



Hilleman Laboratories

MSD · Wellcome Trust Joint Venture

Innovations in Finance & Technology:

The Power of Public-Private Partnerships

Dr Raman Rao

CEO, Hilleman Laboratories

21 October 2022

DCVMN AGM, Pune



**Of all the products in the world
you don't want to use market-based
prioritization, it has got to be vaccines.**

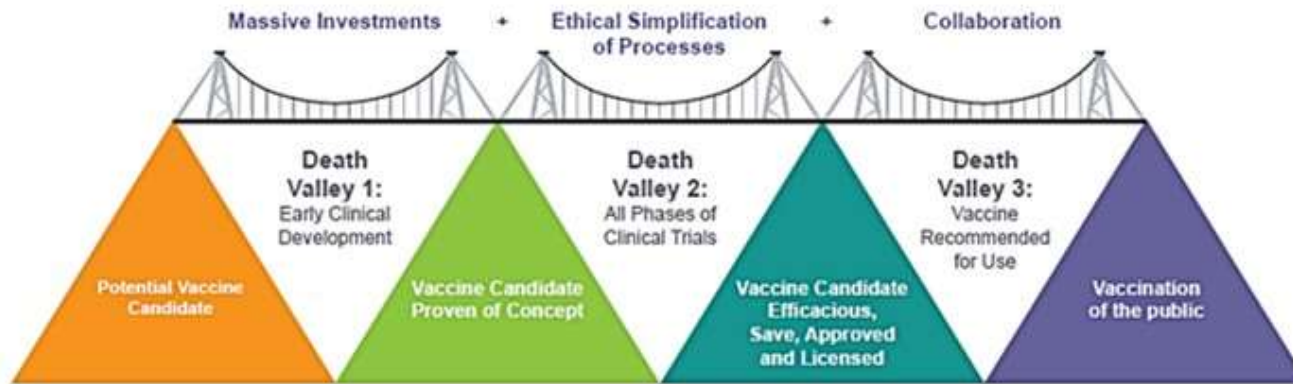
– Bill Gates
Financial Times, March 2021



1

How do we de-risk vaccine development?

Valleys of Death from Vaccine Development to Administration

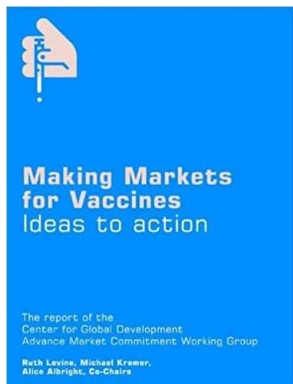


Source:

1. Kaslow DC, Black S, Bloom DE, Datla M, Salisbury D, Rappuoli R. Vaccine candidates for poor nations are going to waste. *Nature: Comments* 2018; 564: 337-339.
2. Kaslow DC. Chief Scientific Officer, PATH. Interviewed by authors, 11 Apr 2022

The process of developing, testing and recommending a vaccine candidate which has demonstrated potential effects is inevitably challenged by the 'valleys of death'. Overcoming these death valleys require multipronged approaches.

Financing as a Tool to Address Unmet Needs




Making Markets for Vaccines **Ideas to action**

Report of the Center for Global Development
Advance Market Commitment Working Group
Ruth Levine, Michael Kremer, Alice Albright

April 2005

2 years later...

In 2007, the first Advance Market Commitment (AMC) for a vaccine was set up to stimulate R&D for a pneumococcal vaccine; a total of US\$1.5 billion was committed.



Global health focused PPPs have used AMCAs to create markets for previously unincentivised vaccines for neglected diseases, to incentivise biotech and pharmaceutical companies to invest in R&D for new vaccines for unmet needs.

Financing Joint Ventures with a Public Health Mission

Hilleman Laboratories is an equal joint-venture partnership formed between **Merck Sharp & Dohme Corp. (MSD)**, a global research-driven pharmaceutical company and **Wellcome Trust**, a global charitable foundation dedicated to supporting science and solving urgent health challenges.

VISION Developing Vaccines for Global Health

MISSION Hilleman Laboratories is committed to developing high impact, affordable vaccines for people in developing countries in an innovative and sustainable manner.



Source: Stock image

HillChol® enters Phase III
in August 2022

Financing National Infrastructure for Vaccine Security

Hilleman Laboratories establishes pilot manufacturing facility for vaccine development in Singapore with support from Singapore Economic Development Board

New facility is part of first-of-its-kind vaccine development and manufacturing hub in Singapore

06 Dec 2021 • 3 min read

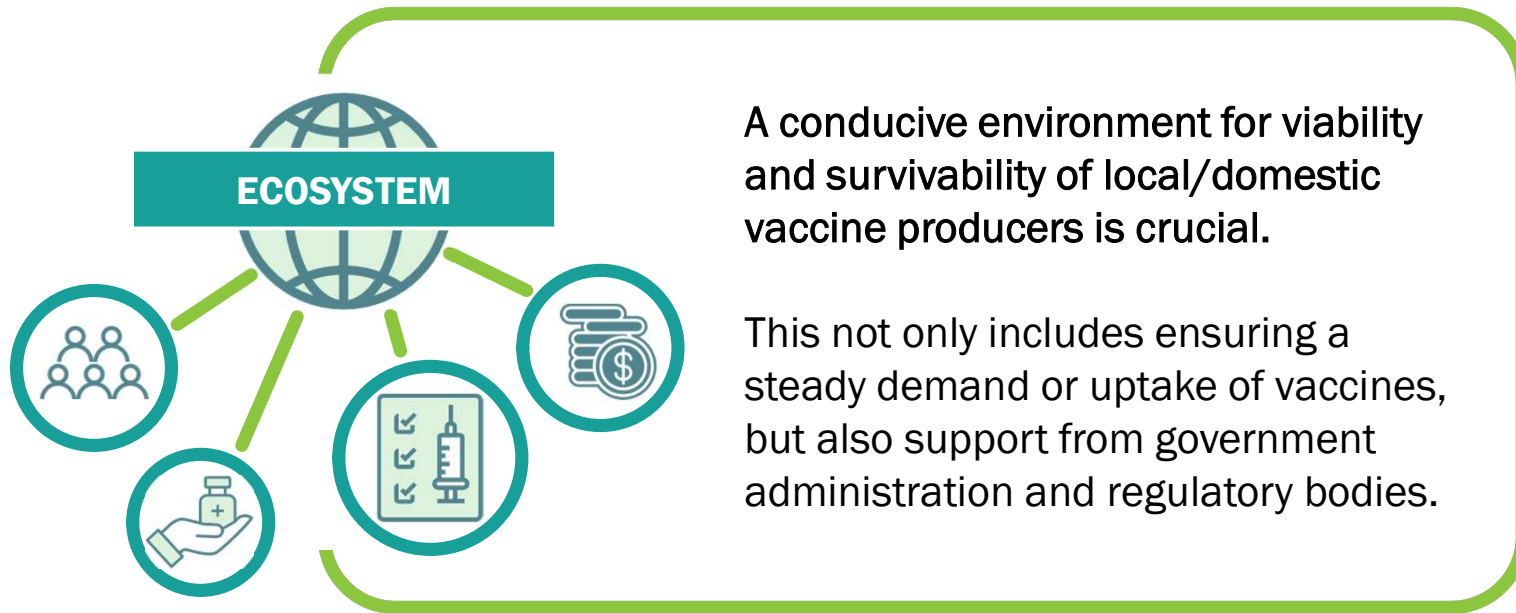
f t in



“... manufacturing facilities ready to go that are there in case of an outbreak, you will need to make sure there’s financing for that.. This makes public health sense, as a partnership between government and the public sector”

– Seth Berkley, CEO of Gavi;
adapted from *Financial Times*, March 2021

A caveat for supporting Vaccine Infrastructure



A conducive environment for viability and survivability of local/domestic vaccine producers is crucial.

This not only includes ensuring a steady demand or uptake of vaccines, but also support from government administration and regulatory bodies.

2 How do we make vaccines more affordable and more accessible?



Source: Stock image

- **Innovative Platform Technologies**
 - For higher yield
 - For improved delivery
 - For extended shelf-life and improved stability
- **Strategic Manufacturing Technologies**
 - Continuous manufacturing
 - PAT and real-time lot release
 - Reconfigurable, modular manufacturing
 - Single-use systems



THE END

[insert email address here]