Long-term effects of COVID-19 on health care supply chains and ideas to manage them

DR. THORSTEN WINKELMANN
From March to May 2020 everyone in the healthcare supply chain was busy managing the short-term effects and ensuring the supply of medical and pharmaceutical products to the healthcare system and patients. This applied to supply chain managers at manufacturers as well as their logistics service providers. And it applied both to critical COVID-19 products and to all other healthcare products.

But what are the long-term effects of COVID-19 on the health care supply chains? And how can you manage them to your advantage?

I am going to look at six areas:

1. PRODUCT DEMAND
2. CHANNEL SHIFT
3. STOCK LEVELS AND INVENTORY MANAGEMENT
4. DESIGN OF DISTRIBUTION NETWORKS
5. PRODUCT SUPPLY
6. OUTSOURCING TO LOGISTICS SERVICE PROVIDERS
HIGHER LONG-TERM PRODUCT DEMAND, SOME CATEGORIES WILL BENEFIT MORE THAN OTHERS

In the short term, there was turbulence in the demand for healthcare products. All products related to the pandemic see significantly higher demand, e.g. COVID-19-related diagnostics, protective consumables such as masks and gloves, thermometers, respiratory equipment, and general consumables and equipment for patient recovery.

Some non-pandemic-related products also saw very strong demand in the first weeks as many players in the healthcare supply chain downstream and patients increased their safety stock. Today, demand for these products is declining again, a phenomenon known as the bullwhip effect.

We see that (specialty) pharmaceutical and diagnostic companies in particular are reviewing their current product portfolio for COVID-19-relevant products, which will naturally lead to increased demand as soon as these products prove to be helpful. Other products, especially those needed for elective surgery and examinations, such as implants and related instruments and diagnostics, see lower demand. This should recover rapidly once hospitals are reopened to non-COVID 19 patients.

But which product categories will remain at higher levels of demand in the long term or which new products will be needed in the long term? In principle, I believe that demand will stabilize at minimum on pre-crisis levels initially.

In the long term, however, it will likely be slightly higher as societies and governments allocate higher shares of GDP to healthcare. Of course, specific products related to COVID-19 will create new demand, for example in diagnostics, specialty pharmaceuticals and vaccines.

In addition, certain categories of healthcare products will benefit more than others from higher healthcare budgets. Here I see diagnostics and vaccines in general, as governments will strive to be better prepared for future pandemics. It is also likely that suppliers of healthcare products who supply hospitals with equipment and consumables for (intensive) patient care will benefit disproportionately in order to increase capacities.

Even if some say that this is now some kind of hype, it will probably guide us through the next five years or so. Whether people will remember the current crisis in ten years’ time or whether they will sacrifice risk awareness in favor of cost cannot be said today. Due to the vast impact of this crisis on the economic and social life however, I expect a strong and continuous momentum in order to be able to avoid future lockdown situations.
There is a very clear trend towards more direct deliveries to patients these days. The remarkable thing is that the short-term trend to order online and get the products delivered home paves the way for a higher share of e-commerce in the long term. The logic is simple: patients who have not previously purchased online do so now due to physical distance restrictions and for reasons of product availability (e.g., of masks and disinfectant fluids). They experience the convenience of e-commerce and will continue to do so in the future. The home delivery share is unlikely to remain at the level observed during the crisis, but it will be higher than before the crisis. For pharmaceuticals, the upcoming electronic prescription e.g., in Germany is a strong supporter of this trend. However, it is not only mail order pharmacies that will benefit from it; diagnostics companies, for instance, also have the unique opportunity to use the greater relevance and even appreciation of their products to establish and expand direct-to-patient sales channels.

For pharmaceutical manufacturers this implies that they will sell more to mail order pharmacies and less to wholesalers and retail pharmacies. While retail pharmacies have lost market shares to online pharmacies already in the past, the short term impact on wholesalers might be even greater than on retail pharmacies, as mail order pharmacies will now order products directly from manufacturers. Previously mail order pharmacies ordered many products from wholesalers as order sizes previously were too small to order directly at manufacturers. There might be some need for adjustment of logistics infrastructure and processes for pharmaceutical manufacturers, but this should be easy to achieve. It will certainly be another challenge for medical device and consumable manufacturers to take the opportunity to deliver directly to patients – starting with changing from replenishment logistics with pallet and master carton shipments to direct shipments at a high granularity, quantity, service level and volatility. Taking orders from end users and upscaling of processing capacity for invoicing and accounts receivables management or even handling reimbursement processes will impose new challenges for manufacturers as well.

There is another channel-related issue that is important for healthcare manufacturers. As it is likely that governments will require actors in the healthcare supply chain (manufacturers, wholesalers, hospitals, pharmacies) to increase safety stock levels, wholesalers could lobby to take on this as a parastatal role, building on their partially existing public services obligation.
This is all the more true the more they lose business due to increasing direct deliveries to patients. It may sound attractive to manufacturers in the first instance if they do not need to increase their stock and working capital, but it would restrict them in the second instance in choosing the best channel for their product and providing the best service to each pharmacy and hospital. In the end, wholesalers will do everything to avoid working capital and order on demand, especially expensive specialty products, as they do today, and the problem will remain with the manufacturer again.

3 STOCK LEVELS WILL INCREASE AND INVENTORY MANAGEMENT WILL BECOME A CRITICAL SUCCESS FACTOR

Picking up the last point (governmental obligations on actors in the healthcare supply chain to increase safety stocks) the upcoming challenges are obvious: increasing working capital and the need for additional storage capacity. For certain products, particularly low-cost products and pandemic-related products, this may mean that storage capacity more than doubles without significantly higher sales, which in turn will lead to a much longer inventory reach. Longer inventory reach with a given, unchanged shelf life points us to the next challenge, which is no smaller than the two previously mentioned: the need for intelligent inventory management.

Intelligent inventory management (at a given higher level of inventory) should have two objectives: first, to minimize inventory obsolescence, even though a longer portion of the shelf life is consumed before the products are sold to the end customer, and second, to locate inventory where it generates maximum positive (side) effects, e.g. in the local market warehouse to minimize delivery times, or even at the point of care to completely eliminate delivery times. The tools that help to achieve these goals are well known, but are still rarely used to perfection. These are: first, the achievement of inventory transparency at batch or even serial number level within a single ERP system in a region, e.g. Europe. Secondly, the ability to flexibly control and move volumes within the region. Third, the use of warehouse-integrated postponement solutions. And fourth, the deployment of short or long-term consignment stocks in or near the point of care. Of course, the first point, the transparency of inventory, is a prerequisite for applying the other three.
Finally, I would like to address the question of who in the downstream supply chain will carry the increased stock. It seems easy to push it to the neighbor. But if you do so, you will not have the chance to earn the direct or indirect compensation granted by society and governments. And, more importantly, you won’t have the chance to take advantage of the situation, to actively manage it and to take advantage of the positive effects of a higher inventory, as mentioned earlier. I know it is a challenge in functional organizations to take such a cross-functional approach, but I am convinced that this would be the best value creating approach.

4 DISTRIBUTION NETWORKS WILL BE MORE DECENTRALIZED (AND PREVIOUS CENTRALIZATION PLANS ARE UNDER REVIEW)

We all have our business continuation plans in the top drawer of our desks, but fortunately we have rarely or never needed them. And so far, I am not aware of any healthcare distribution center being closed during the COVID-19 crisis. But we already observe a greater emphasis on business continuity in senior management discussions with our clients. In fact, highly centralized European single hub storage facilities are being challenged.

Instead, two or three hub solutions combined with satellites or forward stocking locations or a network of five to eight regional warehouses are favored. In addition to the risk management idea of a built-in business continuity plan, a multi-warehouse setup also takes advantage of the already mentioned positive effects of a strategically wise allocation of anyway higher inventories.

Of course, a decentralization of warehouses should not be accompanied by a fragmented and decentralized landscape of different IT systems. Rather the opposite: if IT hasn’t been harmonized yet it should be done. Otherwise, the built-in business continuity character of a decentralized warehouse structure would not come into play as it would take an IT project to switch the distribution center for a certain country. Also, IT is an important enabler to apply intelligent management of regional inventory across warehouses - as indicated above.
5 PRODUCT SUPPLY: MANUFACTURING WILL SHIFT TO DEMAND REGIONS - NEW PRODUCT PIPELINE AFFECTED

According to the current public debate, governments will push (in the best case scenario incentivize) the relocation of healthcare manufacturing from Asia to demand regions, e.g. to Europe or even nation states. This applies not only to pandemic-relevant products, but also to other essential medicines. This is a tailwind for the discussion resulting from the shortage of certain medicines that we already had before the crisis.

Product supply in the broader sense is not just about manufacturing. An often overlooked aspect is the impact of research and development on product supply. By this, I mean the risk that the new product pipeline, especially for pharmaceutical products, will be delayed due to the interruption of clinical trials. This may be because the participants have concerns about continuing to participate, have different priorities or are not supplied sufficiently in the short term.

In this context, it is worth mentioning that healthcare manufacturers are expected to shift their R&D budgets towards pandemic related products, especially COVID-19-relevant products. This will of course have an impact on the upcoming product portfolio, which we supply chain people will have to deal with in the near or distant future.

6 CAN OUTSOURCING HELP TO MASTER THE LONG-TERM CHALLENGES DRIVEN BY COVID-19?

It depends! - It depends on your specific challenges, and more than ever it depends on the quality of the logistics service provider you are working with. What does quality of service provider mean today? On one hand, it is about whether they can help you to master your (COVID-19 related, but also other) specific challenges. We will come to that in a moment.

On the other hand, it refers to the financial strength and stability of the service provider. Healthcare companies that, for good reason, are considered financially little or not at all affected by the pandemic crisis, should not make themselves vulnerable by working with a financially weak partner in their supply chain. Therefore, they should avoid choosing logistics
service providers that are too small compared to their own company, are financially heavily leveraged and operate with a very low EBITDA margin (which is often an indicator for commodity vs. knowledge-based services).

In view of the current and possible future pandemic crisis, it is also worthwhile to observe which other industries service providers are active in, how much these industries are hidden by pandemic crisis and whether even some of their customers are at risk of insolvency.

In view of possible long-term trends driven by COVID-19, the right logistics service providers can help you to solve the following long-term challenges possibly better than you could do alone:

- Ramp-up a decentralized physical warehouse network while managing it centrally (IT, reporting, QA) to make your delivery capability more robust (built-in business continuity) and to meet national regulatory requirements, such as national storage requirements.

- Implement intelligent inventory management solutions (transparency, visibility, flexibility, postponement, consignment) to manage the increasing reach of inventory while shelf life remains constant, and to strategically wisely allocate and manage anyway higher inventory levels to create value.

- Set up order-to-cash distribution solutions for direct delivery to patients.

These thoughts are the result of my observations and discussions in real business life, the reading of some market studies and publications and finally the deductions I made after the first two months after the arrival of COVID-19 in our daily private and business life in Europe. So far, there is new and ever-changing news and insights every day, and I expect this to continue. And maybe one or the other thesis will have to be added, revised or even deleted. However, I am sure that most of the long-term trends I have identified will guide us in the health care supply chain in the coming years.

#AboutHealthcareAndSupplychain #3
Do you have any questions?
Your Contact:

Dr. Thorsten Winkelmann
President Healthcare
thorsten.winkelmann@arvato.com

Healthcare – Arvato Supply Chain Solutions
Gottlieb-Daimler-Str. 1
33428 Harsewinkel, Germany
arvato-supply-chain.com/industry-solutions/healthcare