



Up close and personal

Achieving the elusive
patient-centric supply chain

New Science.
Transformative patient outcomes.





In an increasingly digital world, patients are starting to expect the same convenience and personalization from biopharma companies that they experience from other industries. Giants like Amazon have become the benchmark for consumer centricity, and biopharma companies have an opportunity to lead the healthcare industry by becoming more empathetic, impactful, human, and truly patient-centric. While they understand the need for patient centricity, biopharma companies' product portfolios face increasingly complex changes that place greater demands on the supply chain. And they will continue to do so as New Science, (novel life sciences mechanisms, modalities and platforms addressing significant unmet patient needs using a unique combination of advanced science and technology) increases in importance. New Science is anticipated to drive 81% of industry revenue growth over the next five years.¹ As a result, creating a patient-centric supply chain (PCSC) is even more elusive. We provide a framework to simplify, understand and manage supply chain complexity to enhance value for all stakeholders.

Factors driving a more patient-centric supply chain

The external factors

Increasing patient expectations: Patients draw parallels from other industries on consumer engagement and service levels. They want managing their health to be easier. And they want those providing care to have a greater understanding of their individual situations.

New sites and modes of care: Treatments for well-understood and chronic diseases are moving from tertiary sites to secondary and primary care clinics; clinical trials can no longer rely solely on in-person check-ins, which makes ease of use and the patient experience critical for participation enrollment.

Policy Shifts: Healthcare organizations face regulatory changes and an increasing focus on patient safety, along with a shift from reimbursement for activities to reimbursement for health outcomes.

The internal factors

Portfolio complexity: Propelled by New Science, personalized medicines, combination therapies and new modalities will take a larger market share and will add disruption and complexity to supply chain operating models

Expanding value chains: Supply and demand networks are growing, with increasing intersections between value-added partners, and coordinating with specialty contract development and manufacturing organization's (CDMO) for novel at home delivery devices.

Talent growth: With the shift towards New Science, expanding value chains, and increasing patient expectations, the role of the supply chain function is changing, and different capabilities and competencies are needed.

The foundational factor

Technology advances: Technology advances, new cultural norms such as social networks, patient communities, digital supply networks, IoT devices, and sensors are accelerating the ability and need to create a patient-centric supply chain.

While momentum for change has been building for some time, conditions are now perfect for an ambitious and fundamental reshaping of outdated processes. This involves focusing the whole organization on the delivery of exceptional, human-centric experiences and the rewiring of all functions of the organization—from research and development (e.g. product development, clinical trials) to commercial (e.g. marketing, data analytics, commerce, sales and service).² Real patient centricity reflects a deep understanding of a person’s life and experiences with a health condition. It extends beyond the treatment, and consistently considers that perspective through the treatment experience. The manner and timing with which products are brought to patients through the supply chain is key to patient centricity. How we define a patient-centric supply chain (PCSC) is vital.



What is a patient-centric supply chain?

Industry leaders are focused on achieving patient-centricity and creating PCSC's, this includes shaping a definition.

Health ecosystem players often confuse the PCSC with patient-centric products like self-infusion pens or blood sugar test machines and use them as interchangeable definitions. The general misconception is that organizations can implement a one-size-fits-all approach to achieving a patient-centric supply chain.

Patient-centric supply chains focus on delivering the right therapy **to the right patient at the right time to the right place and at the right price.**

Therefore, Accenture interviewed 12 senior supply chain executives in the healthcare ecosystem to understand their views on what “patient centric supply chain” means.

A few common themes emerged:



Patient-centricity is not restricted to personalized medicine; it is a continuum that touches all product types.



Patient-centric supply chains are not analogous to patient-centric products.



Patient-centric supply chains are influenced by several factors: disease burden, product type, product lifecycle stage, treatment type, and region, among others.



Supply chain leaders leverage a segmentation strategy based upon a number of factors and dimensions.

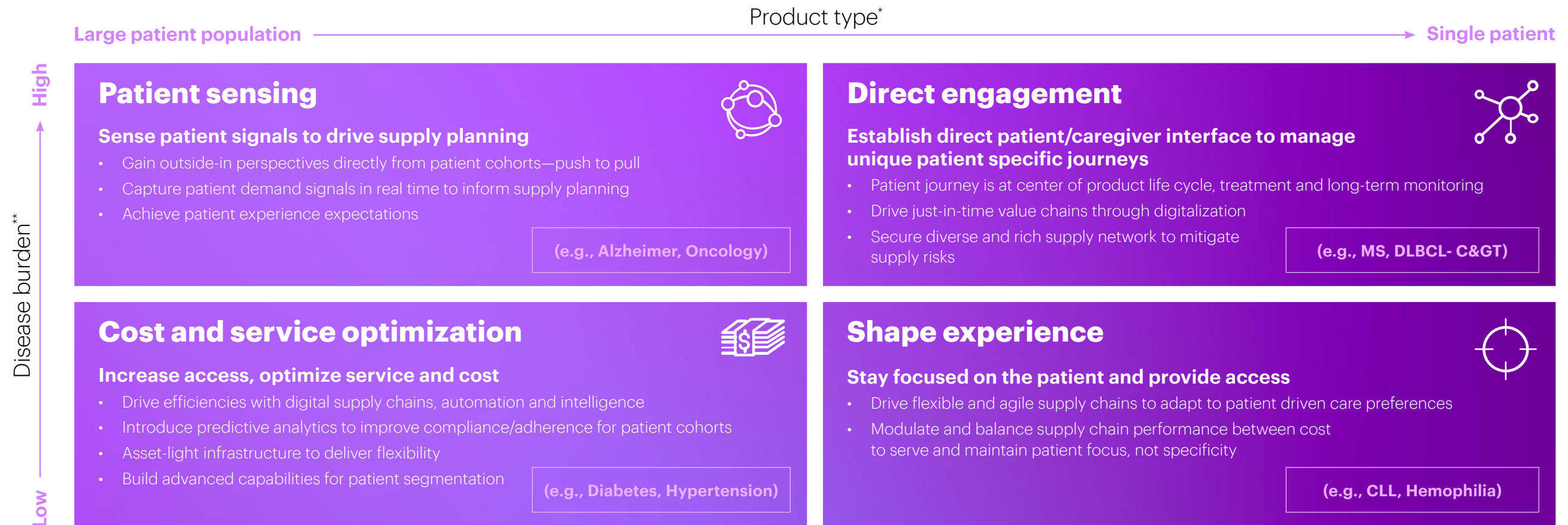
A key question remains: how can supply chains be patient-centric with varying portfolios, products at different stages in their lifecycle and a diverse and dispersed patient population?

The patient-centric supply chain is product-agnostic and applies an understanding of the patient at every link, no matter what product is being managed. It is not limited to the more personalized medicines, combination therapies and new modalities involved in New Science. It is just as applicable for other products. **So how does a company create a PCSC that easily integrates into a broader healthcare system?**

The right PCSC for your patient and product

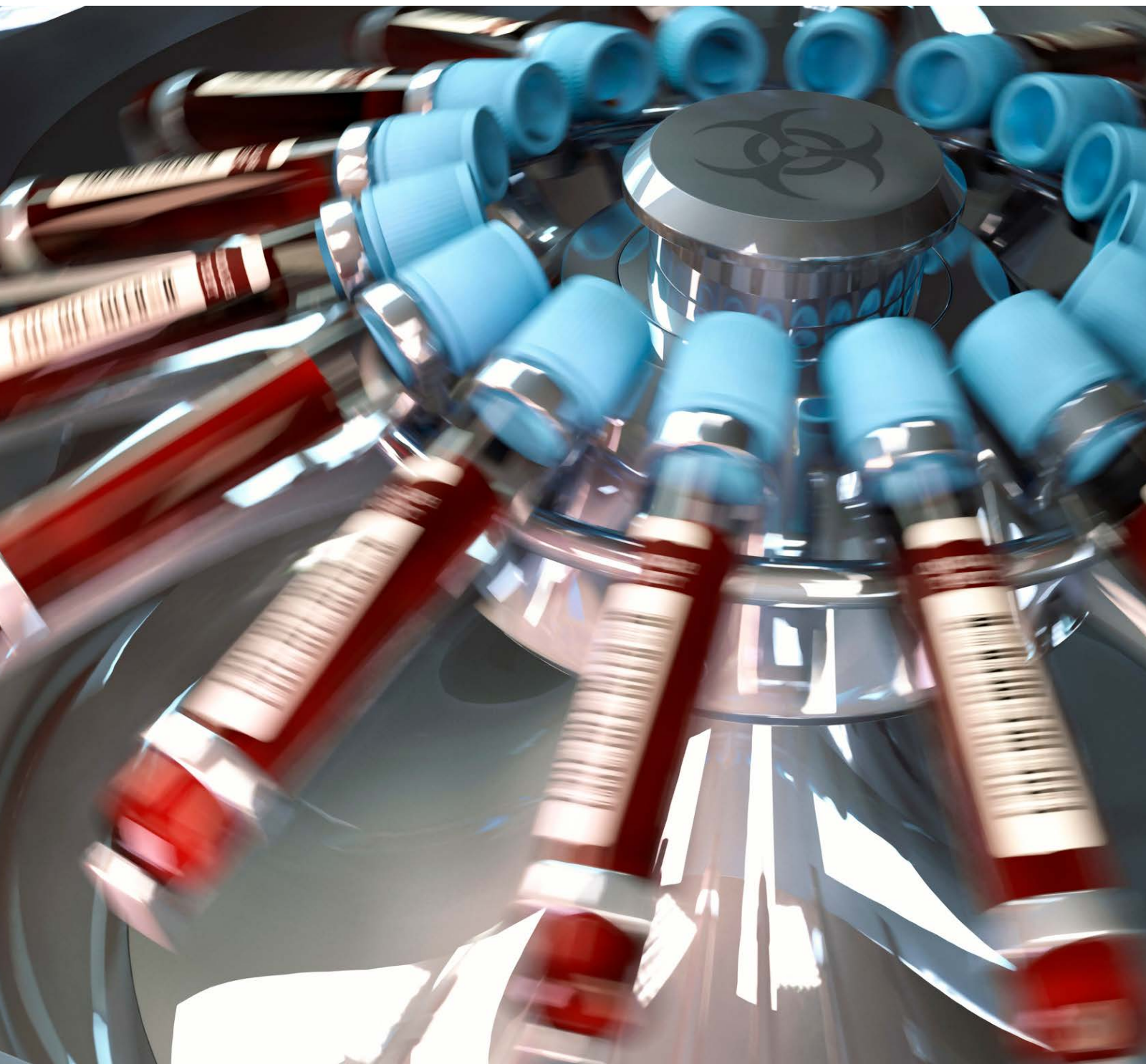
PCSCs are influenced by several factors and biopharma leaders use these factors to help them refine and perfect the supply chain for any given product. Here's one example of how two factors (disease burden and product type) can be used to help define a good PCSC for a mixed product portfolio. Other factors can also apply, depending on product and company-specific variables:

Multiple factors and dimensions determine the configurations and capabilities required to operate a patient-centric supply chain



* Two factors are shown here, matrices can be drawn using other factors such as treatment protocol, region, product lifecycle, etc.

** Disease burden is defined as a combination of incidence rates, QALY (Quality Adjusted Life Year), economic healthcare cost



The effect of disease burden, product type and infrastructure on the patient-centric supply chain

The stage of a disease deeply affects patient needs. And a patient-centric supply chain understands and reflects this. Terminal patients can have very different needs compared to chronic patients in terms of timing and manner of delivery. Terminal cancer patients may often start with resignation but become more involved in their care as their disease progresses. Chronic cancer patients tend to stay at the same level of involvement through their treatment. The nature of the disease affects how the supply chain should be configured for patient centricity.

When it comes to product type, a patient-centric supply chain for a rare disease medication would be completely different to a vaccine that requires mass administration to millions, just in terms of the volumes involved. Then there are considerations like local infrastructure: delivery of a vaccine in a modern developed economy can make certain assumptions about infrastructure availability, whereas developing countries may not be able to do so. COVID-19 vaccines are a case in point, where reliable cold storage and distribution before expiry can be vital to the integrity and efficacy of the dose.

The nature of the supplier might also have an impact on the supply chain, depending on whether the product comes from a single-asset company, or from a large pharmaceutical company with an extensive, mixed product portfolio.

Making progress

While many companies haven't yet achieved a holistic strategy. Here are some industry examples:



Cost and service optimization

Pfizer (Lipitor) is moving towards “hyper segmentation” of customers while continuing to streamline the supply chain processes. The goal is true demand sensing and end-to-end real time visibility across the supply chain. To do this, Pfizer created a single, device-independent application that provided a virtual, online community for all its supply chain partners and directly linked them to the major transportation providers. This new technology has allowed them to maintain firm control over the flow of their products, especially those with specific transportation needs like temperature-control.³



Patient sensing

Abbvie (Humira) has adapted to a demand for increased customer engagement with the addition of a customer portal providing live product tracking throughout the manufacturing and shipping process. The addition of the manufacturing and shipping data has also benefitted shippers, who can use this data to better understand their performance, increase efficiency, and ensure patients are receiving treatments faster and on time. Abbvie also established robust supplier relationships and located its relationship infrastructure near suppliers to ensure patients never miss out on their medications; it works cross functionally with manufacturing and make sure strong agreements are in place to safeguard longevity with suppliers.⁴



Direct engagement

Novartis (Zolgensma) implemented cloud based “Insight Centers” in combination with new cold chain shipment systems to ensure patients receive real time information on their treatments during manufacturing and transit. The development of additional IoT and computer vision software is helping to identify potential risks and delays in the supply chain, that can then be communicated to the patient as quickly as possible. The addition of an advanced enterprise data analytics platform has enabled the company to pinpoint bottlenecks and expand patient access to treat a wider variety of patient ages.⁵

What do I do next?

A patient-centric supply chain requires that biopharma companies go beyond digitizing their supply chain and put patients at the center of operations.

Supply chain leaders can deploy a differentiated strategy after understanding which levers to pull to create the right supply chain for a given biopharma product. Additionally, the industry can change its view to focus not only on optimizing the supply chain for the next value chain partner but always keep the last link—the patient—in mind. While the parties to that particular transaction may never interface directly with the patient, this approach will build trust and optimize the supply chain for a particular patient/product combination. Winning, engaging, and retaining customers still depends on cooperation from the entire ecosystem.

To build an effective PCSC, we recommend the following steps:

- 1 Create a framework(s) for archotyping the products: Identify and prioritize the factors (disease burden, product type etc.) most pertinent to your business. Consider creating more than one framework.
- 2 Assess your product portfolio: Map the products onto the framework(s) to segment the products and appreciate the nuances.
- 3 Determine the right framework(s) that best represents your current and anticipated product portfolios.
- 4 Identify the capabilities that are common across all archetypes, and those that are specific to each product archetype of the supply chain, for all frameworks in consideration
- 5 Commit to accumulating capabilities that are common across all archetypes and deploy archetype-specific capabilities to enable patient centricity that is specific to the archetype.

These steps will help bridge the gap between biopharma and other industries in terms of patient expectations in a digital world, while managing the technical supply chain complexity brought about by growing and intricate product portfolios and enhancing value for all stakeholders.

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