Summary of key issues

Strategic coordination is the way forward to building vaccine production capacity in LMICs

Key global and strategic players came together during a satellite event of the UNCTAD World Investment Forum to discuss the objective and the means of achieving vaccine production capability in LMICs. James Zhan, Senior Director of UNCTAD’s Division on Investment and Enterprise, emphasized the need for partnerships to ensure sustainable investment in local vaccine production capacity to address three challenges: (1) the current supply bottlenecks related to COVID-19 vaccines; (2) the need to maintain routine vaccination programs and (3) the capacity to quickly respond to future pandemics. Mariângela Batista Galvão Simão, Assistant Director General for Access to Medicines and Health Products Division, WHO, highlighted the need to focus on opportunities for short-term production capacity increases and on the sustainability of the increased capacity post-COVID-19, which would require a holistic approach including, inter alia, government commitment and support, enabling business, regulatory and technical environments, strengthening local technical expertise to support vaccine production, and multi-stakeholder collaborations.

Panelists and facilitators underscored the technological, financial and market complexities of vaccine production. Yet, to a large extent, they pointed out the potential to overcome the challenges by coordinating efforts and strategic partnerships among manufacturers, investors, technology developers and facilitators, development partners and governments and by prioritizing regional and other approaches that respond to the conditions in LMICs and address the sustainability of investment. Panelists underscored the contribution of building production capacity in LMICs in terms of overcoming supply bottlenecks, promoting equitable distribution of the benefits of technology, ensuring availability of routine vaccines, and building capacity for pandemic preparedness in the long term, among others.

The multitude of challenges may be summarized under two main points, i.e. (1) the complexity of the vaccine market and (2) the lack of sustained coordination of current initiatives.
(1) Vaccine markets are often characterized by a need for high investment but low profitability. Vaccine manufacturing has traditionally required the establishment of large facilities at high cost. Constant investment is needed to respond to increasingly demanding regulatory standards and to ensure complex technology and related know-how, to build and retain a trained work force and to maintain a GMP-compliant infrastructure. Unlike pharmaceuticals, vaccines cannot be produced as generic copies but need to be tested in lengthy and expensive clinical trials. At the same time, the demand for vaccines fluctuates significantly seasonally and between crises, thus requiring public expenditure to ensure the manufacturers stay in business. During a crisis, it is hard to predict for how long the demand will last and if investment in increased capacity pays off.

(2) A multitude of scattered initiatives is complicating targeted investment in increased production capacity during the current pandemic. Well intentioned, but uncoordinated initiatives may hinder each other and result in inefficient use of funds lacking impact. Experience demonstrates that initiatives proliferate during a crisis, only to be neglected once the crisis is over. Thus, the key challenge is how to sustain a coordinated effort to make changes on the ground.

The roundtable discussants agreed on the need to shape responses around (1) improved coordination at global level, (2) enabling policies for integrated vaccine ecosystems and (3) innovative technologies. These elements are decisive factors in supporting a business case for potential investors.

(1) Policy responses are needed to coordinate investment efforts across regions, avoiding national separate action and ensuring complementarity in production efforts and the use of technology platforms. This includes a mapping of existing global capacity and skills, collecting market information, and promoting agreement among stakeholders on “who does what”, as well as political commitment by governments and development finance institutions to create regional R&D and manufacturing hubs and economies of scale.

(2) Achieving sustainable manufacturing capacity in LMICs depends not only on innovative technology but requires the development of integrated vaccine ecosystems. These include strengthening and enforcement of regulatory standards and related, continuous building of skills, entrepreneurial know-how and supporting infrastructure, and an attractive policy framework in terms of open trade flows, investment incentives and solid R&D partnerships between public research institutions and the industry.

(3) As one key element of vaccine ecosystems, innovative technology platforms can make the vaccine market much more attractive. The use of small-scale and flexible modular facilities can facilitate the transfer of technology and know-how to LMIC-based producers, lower set-up and maintenance costs and enable quicker regulatory approval. Certain technologies enable production facilities to shift their focus in line with the changing demand for vaccines and even allow the production of other biologics. This may enable facilities to constantly run at full capacity and serve routine vaccination programs, respond quickly to pandemics, but also develop products for more attractive markets and serve as platforms for capacity building for LMIC-based producers.

Annex:

PROGRAM
• UNCTAD’s new Invest in Health Initiative: James Zhan, Senior Director, Division on Investment and Enterprise, UNCTAD
• WHO’s support of local production in LMICs to improve access: Mariângela Batista Galvão Simão, Assistant Director General for Access to Medicines and Health Products Division, WHO

• Roundtable discussion: How to promote long-term investment in vaccine manufacturing capacity in LMICs beyond COVID-19
  o Government and policymakers
    ▪ Nakorn Premsri, Director, National Vaccine Institute, Thailand
    ▪ John Nkengasong, Director, Africa Centres for Disease Control and Prevention
  o Vaccine manufacturers
    ▪ Suresh Jadhav, Executive Director, Serum Institute of India (SII)
    ▪ Amadou Alpha Sall, Administrateur Général, Fondation Institut Pasteur de Dakar
    ▪ Patrick Tippoo, Executive Director, African Vaccine Manufacturing Initiative (AVMI)
  o Development finance institutions and investors
    ▪ Abdu Mukhtar, Director, Industrial and Trade Development Department, African Development Bank (AfDB)
    ▪ Victoria Goodfellow, Managing Director, Lion’s Head Global Partners
    ▪ Matthew Downham, Sustainable Manufacturing Lead, Coalition for Epidemic Preparedness Innovations (CEPI)
    ▪ Subir Kumar Basak, Senior Specialist, Life Sciences, International Finance Corporation (IFC)
    ▪ David Robinson, Bill & Melinda Gates Foundation (BMGF)
  o Providers of technology and know-how
    ▪ Manuel Batz, Director Middle East and Africa, Merck KGaA, Germany
    ▪ Kate Antrobus, Chief Investment Officer, Univercells
    ▪ Martina Micheletti, Department of Biochemical Engineering, University College London / Penny Carmichael, Policy Advisor, The Vaccine Manufacturing Research Hub (Vax-Hub)
  o Moderators:
    ▪ Christoph Spennemann, Officer-in-Charge, Intellectual Property Unit, UNCTAD,
    ▪ Jicui Dong, Unit Head, Local Production & Assistance Unit, Regulation and Prequalification Department, Access to Medicines and Health Products Division, WHO