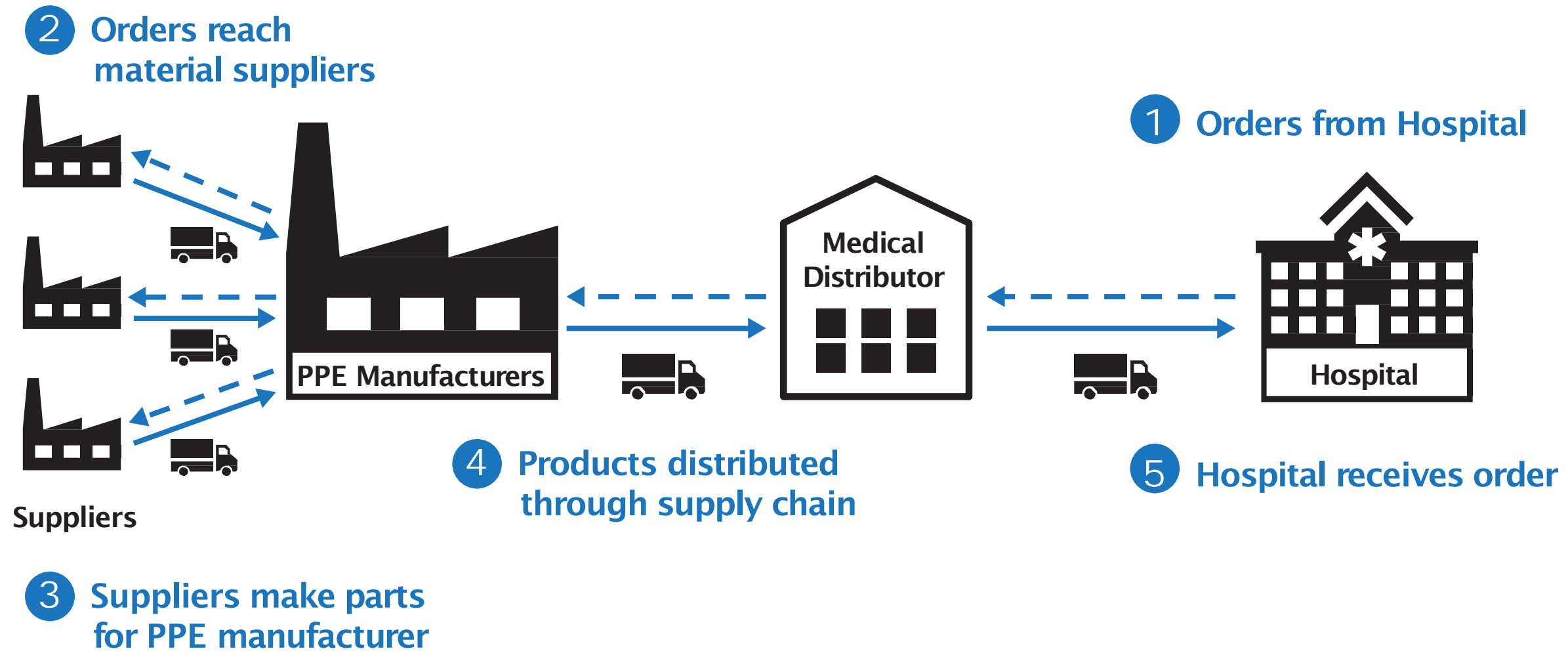
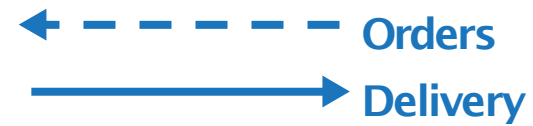


Comparison of Traditional vs. Emergency PPE Supply Chains

April 10th, 2020

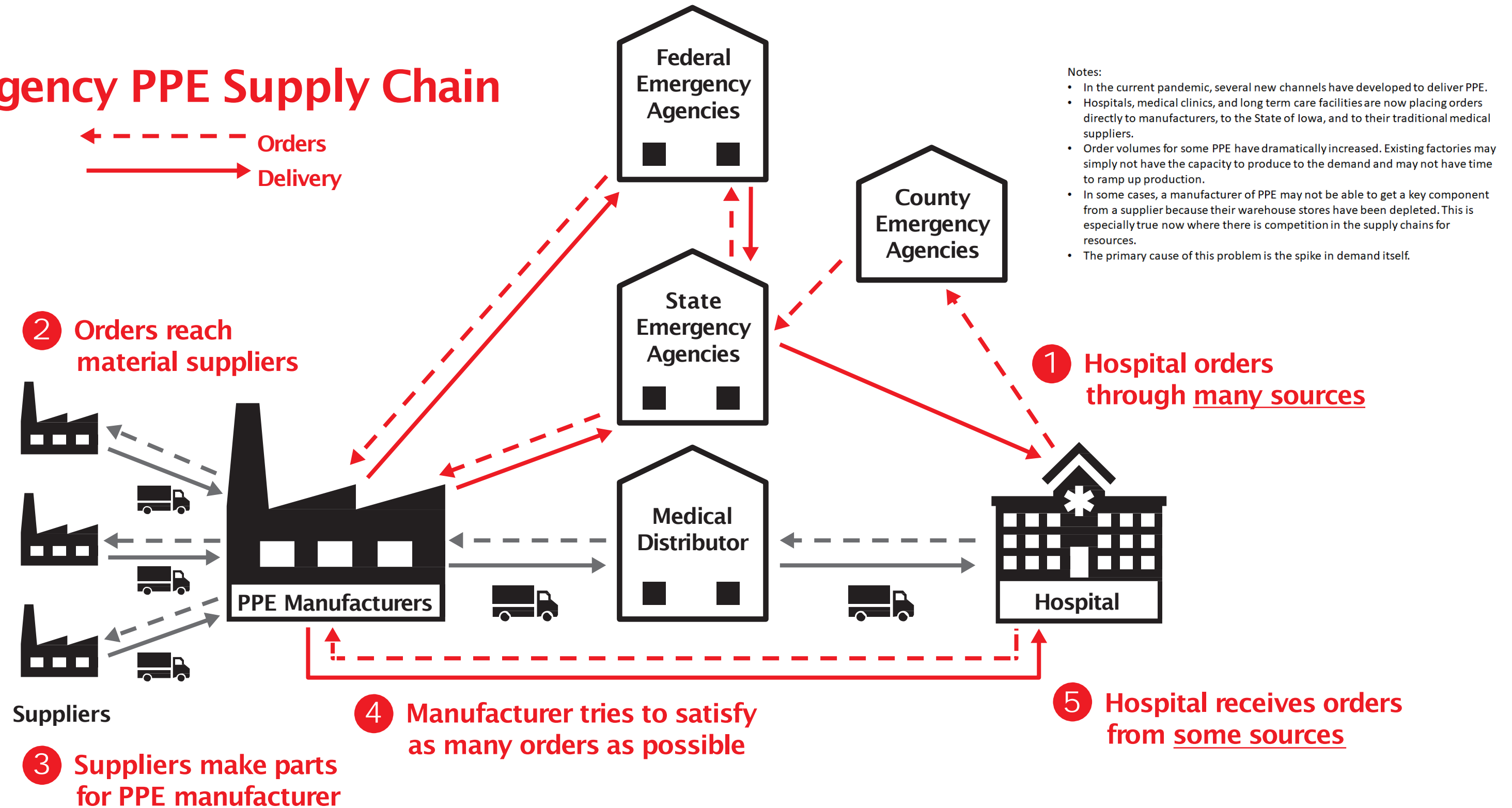
Traditional PPE Supply Chain



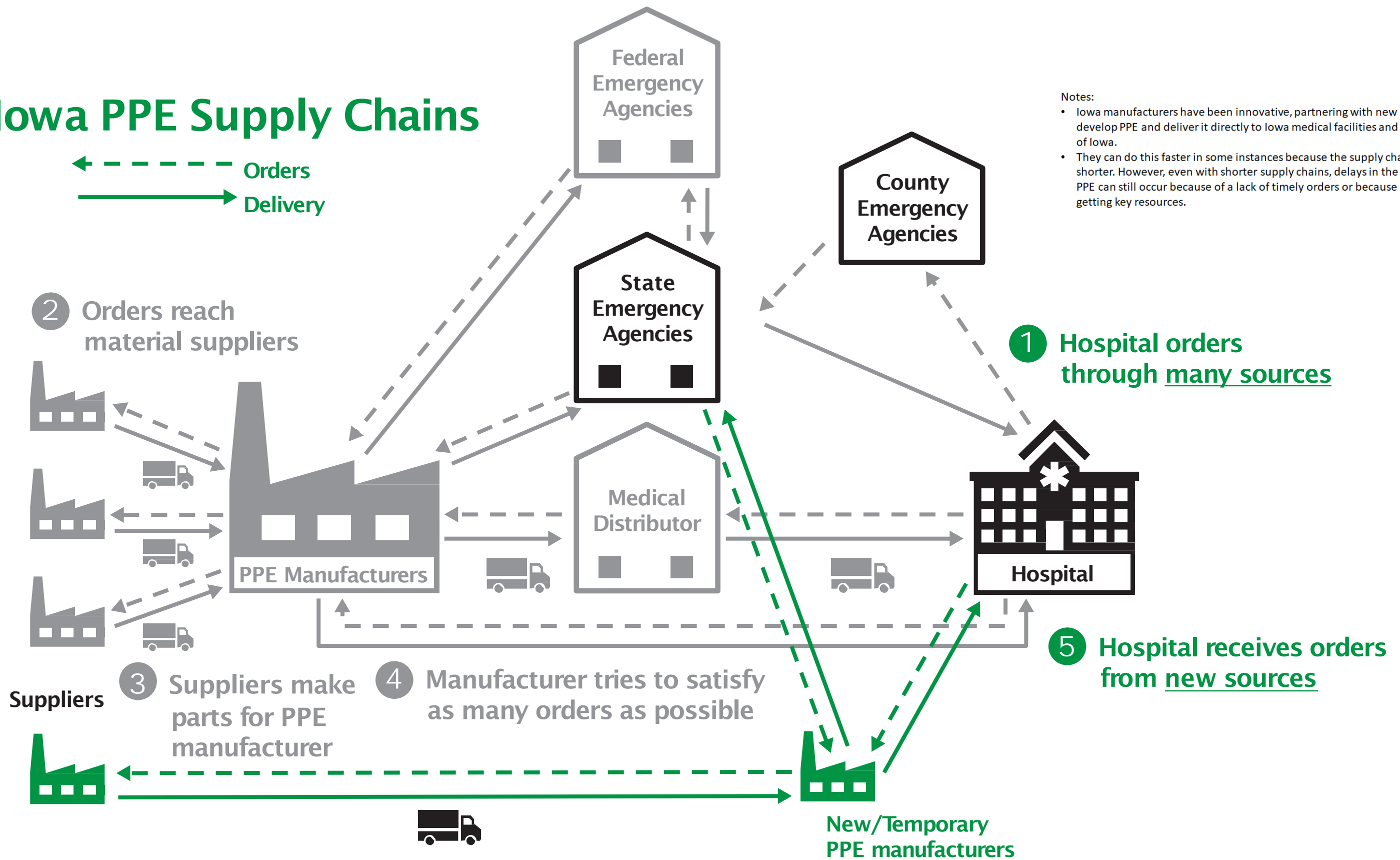
Notes:

- The customer initiates an order. The information flows down the supply chain through distributors, original equipment manufacturers, and to their suppliers.
- Components then move through the supply chain, are assembled into the final product, and the product moves to the customer.
- To keep costs low, companies have 'leaned' the supply chain by reducing inventories and by trying to maintain a level flow of orders.
- When the demand is constant, customers rapidly receive their order.
- If any element of the supply chain has a disruption: a processing delay, material shortages, or even rapid increases in demand, the entire chain can come to a halt as soon as existing supplies in warehouses are depleted.

Emergency PPE Supply Chain



New Iowa PPE Supply Chains



Notes:

- Iowa manufacturers have been innovative, partnering with new suppliers to develop PPE and deliver it directly to Iowa medical facilities and to the State of Iowa.
- They can do this faster in some instances because the supply chains are shorter. However, even with shorter supply chains, delays in the delivery of PPE can still occur because of a lack of timely orders or because of difficulties getting key resources.