

Gavi Full Country Evaluations

Steve Lim, Professor of Global Health, IHME

Felix Masiye, Dean of the School of Humanities & Social Sciences, UNZA

Full Country Evaluations Technical Briefing Tuesday, 9 June 2015

- Overview
- Key Findings
 - New vaccine introductions
 - Human papillomavirus (HPV) vaccine
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



- Overview
- Key Findings
 - New vaccine introductions
 - Human papillomavirus (HPV) vaccine
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



Gavi Full Country Evaluations: Overview

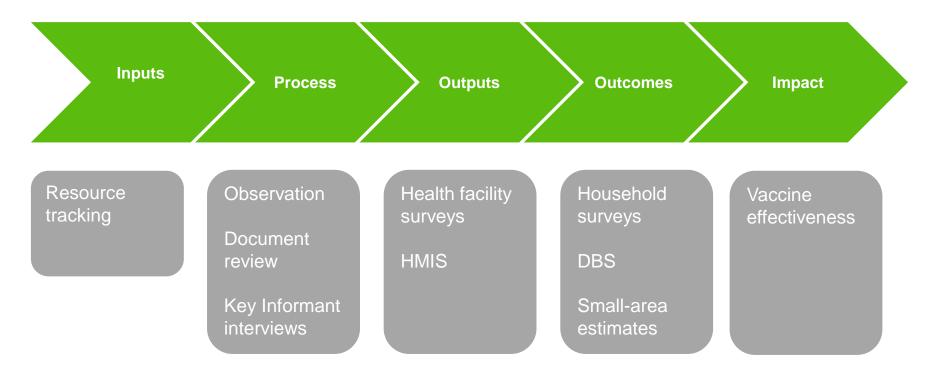
• Conducted in four countries:

Bangladesh, Mozambique, Uganda, and Zambia

- Goal: Examine and quantifying barriers to and drivers of immunization program improvement, with emphasis on Gavi, the Vaccine Alliance
- Evaluates all relevant Gavi support across all phases
- 2013-2016
- Consortium of partners



Prospective monitoring & evaluation platform



Systematic secondary data analysis with complementary primary data collection





5











Principles of the Gavi FCE

 Harmonizing monitoring and evaluation activities in each country by leveraging and integrating available data;

 Strengthening country ownership and capacity, by partnering with in-country institutes and undertaking shared learning activities; and

 Providing timely, regular, and systematic feedback to countries, Gavi, and partners.



- Overview
- Key Findings
 - New vaccine introductions
 - Human papillomavirus (HPV) vaccine
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



Gavi FCE evaluation in 2014

| Stream of funding | Mozambique | Uganda | Zambia | Bangladesh |
|---|------------|----------|--------|------------|
| PCV | Х | Х | Х | Х |
| Rotavirus vaccine | Х | | Х | |
| Measles second dose | Х | | Х | |
| Human papillomavirus vaccine | Demo | National | | Demo |
| Inactivated polio vaccine | Х | Х | Х | Х |
| Measles-rubella Campaign | | | | Х |
| Cash-based support through Health Systems Strengthening | Х | Х | Х | Х |



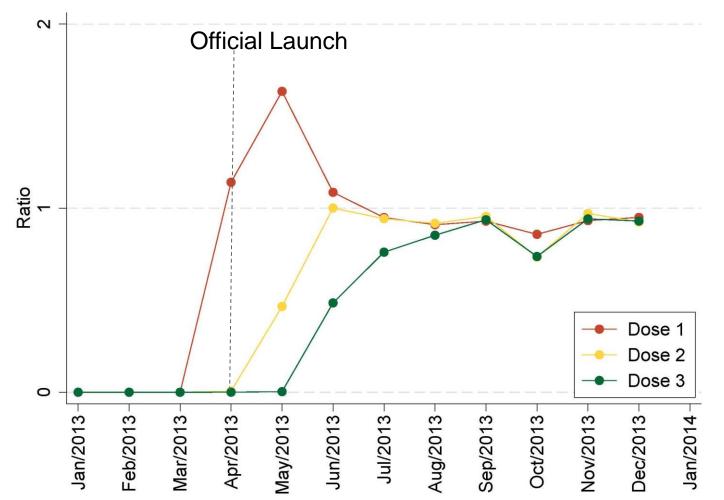
HMF

- Overview
- Key Findings
 - New vaccine introductions
 - Human papillomavirus (HPV) vaccine
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



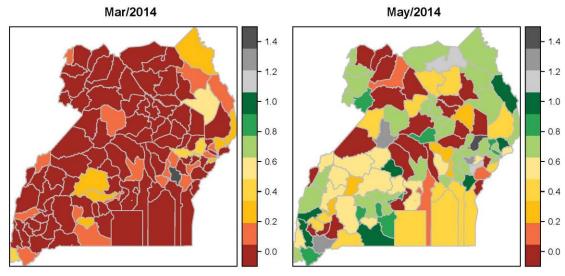
Mozambique PCV:Pentavalent ratio

A ratio of 1 indicates that PCV has the same number of doses delivered as pentavalent vaccine





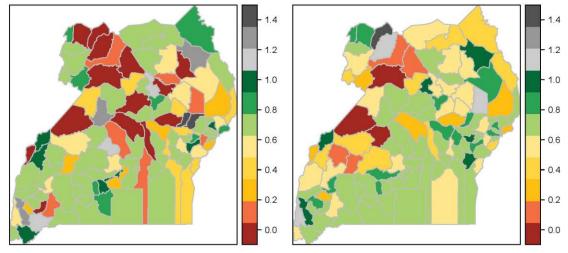
Uganda PCV3:Pentavalent3 ratio by district



Jun/2014

🖒 icddr,b





11

IHME *PATH

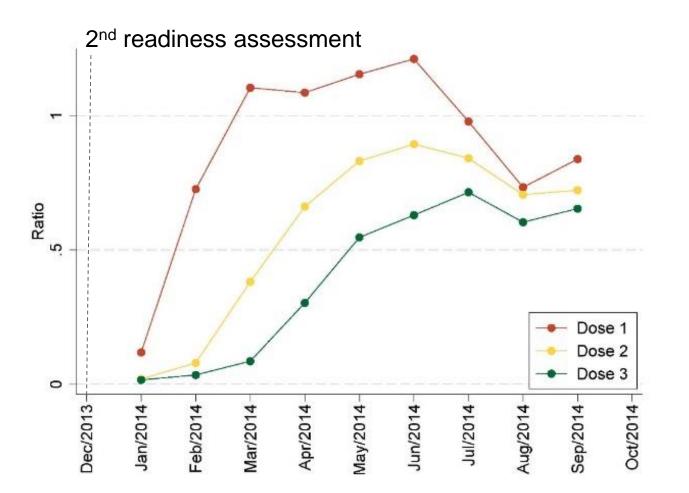






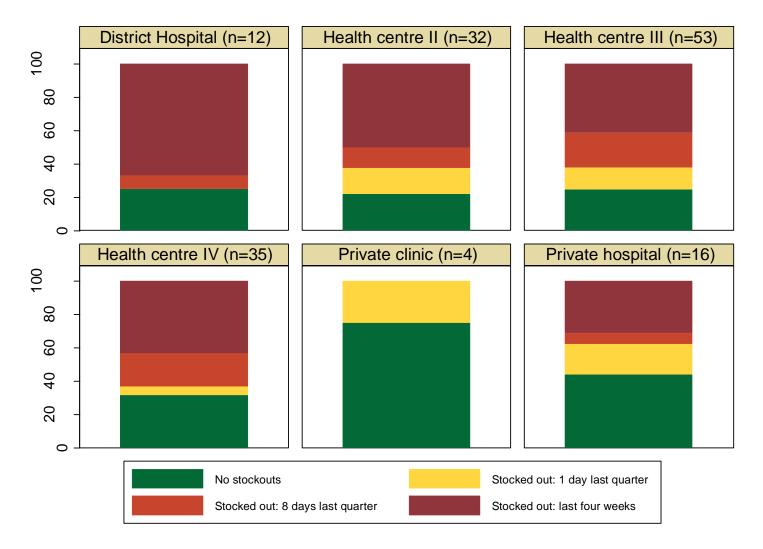


Uganda PCV:Pentavalent ratio





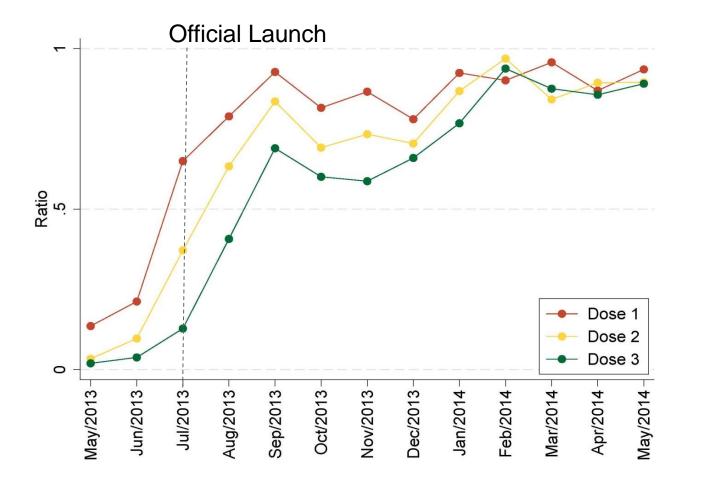
PCV stock-outs in Uganda (Q4, 2014)





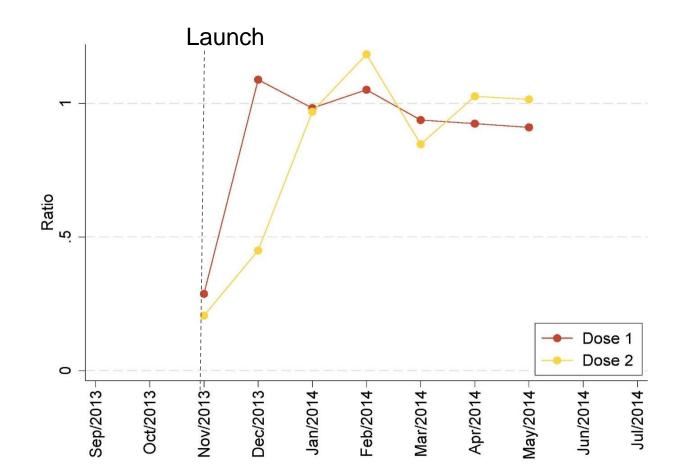
Zambia PCV:Pentavalent ratio

IHME





Zambia Rota:Pentavalent ratio





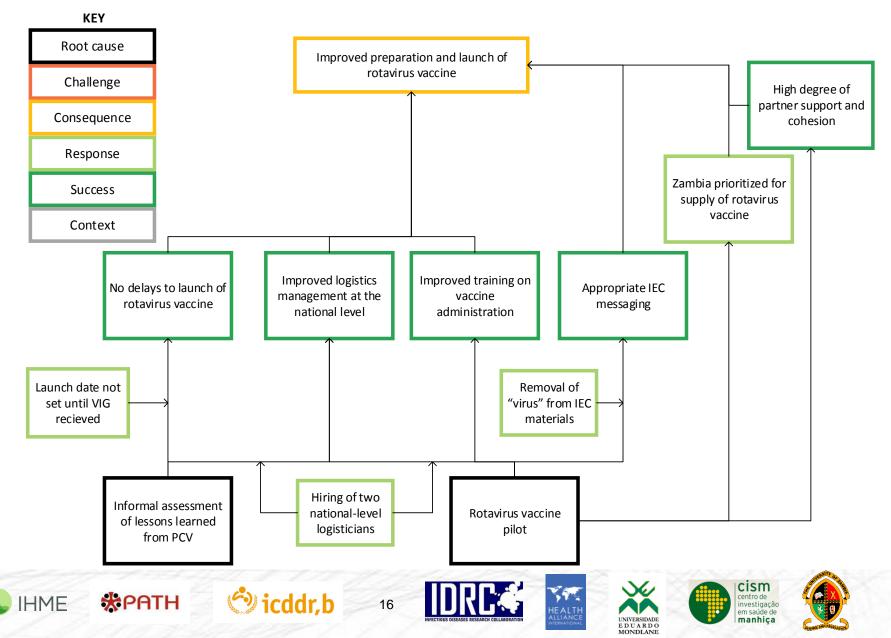








Zambia Rotavirus vaccine introduction



Bangladesh MR Campaign vaccine coverage

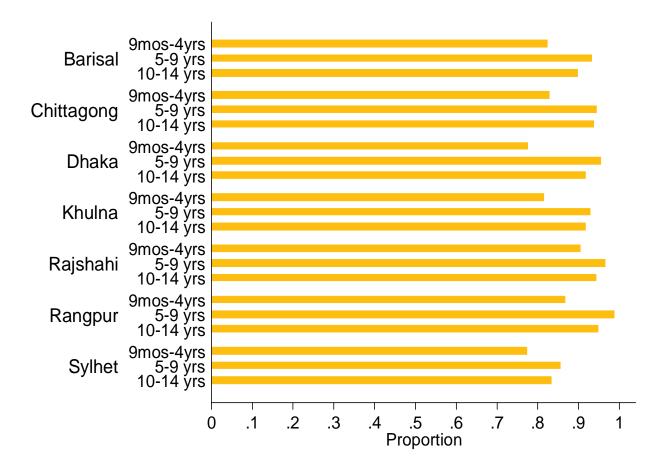
- Target population of 52 million children of 9m–15yrs
- January –
 February 2014
- Post-campaign survey coverage of 90%

*PATH

icddr.b

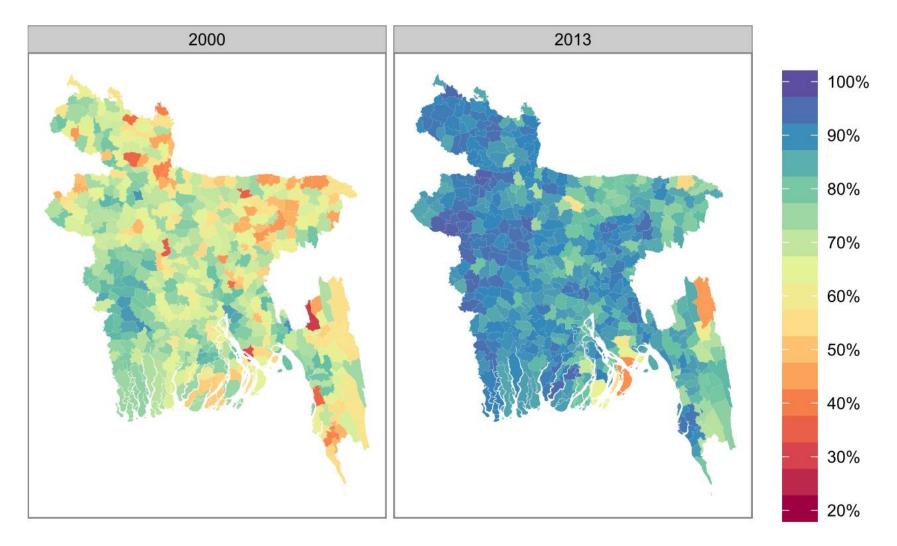
17

IHME





Full vaccination coverage, Bangladesh





IDRC C

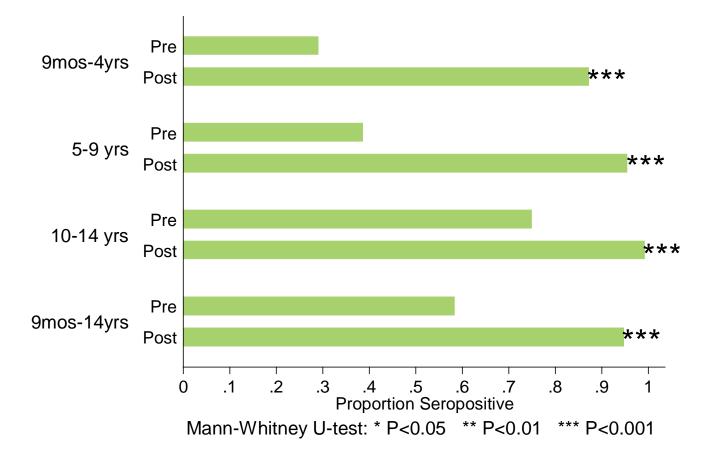
18







Rubella antibody prevalence (pre vs post)





New vaccine introduction key findings

- Overall, new vaccines being introduced at levels comparable to existing vaccines
 - Exception is Uganda
- Learning occurring between vaccine introductions but could be better maximized
- In addition to achieving high campaign coverage, Bangladesh MR campaign had primarily positive impacts on routine EPI
- Reach of new vaccines limited by existing system constraints; system strengthening is critical to reduce inequality

20



*PATH

🔄 👶 icddr,b









- Overview
- Key Findings
 - New vaccine introductions
 - **o Human papillomavirus (HPV) vaccine**
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



HPV vaccine: Demonstration vs Learning

The primary objective of the HPV vaccination demonstration programme is to allow countries to <u>learn by doing</u>.

> HPV demonstration project application guidelines

.....[countries must] have demonstrated ability to deliver a complete multi-dose series of vaccines to at least 50% of a one-year cohort ...

Application guidelines for national HPV introduction





*PATH

22









centro de

nvestigação



Mozambique: Demonstration site selection

- Mozambique's initial application for Gavi support identified 3 diverse demonstration sites
- Approved application focused on Manhica district, a comparatively better off site
- Government funds two additional demonstration sites

"The government wanted to expand to various districts but Gavi was concerned that if they didn't run a good quality demo project it would affect their ability to apply for a national program." Global KII

Uganda: Financial feasibility of delivery model

- Demonstration project began in 2008
- Delivery model based on school and child health days; expanded to 14 districts in 2012
- IRC review in 2013 of Uganda application for national introduction cites lack of budget info for cost of delivery; approved March 2014
- Citing financial feasibility constraints, Uganda switches to a previously untested delivery model based on routine EPI

cism

nvestigação



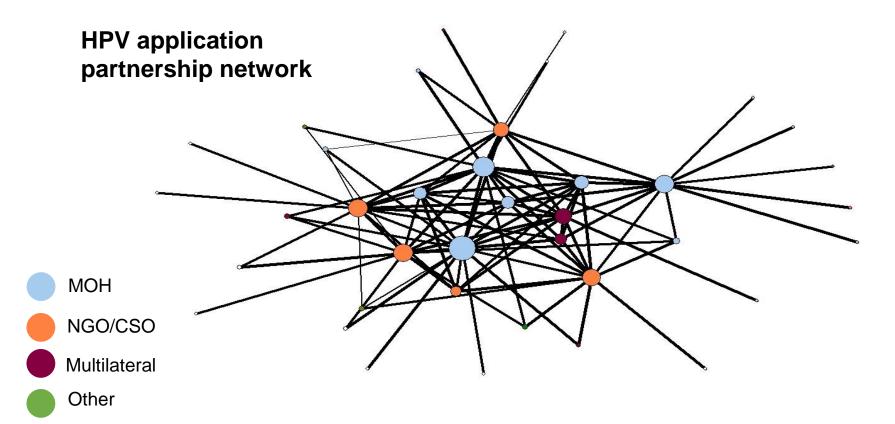
*РАТН

23





Uganda: HPV vaccine application partnership



Ties weighted by reported trust score, nodes colored by organization type and sized by "degree centrality" (i.e., how many ties they have). Each node represents an individual.

HPV vaccine key findings

- Insufficient and underutilized technical guidance to to ensure design and implementation of demonstration projects are made with an eye toward national introduction
 - Identifying target population
 - Delivery model(s) to test and how to refine them over time
 - Financial and programmatic feasibility
- Potential pathways from the demonstration project to national introduction are not well articulated
 - What are the options for countries once the demonstration project is completed?
 - Is a staged or sequential approach to national rollout an option?

25



*PATH

icddr b









IHME

- Overview
- Key Findings
 - New vaccine introductions
 - Human papillomavirus (HPV) vaccine
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



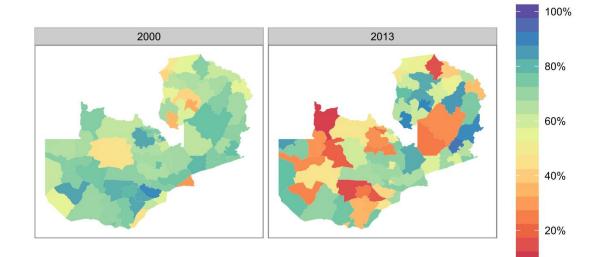
Health system strengthening

cddr.b

27

Ability to fully reach the target population with new vaccines is hampered by the persistent limitations of the immunization delivery system

*PATH



0%

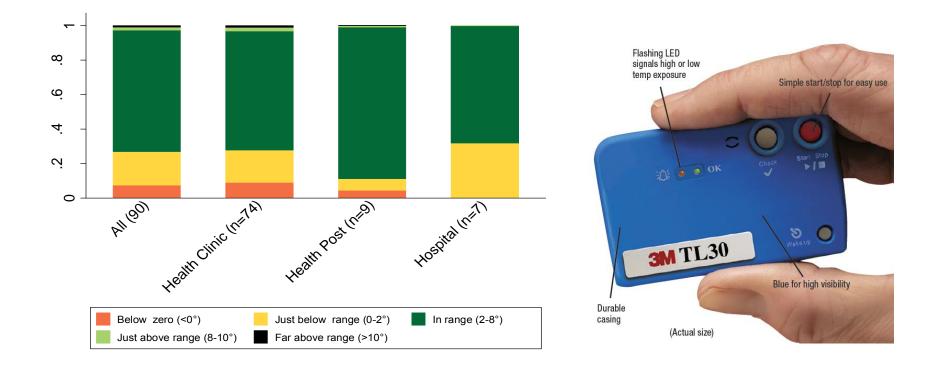
cism

investigação em saúde de manhica

Zambia: District-level fully vaccinated child (BCG, Measles, OPV3, DTP3/Penta3) coverage



Vaccine storage equipment in or out of range, health facility survey, Zambia





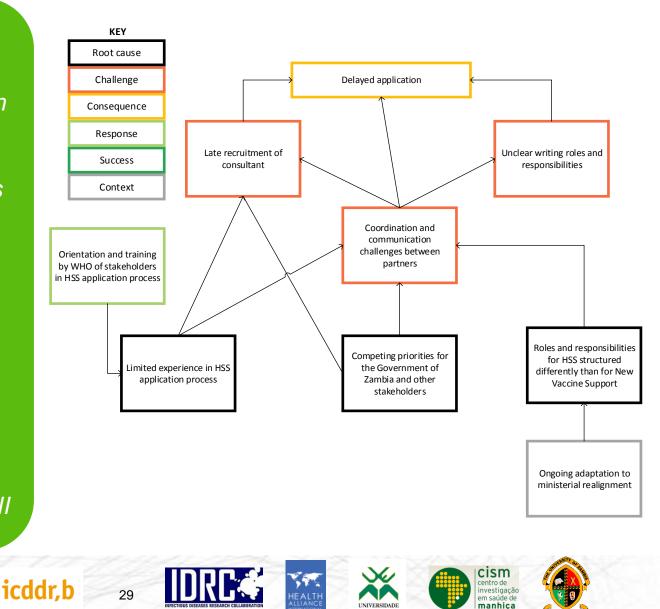
Zambia: HSS application

HSS involves coordinated efforts at the country level, which involves partners even at the proposal stage...Capacity varies widely: staffing, interactions between Gavi and country; coordination between departments (Dept. of Planning, EPI, M&E, and HMIS). There is challenge in bringing these departments together."

*PATH

IHME

Global KII



E D U A R D O

Key Findings HSS

- Gavi FCE countries at different stages of HSS implementation
 - Limited and slow implementation to allow outcome/impact measurement
- Multiple barriers, some previously documented
 - De-prioritization in comparison to new vaccine introductions
 - Coordination among funders and implementing agencies
 - \circ Financial management requirements \rightarrow disbursement
 - Procurement

*PATH

- Country planning and implementation capacity
- $_{\odot}$ Implementation \rightarrow Reprogramming \rightarrow Further delays
- Direct implications on new vaccine introductions





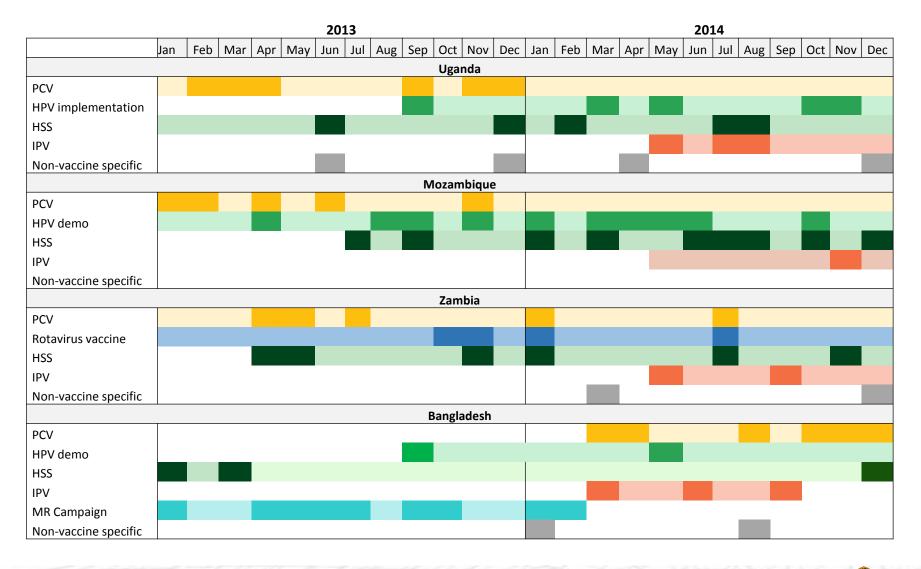








Planning and implementation capacity



cism

centro de

INIVERSIDADI

E D U A R D O MONDI ANE investigação em saúde de

manhica



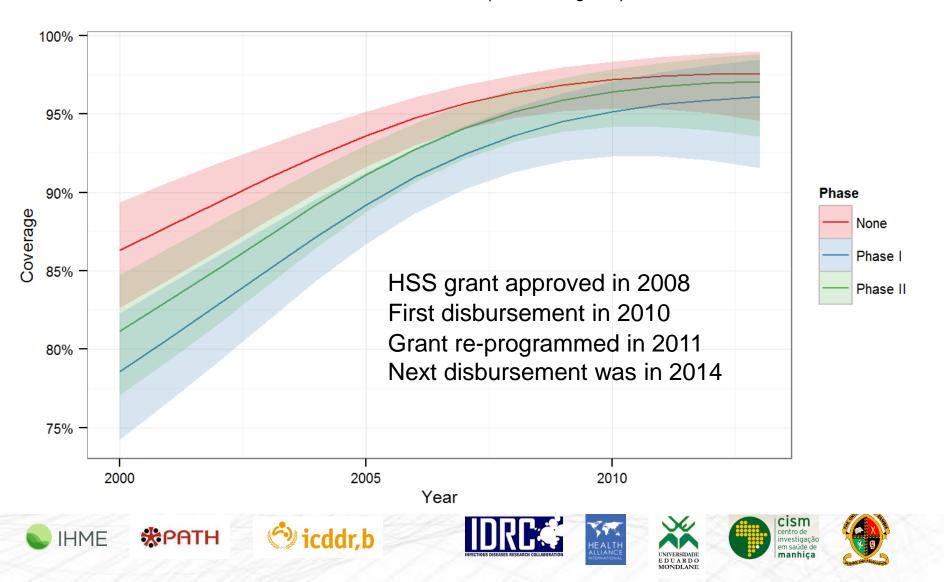
*PATH

icddr.b

31

Outcome/impact assessment of HSS

Bangladesh: Estimated DTP3 coverage with 95% uncertainty in Phase I, Phase II HSS districts compared to non-HSS districts (first HSS grant).



HMF

- Overview
- Key Findings
 - New vaccine introductions
 - Human papillomavirus (HPV) vaccine
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



Use of Gavi FCE Findings in Zambia

- Robust engagement with policy makers which is leading to translation of findings into improved implementation and planning, for example:
 - Health facility survey findings raised questions related to need to better monitor stock-outs and use of vaccines, vaccine wastage and cold chain temperatures → EPI logistics unit developing mechanism for better monitoring
 - Findings on negative impact of rescheduling of preparation activities for PCV and rotavirus vaccine → Partners (UNICEF) advocating for better planning for IPV
 - Findings on faster rotavirus vaccine scale up → EPI adjusting assumptions about scale up in first year from 60% to 80-90% coverage (lower assumption of coverage partly explained rotavirus vaccine stock-outs).
 - District-level estimates of vaccine coverage → guiding targeting of districts under HSS
 - Findings broadly → inform development of cMYP and Zambia child survival strategy

34



🧧 🖒 icddr, b

*PATH









HMF

- Overview
- Key Findings
 - New vaccine introductions
 - Human papillomavirus (HPV) vaccine
 - Health system strengthening
- Use of Gavi FCE findings
- Gavi FCE in 2015-16



cism

centro de

DUARDO

investigação em saúde de manhica

Gavi FCE in 2015-2016

- Broadened outcome and impact assessment
 - Integrated health facility and household surveys including biomarker measurement
 - Causal analysis based on small-area estimates
 - Vaccine effectiveness
- Key cross-country focus areas presently identified
 - Health system strengthening (new PBF support window)
 - Partnership including technical assistance
 - Multiple support streams including multiple vaccine introductions
- Assessment and baseline for new policies and procedures
 - Grant management and monitoring including joint appraisal

36

- Partner engagement framework
- 2016-2020 strategy

*PATH





cism