Sustainable access to vaccines in Middle Income Countries (MICs):
the WHO MICs Task Force

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Overview

Introduction to the WHO MICs Task Force

Review of the MICs problem statement

Preliminary hypothesis around priorities

Task Force's Next steps

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Next steps: Needs Assessment & Activity Mapping

Where we started

- MICs have high mortality from vaccine preventable diseases, yet have fallen behind donor funded LICs in new vaccine adoption and at risk of falling further behind
- Strong NIPs, financially self-sufficient programs: robust base to build upon
- WHA, SAGE recommendations (2008,2010) to investigate obstacles and mobilize resources for MICs
- BMGF-R4D-WHO (2011): New Vaccine Adoption in Lower-Middle Income Countries

	Priority Recommendations
Evidence and capacity building	• Strengthen epidemiological and economic analysis capacities • Information Sharing • Reliable source for global vaccine market information
Policy and advocacy	• Strengthen political will, regulation and policy development
Financing	• Low and affordable vaccine prices • Sustainable domestic financing
Procurement and supply	• Efficient and effective procurement systems

Current ongoing efforts

- **Many initiatives** to support MICs:
  - GAVI Alliance support to 39 MICs (mainly LMICs)
  - Support to GAVI graduating countries (24 in 2015) and review of GAVI graduation policy
  - Price transparency (V3P, JRF, GVAP price report)
  - Access to affordable prices (GAVI, Harvard Global Health Institute)
  - Pool procurement (UNICEF SD, PAHO, EMRO, Baltic States) and capacity building on procurement
  - TA for CMYPs, NRAs, NITAG strengthening (WHO, SIVAC)
  - Support to decision making & sustainable financing: Provac, SIF
  - Bilateral donor and NGOs funding and TA (e.g. USAID, MSF)

- Clear motivation, but **lack of strategy and action plan** for coordination
- SAGE (2012) recommendation for **MICs Task Force for harmonization**

MICs Task Force

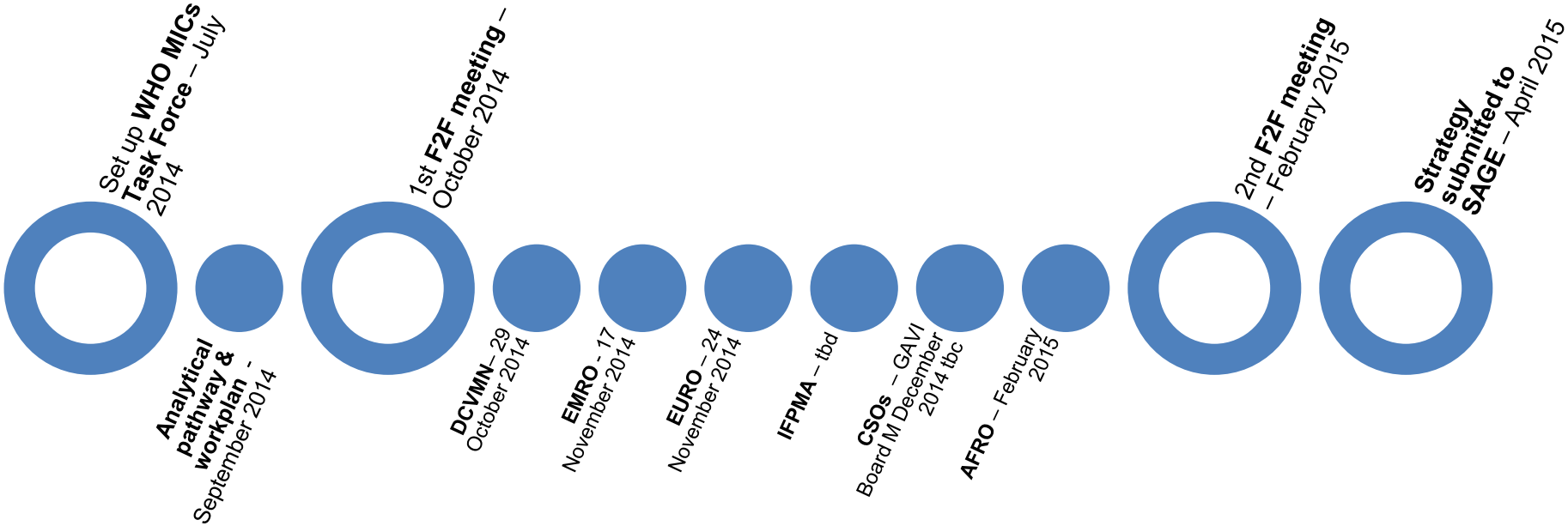
- **Purpose:**
  - Review the ‘MICs issue’ and current ongoing efforts
  - To define a **shared strategy and related action plan** for sustainable access to vaccines in MICs
  - And subsequently act as a **coordination forum** for activities related to access to vaccines for MICs

- **Membership:**

AMP
BMGF
GAVI Secretariat
Sabin Institute
Task Force for Global Health
UNICEF PD
UNICEF SD
WHO HQ (Chair) and Regional Offices
World Bank

- **Analytics:** R4D with funding from BMGF

Task Force Timeline



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Analytical pathway

Analytics

1. **MICs Performance against DoV Targets**
2. **Needs assessment**
3. **Mapping of current activities against needs**
4. **Strategy & Action Plan Development**

Outputs

a

- Problem statement update
- Understand relative performance by groups

b

- Full set of needs against DoV
- Cross-cutting versus group specific needs

c

- Complete mapping of ongoing efforts by need, country, agency
- Challenges & opportunity identification

d

- Identification of short /long term priorities for action
- Development of action plan and related M&E framework

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Criteria for prioritization of action

Criterion	Preliminary implications/considerations
Health impact	• Focus on key actions in high burden countries • Elimination and eradication goals to be kept in mind
Equity	• Focus on maximizing number of countries/people assisted, regardless of birth cohort size
Feasibility	• Degree of difficulty and cost to be considered
Value for money	• Assessment of how the (health) gain compares with the associated cost
Gap analysis	• Strengthening ongoing efforts or charting new territory where actions have been missed or neglected

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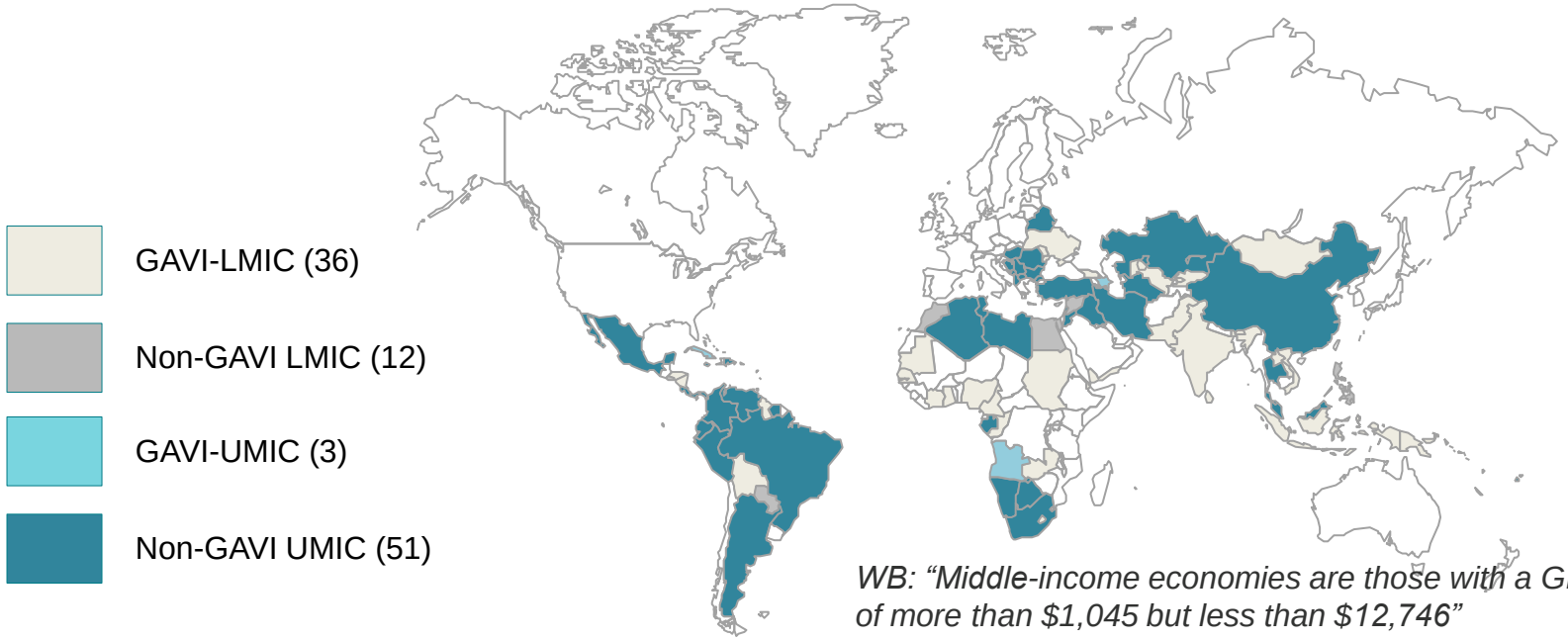
MICs are a very heterogeneous group

Country	Income Group	GAVI/PAHO eligibility	Birth cohort ((k)	# of NUVIs	DTP3 Coverage (%, 2013)	NITAG status
Brazil	UMIC	PAHO RF	3,141	5	95	F
Papua New Guinea	LMIC	GAVI graduating	213	1	68	NF
South Sudan	LMIC	GAVI eligible	417	0	45	NF
India	LMIC	GAVI eligible	25,519	1	72	F
Maldives	UMIC	-	7	0	99	F



WB: "Middle-income economies are those with a GNI per capita of more than $1,045 but less than $12,746"

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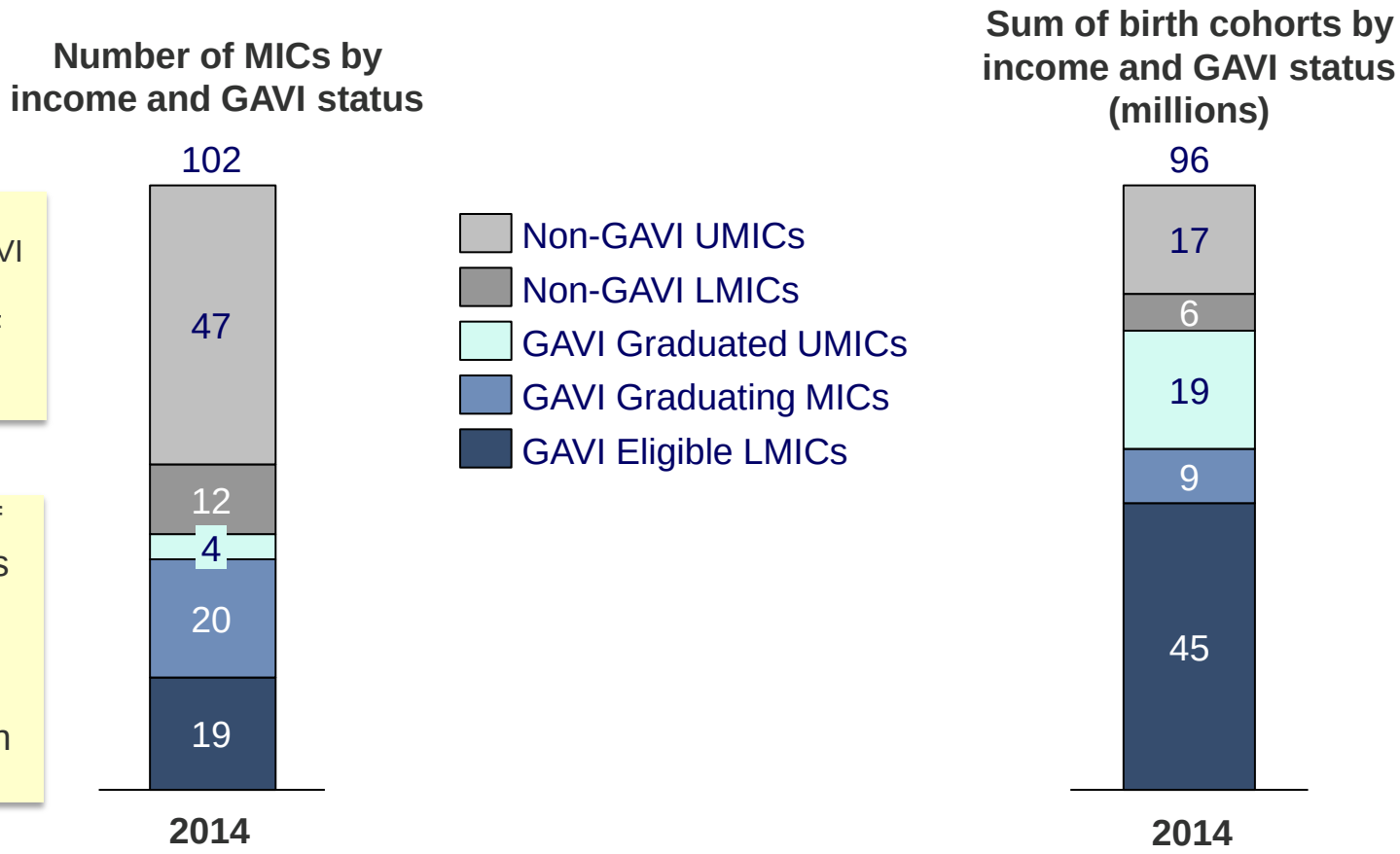
Over 40% of MICs receive support from GAVI. An additional 18% belongs to PAHO RF

20 non-GAVI receive PAHO RF support

43 out of 102 MICs (42.2%) receive donor support in 2014



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MICs are far from DoV targets*

Decade of vaccine targets examined:

1. Achieve a world free of **polio**
2. Meet global and regional elimination targets (**measles**)
3. Exceed the MDG 4 target (**U5M**)
4. Meet vaccination targets equitably (**DTP3 coverage** and **equity in coverage**)
5. Develop and introduce **NUVI**
6. Immunization as a priority (**financing & NITAG**)
7. Strong immunization systems (**drop out rates & sustained DTP3**)

- Pakistan, Nigeria, Syria, Cameroon, Yemen with confirmed polio cases in 2013
- India, Nigeria, Indonesia, Algeria, Zambia, top five MICs for measles deaths
- China is one of very few MICs having reduced by 2/3 U5M since 1990
- Very few countries (China) have DTP3 coverage above 90% and more than half of MICs don't meet equity targets
- 21% of MICs have introduced no new vaccines
- Trends in domestic expenditure falls short of targets & about 40% of MICs have functional NITAGs
- 70% of MICs have a dropout rate of less than 5% & 56% of MICs have sustained high DTP3 coverage over time

*Key outcome, output and processes targets where examined for which data was available. See appendix for complete table of DoV goals and objectives and detailed results
Vaccine preventable morbidity from WHO CHERG

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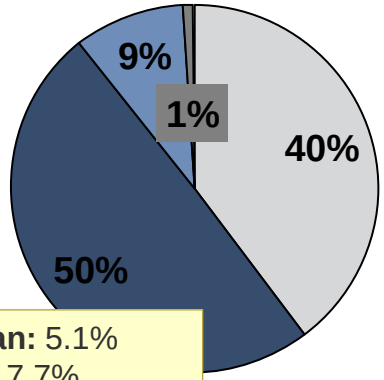
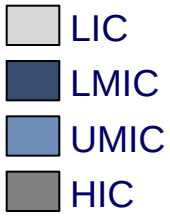
DoV gaps in MICs matter: great majority of world's U5M, VPD, and unvaccinated children are in MICs

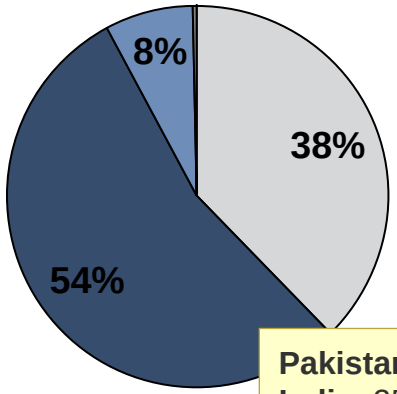
Share of U5 deaths



Pakistan: 5.1%
India: 17.7%
Nigeria: 13.5%
China: 2.9%
Indonesia: 1.7%
Total: 41%

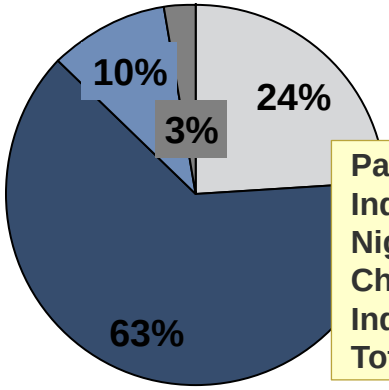


Share of vaccine-preventable deaths



Pakistan: 5.6%
India: 25.1%
Nigeria: 11.8%
China: 2.9%
Indonesia: 1.7%
Total: 47%

Share of unvaccinated (DTP3) children



Pakistan: 5.7%
India: 32.5%
Nigeria: 12.9%
China: 0.9%
Indonesia: 3.3%
Total: 55.3%

VPD data from WHO CHERG; U5 from WHO; Unvaccinated children determined from DTP3 coverage (2013, WHO-UNICEF estimates) and surviving infants (2012).

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Performance on DoV indicators by groups: summary

DoV indicators	Income		Region						Group			
	LMIC	UMIC	AFR	AMR	EMR	EUR	SEAR	WPR	GAVI eligible	GAVI graduating	GAVI graduated	Non-GAVI
DTP3 >90%	76	94	71			94	75	98	74	76	99	
NUVI	1.5	1.7	1.2	2.7	1.3	1.2	0.9			0.8	1.1	
U5M	63	20	103	18		20		17	64	79	14	17
NITAG	40	35	10		77		71			26		
Drop-outs	5.6	3.3	5.5			0.8	5.1	9.2	7.3	5.4	0.3	
DTP3 >90% 3+ yrs	1.6	2.2				2.5 yrs			1.0 yrs		2.8 yrs	
90% dist >80%	40	81					14	89	21		100	

Green indicates strong, red weak, and yellow intermediate performance

Weighted average (by birth cohort) of DTP3 (2013 WHO-UNICEF estimates), U5M (WHO), and 90% dist >80% (JRF). For NUVI: PCV, Rota, HPV, IPV, YF, and JE. NITAG variable is % of group that have functional NITAG (JRF). Dropout % (JRF) and DTP3 >90% 3+ years (WHO-UNICEF estimates for 2011-2013) are straight averages.

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The MICs problem statement

- MICs have large gaps to close to meet DoV targets
- The gaps in MICs DoV performance matter because the great majority of world's VPD and unvaccinated children are in MICs
- No group is meeting all DoV targets, but:
  - AMR and EUR performing better than other regions
  - GAVI-graduated countries are outperforming all others
  - Non-GAVI MICs are performing consistently better than GAVI-supported MICs
  - LMICs are performing consistently worse than UMICs
- Regarding NUVIs, MIC's lag LICs only in terms of % birth cohort reached
  - Lag is driven by the large GAVI countries (India and Nigeria)

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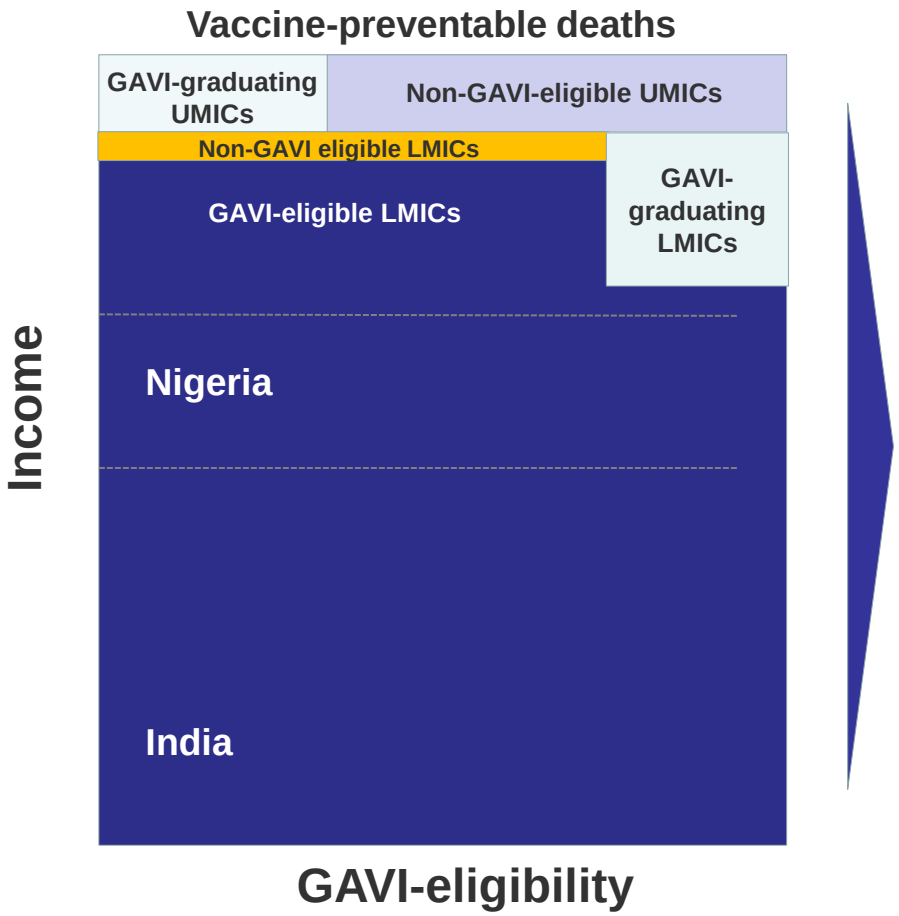
Next steps: Needs Assessment & Activity Mapping

India and Nigeria have the highest number of vaccine-preventable deaths



Cohort	VPD	Share (%)
India	531,358	40
Nigeria	249,302	19
GAVI-eligible LMIC	263,931	20
GAVI-graduating LMIC	75,476	6
Non-GAVI LMIC	33,976	3
GAVI-graduating UMIC	41,041	3
Non-GAVI UMIC	120,059	9
Total	**1,315,144**	

Size of square proportional to amount of vaccine-preventable deaths

VPD data from WHO CHERG for measles, meningitis, diarrhea, and pneumonia.

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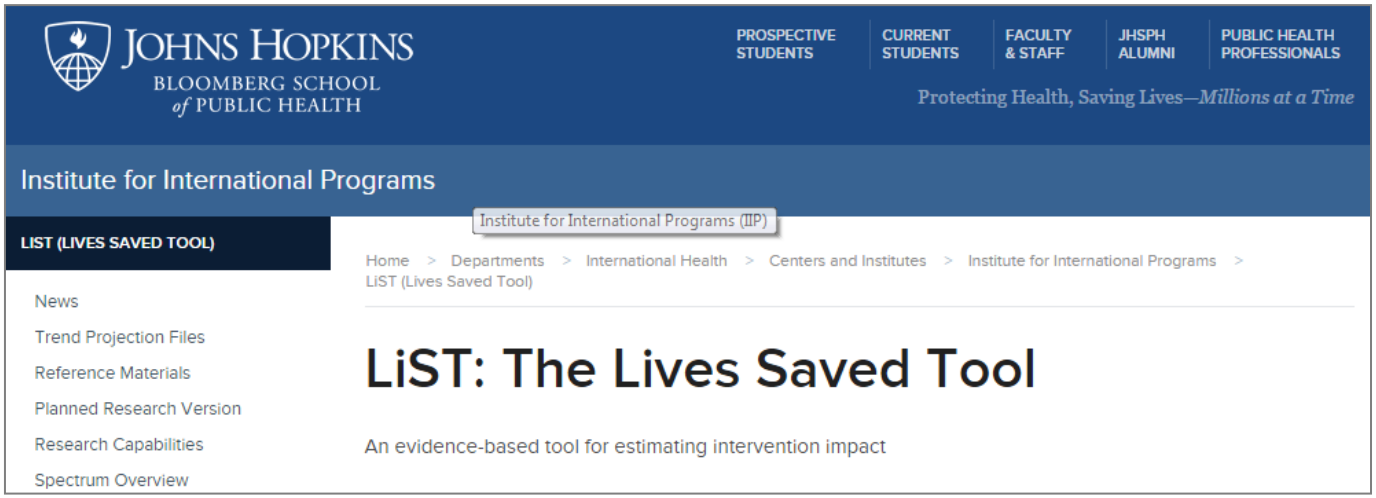
Comparing impact of increasing coverage vs. NUVIs
Lives saved analysis



Inputs	Assumptions
• 86 MICs analyzed (based on availability of data in LiST) • 99% of birth cohort • Range: 2014 (baseline) – 2025	• Increased coverage linearly to 90% by 2025 (kept consistent if >=90% in 2013) • WHO-UNICEF coverage estimates for DTP3, HepB, HiB, MCV, PCV, and Rota (2013)

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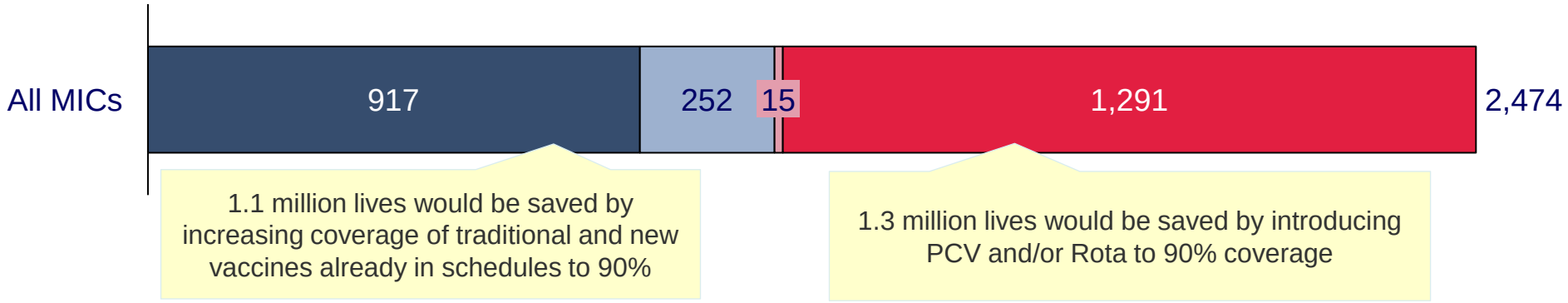
Gains in reducing VPD in MICs will come from both introducing new vaccines & increasing coverage

Lives saved by intervention (thousands) between 2014-2025



- Lives saved by increasing coverage of traditional vaccines to 90% by 2025
- Lives saved in countries already using PCV and/or Rota coverage by increasing their coverage to 90% by 2025
- Additional lives saved by introducing HiB to 90% by 2025
- Lives saved by introducing PCV and/or Rota to 90% by 2025

Lives saved estimation conducted on LiST.
WHO/UNICEF coverage estimates (2013) for DTP3, Hib, HepB, measles, PCV, and Rota.
Traditional: DTP3, Hib, HepB, and measles. New: PCV and Rota
Range: 2014 (baseline)-2025, coverage increasing linearly to 90%. If coverage above 90% in 2013, kept consistent to 2025.

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Preliminary hypothesis around priorities

- Nigeria and India represent 59% of MICs VPD burden. Other GAVI eligible and graduating MICs represent 29% of VPD burden while non-GAVI MICs are only 12% of VPD burden
- GAVI eligible and graduating MICs are receiving dedicated support by the Alliance (i.e. vaccine subsidy, HSS grants, technical assistance)
- To ensure complementarity and for global equity reasons, the work of the MICs Task Force could focus on non-GAVI MICs
- Recognizing that 22 MICs are expected to graduate between 2016 and 2020 and thus the non-GAVI cohort will grow over time
- To reduce VPD, the Task Force should probably focus on both further new vaccine introduction AND coverage improvement in MICs

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First conclusions around priorities

Next steps: Needs Assessment & Activity Mapping

Needs assessment from desk review

	Barrier/Problem	Possible MICs Needs/Solutions	
Introductions	**Decision making – weak skills and information**	• CEA capacity and data • Prioritization	• NITAGs
	Regulation & governance – delayed approvals, registration, lot release, etc	• Legal or regulatory reform or change	• NRAs
	Finance – insufficient budget, slow payment, lack of forex	• Timely payment solutions • Adequate funding, Sustainability	• Access to hard currency
	Price – uncertainty, lack of info, doubtful affordability and sustainability	• Access to affordable prices, now and after GAVI graduation	• Trans-parent prices • Negotiating power
	Procurement/supply – inefficient, slow, fails to select highest v4$	• Efficiency of procurement/ distribution • Stable supply	• National procurement capacity
	Opposition to vaccine introductions – myths and misconceptions	• Policy and advocacy	• Tools to address anti-vaccine movement
Coverage	**Distrust by consumers – poor information and communications**	• Outreach • Behavior change	• Communication
	Cold chain & logistics – infrastructure, technology, management	• Transport • Storage	• Maintenance • Reaching rural areas • Power supply
	HRH -- # of frontline workers, skills, knowledge, support systems	• Adequate trained staff • Efficient allocation/ deployment	• Increased motivation • Performance management
	HMIS	• Accurate, up-to-date data • Systems	• Protocols and training for data collection • Forecasting

Mapping of partners' activities to identify challenges and opportunities

AMP

BMGF

CHAI

Gavi

Harvard

Johns Hopkins

MSF

Sabin

Task Force for Global Health

UNICEF PD

UNICEF SD

USAID

WHO

CDC

CSO Constituency

ICRC

International Development Cooperation Agencies (DFID, Sida, Cida, AFD)

PATH

Regional development banks (ADB, IDB)

World Bank

What? Where?
What works?
What more?
What different?

Industry Consultations

- Past industry consultations:
  - R4D study (2011) – NUVI in LMICs
  - V3P 2012-2013
  - GAVI ATAP 2014

- Kindly send any feedback to mariats@who.int

Thank you!

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