RDA Healthcare Supply Chain Services

2024

EMERGING TRENDS

SHAPING HEALTHCARE SUPPLY CHAINS

The healthcare landscape is undergoing significant transformation as it grapples with persistent challenges and adapts to emerging trends. Reflecting on 2023 data, several key trends have emerged, shaping the healthcare supply chain.

This healthcare supply train trends report has been summarized and is provided to our clients, strategic alliances and subject matter experts compliments of RDA. For more insight and information, visit our website at www.rdahealthcare.net.

1 Continued Financial Pressures and Labor Shortages

- ***Retail Pharmacy Challenges and Strategies:***
  - Retail pharmacies are poised to confront enduring challenges in reimbursement, labor shortages, inflationary pressures, and a stabilization in the dispensing rates of generic medications. To navigate these obstacles, pharmacy chains are expected to persist in optimizing their fundamental operations by further streamlining store footprints.
- ***Healthcare Industry Financial Strain and Persistent Challenges:***
  - In 2023, the healthcare industry continued to grapple with financial strain, particularly hospitals striving to rebound from the lingering repercussions of the pandemic. Despite concerted efforts to improve cost efficiencies, the industry faced sustained hurdles of reduced revenue, diminished margins, and mounting expenses. Labor scarcities, especially prevalent in community elder care facilities, continued to impede overall industry progression.
  - Revenue and Reimbursement changes with Government and Private Insurers will continue to impact healthcare and certainly impacts decision-making with supply chain.

2 Digital Transformation and Technology Enablement

- The wake-up call from COVID-19 propelled the realization that healthcare logistics lag in digitization and technological advancements. Stakeholders increasingly emphasized the urgent need for robust and timely data across the supply chain's information technology ecosystem to drive transformative changes.
- ***Generative AI in Healthcare***
  - In 2023, Generative AI made significant strides in healthcare, enhancing efficiency, personalization, and advanced care. Anticipated innovations in 2024 include Ambient Digital Scribes and Autonomous Clinical Coding to streamline documentation and reduce burnout. AI-assisted patient care improved medical

imaging, and virtual primary care aim to enhance patient engagement and satisfaction.

- Generative AI's impact extends to better information accessibility, clinical trial patient selection, administrative tasks, performance analysis, and education, elevating healthcare quality and efficiency.

- ***Computer Vision and AI in Healthcare***
  - Computer vision revolutionizes healthcare by accelerating medical imaging with high accuracy in disease detection. This is expected to be the next level of Telemedicine where patients can be monitored from one central location while they are at home through AI and devices used by the patient. They have done this for a while with cardiac monitoring, but AI allows this to be expanded and performed by the computers rather than by people.

  - Midas.ai by iLink Digital showcases real-time video analytics, translating visual data into actionable insights. As a result of this data, organizations are removing poorly performing service lines and expanding their outpatient/ambulatory care services. This will impact SC to those sites, number of trips, number of supplies, etc.

3 Workforce Challenges and Staffing Shortages Continue

- Employment in the healthcare sector continued to lag pre-pandemic growth rates in 2023. The industry experienced disproportionately higher job quits, especially in nursing home and elder care facilities, necessitating a significant increase in wages. Staffing shortages and burnout prompted a quest for digital solutions to handle administrative tasks, allowing clinical staff more time for direct patient care.

- ***Nurse Staffing Trends:***
  - In 2024, the skilled nursing industry faces significant challenges in meeting federal staffing mandates proposed by the Centers for Medicare & Medicaid Services (CMS). Criticized for lacking adequate funding and excluding Licensed Practical Nurses (LPNs), the industry is actively seeking to overturn the mandate due to concerns about its feasibility. Over 40,000 largely negative comments on the proposal reflect the industry's resistance. Analysts predict that the final mandate release might be deferred past 2024, as the agency could take the full three-year window to refine it. Even if released, contentious issues persist, with the likelihood of litigation from industry bodies like AHCA. While advocacy against the mandate continues, nursing home providers are compelled to focus on fortifying their workforce, employing strategies such as retention-focused initiatives, competitive wages, and career development programs. Efforts to address staffing shortages, including considering immigrant nurses, face challenges due to legislative hurdles and political complexities. Expediting immigrant nurse visas has seen some progress but remains insufficient to alleviate the industry's staffing issues. Overall, the industry faces an uphill battle in navigating these staffing challenges in the coming year.

- Increased Demand for Travel Nurses: *"In recent years, the demand for travel nurses has been steadily growing, and 2024 shows no signs of slowing down. Hospitals and healthcare facilities continue to rely on these flexible and adaptable professionals to fill staffing gaps and respond to patient surges. This trend underscores the pivotal role that travel nurses play in ensuring that quality healthcare is accessible to all."*
  (The Raex Staffing, 2023)

4 Telemedicine Expansion

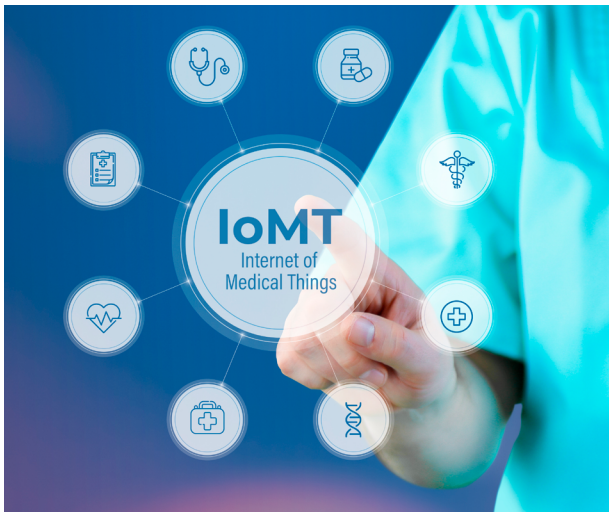
- Telemedicine witnessed substantial growth, with approximately 80% of consumers utilizing telehealth services in various forms. Beyond video chats, services expanded to live phone calls, emails, and text messages, reflecting the diversification of telemedicine modalities and the increasing preference among patients for remote healthcare options.
- ***Virtual Assistants & Symptom Checker Chatbots:***
  - AI-driven virtual assistants and chatbots offer 24/7 online support for preliminary medical diagnostics and health advice, engaging in human-like conversations through various input modes.
  - They prove pivotal in addressing health concerns during call center overloads or non-operational hours, guiding patients, and connecting them with necessary information while enhancing healthcare processes through integration with patient portals and record systems.

- ***Wearables and Mobile Apps in Medical Practice:***
  - Wearables and mobile apps synchronize to monitor health metrics like pulse, temperature, and blood pressure, fostering personalized healthcare.
  - This integration enables proactive health management, empowering users to track and analyze their health data for informed decisions and promoting a more engaged and connected patient community.
- ***Home Delivery***
  - 2024 will be the breakout year for delivery drones (Axios, 2024). In 2024, the healthcare landscape is poised for a significant shift with the widespread adoption of drone delivery services by medical centers and logistics platforms. The introduction of drones promises swift delivery of essential items, from prescriptions to household necessities, within 30 minutes, revolutionizing healthcare accessibility.
  - A pivotal study published in Science Robotics outlines the profound impact of drone delivery systems, particularly in remote regions where traditional transportation methods face challenges. Highlighting the success story of Zipline, a trailblazer in autonomous drone delivery, the research showcases remarkable improvements in healthcare, with significant reductions in maternal mortality and blood wastage in Rwanda due to on-demand drone deliveries. However, the research stresses the necessity to address regulatory, logistical, and technical hurdles for a sustainable

and equitable drone delivery system, urging concerted efforts toward accessibility and ethical imperatives in shaping the future of healthcare logistics.

5 Emphasis on Technology for Supply Chain Risk Management

- Industry executives recognized the need to invest more in technology to identify, track, and measure supply chain risks. The consensus among leaders was to increase technological investments to mitigate potential disruptions in the healthcare supply chain.
- From ScienceDirect: *"Recent technological advances, especially machine learning (ML) technology, have shown the possibility to prevent supply chain risk (SCR) by decreasing the need for human labor, increasing response speed, and predicting risk."*



6 Rise of the Internet of Medical Things (IoMT)

- The IoMT continued its transformative impact on healthcare delivery, fundamentally changing how medical service providers and patients engage. Manufacturers and suppliers focused on investing in connected health technologies and services to cater to the evolving needs of modern patients.
- IoT Integration in Healthcare Accounting Systems:
  - IoT applications transform healthcare accounting systems by minimizing human-induced errors in data entry and facilitating rapid and extensive data input through sensors and predictive technologies. This leads to reduced data processing time, automated analysis using AI algorithms, and real-time updates aligning with regulatory changes. It enhances the quality of accounting information, enabling precise financial and nonfinancial evaluation of health institutions' performance, accurate cost estimation for healthcare services, and seamless preparation of diverse financial and nonfinancial reports. Furthermore, IoT significantly enhances information sharing within the healthcare supply chain, fostering increased cooperation among members, and strengthening competitive advantages, especially among suppliers of medicines, medical supplies, and devices.

7 AI in Supply Chain Management

- Digitization and AI play pivotal roles in fortifying supply chains, offering improved resilience and efficiency. Companies investing in supply chain technology, including AI, IoT, and robotics, enhance visibility, agility, and responsiveness within their networks. Digital networking of trading partners allows for better anticipation of disruptions, facilitating proactive actions to satisfy customer needs and regulatory demands. The aim is to transform fragmented supply chains into agile, collaborative networks driven by real-time data and dynamic workflows. In 2024, "GEN AI" will be a prominent term, prompting companies to segment AI strategies into three categories: enhancing supply chain efficiency, improving user experiences, and fostering new processes and innovation.

Sources

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