

# The Supply Chain OF THE FUTURE

► Analysts say reimagining processes to take advantage of advanced connectivity can be a supply chain differentiator in the future.

The pharmaceutical supply chain, one of the most complex in any industry silo, is also one of the most inefficient and ill-equipped to cope with products in the pipeline, according to analysts at PwC. The pharm supply chain — the link between the laboratory and the marketplace — according to industry experts needs to be reframed in order to take advantage of several trends, including technology advancements and a focus on the patient. PwC says to meet the demands of a fast evolving marketplace and the shift from patient to outcome, the pharma supply chain will need to undergo a radical overhaul.

PwC companies need to put serious attention to its supply chain to meet new demands of the marketplace: more diverse product types and therapies with shorter product lifecycles;

new ways for assessing, approving, and monitoring medicines; an increasing emphasis on outcomes; new modes of delivering healthcare where the care is pushed into the community and where access to information on patients will become as important as the products themselves; the growing importance of emerging markets; a greater public scrutiny impacting the ability to manage risk and compliance; and, tougher environmental controls and regulations will oblige companies to strategically reassess their supply chain approach.

## Best-in-Class Supply Chains

According to The Aberdeen Group, supply chain best-in-class companies are:

- 59% more likely to manage outside suppli-

ers and partners in the design process than other companies;

- 70% more likely to segment demand by key product, customer, or channel characteristics;
- 73% have more contracts in a searchable electronic repository, which provides the opportunity to mine contract data in ways that have never been available before; and
- 86% are more likely to have closed-loop integration of planning and execution processes.

## New Technologies

New technologies are emerging to help pharma companies manufacture a wider and more complex range of medicines, distribute them and also to speed the interface with the patient.

The Aberdeen Group analysts predict that the supply chain of 2030 will be one of a seamless end-to-end process, with visibility into the planning and execution at all levels. This starts with product innovation and customer-centric requirements to the upstream shipments from long tail suppliers, and through to customer fulfillment. A huge enabler of this model will be data visibility to all levels, whether it is from in-house manufacturing, suppliers, and logistics partners, or customers and distribution centers. The supply chain will no longer be driven by uncertainty in demand and execution capabilities, and will be characterized by continuous collaboration and flow of information.

PwC states that the supply chains for designing, manufacturing, and distributing pharmaceuticals and medical devices plus those providing healthcare services will need to be integrated so that all partners can see the full picture and help them plan ahead more accurately and cost-effective.

## 10 Recommendations to Prepare for the 2030 Supply Chain

Aberdeen analysts note that data need to be seamlessly connected to make better decisions and improve performance, and they offer 10 recommendations to help companies prepare for the future.

1. Continued movement to the cloud should

## EXECUTIVE VIEWPOINTS



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### ACHIEVING AN INTEGRATED

#### SUPPLY CHAIN

It's important for companies to make an assessment of their strengths and weaknesses in taking products from discovery through distribution. Identifying partners that fill gaps in your organizational competencies is critical. Many companies, such as smaller biotechs, may be new to pharmaceutical distribution and lack the capabilities to get their product to market. For established companies, it may be beneficial to look for a partner that can pressure-test what you think you know and offer new solutions. Another practical component is determining whether your partner has systems for data integration. Today's supply chain demands expertise and systems that can keep up with the rapid pace of data exchange.

### IDENTIFYING OPPORTUNITIES

Improving supply chain efficiency and profitability relies on clean, clear reporting. With real-time, accurate, and comprehensive visibility to the supply chain, you can understand where opportunities exist and identify processes to be refined. Addressing the number of touchpoints and hand-offs within a complex supply chain, including minimizing the number of third parties involved, can reduce costs. Efficient, two-way communication can ensure that operations are smooth and relationships and solutions are in place to address them when they aren't.

A best-in-class supply chain starts with understanding the appropriate channel for delivering your product to providers and patients efficiently. Considerations such as anticipated shipment volume and special storage and handling requirements are just the beginning. This foundational strategy can often take place while trying to get to market, and involving partners who can leverage their experience and identify analogues to inform the decision can be invaluable.


## Better supply chain management leads to better quality of care.

be the first consideration for any new or replacement applications. This will accelerate time to value, minimize TCO, and leverage connectivity.

2. Establish a customer-centric approach to capture the voice of the customer in product design and hidden demand nuances that can better refine segmentation, inventory deployment, and fulfillment. As the flow of product data from the Internet of Things improves, greater collaboration, integration, and visibility will be the keys to improving supplier management in the development process while tying engineering to downstream execution.
3. Establish S&OP to ensure that the fundamental supply/demand match is in place. As the speed of execution increases, S&OP will evolve to a more continuous process for managing the plan of record and companies will find themselves in trouble more quickly without fundamental controls and boundaries in place.
4. Look for opportunities in scheduling and planning to eliminate steps and automate schedule adjustments as the certainty of data from IoT processes is incorporated as part of the process and becomes the standard.
5. Look for opportunities to rethink processes based on uncertainty, such as maintenance and spare parts ordering triggered by the products themselves leveraging IoT capabilities.
6. Leverage big data and analytics in spend management and contract management for new insights. The digital economy has made access to data available that was not previously possible.
7. Improve collaboration and connectivity with suppliers and partners for better upstream visibility and data certainty.
8. Upgrade internal warehouse and order management systems to address the increasing costs driven by B2B and B2C convergence in support of omnichannel workflows.
9. Leverage logistics partners to outsource execution where in-house capabilities do not exist. Consider all fulfillment options, including partners for positioning inventory in competitive situations.
10. Combine transportation management for in-bound logistics with outbound logistics to maximize efficiency and improve decision-making. **PV**

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The majority of respondents say their inventory management processes are "good," but when asked...



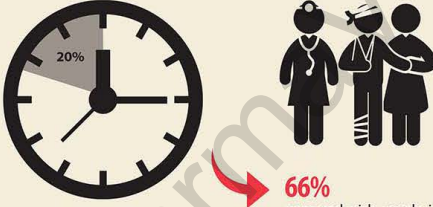
Have you ever seen or heard of the following problems?	
<b>24%</b>	recalled or expired product used on a patient.
<b>57%</b>	physician didn't have the product needed during the procedure.
<b>18%</b>	patient being harmed for not having the right supplies at the right time.

**Better supply chain management supports patient safety**

Less time with supply chain means more time with patients.


Nearly **20%** of physician & nurses' workweek is spent on supply chain management.

**65%** would trade this time to be with their patients.



**66%** surveyed wish supply, inventory & admin tasks were something they **didn't have to do** which takes the focus off patients, education, & training.

"Good" doesn't cut it in this cutting-edge health care world.



**3 out of 4** believe the seamless operation of a supply chain is critically important to supporting quality of care and patient satisfaction and managing costs.

Hospitals see **\$5 billion** of waste in high-value medical devices each year.<sup>1</sup>

At least **6 years** Nearly 1/3 say it's been 6 years or more since a new inventory management system has been implemented.

Another **25%** of all surveyed **don't know** if it has ever been done.


**78%** still manually count inventory in some parts of their supply chain.

**17%** Monitor inventory in real-time with RFID tracking system

Automated supply chains offer a track to a healthier future

Supply chain leaders estimated **\$500,000** annual savings using automated supply chain technology.

How healthy is your supply chain?  
Assess at [inventorymanagementiq.cardinalhealth.com](http://inventorymanagementiq.cardinalhealth.com)



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