# REGIONALIZING PHARMACEUTICAL PRODUCTION AND INNOVATION

Social Protection and Health: South-South and Triangular Cooperation to Enhance Capacity to Produce and Deliver Vaccines

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#### Regionalization and Local Production

- Paper co-authored with Padmashree Gehl Sampath
  - Combines economic/industrial policy expertise and legal expertise
  - A South-North collaboration
- We start with the premise that a regional approach to localization of R&D and production capacity a useful idea
  - The COVID-19 pandemic one of recent developments confirming importance of securing supply chains
  - Strategic use of trade relations and fragmentation

#### From Abstract Concept to the Reality of Implementation

- The idea of regional approach to industrial development long-standing
  - Consider the Andean approach of 1970s
- Although regional approach to manufacturing and distribution of vaccines widely discussed, there has been limited analysis of what precisely this would look like from a regional organizational standpoint
- Our paper sets out 5 conceptual approaches and discusses potential advantages and disadvantages

#### Private-Sector Decision-Making

- 1. Private sector decision-making with incentives within host region
  - a. Most decision-making in the pharmaceutical sector, including for vaccines, made by privately held enterprises
  - b. National and regional authorities can establish incentive framework while allowing "market" forces to determine direction of investment and assume risks
  - c. On regional level, important for governments to agree on maximum level of incentives to preclude destructive competition for investment (e.g., OECD minimum corporate tax)

## Geographically Concentrated Hub(s)

- 2. Geographically concentrated regional hub(s)
  - a. Gathering production resources at a single location creates opportunities for integrated network of infrastructure, support resources, reducing transport inefficiencies, etc.
  - b. Indian examples of Pharma cities, e.g., combining proximity of API manufacturing to basic resource inputs, waste processing, energy, etc.
  - c. May envision series of hubs within region, in principle focusing on different types of products
  - d. Numerous questions to be addressed, including choice of location, responsibility for governance, taxation, etc.

#### Distributed Supply Chain

- 3. Distribute responsibility for stages of production to designated countries within the region
  - a. Allocate to different countries within region responsibility for producing different products, or
  - b. Allocate production at stages in accordance with capacity a predetermined supply chain
    - i. May provide opportunity for least developed countries and region (e.g., packaging)
  - c. Create risk of "weak link" undermining system
    - i. Could be addressed by redundancy and/or external backups

#### South-South Collaboration and Flying Geese

- 4. Global South collaboration in investment in R&D and production
  - a. Integrated supply chains based on LMIC cooperation
  - b. Incorporate technical cooperation and training
  - c. Geographic separation may increase risk of supply chain disruptions
- 5. Promote development of regional champions that may trigger greater demand for products and processes throughout region
  - a. May not alleviate concerns over supply chain security, including political risk

## Regional Approach to Drug Regulation

- Various efforts underway
- European Union has most developed model with EMA
- Evolution the starting with autonomous national authorities, promulgation of harmonized/approximated standards, mutual recognition systems, leading to centralization of approvals
- Residual national responsibilities retained
- Particularly important for accelerating access to vaccines

#### Governance

- Regional integration efforts historically fraught
  - Ceding elements of national autonomy
- Current regional arrangements, leaving aside EU, do not invest regional authorities with substantial powers to make industrial policy decisions on behalf of members
- Decision-making by consensus may avoid disputes, but consensus difficult to achieve
- Regionalization of local production may require negotiation of specific international agreements that establish authority beyond that granted under existing regional constitutional structures

#### **Key Points**

- The abstract benefits of regionalization of local production leave many questions regarding how that regionalization will be organized
- The "constitutional" issues involving decision-making, especially with non-consensus decisions, need to be addressed
- There are many stakeholders within the process, including existing manufacturers, investors, patient groups, etc., whose interests will be affected