
Improving Health Product Supply Chains in LMICs

Prashant Yadav



The Business School
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Asian Development Bank SC Module

Seven main points for your attention

01 Supply Chains are the backbone of the health system. Supply Chain resilience is a global public good. Supply chains not only supply health products to patients but they bring back crucial information sets to health system planners

02 Streamlining (fewer layers) supply chains improves performance

03 Faster replenishment models reduce the depends on forecasts and help match demand and supply

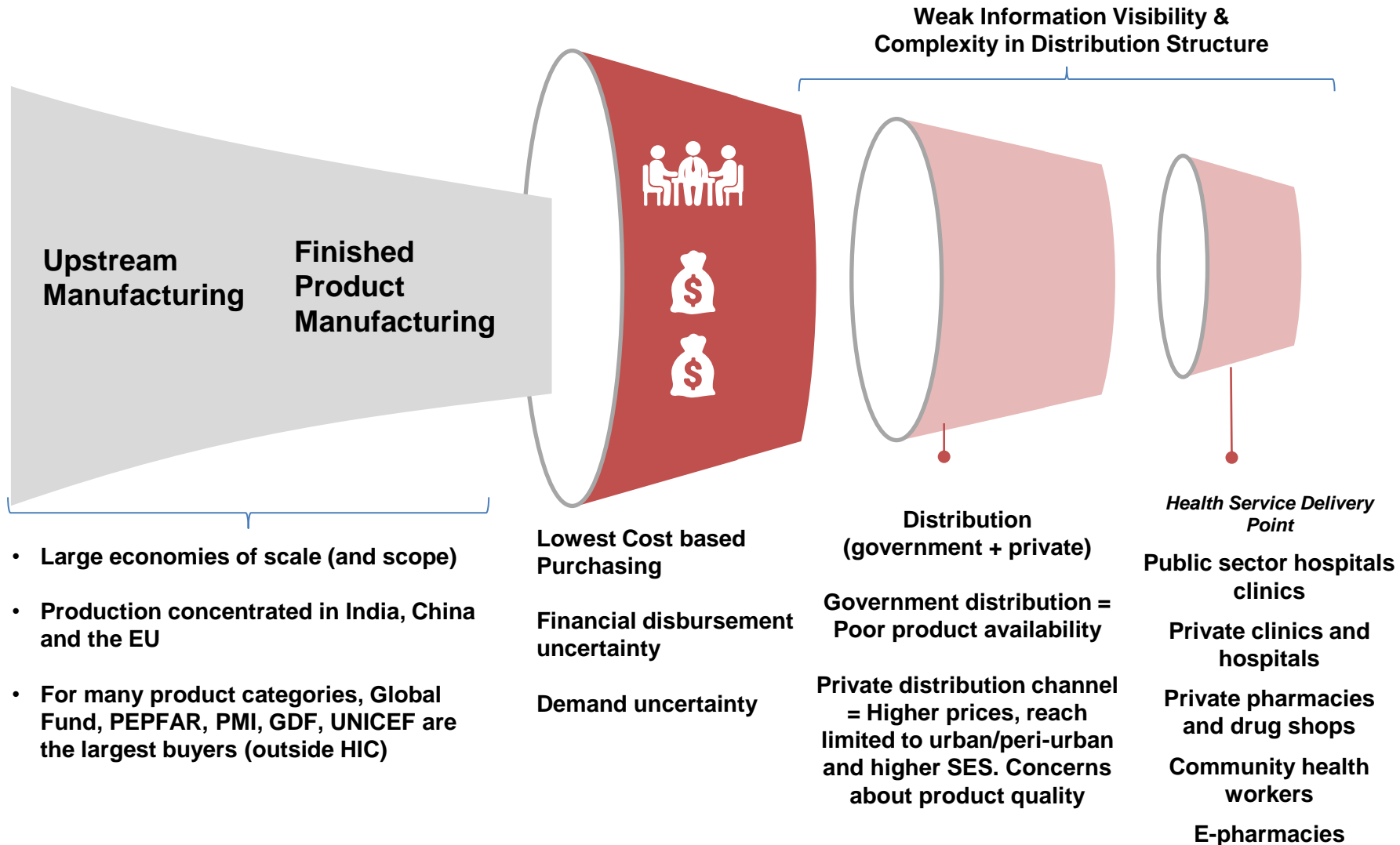
04 Information about end-use and end-end visibility in the supply chain are no regret interventions

05 Supplier contracting models which require decentralized delivery help create a healthier market for logistics services and improve supply chain performance

06 Innovators aided with new technology and new business models can help improve public sector supply chains

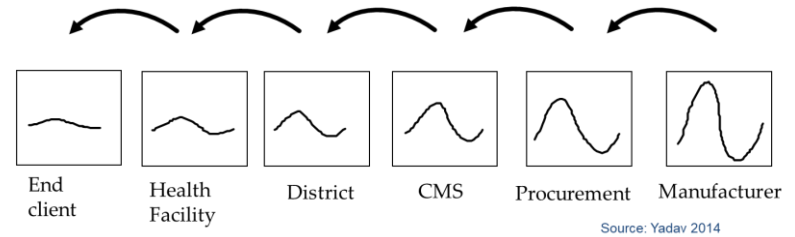
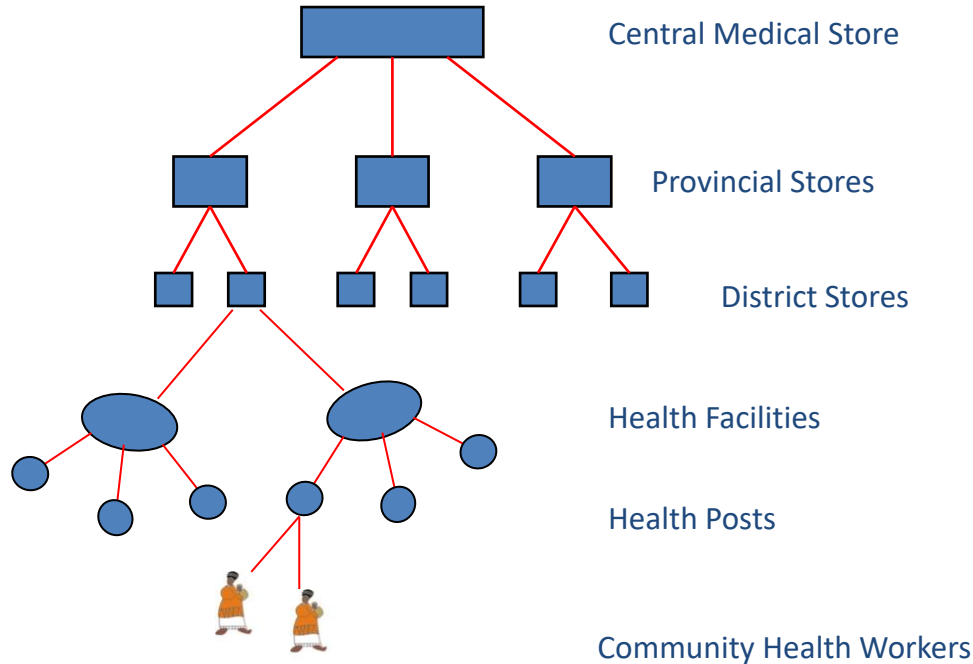
07 Supply chain reform is 70% political economy and 30% technical

Health product supply chains : high level overview



Streamlining supply chains

More layers in the supply chain = diffuse accountability



Multiple studies show the benefits of streamlined distribution structure with better flow of demand information and clearer accountability

Source: Yadav 2015, Vledder et al 2019

Complex political economy of supply chain structure reform

What enabled the organized retail industry to significantly reduce out-of-stocks in the last 2 decades?



Information Sharing and Better Contracting with Manufacturers



Sophisticated Distribution Planning based on Demand Signal



Daily delivery



Store level scans

We are still missing systematic data on stock, flow and use in most healthcare supply chains



EXAMPLE OF SUCCESS: E-VIN IN INDIA

Supply chain, cold chain temperature, and workflow management



>2.5M
Trxns / month

>5 TB
Analytic data

>14K
RTM devices

~400
M

Doses /
annum

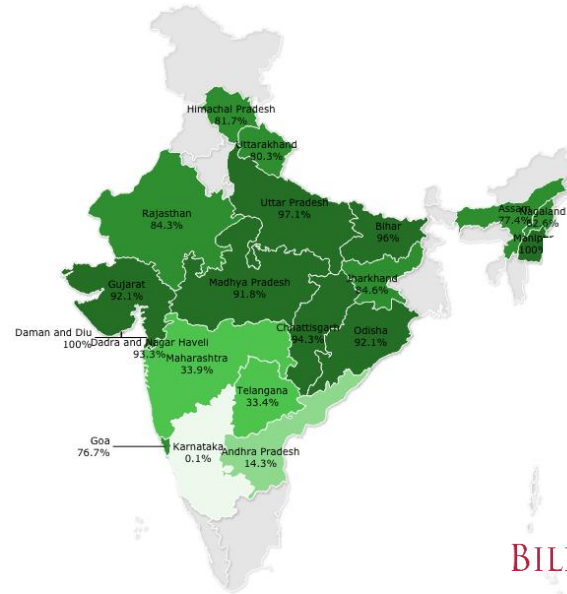
>97%
Availability

>95%
Reporting rate

>80M
Temp readings /
month

~92M
Children served

N > 16k facilities x 14 vaccines (covering all 5-7 echelons of the supply chain)



logistimo

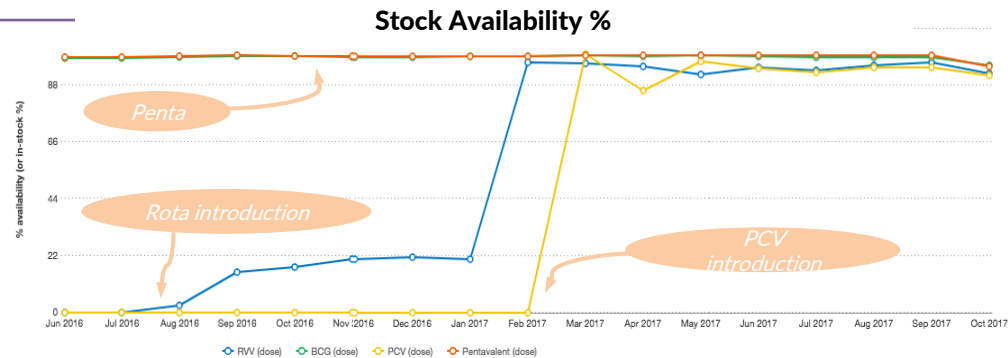
Key Partners



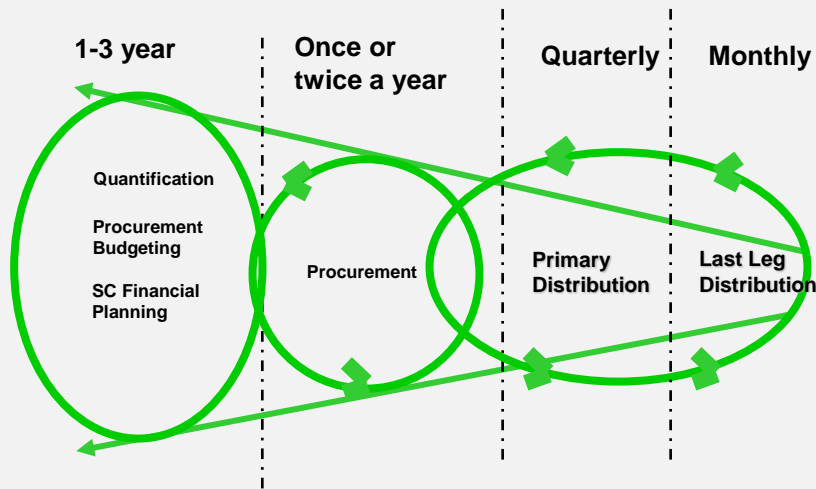
BILL & MELINDA
GATES foundation

| Phase | 1 (2015-16) | 2 (2016-17) | 3 (2018) | 4 (2018-19) |
|---------------------------|-------------|-------------|----------|-------------|
| States* | 3 | 12 | 17 | 29 |
| Districts* | 160 | 374 | >500 | 707 |
| Facilities* | 4671 | 10.6 K | ~21 K | ~27 K |
| Population* | 352 M | 654 M | ~990 M | ~1.25 B |
| Birth Cohort* | 9.5 M | 17.5 M | ~23 M | ~26.5 M |
| Children Served* annually | 48 M | 88 M | ~115 M | ~135M |

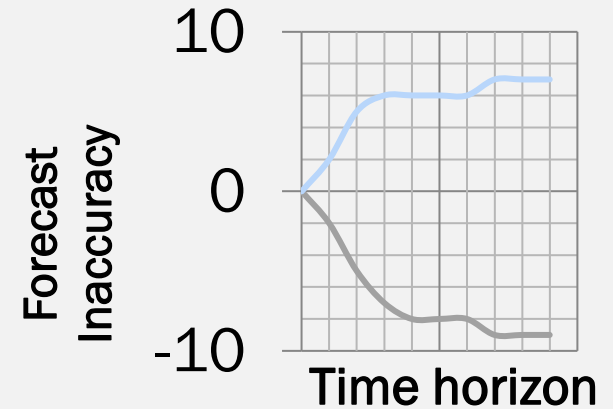
* Cumulative



Faster decision making and more frequent replenishment intervals



Current status in many countries is slower planning cycles and slower product velocity



Longer replenishment cycles (and/or longer lead times) require longer forecast horizons and lower forecast accuracy

Source: Yadav 2009