

**EPHI, National Data Management Center for health (NDMC)
Quick update on COVID-19, 019**

This update summarizes

- Ethiopia's COVID-19 situation update
- Global and regional burden of COVID 19
- Epidemiology of COVID-19 in Children
- COVID-19 and Healthcare Supply Chain Management

Ethiopia's COVID-19 situation update

As of August 20, 2020 there were a total of 34,058 COVID-19 cases and 600 deaths across the country. Compared to the cases and deaths reported a week ago, the cumulative cases have increased by 23% and cumulative deaths by 20%. So far 13,308 cases have recovered from COVID-19 (Fig 1). Of the 20, 403 active cases, 255 are critical which shows a 32% and 30% increase respectively in a week time. The total number of tests stands at 672,637 showing an 18% increase compared to last week.

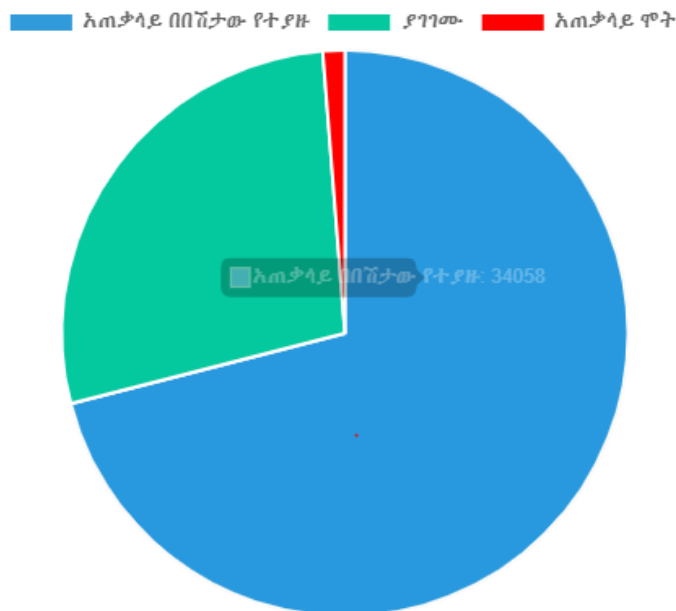


Fig. 1. Showing cumulative cases, recoveries and deaths (Source <https://www.covid19.et/covid-19/>)

EPHI and FMOH COVID 19 response highlights of the week

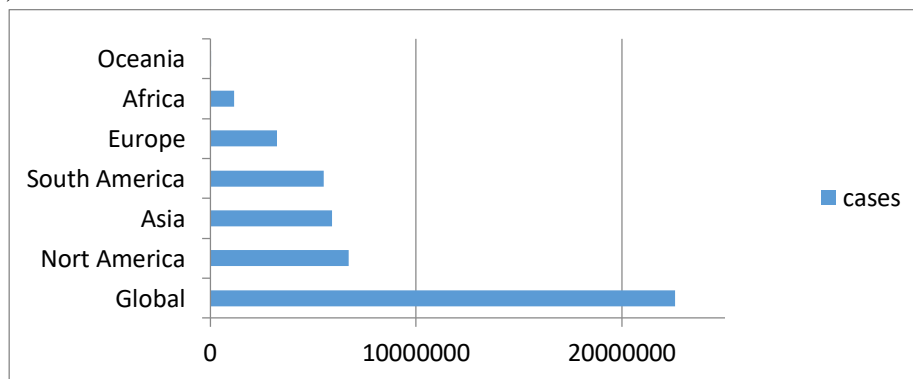
- Four days TOT on Home-Based Isolation and Care has been given since August 18, 2020 for health care workers from Oromia Regional Health Bureau and Oromia Zones Health Departments.
- On August 17 2020; one thermos-scanner is provided to Addis Ababa Mayor Office from EPHI for COVID-19 screening.
- Health workers working on the thermo scanner devices are trained have received training on August 16, 2020;.
- On August 15, 2020 laboratory Reagents and PPEs distribution plan has been developed for ComBAT test.
- WASH-IPC TOT in SNNPR and Benishangul Gumuz regions has been completed on August14, 2020.
- August14, 2020; IPC and dead body management basic training has been provided in Amhara region.
- On August 12, 2020 orientation were given for Health Extension Program officers and Zonal heads of Oromia Regional state at Adama Town.
- Four days TOT on Home-Based Isolation and Care for group II Health Care Workers from Addis Ababa city and sub-cities Health office (22 in number) completed on August12,2020.

References

1. PUBLIC HEALTH EMERGENCY OPERATIONS CENTER (PHEOC), ETHIOPIA

Global and regional burden of COVID-19

- Globally the total number of cases is extended to 22,580,254 as of August 20, 2020. A total of 15,301,278 cases recovered and 791,002 people died since the beginning of the outbreak. Globally, in a week time, from 13 August to 20 August 2020, COVID-19 cases increased by 8.5% and deaths by 5.9%. North America is the leading in terms of cases followed by Asia and South America. North America is also leading with the number of deaths followed by Europe (Fig 2).



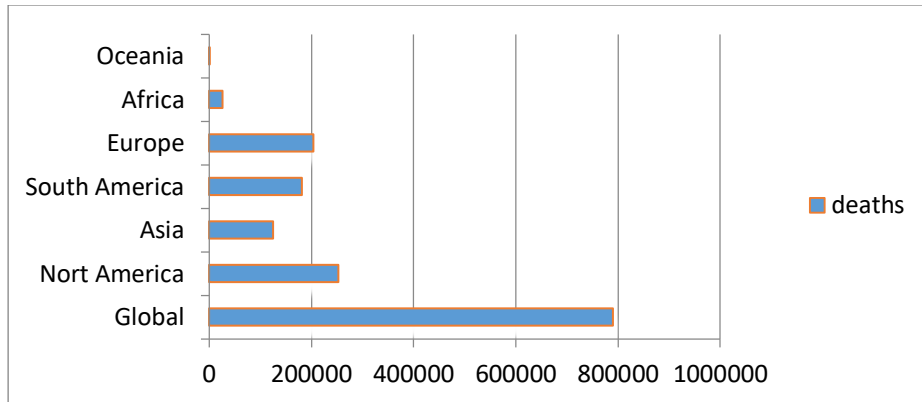


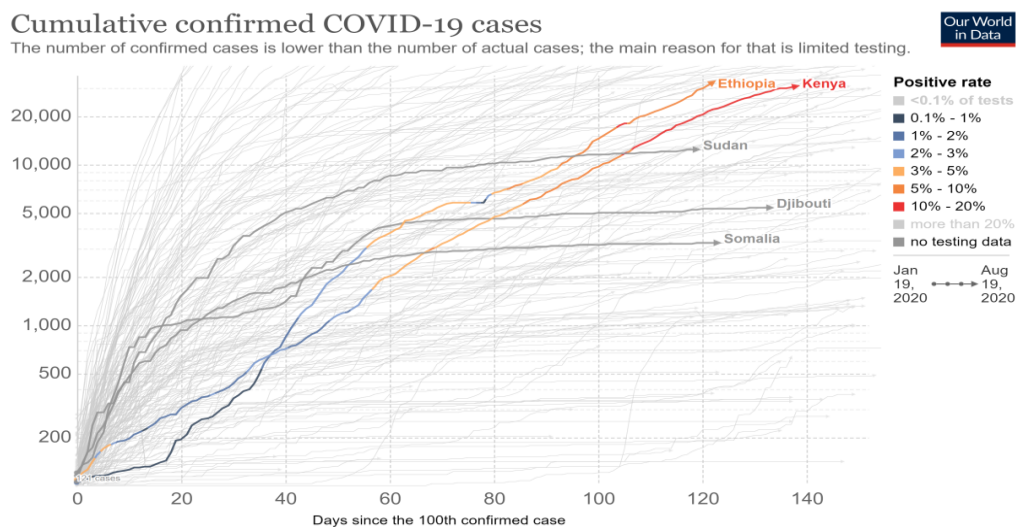
Fig 2. Global cases (top) and deaths (bottom) reported as of August 2020.

- In the USA, the increasing trend has continued. The country has recorded the highest number of cases (5,700,931 cases, 176,337 deaths) that accounts 25.2% of the total global cases and carried 22.3% of global deaths as of August 20, 2020.
- Brazil has continued reporting the second COVID-19 case burden in the world following USA. The number of cases in Brazil has increased in a week time by 9.1% (3,170,474 to 3,460,413) and deaths by 6.6% (104,263 to 111,189).
- India has increased number of cases in a week time by 18.4% (2,395,471 to 2,836,925) and deaths by 14.5% (47,138 to 53,994).
- Russia has continued reporting the highest number of cases in Europe, with 937,321 cases. The number of deaths in Russia increased by 3.8% of its case.
- The share of Africa to the global COVID-19 pandemic has still been low (only 5.1% of the global cases and 3.4% of deaths as of August 20). However, within the continent the number of cases has increased by 6.8% in a week time (from 1,078,301 to 1,151,695 cases). Similarly, the total number of deaths in Africa has increased from 24,322 to 26,685 showing a 9.7% increase in a week time. Total recoveries stand at 874,088.
- South Africa ranked 5th worldwide in terms of cases and leading in the continent with 596,060 cases and 12,423 deaths. Egypt (96,914 cases, 5,197 deaths), Nigeria (50,488 cases, 985 deaths), Morocco (46,313 cases, 743 deaths), Ghana (43,094 cases, 256 deaths), Algeria (39,847 cases, 1,402 deaths) are the leading pack in reporting COVID-19 cases and deaths in Africa. Cases in Morocco exceeded Ghana and Algeria in this week (See table below).

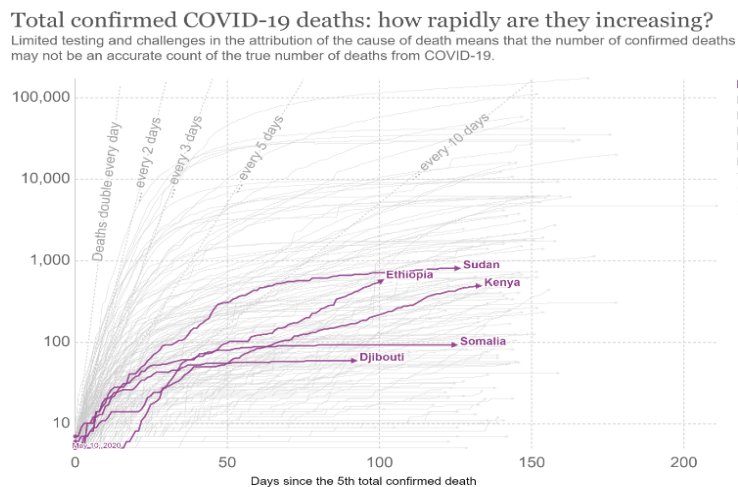
Africa	August 13		August 20	
	Cases	Death	Cases	Deaths
South Africa	568,919	11,010	596,060	12,423
Egypt	95,834	5,059	96,914	5,184

Nigeria	47,290	956	50,488	985
Morocco	36,694	556	46,313	743
Ghana	41,572	223	43,094	256
Algeria	36,699	1,333	39,847	1,402

- In East African, COVID-19 cases and deaths have shown fast progress. In a week time, COVID-19 cases and deaths increased by 35.6% and 29.6% in Ethiopia and by 10.4% and 11% in Kenya. As of August, Ethiopia overtook the lead from Kenya and both are the major drivers of the COVID 19 burden in east African region. The epidemic appears plateauing in Sudan showing only 4.3% cases and 2.8% deaths and in Djibouti 0.5% cases and zero death. Similarly, 1.2 cases and zero deaths reported in Somalia in a week time.



Source: European CDC – Situation Update Worldwide – Last updated 19 August, 10:04 (London time), Official data collated by Our World in Data
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Source: European CDC – Situation Update Worldwide – Last updated 19 August, 10:04 (London time) Powered by Our World in Data

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Epidemiology of COVID-19 in children

- Studies assessed disease trends, testing practices, community surveillance, case-fatality and excess deaths in children comparing with adults during the first pandemic peak in England.
 - In total, 540 305 people were tested for SARS-COV-2 and 129,704 (24.0%) were positive.
 - Children represented 1.1% (1,408/129,704) of SARS-CoV-2 positive cases between 16 January 2020 and 3 May 2020.
 - In children aged <16 years, 35,200 tests were performed and 1,408 (4.0%) were positive for SARS-CoV-2, compared to 19.1%–34.9% adults.
 - Childhood cases increased from mid-March and peaked on 11 April before declining.
 - Among 2,961 individuals presenting with ARI in primary care, 351 were children and 10 (2.8%) were positive compared with 9.3%–45.5% in adults.
 - Eight children died and four (case-fatality rate, 0.3%; 95% CI 0.07% to 0.7%) were due to COVID-19.
 - No evidence of excess mortality in children is found.
 - Children accounted for a very small proportion of confirmed cases despite the large numbers of children tested.
 - SARS-CoV-2 positivity was low even in children with ARI. The findings provide further evidence against the role of children in infection and transmission of SARS-CoV-2.
 - Other studies mentioned that although clinical manifestations of children's COVID-19 cases were generally less severe than those of adult patients, young children, particularly infants, were vulnerable to infection. Deaths were extremely rare.

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COVID-19 and Health Care Supply Chain Management

- Most African countries are largely dependent on international supply chains for medical goods and products. Therefore, this part of the brief describes the challenges COVID-19 has and can bring on the healthcare supply chain management and indicate potential action and policy recommendations.

- Health care requires *five categories of medical products*: pharmaceuticals, personal protective equipment, medical devices, medical supplies, and blood. Each of these categories has a distinct supply chain, and the failure of any one of these chains can create problem on the healthcare system (1).
- COVID-19 disruptions on supply chains for healthcare have caused shortages of medical and pharmaceutical products. Countries have been confronted with a dearth of medical goods essential to prevent the transmission of the virus, detect emerging outbreaks, and treat infected people. In March 2020, the WHO estimated that *worldwide the availability of medical supplies was 40% lower than what was needed* (2).

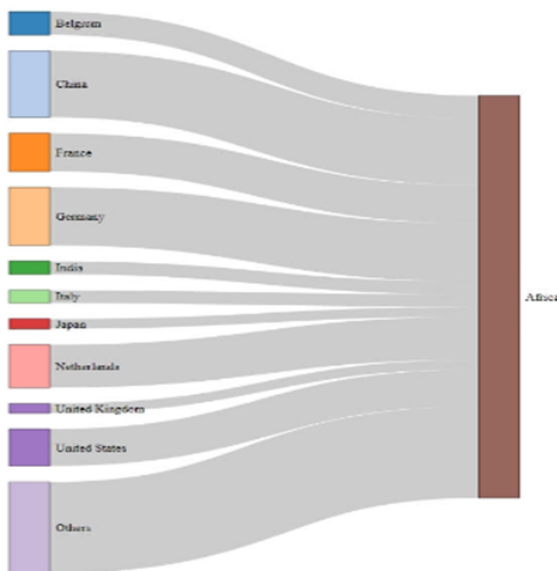


Fig.1. African countries' imports of medical goods in 2018
(Source Ref#2)

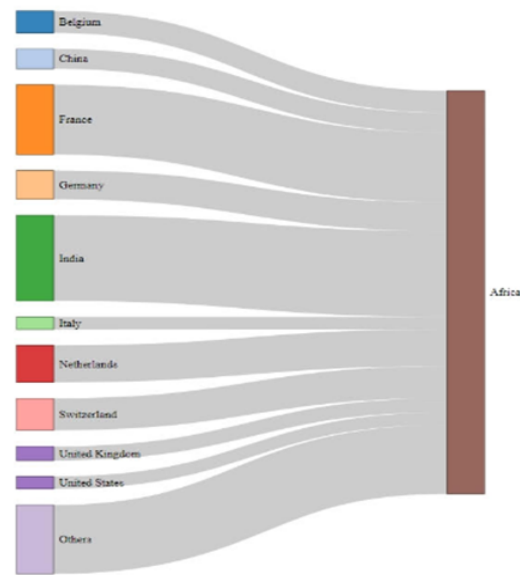


Fig. 2 African countries' imports of pharmaceuticals in 2018 (Source Ref#2)

- Shortages and quality problems concerning personal protective equipment, notably surgical masks, gloves, gowns and goggles; medical devices such as venturi masks, ventilators and oxygen tanks; disinfectants, test kits and other medical goods have greatly hampered national and local responses to COVID-19. *Shortages in medical and pharmaceutical products prompted governments all over the world to restrict exports of essential goods for fighting the pandemic.* They also took measures to facilitate imports (3). This is a huge challenge for import dependent countries.
- For most developing countries like Ethiopia, the domestic supply of critical medical goods and drugs for COVID-19, as well as other diseases, is largely made of imports. At the same time, the economic shock hitting developing countries has reduced their ability to import essential medical goods (3). Therefore, *supply chain resilience is a crucial part of COVID-19 management.*

- African countries are highly dependent on pharmaceutical imports from China and India and on products supplied by European pharmaceutical companies. China is notably a large producer and exporter of chemical reagents for coronavirus testing in the world.

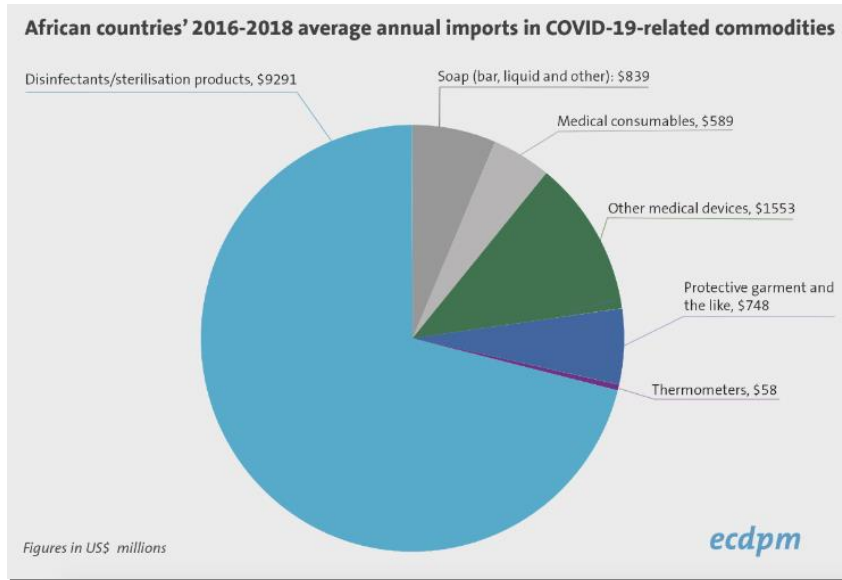


Figure 3: African countries' 2016-2018 average annual imports of COVID-19-related good
Source: Ref. #2

- In several African countries, local producers have responded effectively and rapidly to surging needs for essential medical goods to test for the coronavirus and provide intensive care to patients. For example, *in Ethiopia factories rapidly repurposed to produce surgical masks*.
- Additionally, the common opinion seems that recovering from COVID-19 and the financial crunch may take up to one to five years. Hence *supply chains and manufacturing will be affected for some fiscal years to come*. Identifying most critical suppliers, and which risks pose an imminent threat, is vital to ensuring continuation of supply.

Significant issues (4)

In the supply chain management some of the significant issues among others are:

- Volatile demand caused by panic buying, muted demand from social distancing
- Continuity of supply from critical suppliers
- Constraints on materials and components to continue manufacturing
- Ensuring core product availability to service demand
- Identifying priority of products and components under restricted capacity
- Global transit routes, avoiding country and city lockdowns
- Labour availability along the supply chain from quarantines and lock downs
- Lean inventories unable to buffer increased lead times Ensuring sufficient cash and liquidity in the supply chain

What should you focus on? (4)

- Do you know which suppliers pose the most imminent threat to you as a result of COVID-19?
- What options do you have if a critical supplier failed?
- How will you ensure you emerge with a robust supply chain post COVID-19?
- How are your external stakeholders reacting to significant disruptions in your supply chain?
- How do you best monitor and identify emerging risks in the supply chain?
- What actions can you take to support weaker suppliers facing difficulties

Covid-19 Supply Chain Response Success Factors (5)

Tackling a COVID-19 supply chain crisis requires immediately establishing the ability to respond and securing the supply

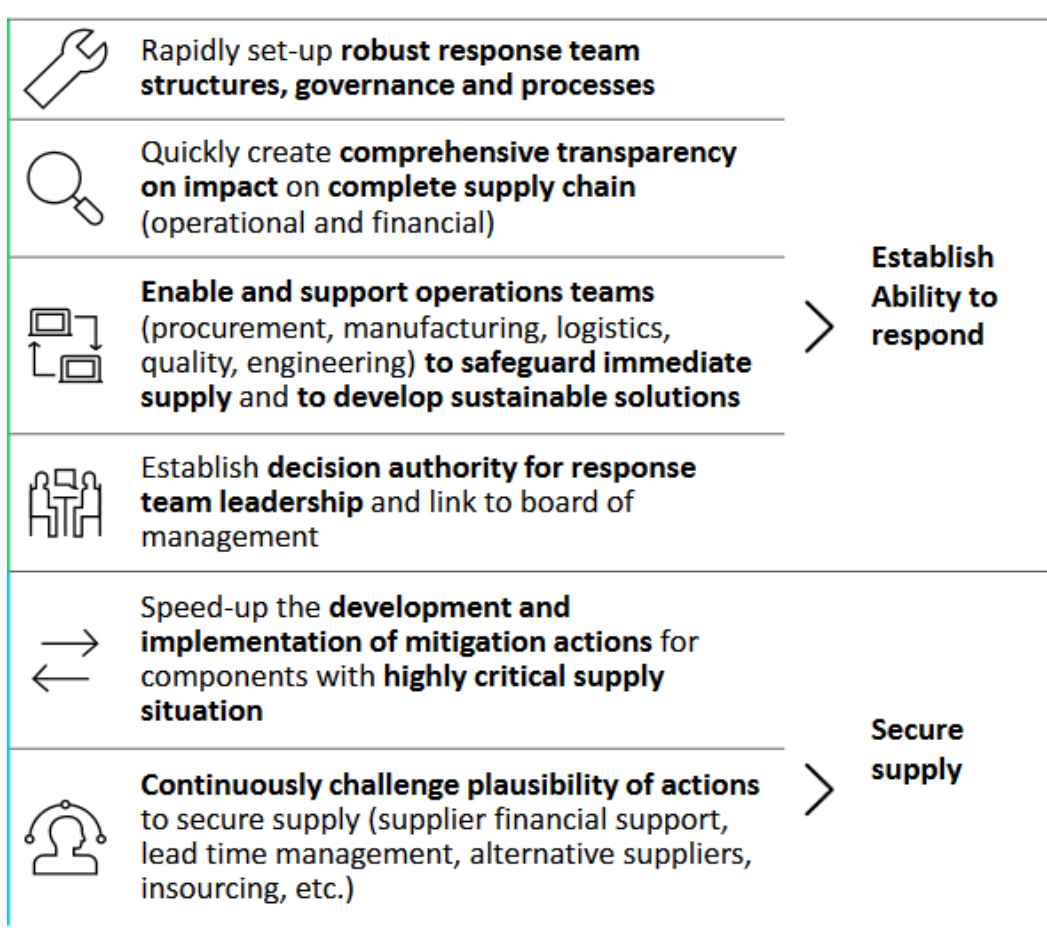


Figure. 4a. Supply chain response success factors (source Ref. #5)

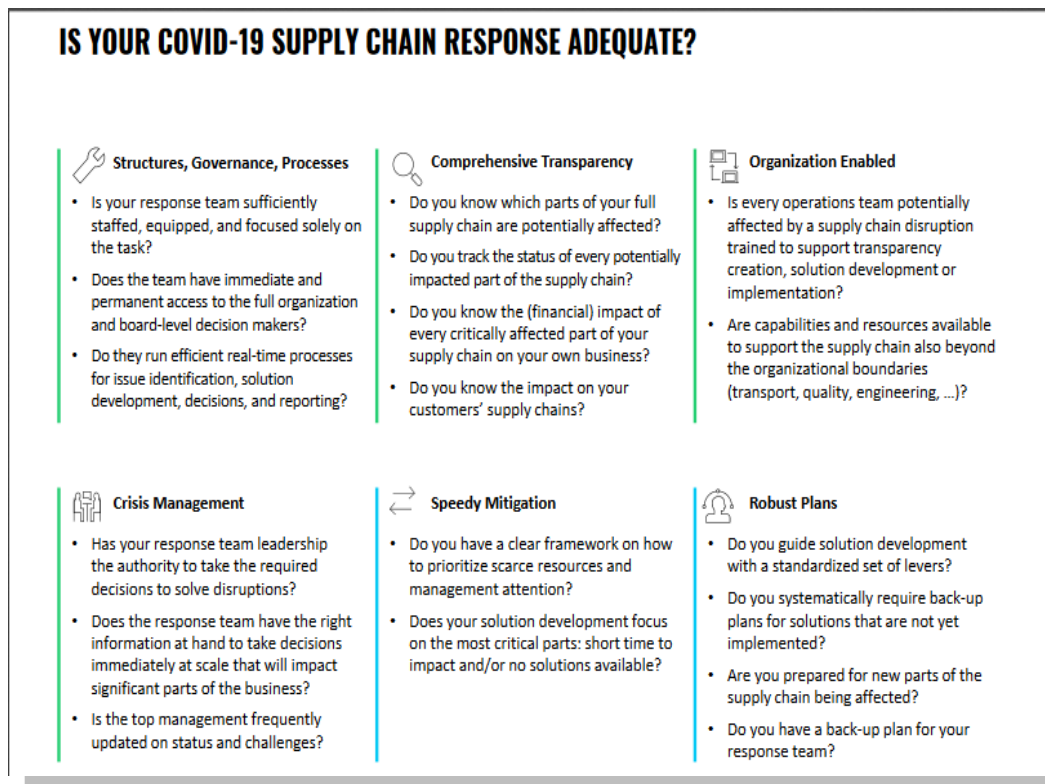


Figure. 4b. Supply chain response success factors (source Ref. #5)

Looking into the Future: Mid to long term supply chain measures (5)

Besides short term measures, supply chain management need to increase and continue mitigation and preparation efforts after the crisis too. So, *as a leader and healthcare professional engaged in the fight against COVID-19 consider the following:*

Inbound Supply Chain

- ✓ How comprehensive is your supply chain risk management and how do you adjust your risk?
- ✓ How resilient is your supply chain, or your supplier landscape?
- ✓ How and when to lock-in transportation capacities and prices?
- ✓ How much control do you need of core elements to better mitigate certain risks?
- ✓ How do you optimize for cost vs flexibility or even agility?
- ✓ Do you have a watch-tower on guard that spots weak signals and increases stock?

Outbound Supply Chain

- How much or where should you store products now before a likely reduction or shutdown of production?
- How to best ramp up distribution flows again after the crisis (direct delivery vs. regular vs. other alternative...etc.)?
- How to flex your own distribution cost early on?
- How can you leverage the supply chain flexibility to your advantage in customer negotiations?
- How can you utilize supply chain agility as a competitive advantage e.g. to gain (and retain) share in times of supply disruptions?

Supply and operation considerations

- ✓ What's your hierarchy of products or production? In case of scarce supplies, what gets produced or not produced?
- ✓ How does demand likely change shortly before, shortly after the crisis, how to best adapt production and the resulting supply chain?
- ✓ Should you change your share of made-to-stock or made-to-order in light of a crisis?
- ✓ Is a temporary slowdown in demand and supply the time to run more trials or how to use idle supply chain and production capacity best?

Policy Recommendations (6).

As a policy maker consider the following supply chain issues:

1. Improve forecasting accuracy and predictability of demand and forecast for a longer period, at least 12 months or more and initiate early procurement.
2. Develop innovative processes for regulatory actions to be undertaken in order to facilitate the export-import of health commodities and raw materials for production, especially at the entry and dispatch ports and at local borders.
3. Consider tax waivers to mitigate potential increases in prices for health commodities.
4. Ensure transparent and timely communication for accuracy of supply and distribution planning process for all stakeholders.
5. Ensure adequate in-country distribution and a supply chain to remote areas

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