The global medicines supply chain has grown more complex

The COVID-19 pandemic is raising concerns about vulnerabilities in the supply chain and where our medicines are made. Changes are needed to make the medicines supply chain more resilient to withstand disruptions. There won’t be a single or simple solution.

How medicines reach patients has evolved over the past 200 years and there are now more stops along the supply chain and many more participants around the world.

Supply Chain Legend

= Patient
= Apothecary
= Pharmacy
= Distributors & wholesalers
= Pharmaceutical manufacturers
= Ingredient suppliers

1820s-1860s
Botanicals and herbal medicines
Local apothecaries with knowledge of botanicals, prepare remedies for patients.

1870s-1950s
Rise of manufacturing
Analytical chemistry and pharmacology along with advances in automation give rise to large-scale manufacturing.

1960s-1970s
Global expansion
Pharmaceutical companies continue expanding manufacturing plants to other countries to increase their markets and reduce operating costs. As a result medicines are produced and packaged at a greater distance.

1980s-2020s
Growth, distribution, consolidation
Rise of generics in the early 80s extends the supply chain as more companies manufacture medicines outside the U.S. Today, many intermediaries play a role in medicine’s production, distribution, and delivery.