

Global Vaccine and Immunization Research Forum
Incheon, 28-30 March 2023

The Full Value of Vaccines Assessment (FVVA) concept

Mark Jit

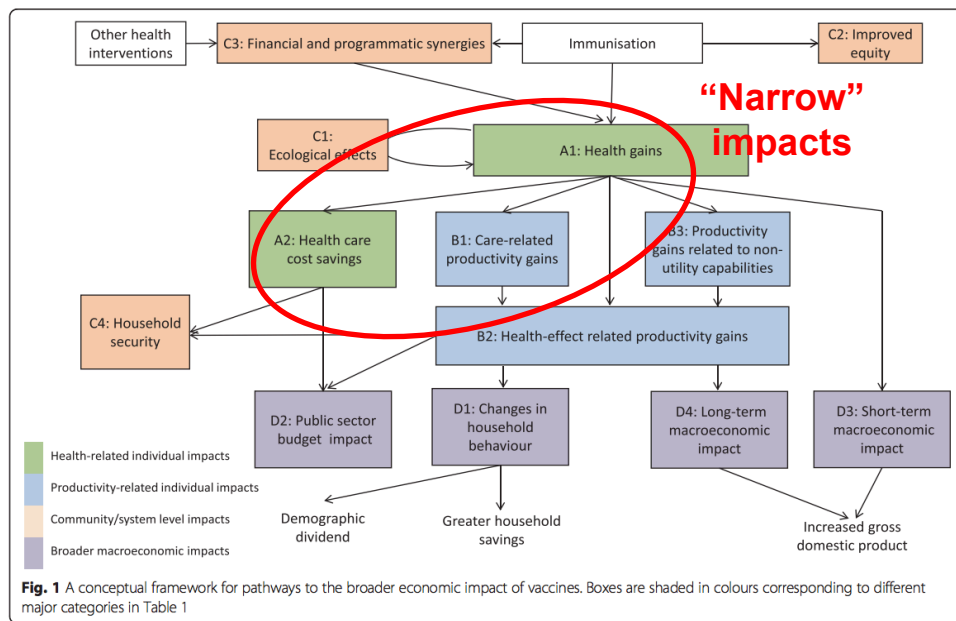
I have no conflicts of interest to declare

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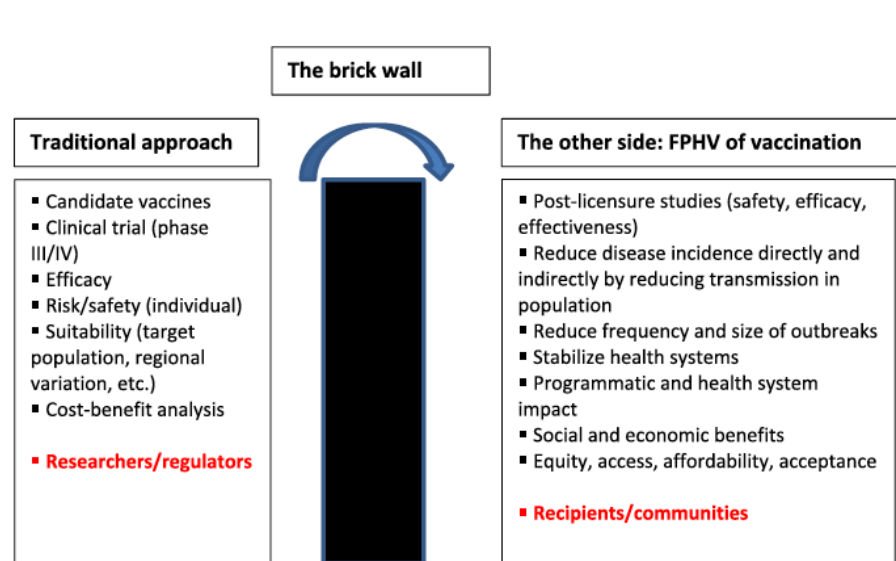


Paradigm shifts in assessing the value of vaccines

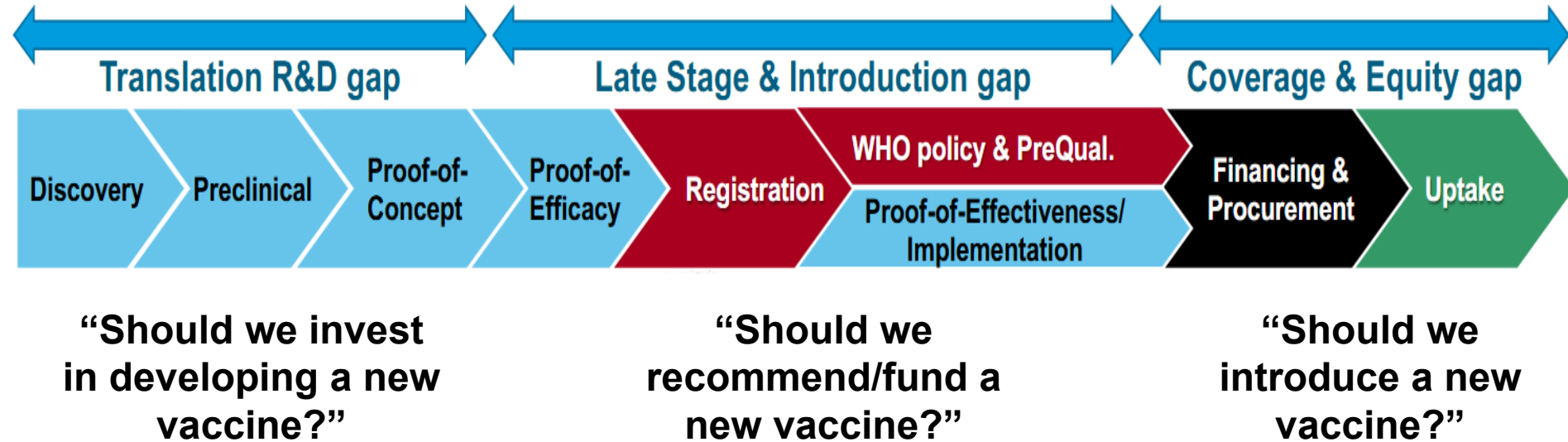
From “narrow” to “broad” impacts Jit et al. 2015



From “the brick wall” to “the other side” Gessner et al. 2017



The “full value of vaccines” continuum^{1,2}

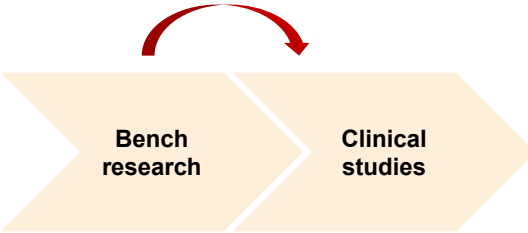


¹As discussed at Fondation Mérieux consultation, 5-7 December 2016; WHO Product Development for Vaccines Advisory Committee (PDVAC) Consultation, 26-28 June 2019, Wilder-Smith et al. BMC Medicine 2017; 15:138 etc.

²Adapted from presentations by David Kaslow (PATH), Kaslow Nature 564(7736):337; O’Brien Lancet 2016; 387(10031):1887; Hutubessy et al. 2021 SSRN.

Addressing multiple stakeholders

Translation gap



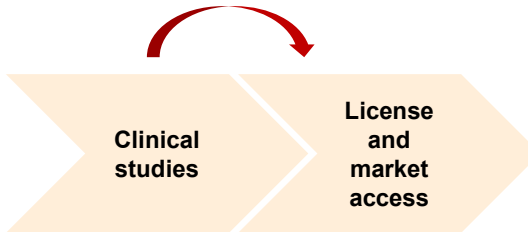
**Audience: research funders,
manufacturers, academia**



Key requirements:

- Value of information
- Financial (manufacturers) or societal (funders) return on investment
- Economic surplus and market analysis

Introduction gap



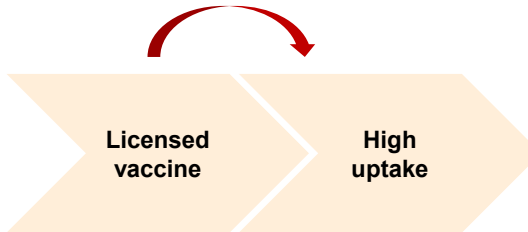
Audience: donors, regulators



Key requirements:

- Cost-effectiveness
- Broader benefits (equity, development, security etc.)

Implementation gap



**Audience: WHO, UNICEF, Gavi,
NITAGS, ministries**



Key requirements :

- Cost-effectiveness
- Fiscal/budget impact
- Equity (extended CEA)
- Broader benefits

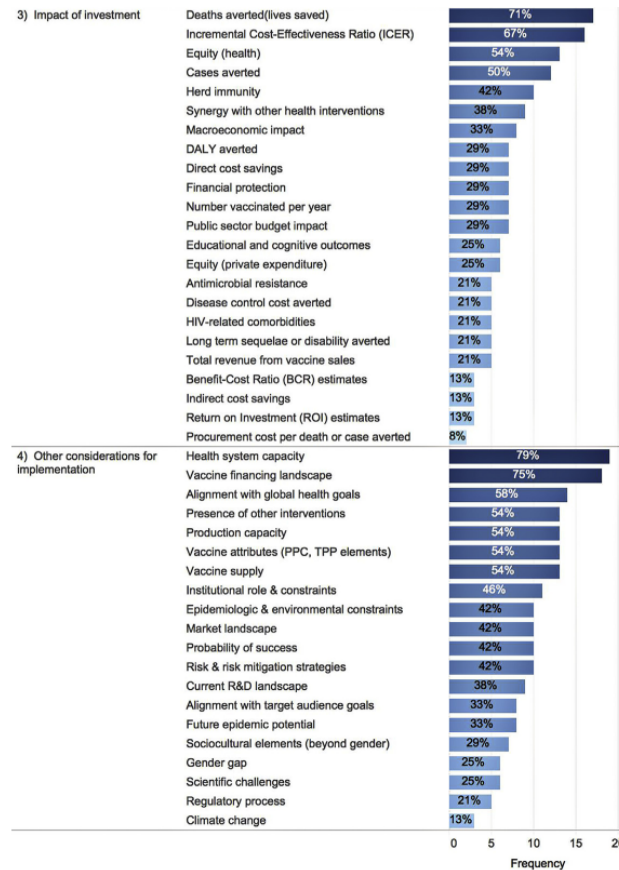
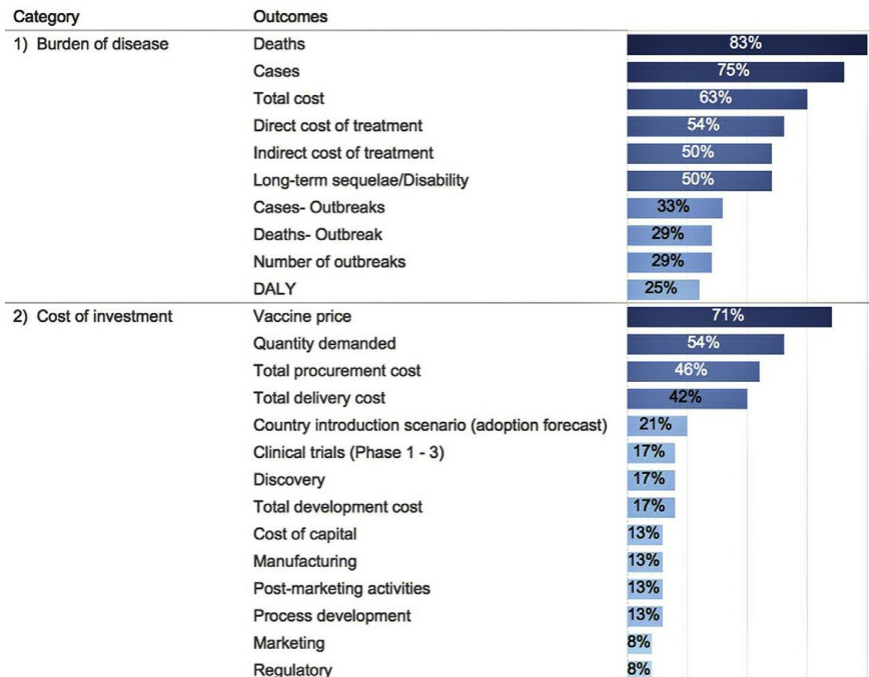
**Feedback loop:
ensure products meet country needs**



Antecedent: Investment cases*

A Scoping Review of Investment Cases for Vaccines and Immunization Programs

So Yoon Sim, MA, MSPH,¹ Mark Jit, PhD,^{2,3} Dagna Constenla, PhD,¹ David H. Peters, MD, DrPH,¹ Raymond C.W. Hutubessy, PhD^{4*}



*"investment case", "value proposition", "business case" etc.

Multiple analyses: a dashboard approach

Cost-effectiveness

- Maternal GBS vaccination costs \$100 per DALY averted and \$200 per case avoided.

Threshold cost

- Maternal GBS vaccination is cost-effective at \$2/dose.

Return on investment

- Maternal GBS vaccination brings \$2 in economic returns per \$1 invested.

Budget impact

- Maternal GBS vaccination will cost \$10m in the year of introduction, and \$5m a year thereafter.

Extended cost-effectiveness

- Maternal GBS vaccination prevents twice as many deaths and thrice as many cases of catastrophic expenditure in Q1 compared to Q5.

Global surplus

- Development of a GBS vaccine is worth \$20bn to manufacturers, \$100b to HICs and \$75bn to LMICs.

Antibiotic resistance

- Maternal GBS vaccination reduces prescribing by 25%, the proportion of resistant carriers by 15% and the cost of resistance by 10%.

Current and pipeline FVVAs



FULL VALUE OF VACCINE ASSESSMENT

GROUP B STREPTOCOCCUS VACCINE

World Health Organization

Strep A Vaccine
Full Value of Vaccines Assessment
Technical Advisory Committee meeting

Date: 15Jun/21
Group lead: Prof. David Bloom

SAVAC

Strep A Vaccine Global Consortium
<https://savac.ivi.int/>

GVIRF, March 2023
Jean-Pierre Amorji, UNICEF

A PATHWAY TO IMPACT:
Exploring the potential of measles rubella microarray patches to reach zero dose children and improve measles vaccine coverage throughout initial Full Value Vaccine Assessment

unicef for every child

VIPS VACCINE INNOVATION PRIORITISATION STRATEGY

PLOS MEDICINE

RESEARCH ARTICLE

The cost and cost-effectiveness of novel tuberculosis vaccines in low- and middle-income countries: A modelling study

Authors: Nathan Hens, Tobias Rebennack, et al.

OPEN ACCESS

UNESCO

OBJECTIVES

CONCLUSIONS

ABSTRACT

BACKGROUND

METHODS AND FINDINGS

PLOS Medicine | <https://doi.org/10.1371/journal.pmed.1004100> January 24, 2023

Work in progress:

Kick-off meeting

Full Value of Vaccines Assessment for invasive Non-Typhoidal Salmonella Vaccines

Jerome Kim, PI
September 30, 2021

World Health Organization

Full Value of Vaccine Assessment (FVVA) for Shigella vaccines

2020 WHO Product Development for Vaccines Advisory Committee (PDVAC)

Virtual Consultation 3
18 May 2020

RESEARCH ARTICLE

Potential health and economic impact of paediatric vaccination using next-generation influenza vaccines in Kenya: a modelling study

Authors: Nanyang Wang, et al.

OPEN ACCESS

ABSTRACT

BACKGROUND

METHODS

RESULTS

CONCLUSIONS

REPORTS

BMC Public Health

Key messages about the FVVA concept

1. Understanding the value of a vaccine is important to inform investment decisions by manufacturers, donors and countries.
2. The FVVA concept brings three key considerations to vaccine evaluations in an integrated framework.
 - Global value to producers and consumers (especially LMICs)
 - Decision-making across the vaccine development to uptake continuum
 - Broader socioeconomic and public health effects.
3. Work is ongoing to further flesh out this framework and apply it to potential vaccine candidates.