, TB vaccines, advisory processes at regional & global levels, burden of disease



SCALING UP the delivery of immunization - GVAP



Global Vaccine Action Plan

2011–2020



Executive Board update



**World Health Assembly
Report**



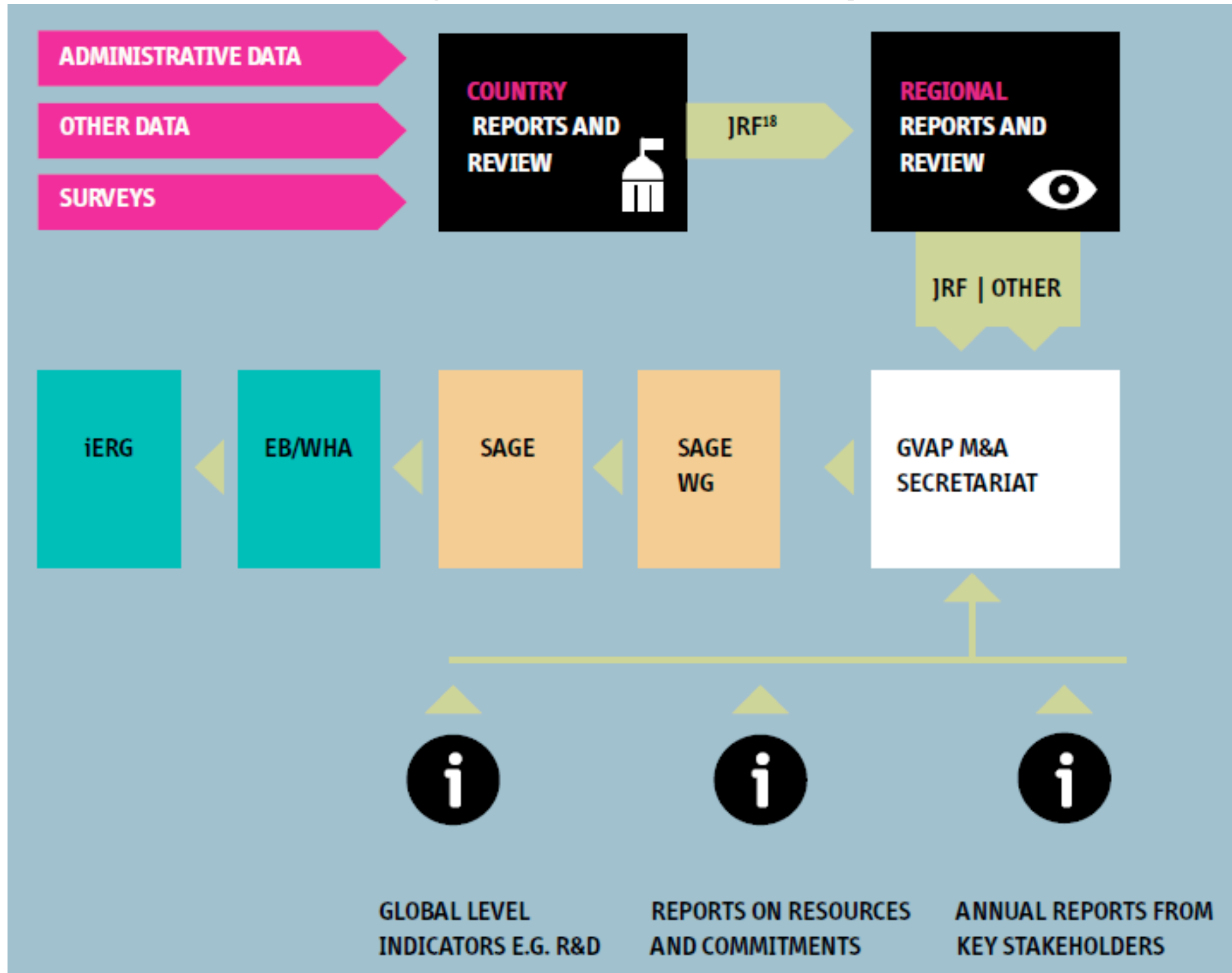
World Immunization Week



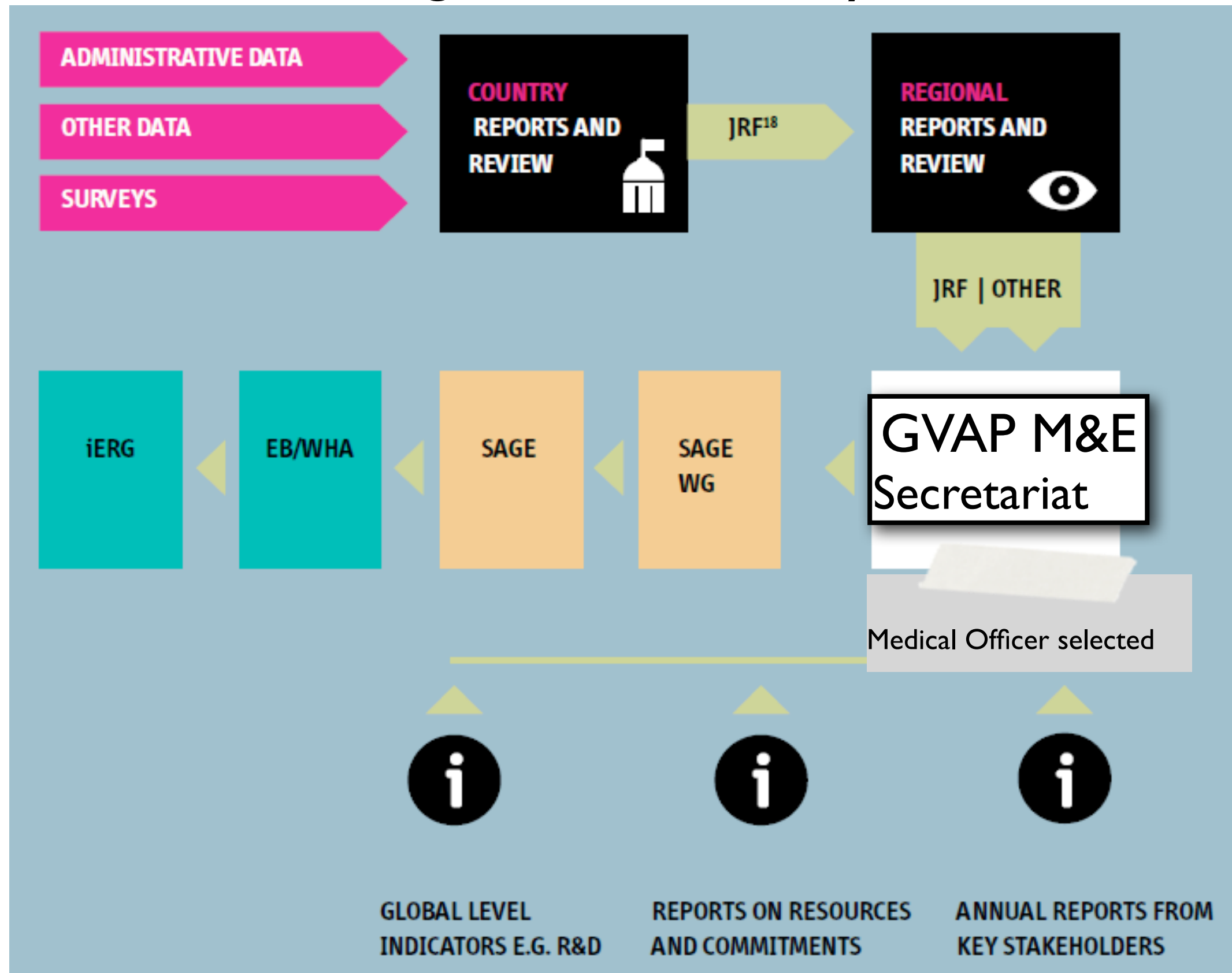
**Progress update & key
documents**



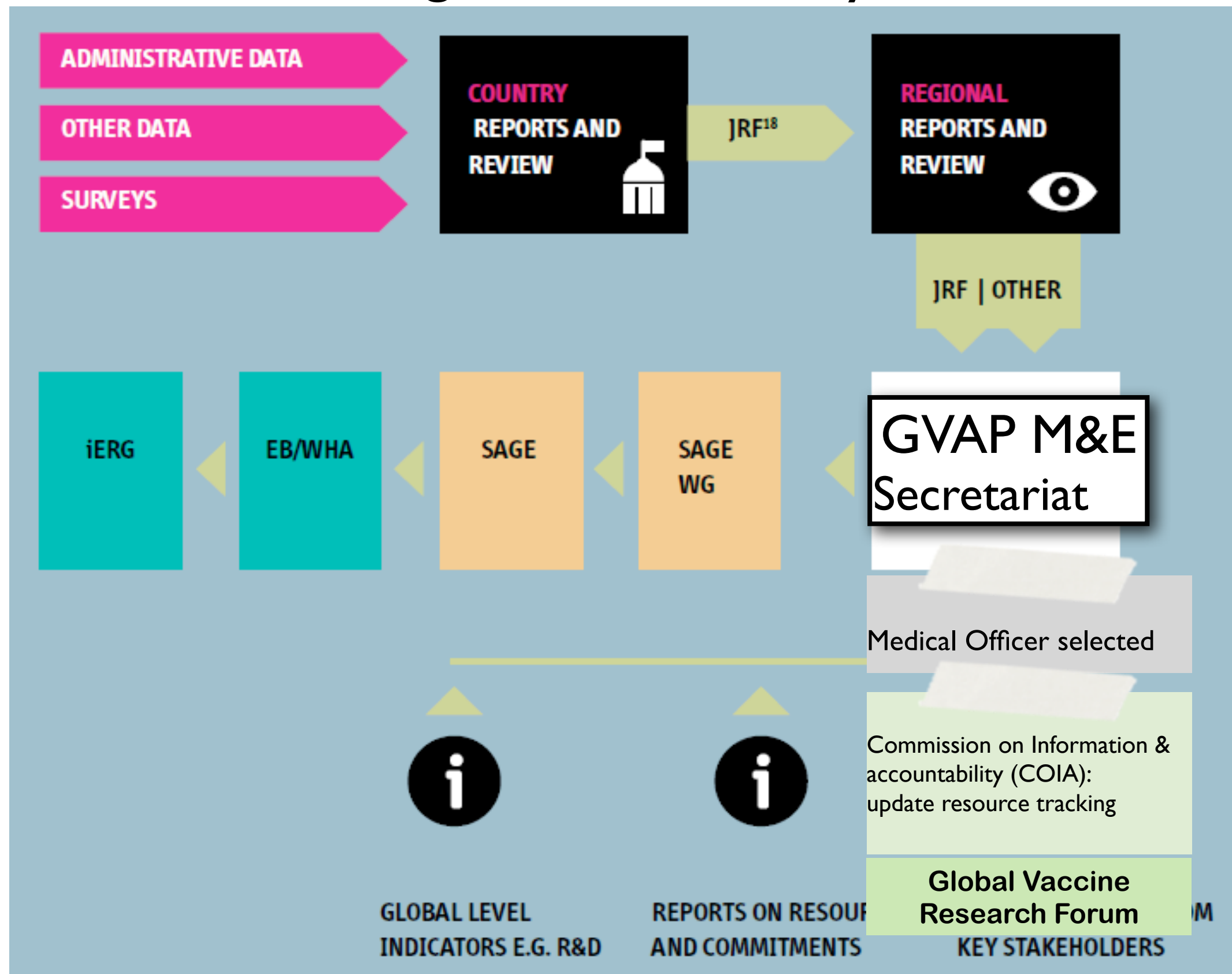
GVAP Monitoring & Accountability



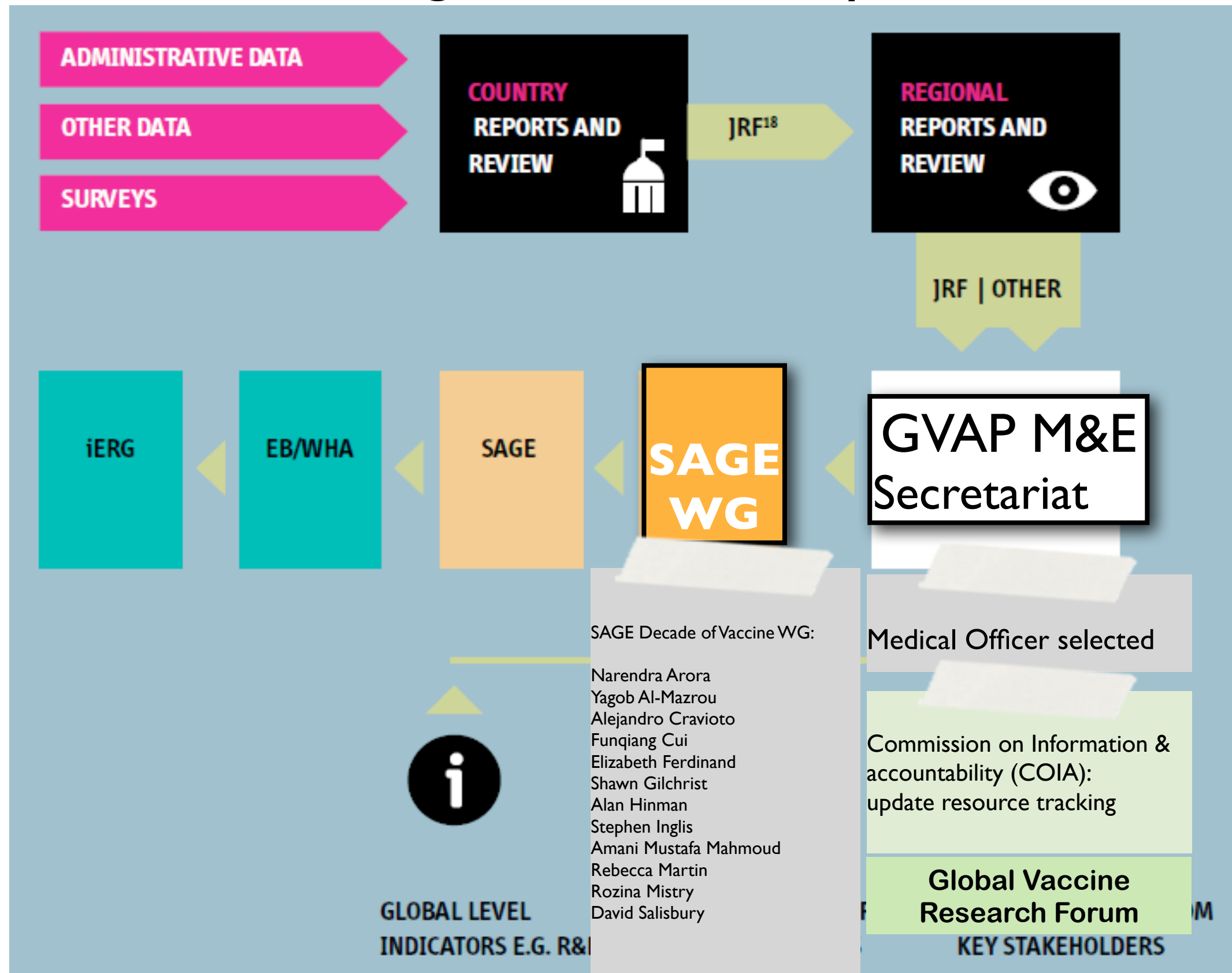
GVAP Monitoring & Accountability



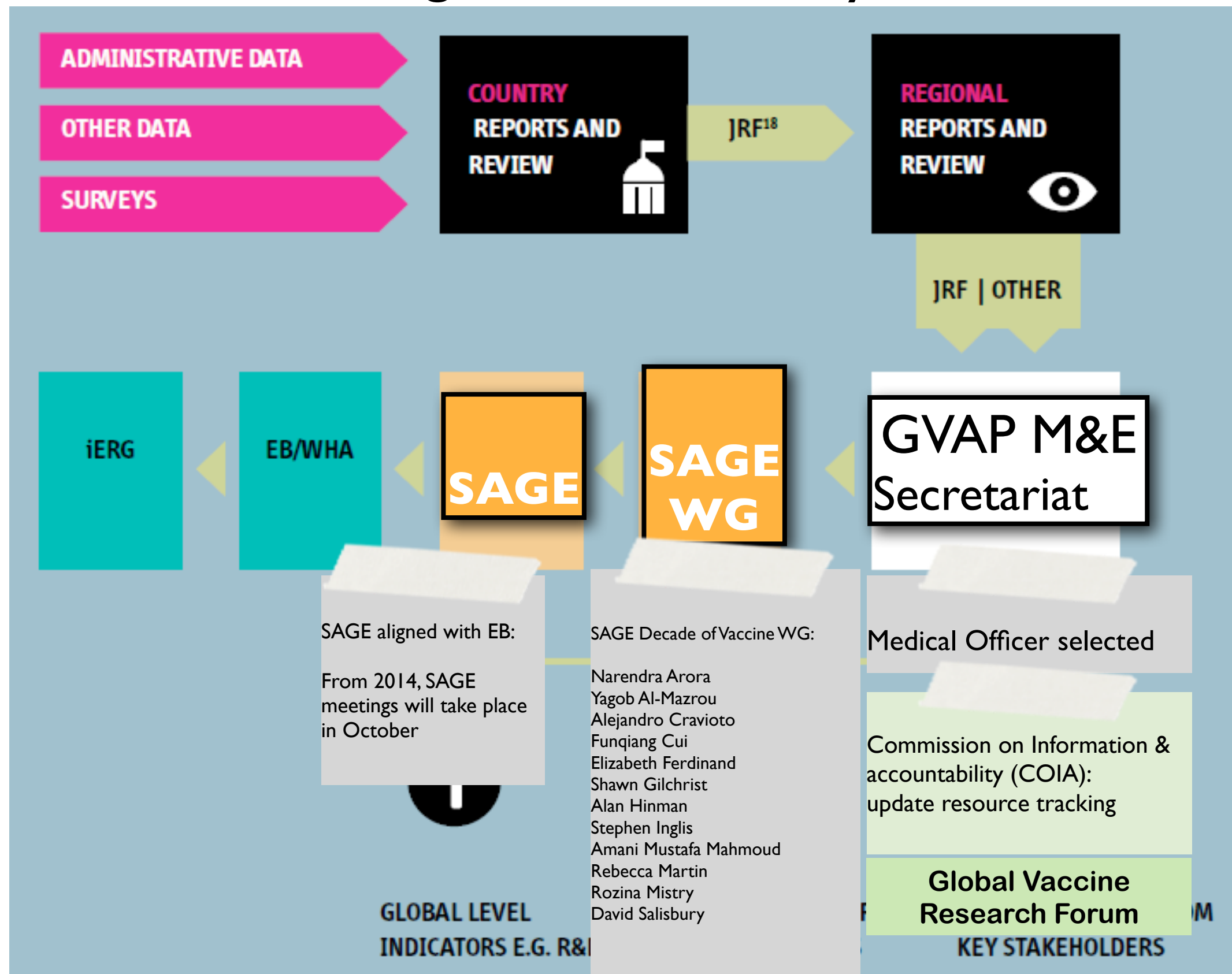
GVAP Monitoring & Accountability



GVAP Monitoring & Accountability



GVAP Monitoring & Accountability





TURNING THE CORNER **for strengthening routine immunization**

Global goals & expectations

- **X** Polio eradication
- **X** Prevent measles outbreaks & move towards elimination
- **X** Reduce large number of un-immunized
- **X** Others...

Strengthening
routine immunization

16.2 M / 22.4 M
unimmunized children live
in these priority
countries

Afghanistan
Chad
DRC
Ethiopia
India
Indonesia
Nigeria
Pakistan
Philippines
Uganda



Action is tangible in the priority countries

Harmonization of Annual Plans of Action:

scheduling & capitalize priority
activities for routine immunization,
new vaccines introduction, polio eradication &
measles/MNTE control
or elimination, YF/Men A

Coordination & advisory mechanisms in place/reactivated ICCs, NITAGs

Funding support and vaccine supply



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ICCs, NITAGs

Funding support and vaccine supply

Challenges are becoming more evident

Plans of Action are ambitious:

Many campaigns & activities proposed
funding gaps not fully addressed

Coordination of inputs and assistance needs to further improve

fragmentation of programmes/activities
partners' specific interests persists

ICC oversight weak

role Polio Task Force for RI ?

NITAG role and technical inputs need strengthening

No sense of urgency for RI

Turning the corner in Nigeria

CHALLENGES

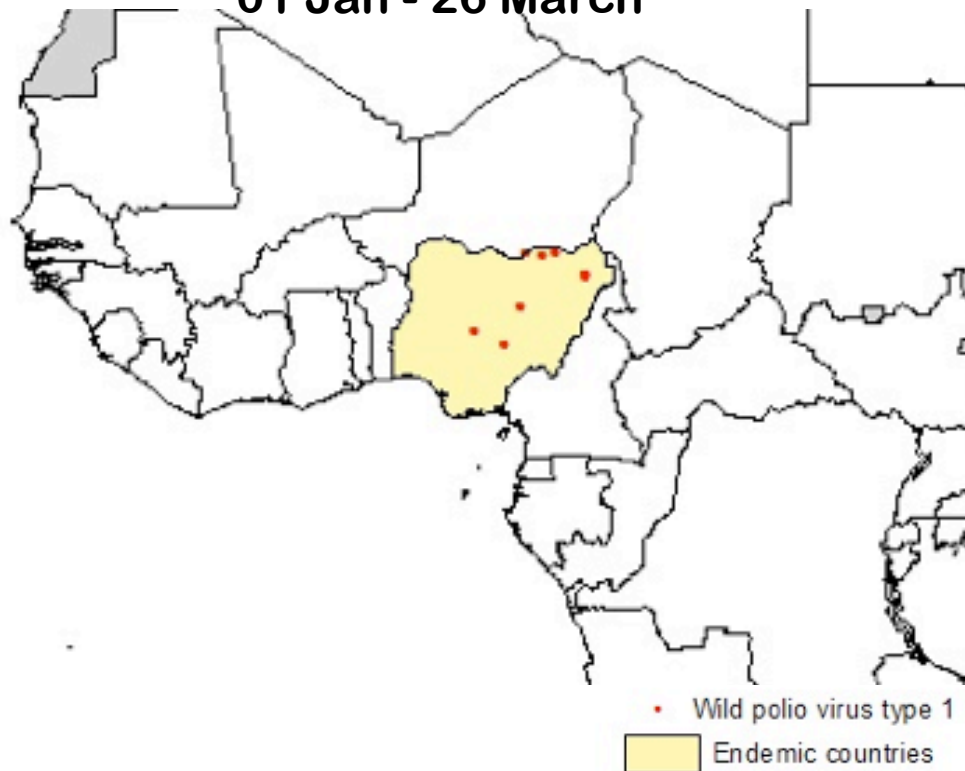


Turning the corner in Nigeria

CHALLENGES

Wild Poliovirus - 2013

01 Jan - 26 March

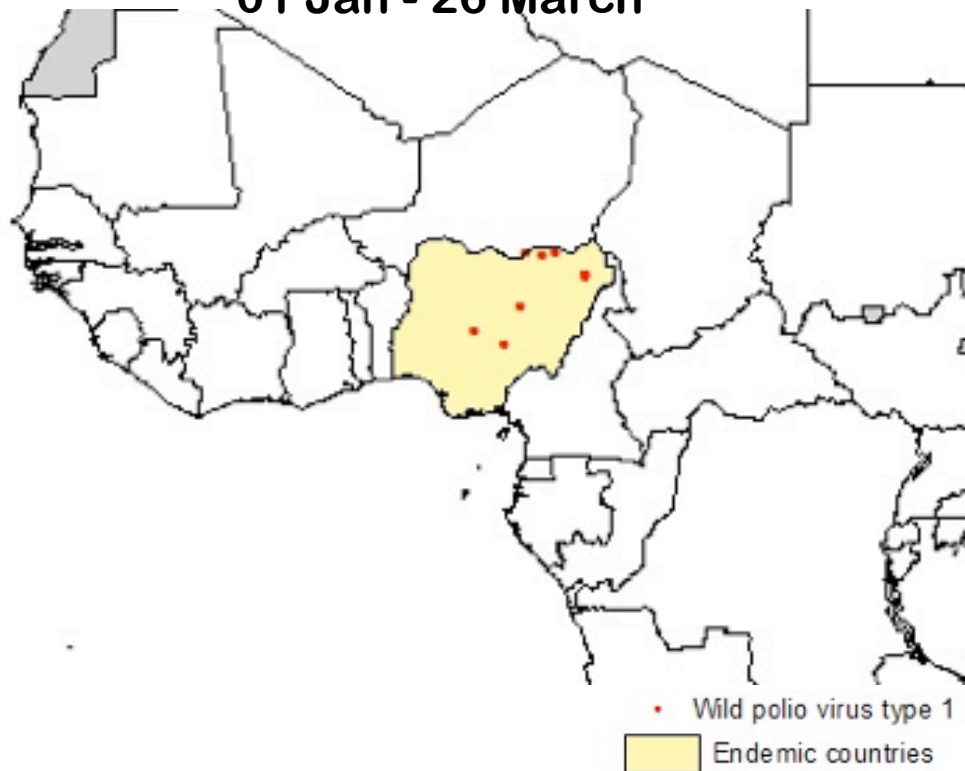


Excludes viruses detected from environmental surveillance and vaccine derived polioviruses.

Turning the corner in Nigeria

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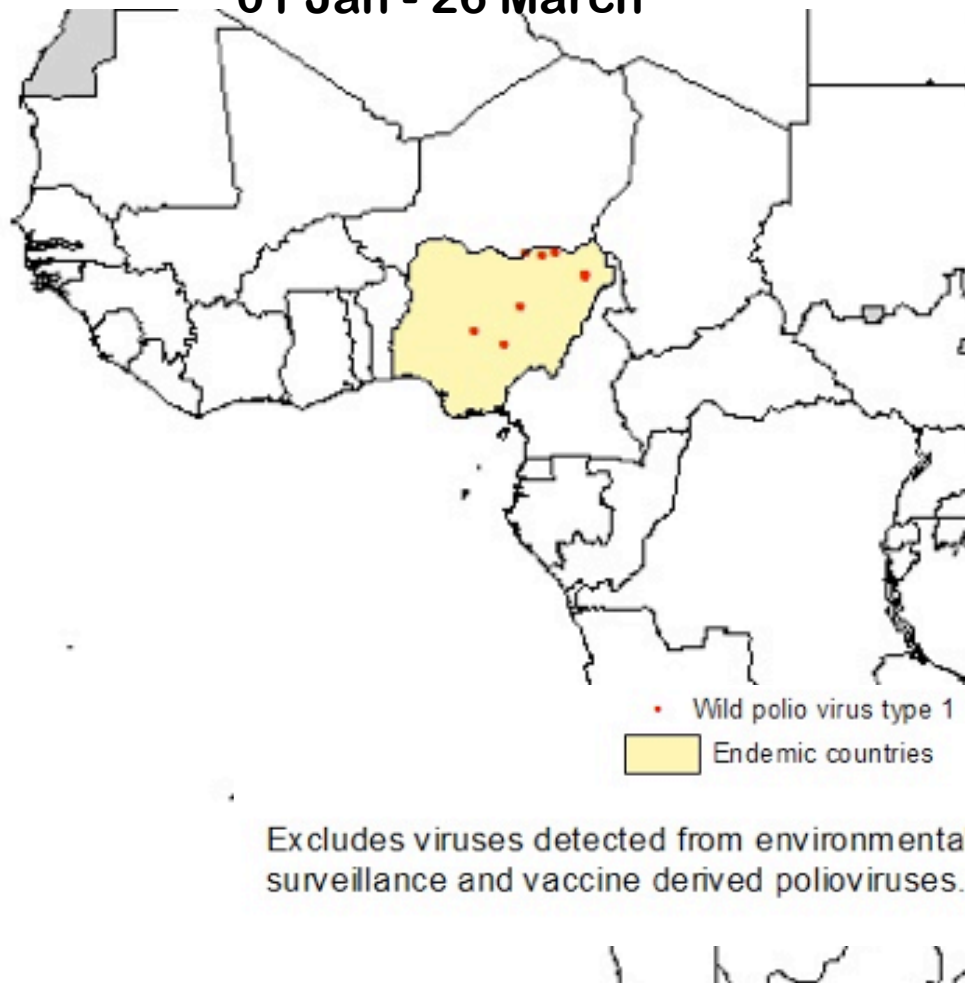
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Large measles outbreak
11,000 cases - 88% not vaccinated
SIA schedule for Aug-Sept 2013

Turning the corner in Nigeria

CHALLENGES

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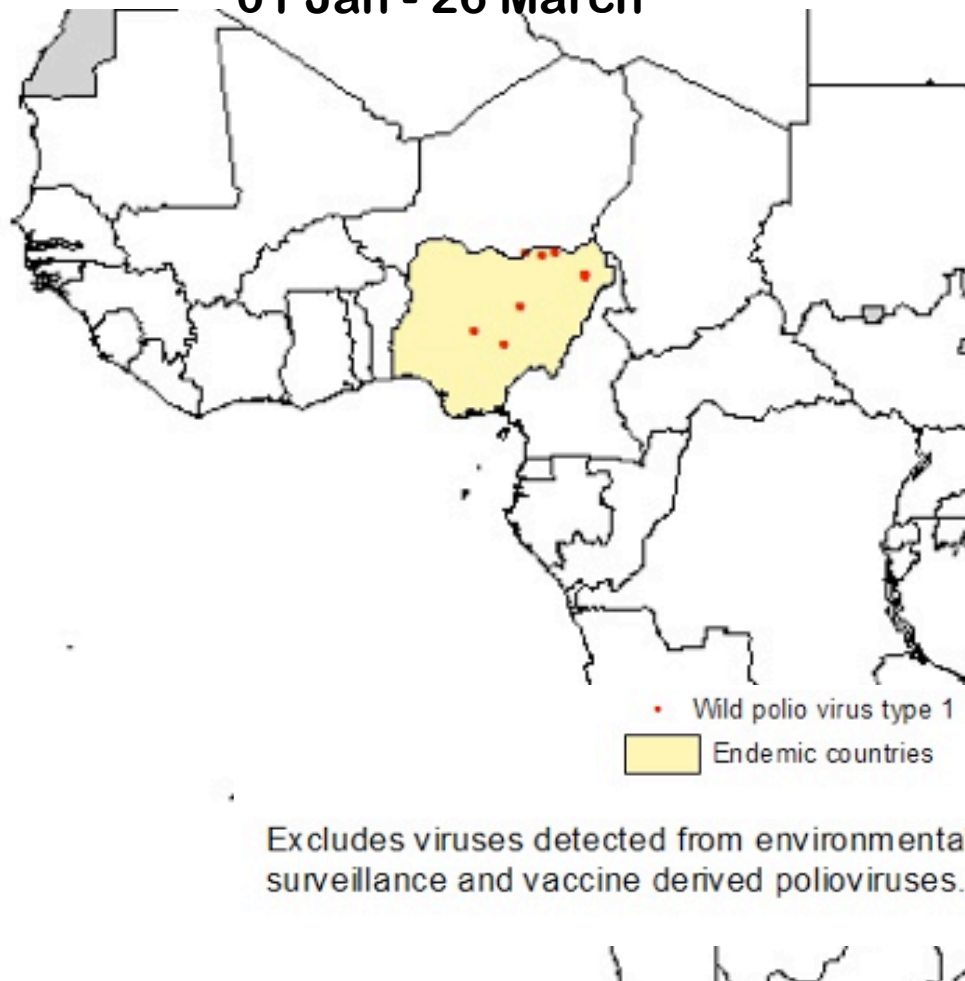
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SIAs plans - **Yellow Fever, MNTE, MenA**

Turning the corner in Nigeria

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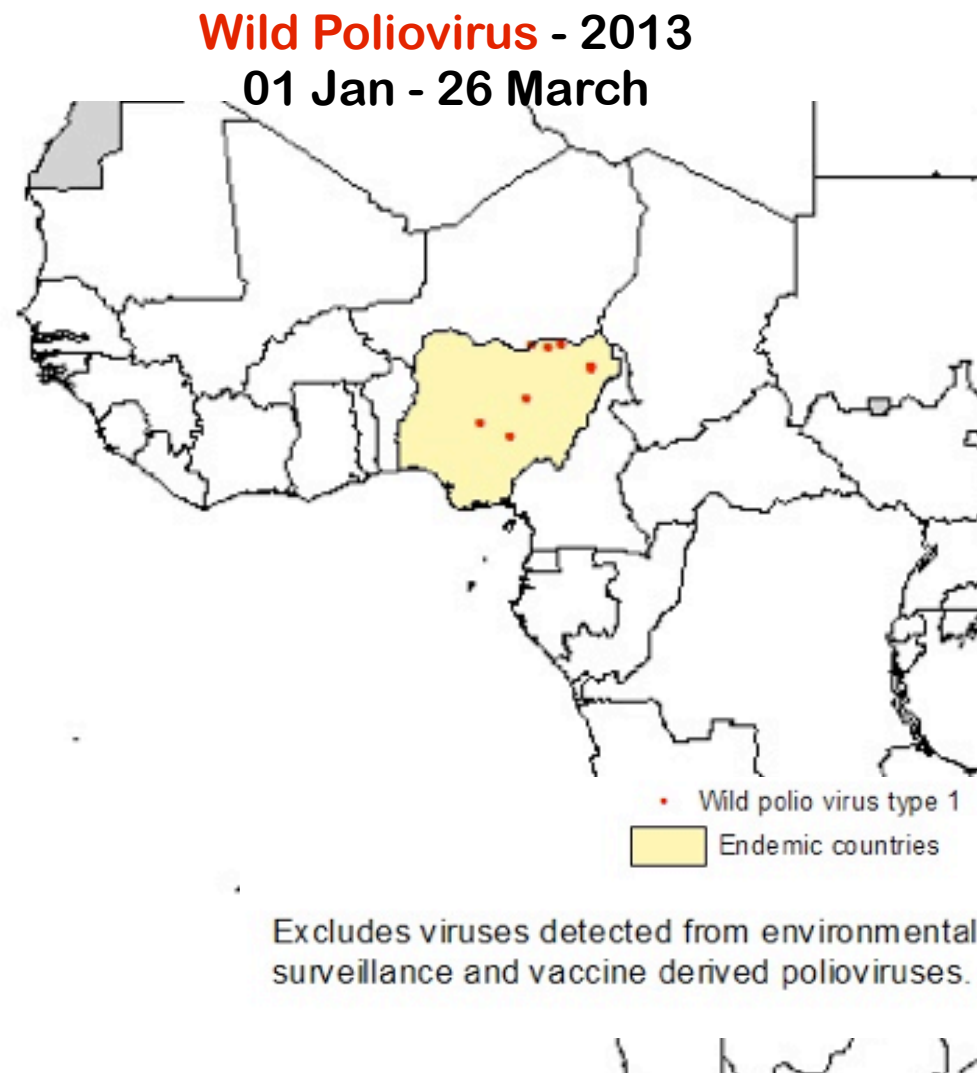
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Security concerns - Northern States

Turning the corner in Nigeria

CHALLENGES



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Security concerns - Northern States

Tasks for **routine immunization** in 2013:

Training of health workers on data management

Introduction of **penta vaccine** in remaining 16 States

Introduction of **PCV** in Phase 1 States

Expansion of PBM sites and start rota **surveillance**

Turning the corner in Nigeria



Government high level support:

- Presidential Polio Task Force - oversight of NPEP
- EPI/Polio - key programme area of “one million lives saved” initiative
- Harmonized Plan of Action & accountability framework for RI
- Funds for procurement of routine vaccines & supplies



Partners' support and coordination enhanced

- Mapping of partners support
- WHO/UNICEF joint daily TCs with field offices
- GAVI approval of HSS/ISS support



WHO/AFRO support

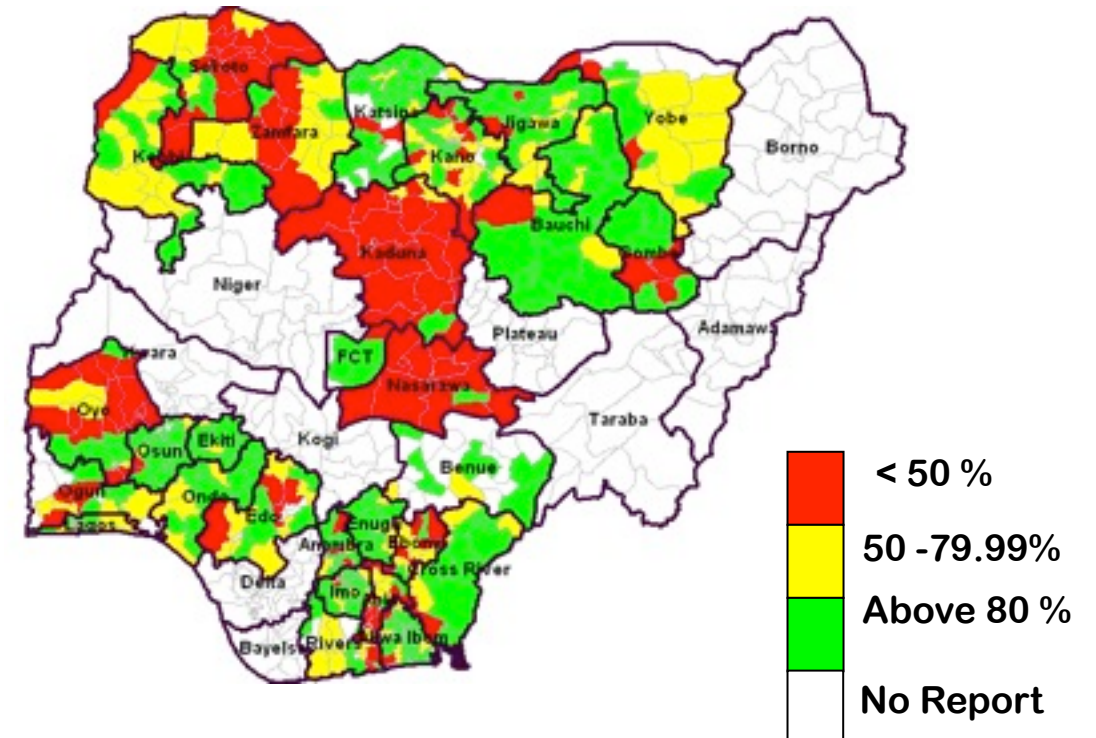
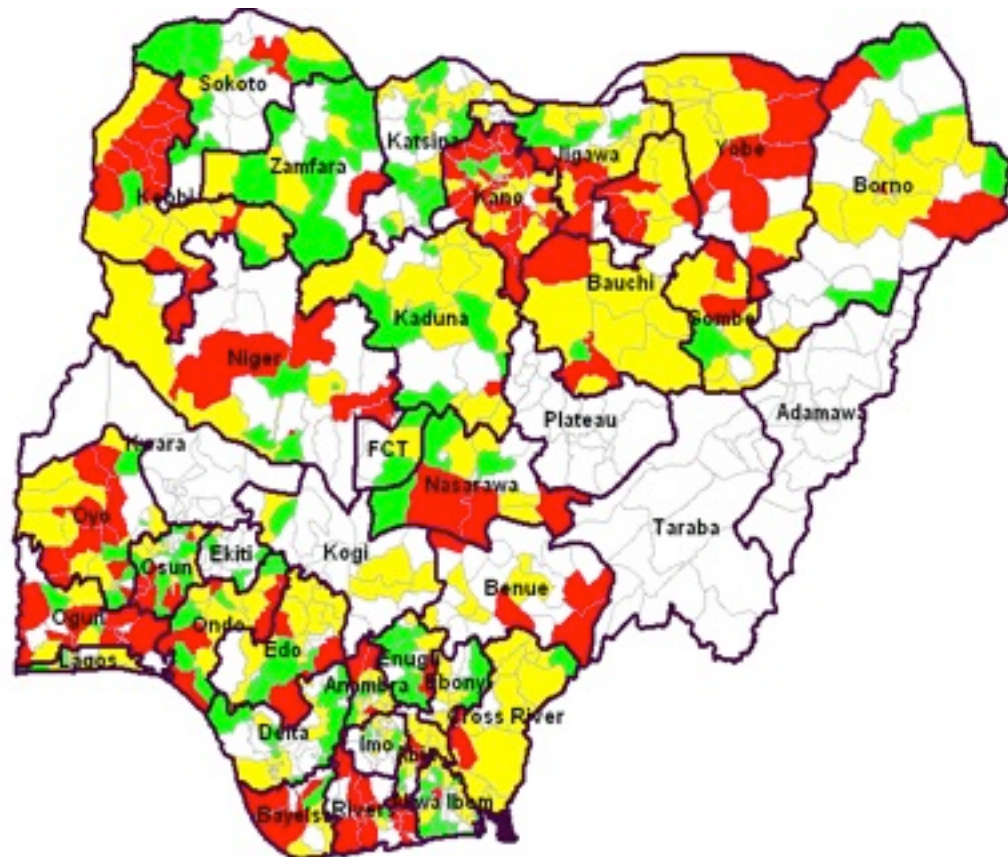
- Weekly interactions through TCs
- Monitor implementation and plan support,
- Following AFRO-HQ joint mission and RD's visit to Nigeria
- Fast-track polio surge capacity to support routine immunization

Turning the corner in Nigeria

Jan, 2013

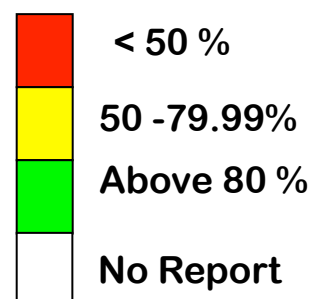
Proportion of Planned Fixed Sessions Conducted

DPT3 Coverage by LGA

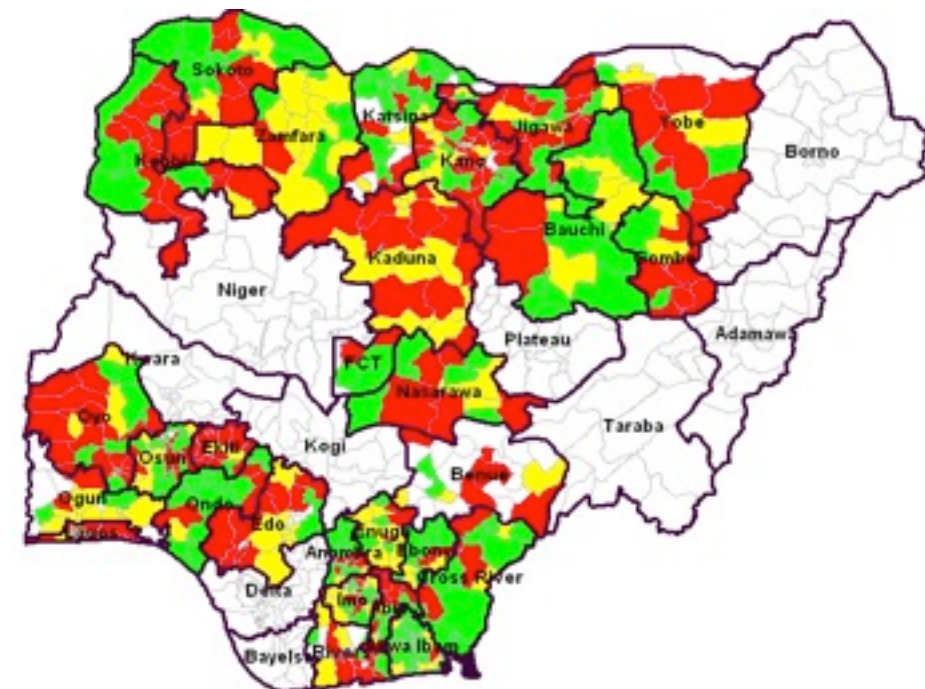


Proportion of Planned Outreach Sessions Conducted

DPT 3 containing antigen: National Coverage=61%

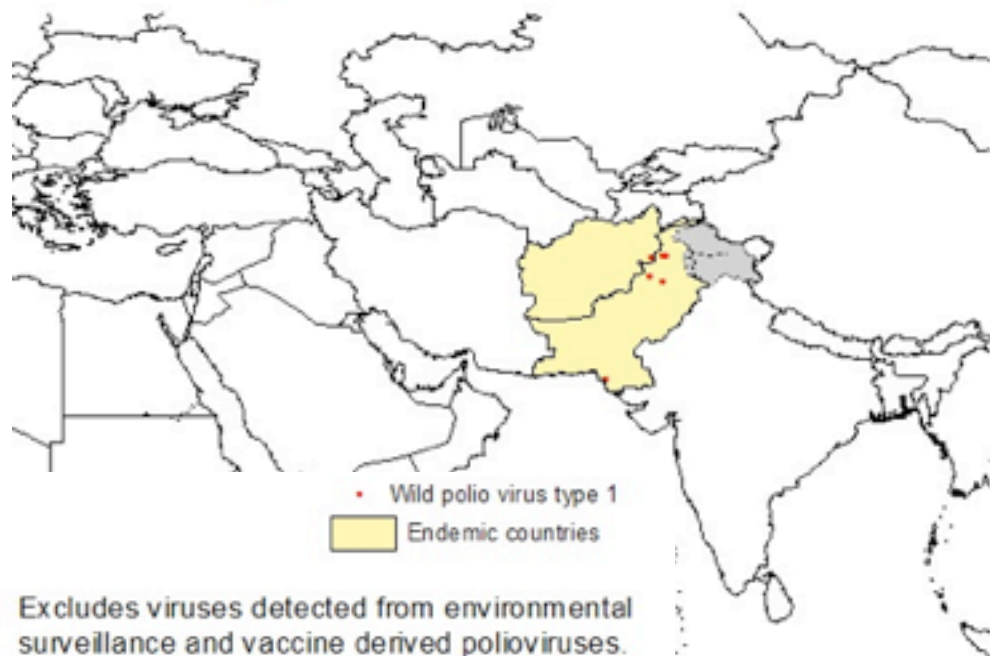


Coverage for all antigens are calculated using birth cohort & women of child bearing age group

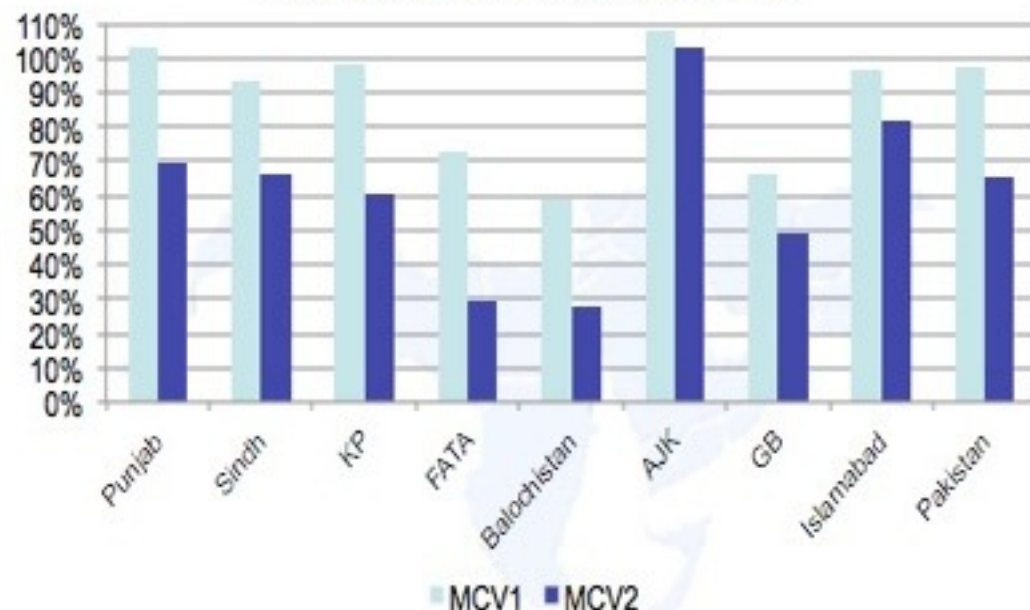


Turning the corner in Pakistan

Wild Poliovirus - 2013
01 January - 26 March



Administrative coverage with first and second doses of measles vaccine in different provinces/areas, 2012



Routine DTP3 = 80% (estimated)
Large measles outbreak

Measles SIAs conducted in the past of insufficient quality EPI & polio - separate programmes
Governance and structure
Weak partners' coordination

Workshop to review routine immunization status & develop Plan of Action for 2013 for each province

Ongoing discussions on optimization of support for polio & measles SIA and RI

Vaccine supply constraints lifted

Stronger collaboration across Polio/VPD teams in EMRO and WCO

Turning the corner in Indonesia

**Large pockets of unimmunized
40% of districts with coverage
< 90%
Outbreak of Diphtheria**

Programme Review in 2013

**Expects to lead new plans to
increase coverage and reduce
inequalities in coverage at district
level**



Number of districts in the country

497

Proportion of districts reporting DTP3 coverage:

Greater or equal to 90%

59

From 80 to 89%

21

From 50 to 79%

15

Lesser than 50%

4

Proportion of districts not reporting DTP3 coverage

0

More effective WHO internal collaborations between IVB, Polio & HSS teams at the 3 levels of the organization

◆ Priority country support

- Focus on priority and low performing countries
- In-country harmonization of plans
- Regular joint “live monitoring” teleconferences

◆ Polio end game strategic plan gives routine immunization strengthening the same urgency & importance as improving OPV campaigns quality in key countries

◆ GAVI Board cash based funds

- “Ensure that GAVI funding through the cash-based programmes is designed to have a reasonable and demonstrable impact on immunization programmes in the context of integrated service delivery, and that immunization coverage is a credible outcome indicator for these activities...”

Status of Nominal Immunization Registries (NIR) Latin America and the Caribbean, Feb 2013

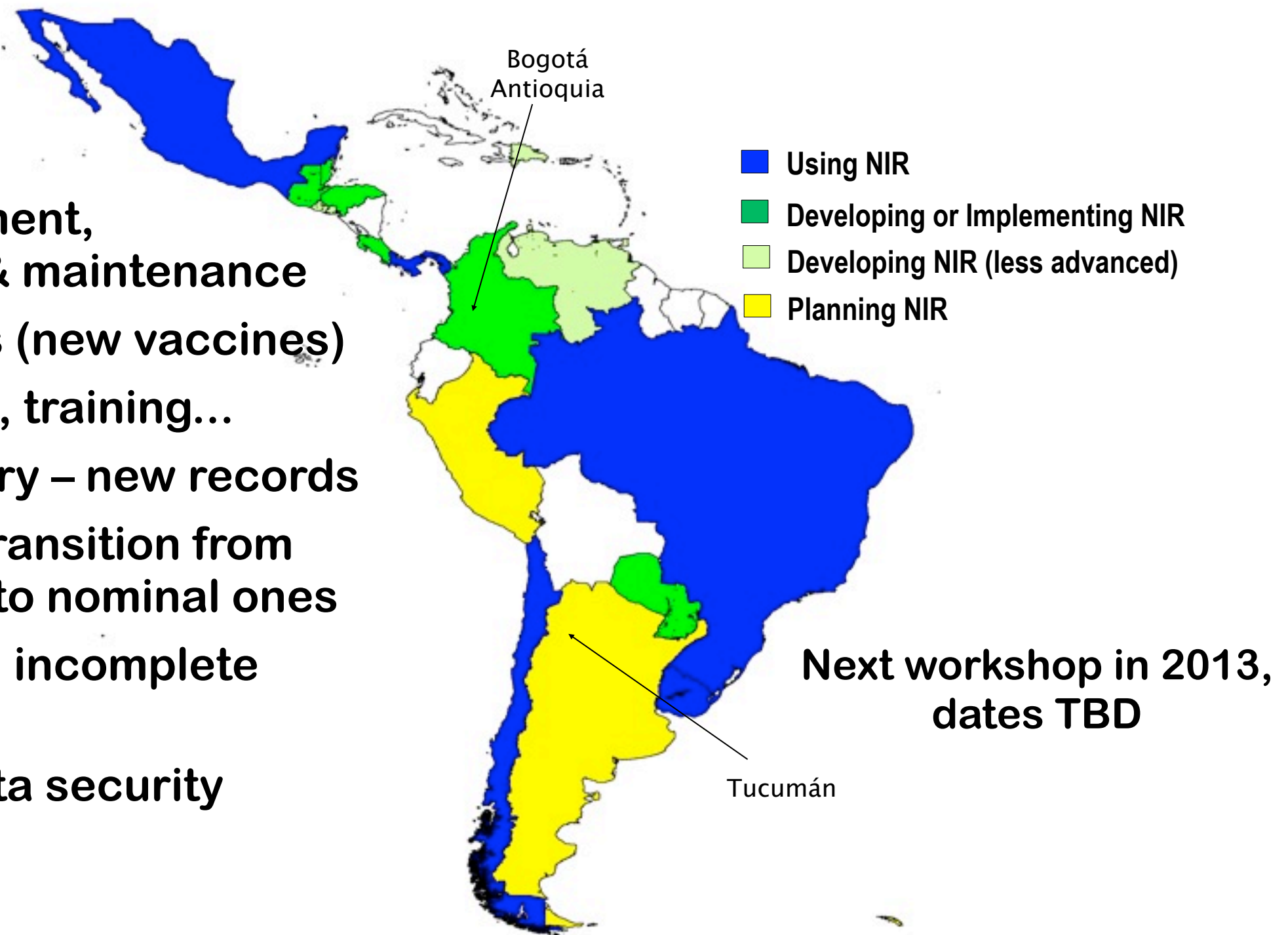


Status of Nominal Immunization Registries (NIR)

Latin America and the Caribbean, Feb 2013

CHALLENGES

- Costs – development, implementation & maintenance
- Need for updates (new vaccines)
- Training, training, training...
- Time for data entry – new records
- Acceptability & transition from current systems to nominal ones
- Risk of having an incomplete registry
- Data flow and data security
- Confidentiality





STRIVING TO INTEGRATE immunization & other child health interventions

New vaccines in National Immunizations Programs, Region of the Americas (Mar 2013)



- PCV - 90% of the birth cohort lives in countries that had already introduced it (60% of the LAC cohort)
- Rotavirus - 87 % of the birth cohort live in countries that already introduced it (60% of the LAC cohort)
- HPV - 51% of girls aged 10 -14 years live in countries that already introduced it

MOVING TOWARDS GAPP-D

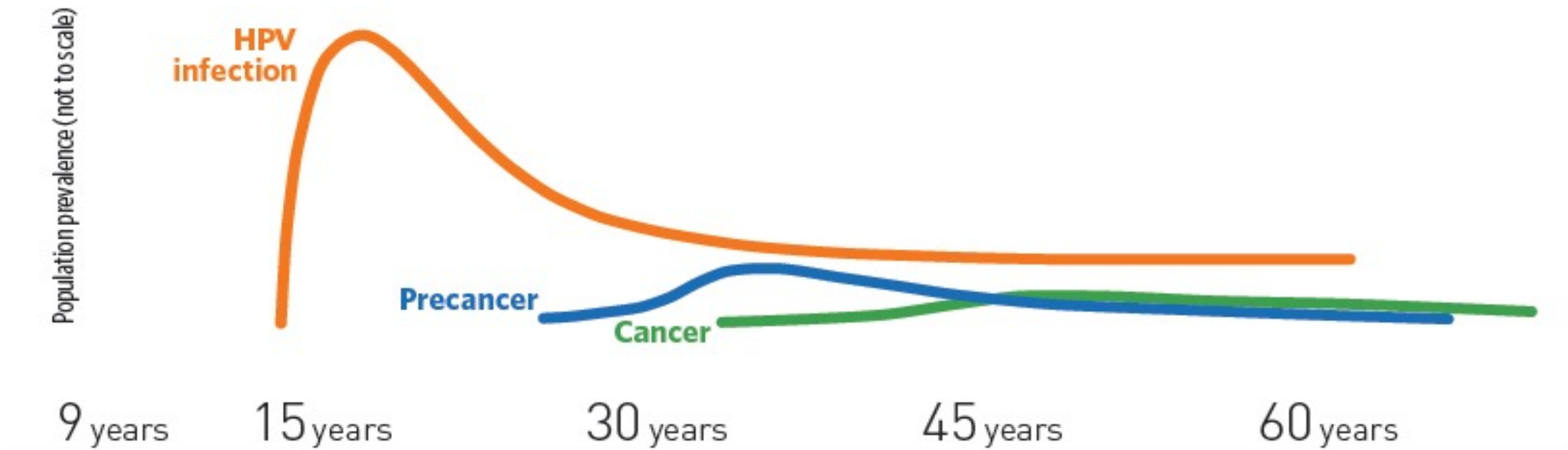
Many strategies & interventions for preventing & treating pneumonia & diarrhoea are identical

Strategy	Pneumonia	Diarrhoea
PROTECTION		
Breast feeding promotion	★	★
Hand washing promotion	★	★
Zinc supplementation	★	★
Vitamin A supplementation		★
Adequate Nutrition	★	★
Reduce indoor air pollution	★	
Safe water & sanitation		★
PREVENTION		
Vaccination new: Hib, PCV	★	
Rotavirus vaccine		★
Vaccination routine: Measles, Pertussis	★	★
HIV prevention	★	★
TREATMENT		
Improve care seeking behaviour	★	★
Community case management	★	★
Health facility case management	★	★
Antibiotics	★	
Low osmolarity ORS + Zinc		★

Next Steps

- **Launch of the GAPPD document**
12 April 2013 - Geneva, London & Washington
- **Launch of The Lancet series on pneumonia & diarrhoea**
12 April 2013 - London
- **Country launches with various stakeholders**
2013-2014
- **WHO to support selected countries with implementation of the plan**
Ongoing

Comprehensive cervical cancer prevention & control



PRIMARY PREVENTION

Girls 9-13 years

- HPV vaccination

Others, as appropriate

Health education and services, for example:

- Sexual health education tailored to the age group
- Providing contraceptive counseling and services including condoms
- Prevent tobacco use and support cessation*

SECONDARY PREVENTION

Women >30 years of age

Screening and treatment as needed

- "Screen and treat" with low cost technology VIA followed by cryotherapy
- HPV testing for high risk HPV types (e.g. types 16, 18 and others)

TERTIARY PREVENTION

All women as needed

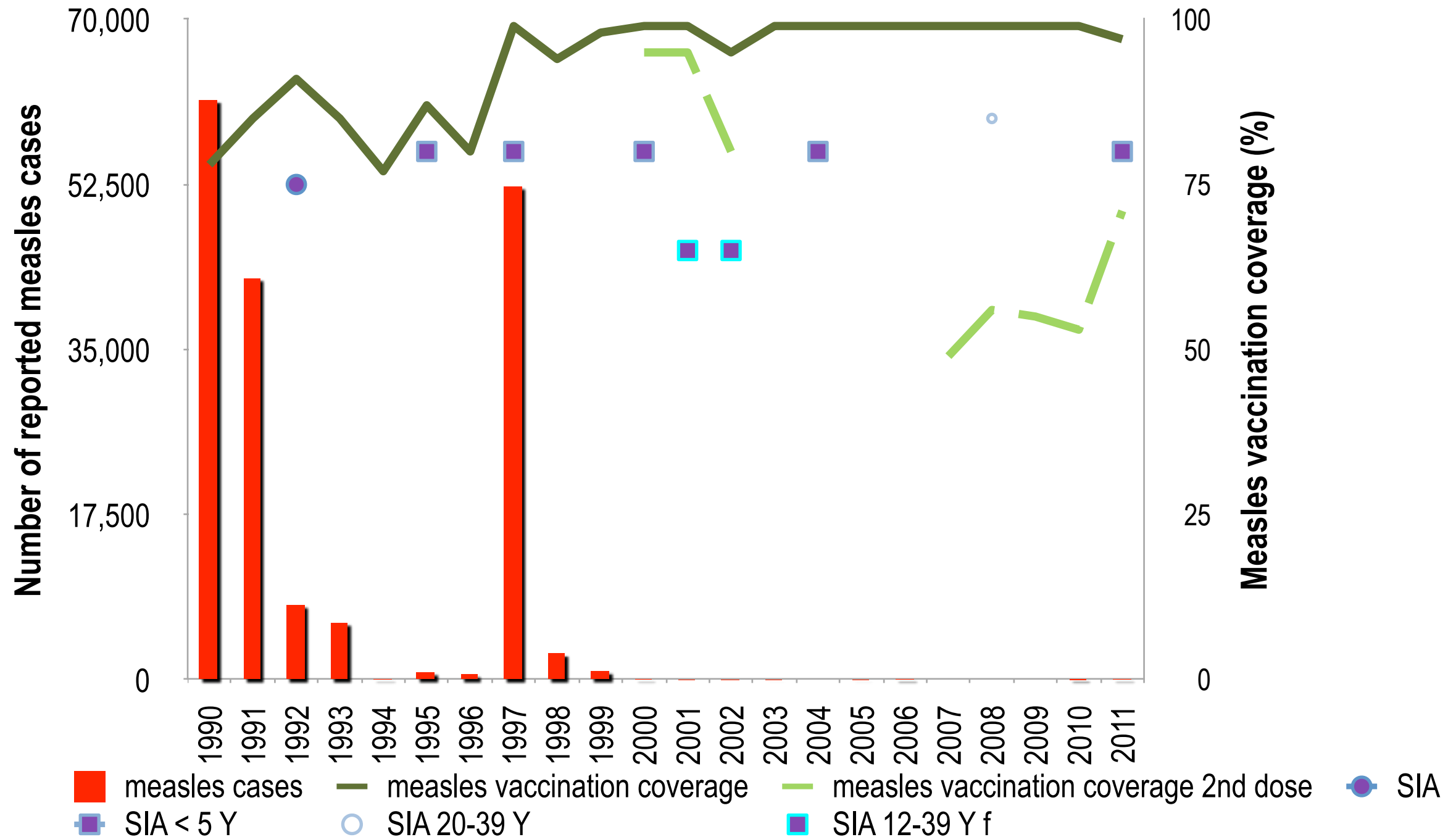
Treatment of invasive cancer at any age

- Ablative surgery
- Radiotherapy
- Chemotherapy



Tailoring immunization strategies to address the changing epidemiology of measles

Reported measles cases and measles vaccination coverage, 1990-2011, Brazil



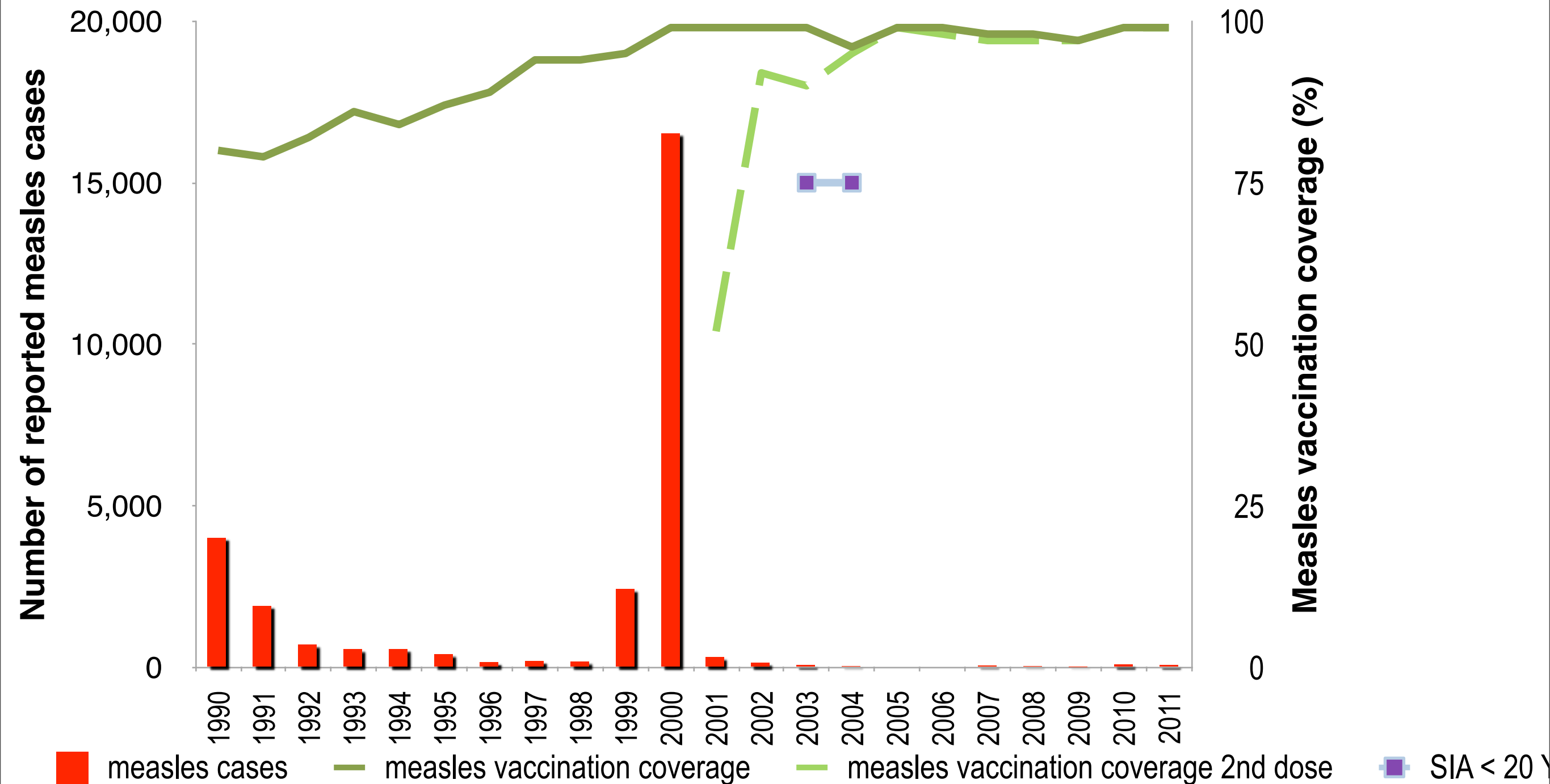
Data source:

measles cases - reported by national authorities to WHO annually

measles vaccination coverage - WHO/UNICEF immunization coverage estimates 1990-2010, as of August 2011;

SIA activities: WHO/EPI supplementary immunization activities database

Reported measles cases and measles vaccination coverage, 1990-2011, Sri Lanka



Data source:

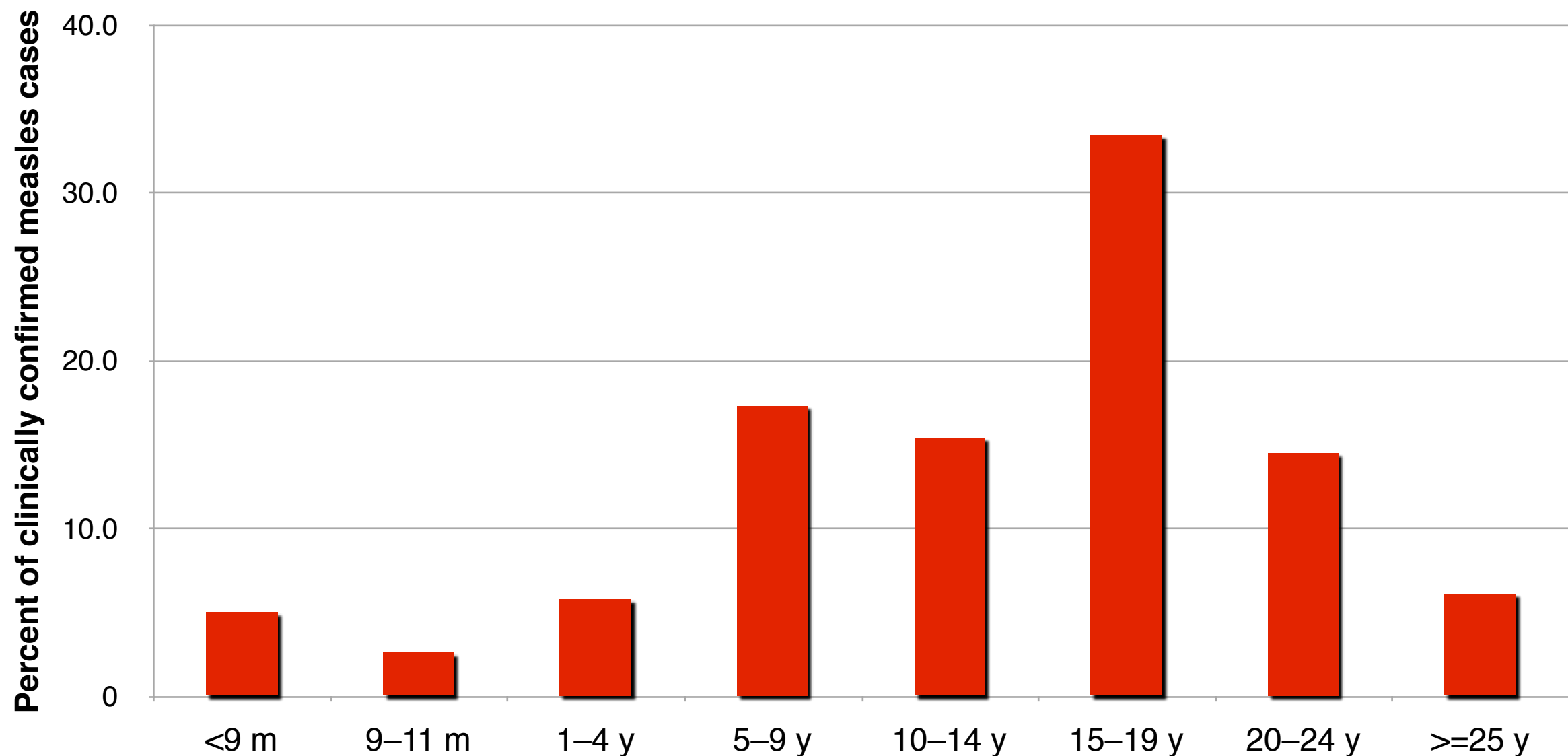
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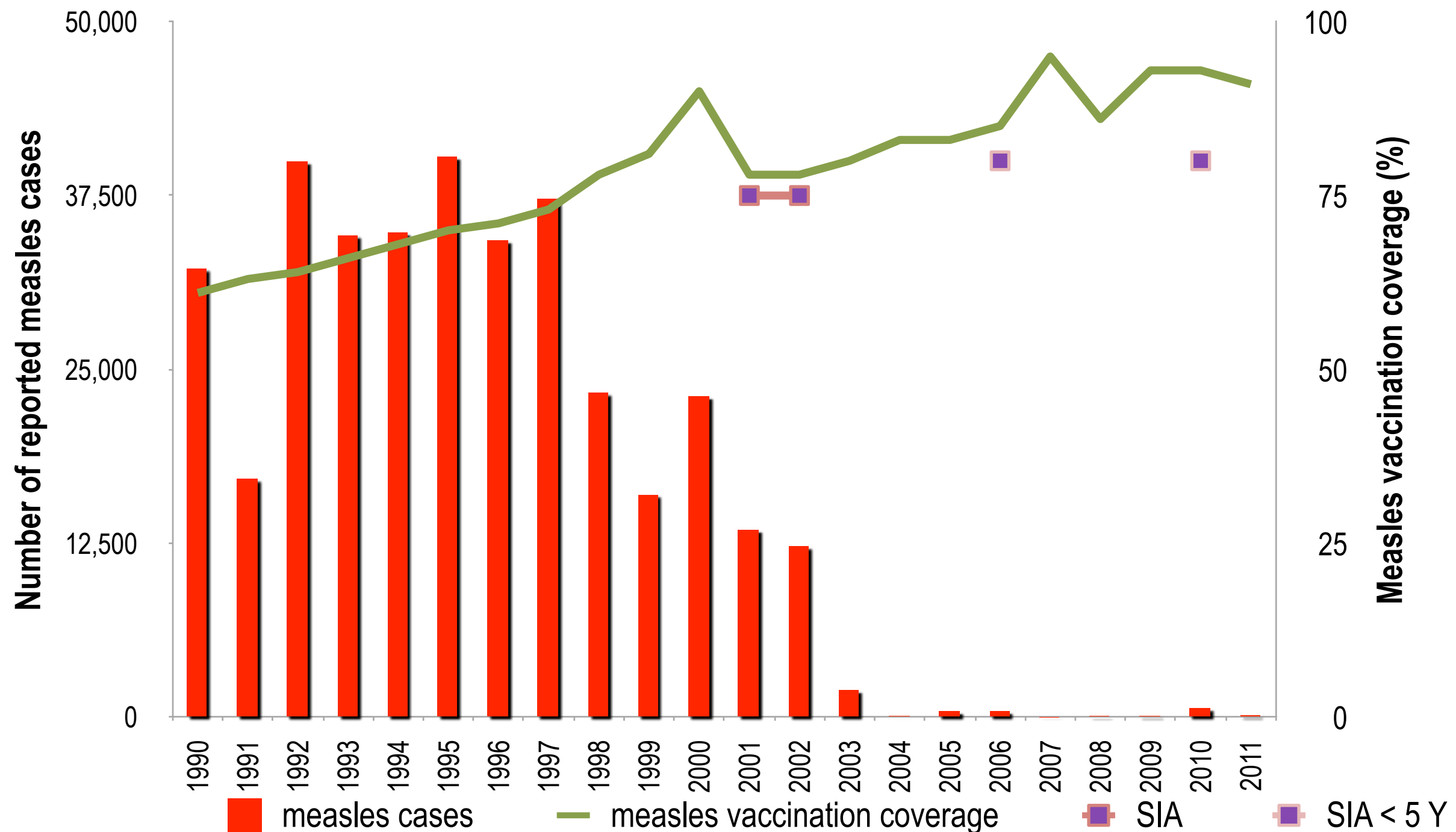
Date of slide: 19 September 2012

Age distribution of measles cases, Sri Lanka, 2000



Data source:
measles cases - reported by national authorities to WHO annually
measles vaccination coverage - WHO/UNICEF immunization coverage estimates 1990-2010, as of August 2011;
SIA activities: WHO/EPI supplementary immunization activities database

Reported measles cases and measles vaccination coverage, 1990-2011, Ghana



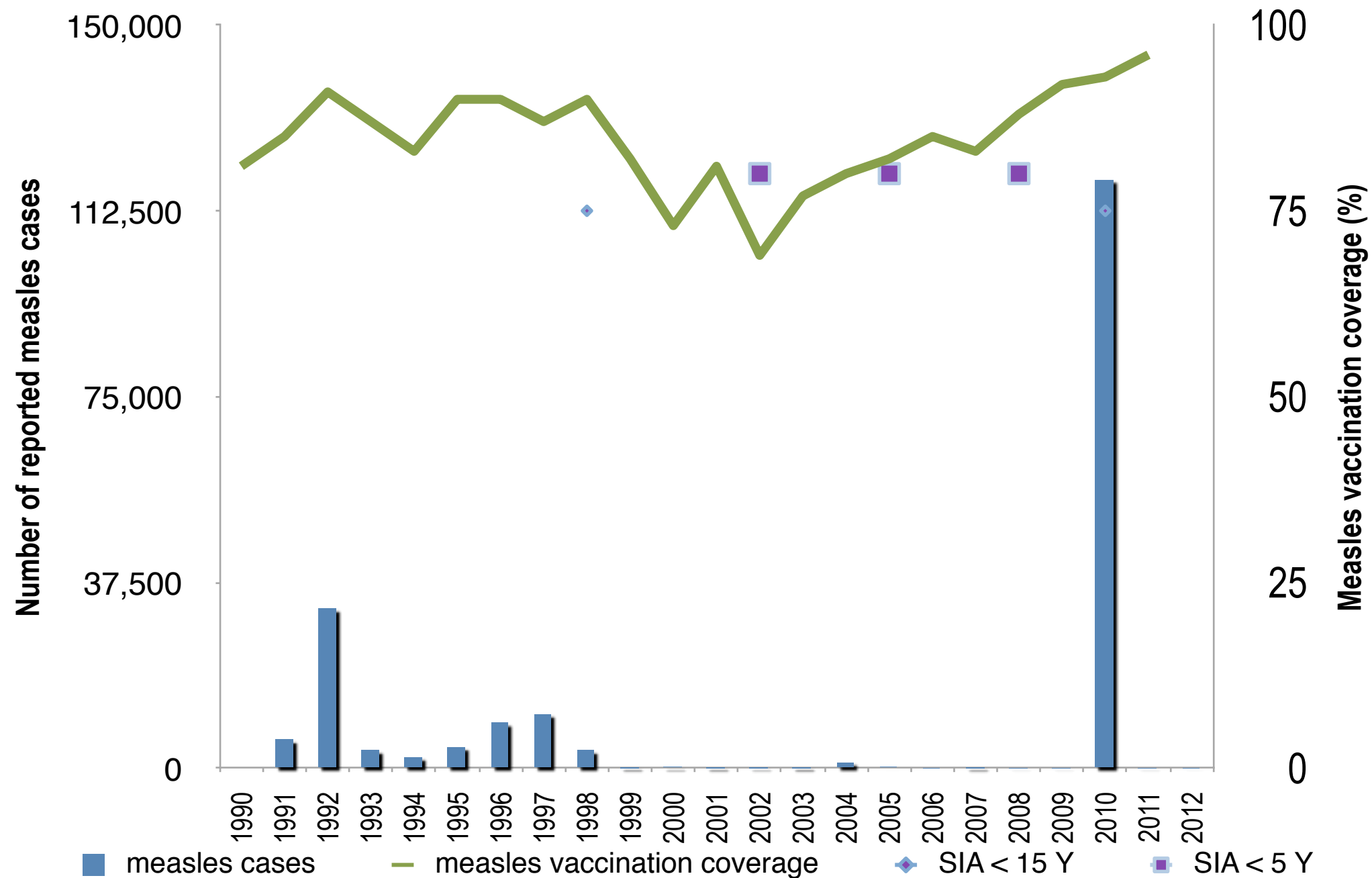
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Reported measles cases & measles vaccination coverage, 1990-2012, Malawi



Data source:

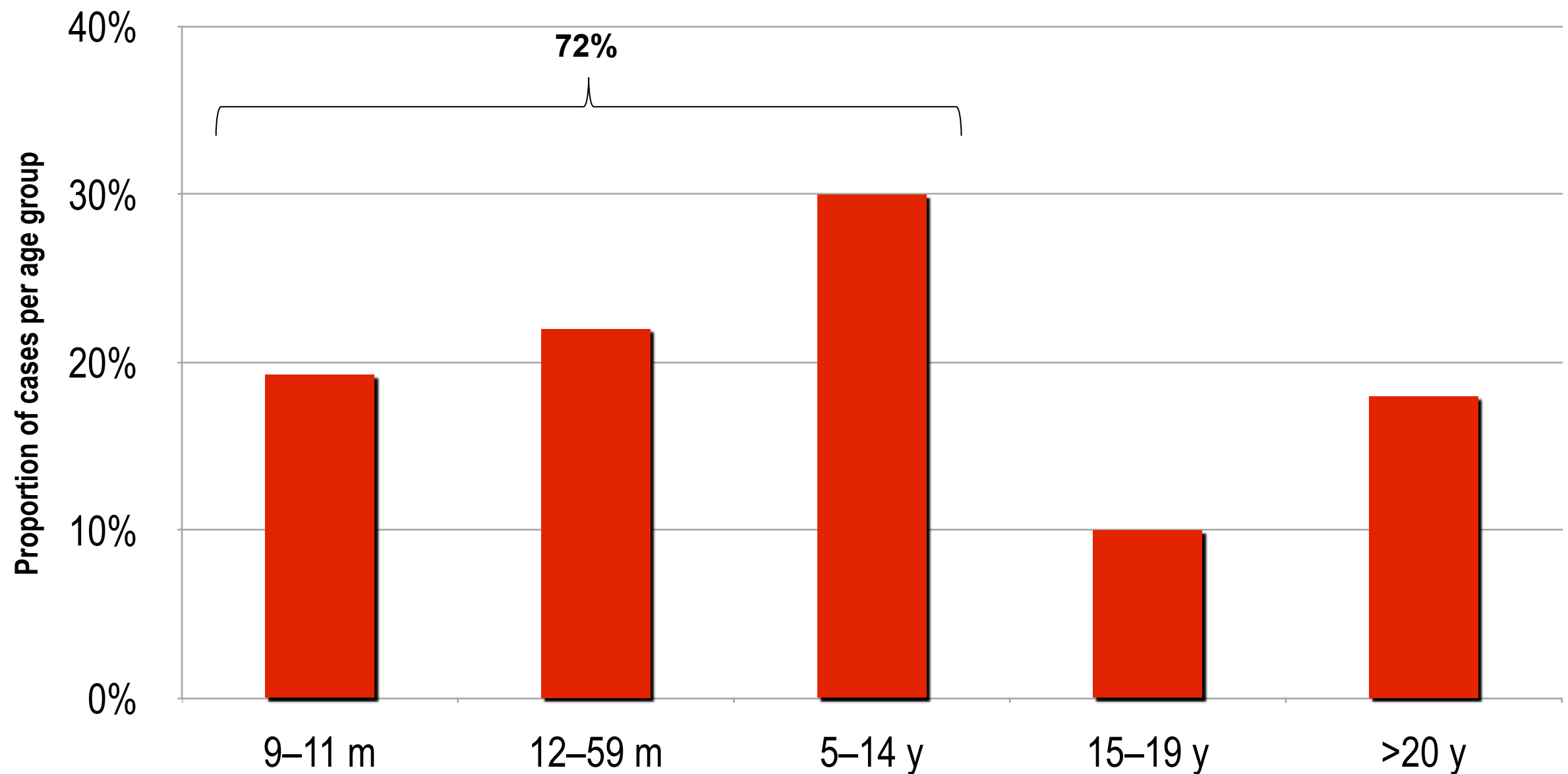
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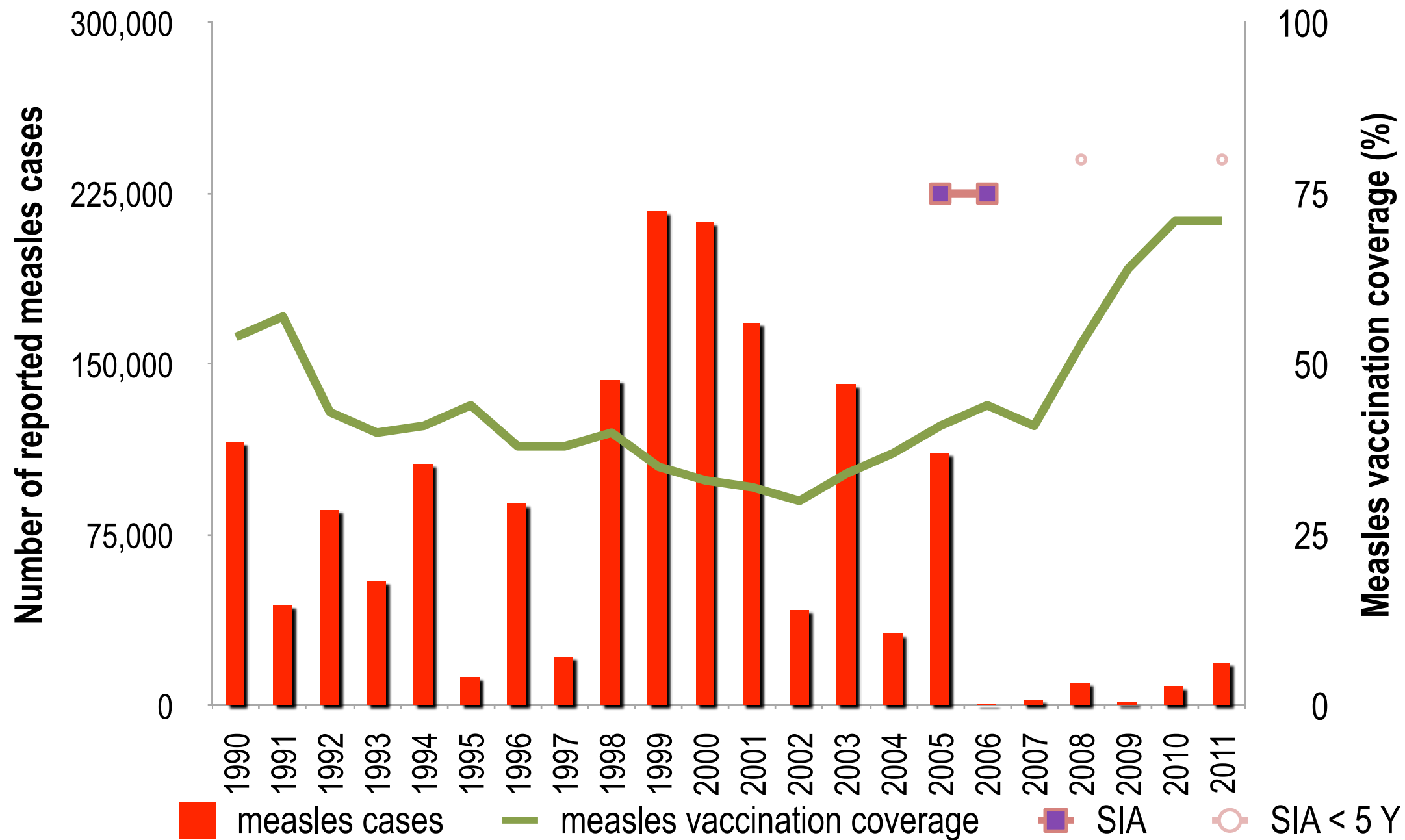
Date of slide: 19 September 2012

Confirmed measles cases by age, Malawi, 2010 (N=131,725)



Adapted from Minetti, Emerg Infect Dis 2013; 19(2):202-9

Reported measles cases and measles vaccination coverage, 1990-2011, Nigeria



Data source:

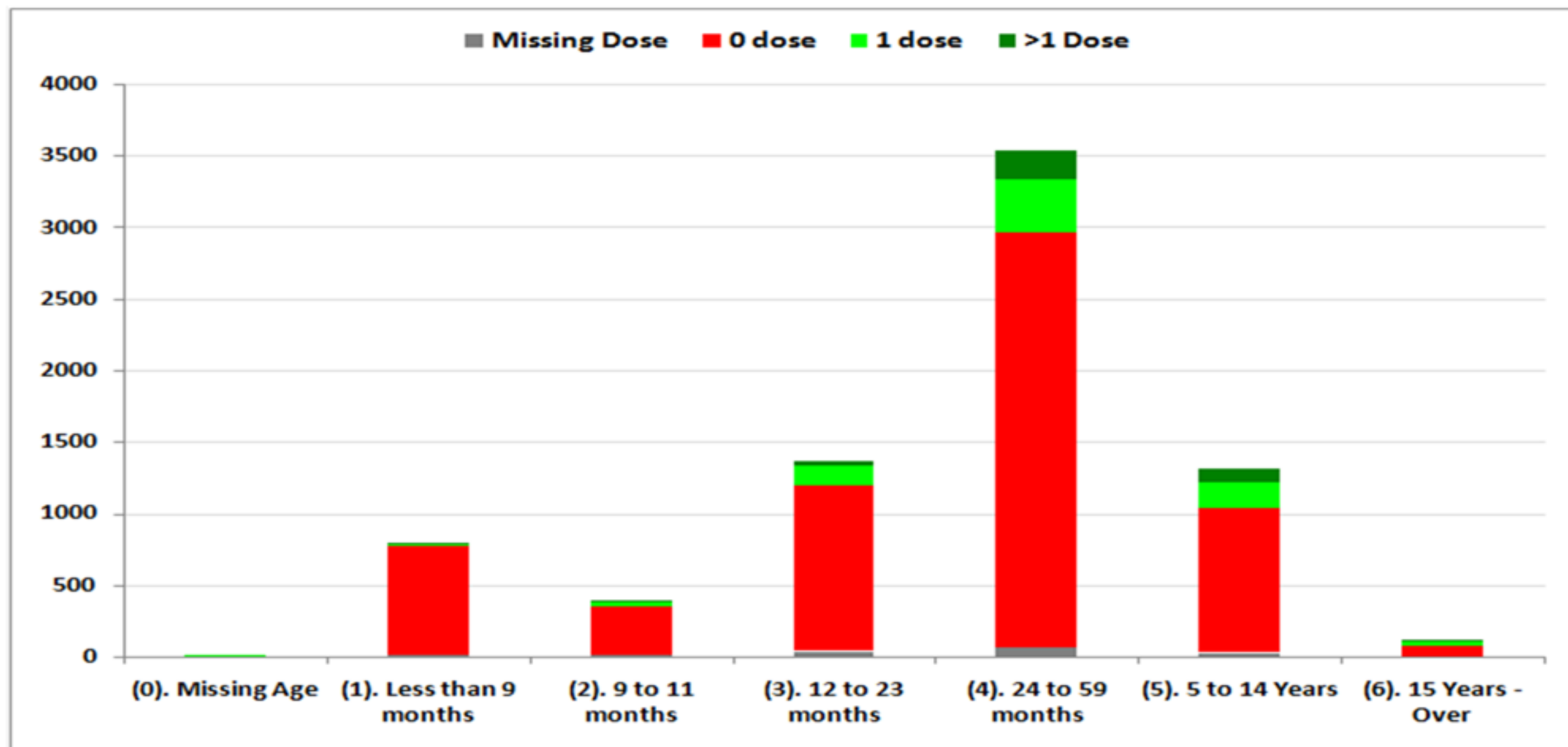
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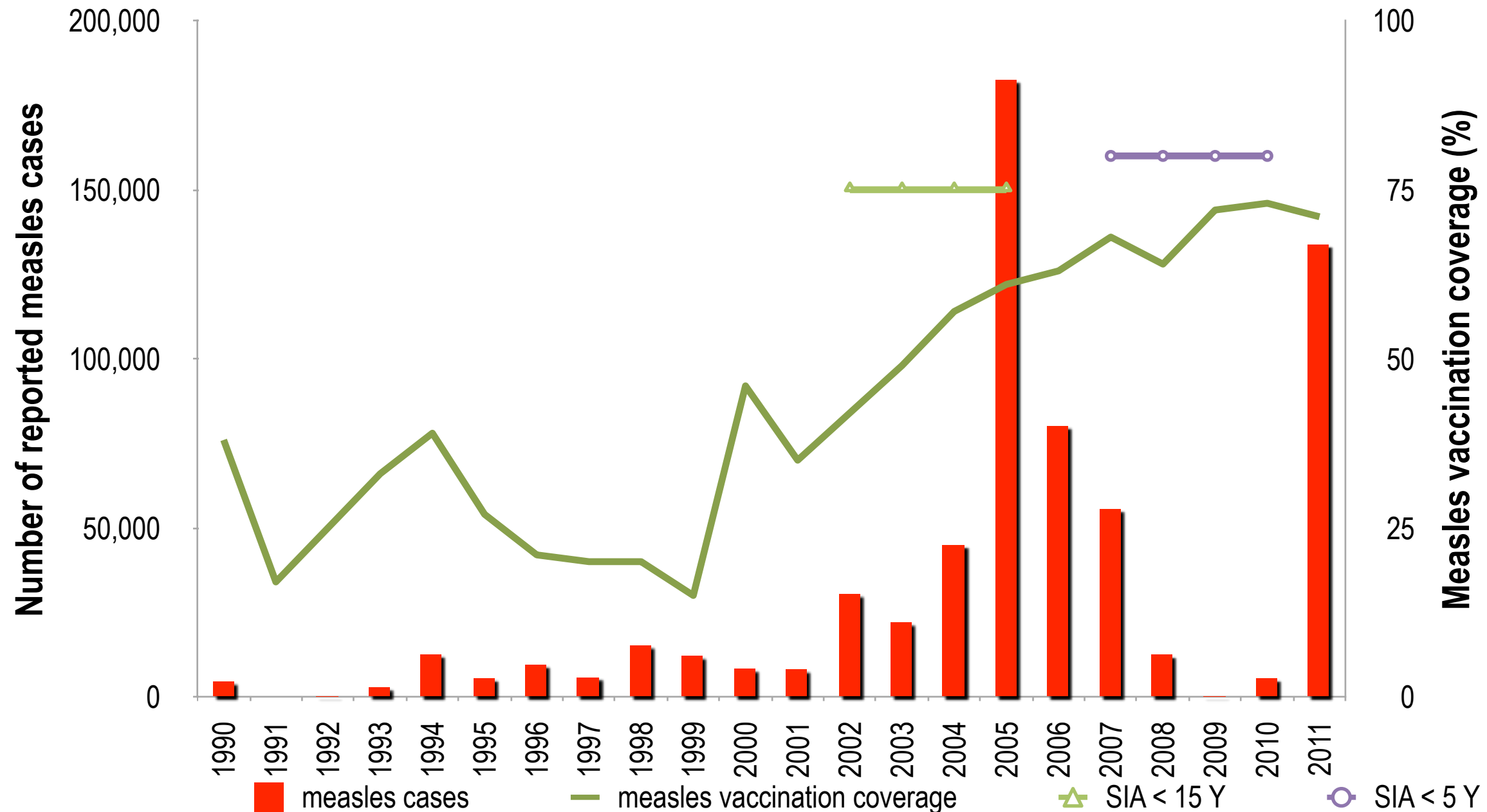
SIA activities: WHO/EPI supplementary immunization activities database

Age & vaccination status of measles cases in Nigeria

Jan – Mar 2013 as at week 09



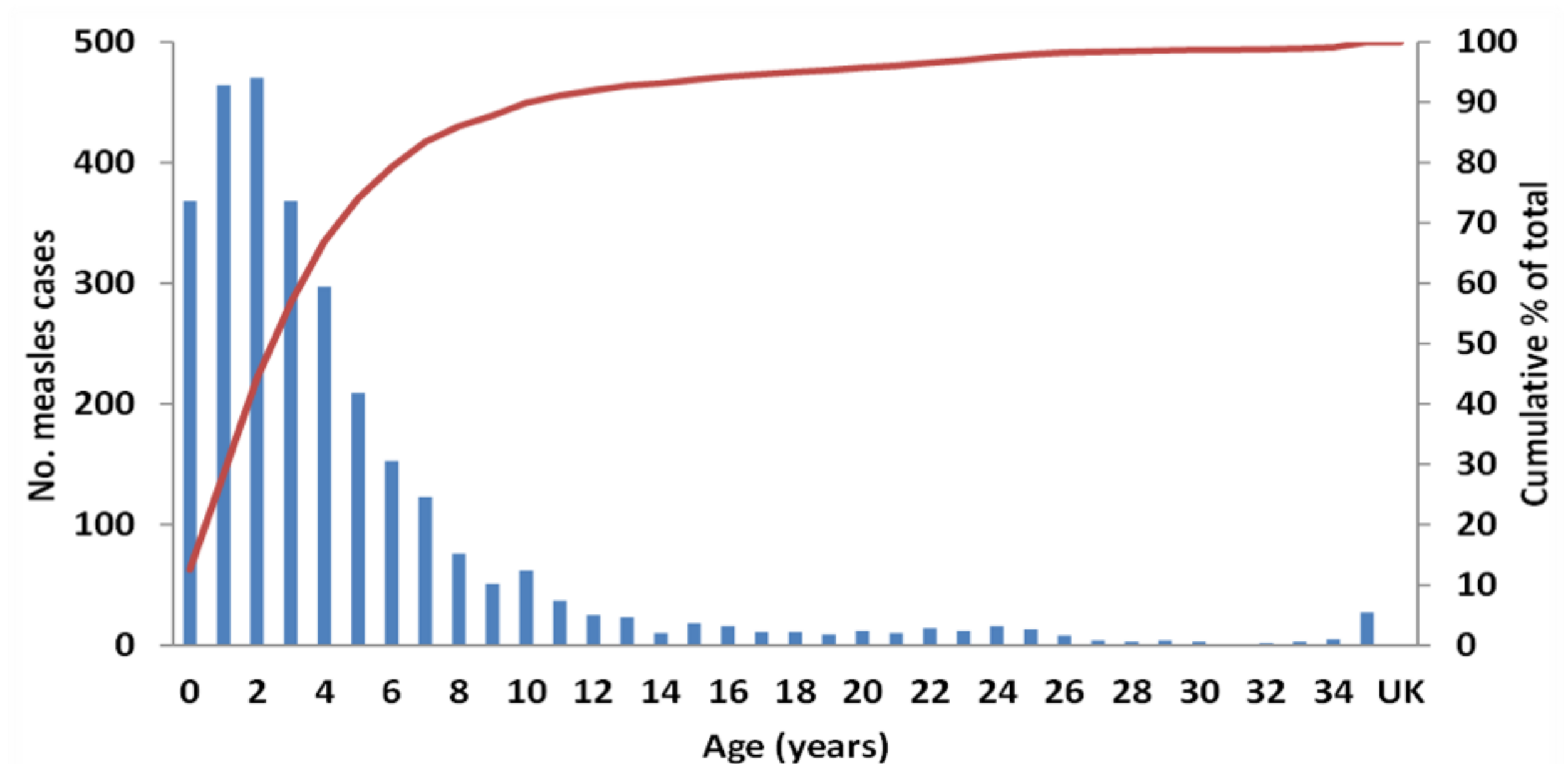
Reported measles cases and measles vaccination coverage, 1990-2011, Democratic Republic of the Congo (the)



Data source:
measles cases - reported by national authorities to WHO annually
measles vaccination coverage - WHO/UNICEF immunization coverage estimates 1990-2010, as of August 2011;
SIA activities: WHO/EPI supplementary immunization activities database

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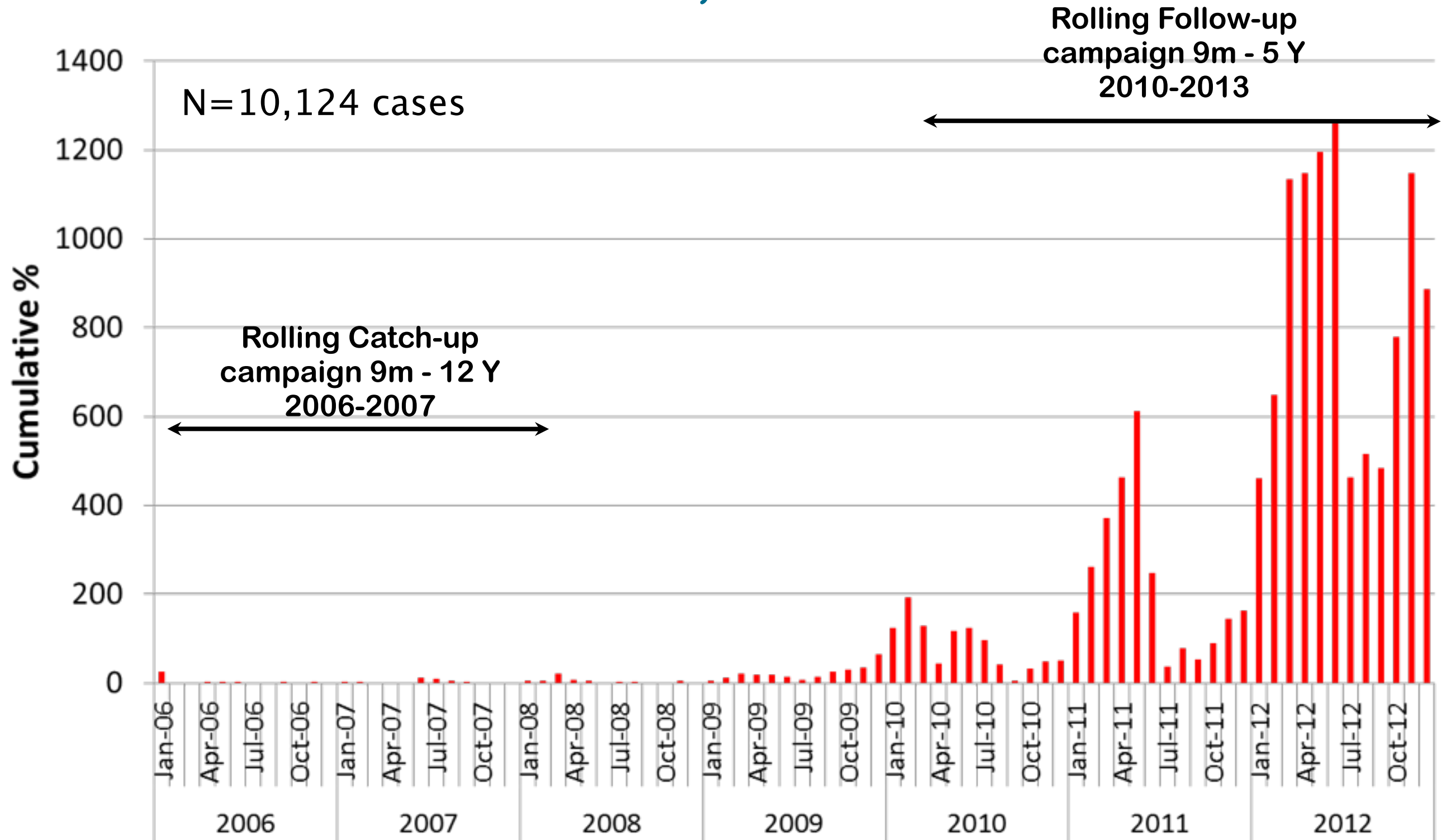
Confirmed measles cases from CB surveillance (n=2,939) by age — DRC, July 2010–June 2012



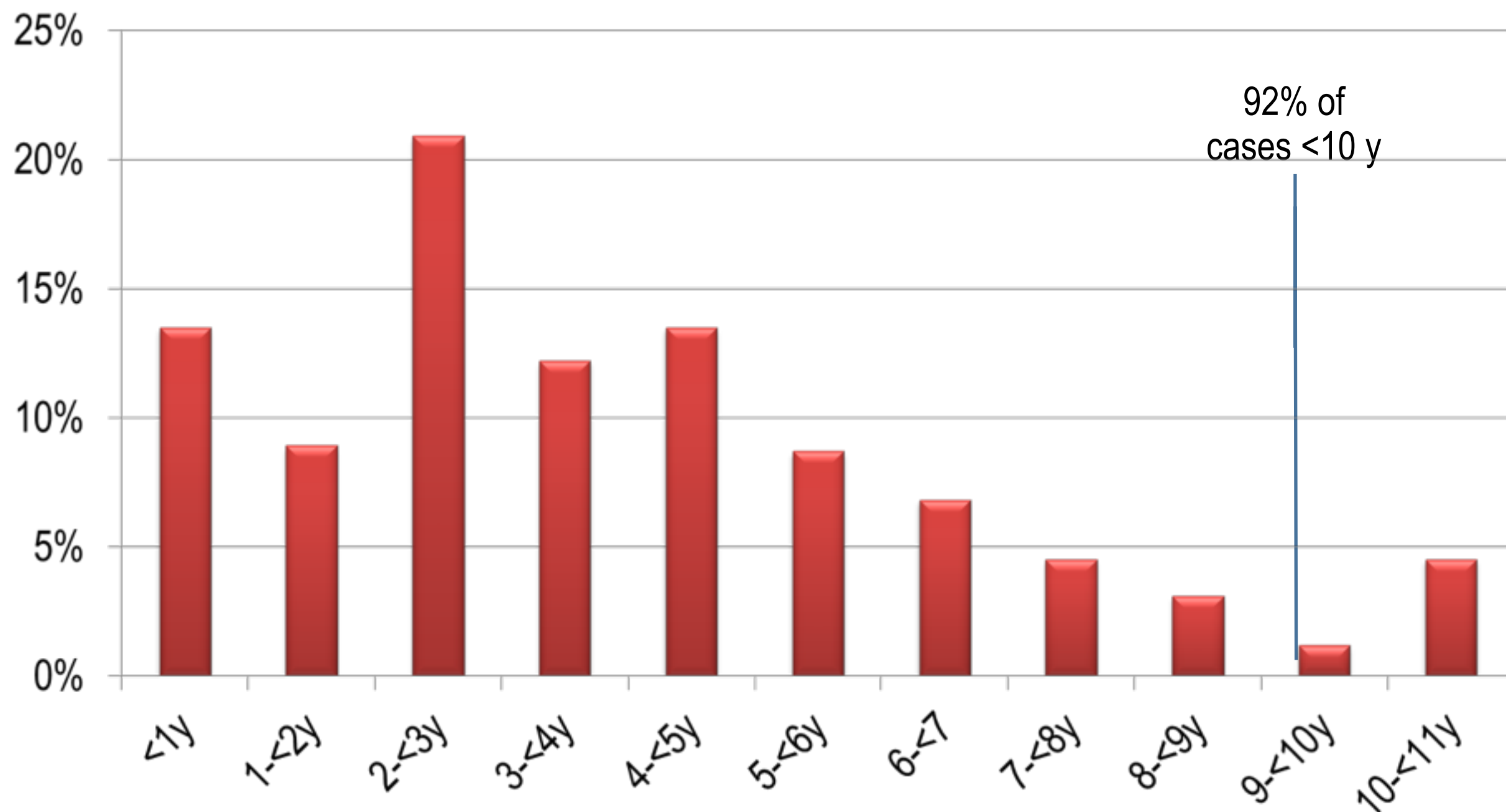
- 60% of confirmed cases 9 months–4 years
- 86% of confirmed cases 9 months–14 years

52% male

Monthly distribution of confirmed measles cases, Pakistan, 2006-2012



Age distribution of measles cases, Pakistan, 2012



What have we learned?

- **Homogeneous and sustained high coverage ($\geq 95\%$) with two doses of MCV is needed to prevent measles outbreaks**
- **Countries that have recently achieved high coverage experience longer inter-epidemic intervals & when outbreaks occur they affect older cohorts with historically low immunization coverage**
- **Countries with low coverage (both in routine and SIAs) experience frequent epidemics affecting predominantly young children.**

Tailoring immunization strategies to address the changing epidemiology of measles

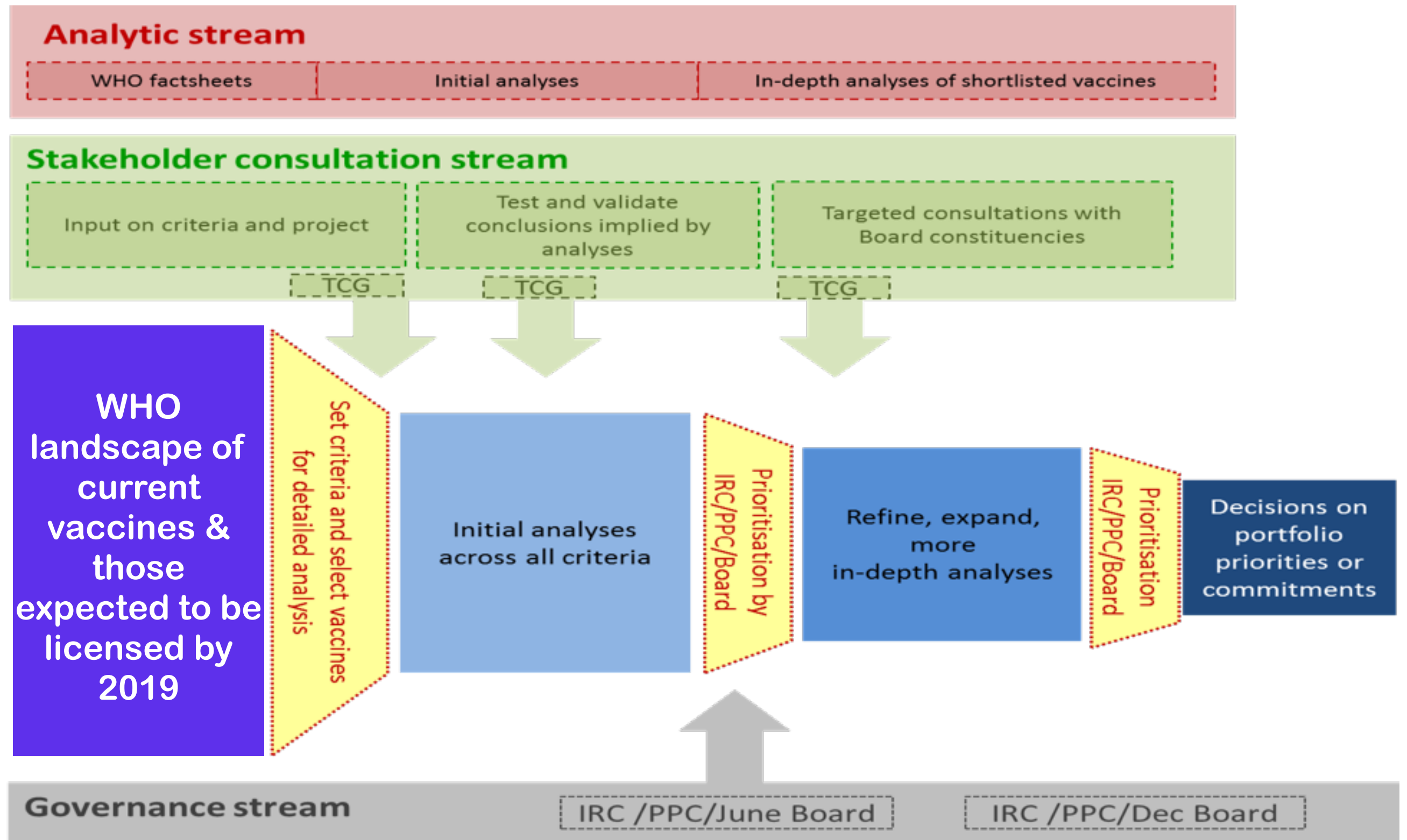
- Immunization strategies should aim to support the achievement of existing measles elimination and control goals and, aim to protect susceptible age groups & high risk communities
- Countries & partners need to support implementation of strategies that are responsive to the current susceptibility profile
- The quality of the SIAs is critical to reduce the pool of susceptibles.
- High routine coverage is key to prevent new cohorts and sustain achievements



PREPARING FOR THE FUTURE

**new GAVI investments, preferred products characteristics,
Cholera vaccines stockpiles, PVP, TB vaccines, other
Regional priorities & SAGE agenda items**

WHO's Contribution to GAVI's VIS Process



Licensed vaccines currently not in GAVI's portfolio	Licensed vaccines extended scope	Late stage pipeline vaccines
Cholera	Diphtheria	Dengue
Hepatitis A	Hepatitis B	Enterovirus 71
Hepatitis E	Meningococcal Disease	Malaria
Influenza seasonal	Pertussis	Tuberculosis second generation
Mumps	Tetanus	
Polio (IPV)	Yellow fever	Group B streptococcal disease*
Rabies		

** Not meeting formal inclusion criteria*

Preferred Product Characteristics

What are they and what they are not

Guidance from WHO for vaccine developers to take into account when designing vaccines and trials at early stage of vaccine development

Will need to change in line with scientific state of the art & needs of country programmes (ongoing review process)

They are not restrictive exit criteria, innovation is encouraged & harnessed to meet public health needs

They do not replace standard policy or PQ processes including assessment of programmatic suitability

Preferred Product Characteristics

Malaria Vaccine - case study

Criteria	Specified public health goal e.g .malaria elimination
Target Population	Impacts product development plan & affects safety requirements
Efficacy	Major scope of work on endpoints, clinical trial design, product development pathways for malaria elimination.
Presentation	Including criteria for disposal requirements
Storage	Including criteria for ambient storage
Safety	Vision would be for superior safety to existing vaccines
Lack of interference	May stimulate discussion about long-term approaches to issue of non-inferiority for co-administration
Packaging	Minimize cold chain footprint
Registration/PQ	Highlight benefits of considering PQ requirements from early stage

Other criteria include Indication, Dosage, Contacts with health system

Oral Cholera Vaccine stockpile update 21/03/13

- Support has been identified (EU-ECHO, USAID – OFDA and three private entities)
- Request for Procurement has been issued in a closed bid for 2 million doses of vaccine (bid closure 5 April)
- Planned AFRO regional stockpile preparations underway
- Stockpile anticipated to be active 01 July 2013

The EMR regional Pool Vaccine Procurement Initiative

Plan of Action 2013

Capacity Building	<ul style="list-style-type: none">• Technical consultation with WHO/HQ and partners on 19-21 March 2013, in Cairo• Operating procedures and technical documents will be finalized
Country Visits	<ul style="list-style-type: none">• Advocacy visits to selected MICs for acquiring strong political commitment and official agreements for joining the PVP system (both for Stage 1 and Stage 2) between 22 March – 15 April 2013
Industry Consultation	<ul style="list-style-type: none">• Organizing a consultation with vaccine manufacturers to brief them about the PVP initiative and upcoming plans April 2013.
Request for Proposal: Pentavalent	<ul style="list-style-type: none">• Issuing a non-binding request for proposal for the pentavalent vaccine considering 2014 projected demand of the MICS: 20 April – 10 May 2013• Receiving initial price indications for 2014 demand
Technical Inter-Country Workshop	<ul style="list-style-type: none">• Working on the technical details of countries' participation to the PVP system both for Stage 1 and Stage 2: product harmonization, forecasting, regulation, legislation, finances, procurement and receipt. 13 – 16 May 2013.
Bid Awarding	<ul style="list-style-type: none">• Bid awarding and procurement arrangements for Stage 1 (PCV, Rotavirus and HPV vaccines) through UNICEF SD and for Stage 2 (pilot testing for Pentavalent vaccine). June – July 2013.

1st Efficacy Trial of a New Prophylactic TB Vaccine - MVA85A

- **Who?** 2795 infants, 4-6 months old, HIV negative
- **What?** MVA85A, modified vaccinia Ankara, a non-replicating virus vector expressing immunodominant Mtb antigen 85A
- **Where?** Western Cape Province, South Africa
- **How?** 2-arms, BCG plus placebo vs BCG plus MVA85A, 37 months follow-up, phase IIb (Proof-of-Concept; NOT a licensure trial)
- **Results:**
 - Safe, no SAE /deaths vaccine-related (sponsor's assessment!)
 - Efficacy against TB disease: 17.3% (95% CI: -32% - 48%)
 - Efficacy against Mtb infection: -3.8% (95% CI: -28% - 16%)

Interpretation & Implications

- Confirms the **feasibility** of large-scale trials of new TB vaccines with stringent case definition in high endemicity settings
- Suggest that older children, adolescents and adults may be a better target population than infants, as indicated by antigen 85A-specific T cell immunogenicity (adults/adolescents << infants)
- High efficacy against severe TB (miliary, meningitis) may be masked in this trial powered to detect milder forms of TB
- Numerous other TB vaccines in the pipeline -
- differing from MVA85A in both antigenic composition as well as delivery modalities - may provide better protection than that observed in this trial with MVA85A



Updates on RTAGs & SAGE Advisory processes

AMR TAG XXI

- Date: 3-5 July 2013
- Location: Ecuador
- Participants: TAG members, all countries (EPI manager, surveillance/lab, NITAG chair, PAHO focal point), partners and PAHO Secretariat

Agenda

Decision agenda items (focal points)	Information agenda items (focal points)
<ul style="list-style-type: none">• Polio endgame & vaccination policy implications• Pertussis vaccination strategies• PCV vaccination in adults• Meningococcal vaccination• HPV vaccination progress & proposal for regional monitoring plan• Measles, rubella elimination in LAC• Seasonal influenza update	<ul style="list-style-type: none">• Update on Regional IM Program• Yellow Fever Update• Cholera vaccination in Haiti• Progress on evidence-based decision making for new vaccine intro• Update on dengue, tuberculosis and malaria vaccines• Integration of EPI costing & planning methodologies• Update on cold chain capacity• Update on immunization registries

AFR TAG

Dec 2012

AGENDA ITEMS

Yellow Fever

Implementation research

SAGE recommendations

Polio eradication update

Global Vaccine Action Plan

EUR ETAGE

Oct 2013

ETAGE will engage in formulating regional action plan for immunization (linking it to other regional policies), targeting middle and high income countries and renewing life course approach in the context of immunization / disease prevention)

SEAR-ITAG

2-3 April 2013

- Several items examined:
- Decade of Vaccines [DoV] & GVAP
- Intensification of routine immunization (IRI)”
- Monitoring tool
- Progress of polio eradication: Certification & polio endgame
- Measles Elimination, Rubella & CRS control in SEAR
- SAGE recommendation for intussusception surveillance & adjustments to immunization schedule
- Effective vaccine management assessments in SEAR
- Decision making algorithm for NUVI
- AEFI monitoring, preparedness & response

WPR TAG

24-28 June 2013

- Review status of preparation and need for GVAP implementation in each member state
- Consult on the draft regional plan of action for GVAP implementation
- Present a draft plan for polio eradication endgame

2013-2015 SAGE Meetings

Topics on the Horizon - Cross-cutting and strategic issues

- ◆ DOV GVAP monitoring of implementation (Nov 2013)
- ◆ Surveillance (Nov 2013)
- ◆ Dealing with vaccine hesitancy (Nov 2013)
- ◆ Non specific effects of vaccines (Nov 2013)
- ◆ Use of vaccines in immunocompromised populations
- ◆ Prioritization of implementation research questions (Nov 2013)
- ◆ Immunization supply chain and logistics (Nov 2013)
- ◆ Strengthening routine vaccination and integration in primary health care
- ◆ Maternal immunization to enhance the protection of mothers and infants
- ◆ Involvement of the private sector
- ◆ Strengthening of NITAGs
- ◆ Vaccine stockpiles
- ◆ Accessibility to affordable vaccines and WHO's role

2013-2015 SAGE Meetings: Topics on the Horizon

Vaccine specific recommendations and updates

- ◆ Polio eradication (Nov 2013)
- ◆ Measles elimination (Nov 2013)
- ◆ Optimizing immunization schedules
- ◆ Impact monitoring
- ◆ Pertussis
- ◆ Preferred Product Characteristics
- ◆ Influenza vaccine stockpile
- ◆ Varicella & herpes zoster (Nov 2013)
- ◆ JE (Nov 2013)
- ◆ HPV (Apr 2014)
- ◆ Hepatitis E (Apr 2014)
- ◆ Malaria (Apr 2015)



Other key issue

Differences between IHME & WHO mortality estimates

IHME estimates for 235 causes of deaths

- Significant differences with WHO estimates for some causes
- Lower estimates for pneumonia and diarrhoea
- IHME 2010 estimates for pneumo and rota substantially lower than IVB 2008 estimates (difference will decline with IVB 2010 estimates, but will still remain)
- Epidemiological inconsistencies (e.g. age distribution) with IHME estimates
- Efforts ongoing to review and possibly revise aetiology specific estimates
- IHME intends to publish country-specific estimates in 2013

Estimated deaths in children (1-59 months)

Estimated deaths	CHERG 2010	IHME 2010
Total	4.5 m	4.0 m
Pneumonia	1.07 m	0.65 m
Diarrhoea	0.75 m	0.59 m
Meningitis	0.18 m	0.16 m

Estimated deaths	WHO/IVB 2008	IHME 2010
Hib	199,000	189,000
Pneumo	476,000	171,000
Rota	453,000	153,000

Lozano et al. Lancet 2012; 380: 2095

Liu et al. Lancet 2012; 379: 2151

http://www.who.int/immunization_monitoring/burden/en/

Global Health Estimates

Proposals for the way forward

- Technical meeting (Feb 13-14, 2013) of over 60 international experts & UN agency staff
 - Take stock of current & new approaches related to Global Health Estimates
 - Discuss and agree on how estimates can be improved
- Proposed approaches:
- Establish a platform that facilitates interaction and information sharing between multi-laterals, academic institutions and WHO expert groups
- Greater investments in national health information systems to generate better empiric data
- Investments in strengthening country capacity for estimation work
- Global health estimation work should meet agreed standards for transparency
 - Publicly available databases and estimation tools; funding agencies should make this a requirement
 - Better communication of estimation work
 - Free access to published reports and data
 - Advocate for sharing of aggregate and micro-data
 - Scientific journal should further strengthen requirements for data sharing
 - Standard checklist for reporting global health estimates

Next steps in WHO

- **CHERG has developed aetiology-specific estimates for pneumonia and diarrhoea, including rotavirus, Hib and pneumococcus**
 - IVB updated estimates for rota under development; potential for difference compared to CHERG estimates, but likely to be small
 - IVB not intending to develop updated estimates for Hib and pneumococcal diseases due to lack of resources

Next steps in WHO

- **WHO will continue to update estimates of causes of death**
 - for those diseases which WHO has traditionally published estimates
- **WHO updated time series for child causes of death planned for end-2013**
 - including VPDs, from 1990 to 2012, through WHO-UNICEF CHERG
- **Need for defining the role of IVB in generating estimates in this crowded environment:**
 - Should IVB continue estimation or defer to other departments/agencies?
 - Will CHERG and IHME estimates be suitable for programmatic needs?
 - Role of IVIR-AC



Thank you