Building the concept for WHO Vaccine Preferred Policy Profiles (PPoP)

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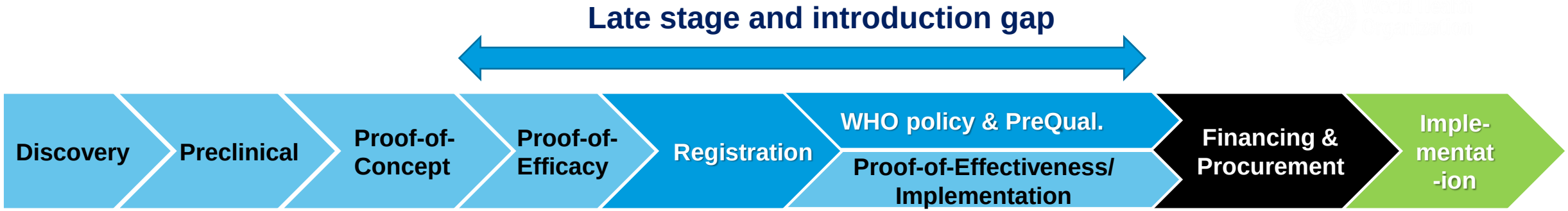
Workshop 6

Birgitte Giersing, PhD
Vaccine Product & Delivery Research (PDR) Unit, IVB

What's the problem we are trying to solve?



Is there a business case for manufacturers?

Piot et al, 2019; https://pubmed.ncbi.nlm.nih.gov/31695203/
Pronker et al, 2013: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3603987/pdf/pone.0057755.pdf
Plotkin et al, 2017: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5518734/pdf/main.pdf

Where are the gaps in the existing guidance to navigate this process?

Pathogen Landscape: articulates the public health need

Preferred Product Characteristics: (PPC): defines product attributes for LMIC use

SAGE Evidence to Recommendation framework

WHO Position paper: summarize essential background information on diseases and vaccines, and the current WHO position on the use of vaccines worldwide

Financing & procurement criteria

Scientific advice meetings: Data on safety, quality and efficacy for licensure

Vaccine R&D technology roadmap: Identifies R&D, capacity and enablers for development to policy in LMICs

Please see WHO vaccine PPC & Roadmap guidance documents under: Product Development for Vaccines Advisory Committee and PPCs

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Guidance gap?

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Are the gaps in the existing guidance to navigate this end-to-end process?

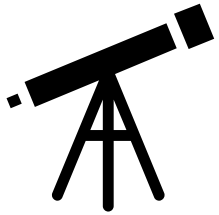
PPC Parameter		WHO Policy Recommendation parameter		Gavi Vaccine Investment Strategy (VIS) Parameter
Indication for use, Target population, Contraindications		Recommendation(s) for use (Burden / recommended targeted risk population(s) by epi setting(s); other populations (permissive /contraindicated); geographies (regional, national, subnational), etc)		
Efficacy Durability of protection	⇔	Benefits (pre-clinical and clinical; *direct*: effectiveness / preventable disease, and duration of protection; *indirect:* herd effect; etc)		**Health impact** Broader health system benefits
Safety & reactogenicity		Harm (pre-clinical and clinical; safety/ tolerability; benefit-harm-acceptance assessment; etc)		
Dose regimen, Route of administration, Co-administration, Formulation/presentation Product stability and storage	⇔	Feasibility (implementation considerations: regimen, route, setting(s); storage, delivery, etc.) Resource Use (*Costs:* illness; product & implementation; *Cost-effectiveness*; *Supply and wastage*: vaccine & delivery considerations; etc.)		Implementation feasibility
Accessibility	⇔	Values & Preferences (related to intervention & comparative health outcomes) Equity (Vaccine access; health, social, economic security, human rights/civil liberties, etc.) Acceptability (by stakeholders; affordability, etc)		Vaccine cost **Value for money** Operational cost **Equity & social protection impact** **Economic impact** Additional implementation costs Global health security impact Gavi comparative advantage

Source: WHO TPP for COVID-19 vaccines

Source: SAGE Guidelines development recommendations

Source: Gavi Vaccine Investment Strategy

Strategic intent for Preferred Policy Profile (PPoP)



- Envisaged as ***non-binding guidance*** that would aim to specify the ***anticipated*** recommendation for use to inform late stage product development programmes on ***expectations for evidence.***
- Particularly important for vaccines that are needed to address ***the most urgent medical need,*** for vaccines targeted primarily to LMICs, where there may be ***innovative routes to licensure***, e.g. based on controlled human infection model, correlate of protection
- The process of developing PPoPs would serve to ***engage regulators and policymakers*** at the national, regional and global level, ***as well as financing and procurement agencies*** on expectations for evidence for decision making
- Guidance will be aspirational and ***does not preclude the comprehensive SAGE Evidence to Recommendation process.***

Where are the gaps in the existing guidance to navigate this process?

World Health Organization

Late stage and introduction gap

WHO Preferred Product Characteristics: (PPC):
defines product attributes for LMIC use

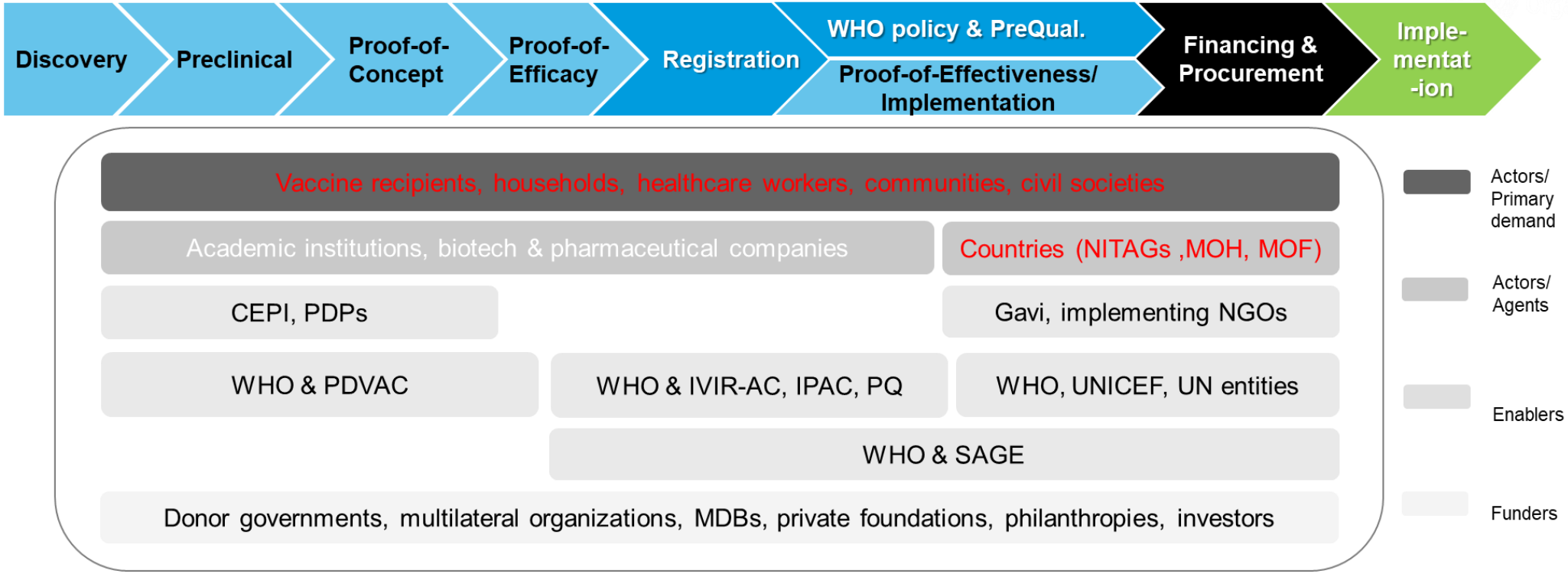
Financing & procurement criteria

Scientific advice meetings:
Data on safety, quality and efficacy **for licensure**

WHO Preferred Policy Profiles :
Non-binding expectations on data and evidence to support **WHO policy consideration**

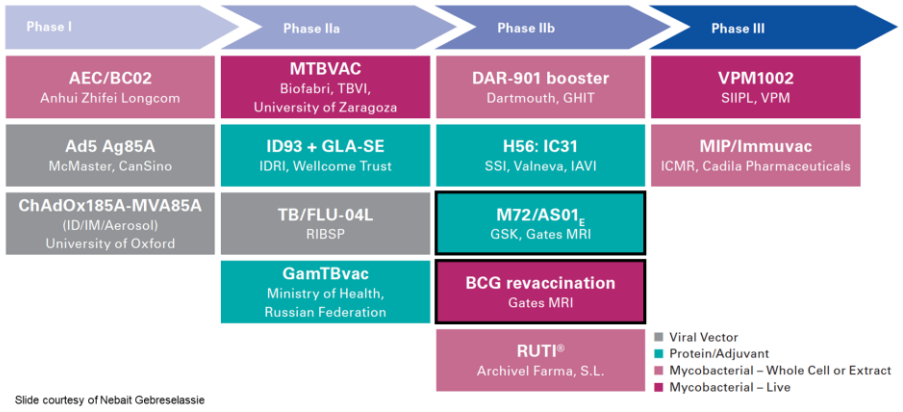
What are the outcomes of PPoP development?

- Aims to align stakeholders across the continuum, and engages national and regional level decision makers
- De-risks investment decisions for funders, product developers & manufacturers by ***reducing uncertainty***

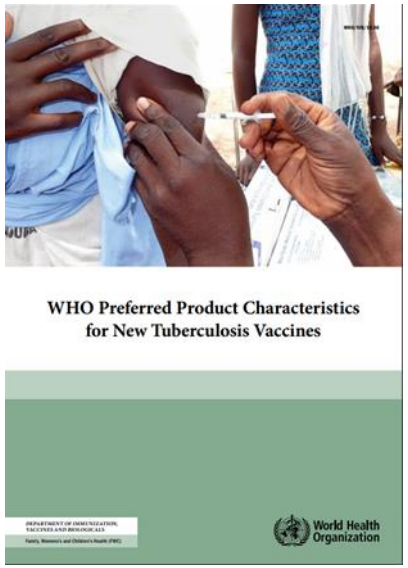


Source: Submitted manuscript: The Full Value of Vaccine Assessments (FVVA): a framework to guide assessment and communication of the value of and decision making for vaccines
Raymond C. Hutubessy[1], Jeremy A. Lauer[2], Birgitte Giersing[1], So Yoon Sim,[1] Mark Jit[3,4,5], David C. Kaslow[6]

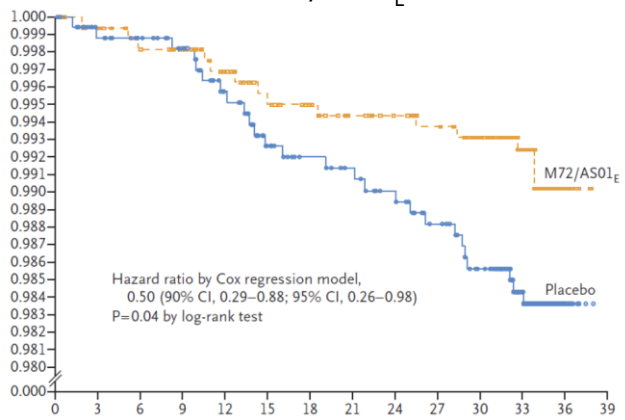
Proposed test case 1:
TB vaccines for adolescents and adults



Slide courtesy of Nebait Gebreselassie



M72/AS01$_{E}$**



Phase 2b: 49.7% (95% CI 2.1 to 74.2%) vaccine efficacy prevention of disease (in IGRA +ves)

- M72 licensed to Gates MRI for use in LMICs
- ***Phase 3 trial simulations and planning underway; protocol to be finalised Q4 2021***
- May be strategy for early licensure based on interim analysis

Questions for policy consideration:

- Target age groups, depending of VE in IGRA-negative individuals, PLHIV
- What needs to be included in the Phase 3 study design (case definitions, endpoints)
- Delivery strategies, broad vs targeted implementation, platforms?
- What kind of economic analysis is needed to understand impact on AMR or cost of preventative treatment?

Thank you!

Proposed test case 2:
Bivalent typhoid/Paratyphoid A vaccine

- IHME estimates of paratyphoid burden of disease for 2017 (due predominantly to paratyphoid A) are 3.4M cases, 19,200 deaths.
- PTA is most common in South Asia with incidence **highest amongst children**
- AMR is a major threat including the potential for XDR and azithromycin resistance.

Vaccine development status:

- Two bivalent candidates in or entering clinical development
- Proposed regulatory concept is to assess the typhoid component through non-inferiority against licensed typhoid conjugate vaccine in immunogenicity studies, and assessment of efficacy against paratyphoid A in a Controlled Human Infection Model.

➢ This innovative regulatory strategy may support licensure (and a travelers vaccine indication) but it will reduce the data in the target population

➢ What kind of data/evidence will be needed for policy consideration?