Facilitating Technology Transfer to LMICs

New Challenges, Paradigms and Opportunities

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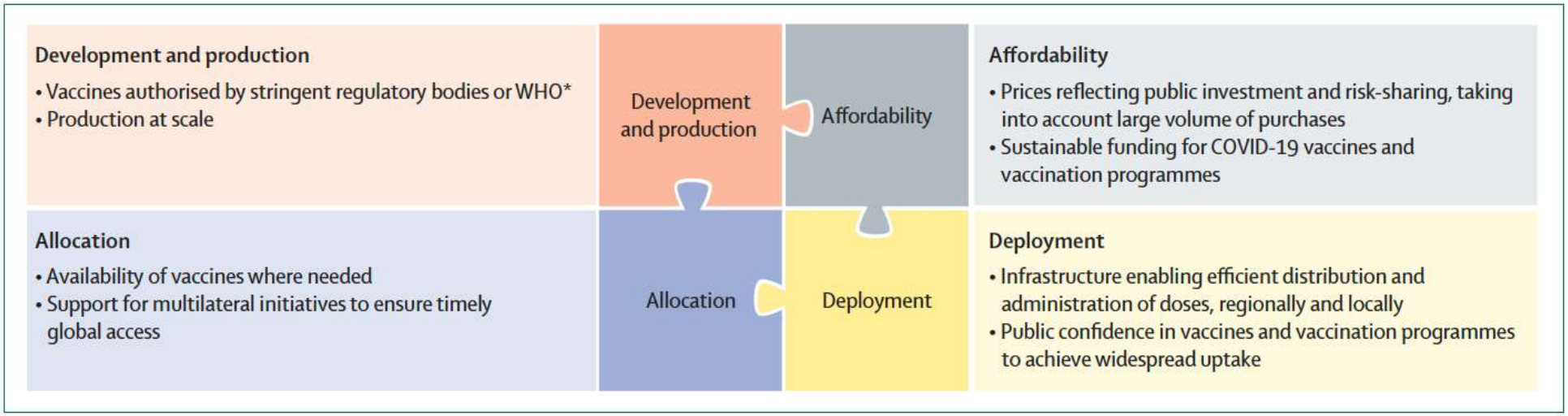
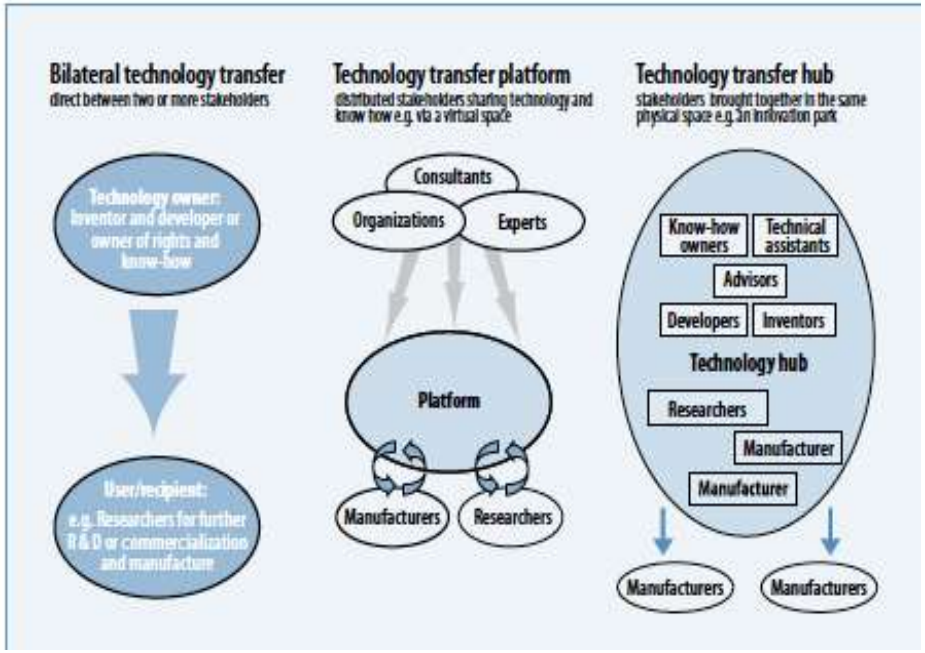
Four dimensions of an effective global Immunisation strategy



Wouters et al. Thelancet **Vol 397 March 13, 2021**

Tech Transfer Strategies and Implications

- Technology transfer to developing countries has contributed significantly to increasing vaccine supply, and access to many vaccines including pricing.
- Dynamism in vaccine technology transfer modalities, with joint ventures, acquisitions and establishment by multinational manufacturers of subsidiaries in developing countries becoming more frequent.
- The establishment of research-based entities developing and providing new vaccines and Bridging platforms.



	Quantity	Example
Bilateral know-how transfer or joint development	41	Biken–GPO, Japanese encephalitis vaccine
Joint venture and acquisition	12	Sanofi–GPO Mèrieux
De novo manufacture	8	GSK–Singapore
Single recipient joint development with active input by facilitation entity	8	NIH–SII, with MVP, meningitis A vaccine
Shared technology platform	9	NIH–Shantha, with PATH, rotavirus vaccine
Technology transfer hub	2	NVI to several DCVM, with WHO, flu vaccine

Increasing Access to Vaccines Through Technology Transfer and Local Production World Health Organization 2011

Innovative Technology Transfer Mechanism and Challanges

- Opportunities
  - Manufacturing and formulation **Platform** innovations to reduce Cost of Goods (COGS) and facilitate process transfer
    - Flexible, modular facility, disposables, integrated ‘continuous’ processes
  - Enhancing R&D and technological and manufacturing capabilities in developing countries (esp. new platforms e.g. mRNA vaccines) through Tech transfer Hubs.
  - Novel IP access modalities e.g. IPTK bank*, Hubs.

- Challenges
  - R&D capacity
  - Human Resources and lack of experience.
  - Evaluation and assessment of technologies.
  - Existing Hub Model & New Vaccines: Know-How
  - Business case/sustainability
  - Government facilitation & Investment.
  - Regulatory Challenges

***Improving Global Access to New Vaccines: Intellectual Property, Technology Transfer, and Regulatory Pathways;** Sara Eve Crager, MD, Am J Public Health. 2018 December; 108(Suppl 6): S414–S420*


Thank you