



ADMINISTRATIVE AND SUPPLY CHAIN TREND REPORT

A SILENT BUT STRONG DIGITAL FOUNDATION

Digital Health Analytics (DHA) is a global market intelligence and survey research hub for digital health technology. Provided by the College of Healthcare Information Management Executives (CHIME), DHA was created in 2022 as the gateway for provider organizations and companies to better understand how digital technology supports leaders in transforming health and care and delivering data insights that help them make the greatest business impact possible.

The Digital Health Most Wired Survey Administrative and Supply Chain

In the tumultuous landscape of today's healthcare, the annual CHIME Digital Health Most Wired (DHMW) survey is a significant digital health "north star" that healthcare organizations (HCOs) have relied upon for years. Widely known for the annual Most Wired recognition awards, the DHMW survey provides healthcare leaders a comprehensive profile of digital health usage in U.S. HCOs and a reliable resource by which to benchmark their own digital health progression.

Reflecting the digital profiles of approximately 40% of U.S. hospitals, the array of HCOs included in the 2023 DHMW survey is representative of the known US Health System landscape. As such, the survey serves as a critical resource in identifying major themes and shifts in the HCO marketplace. The 2023 DHMW survey findings has identified an overarching theme that can be characterized as "the acceleration of data usage."

In a digital health world shaped by Meaningful Use, HCOs have largely moved on from focusing on their data capture and storage capabilities to improving outcomes. In this environment, leveraging data emerges as a critical activity in the realization of improved operational and clinical outcomes. It is little surprise then to see evidence of the "acceleration of data usage" in all eight sections of the survey, including in the Administrative and Supply Chain section.

To help make sense of the Administrative and Supply Chain findings in the 2023 DHMW survey and the healthcare administrative and supply chain markets in general, CHIME offers this report where we provide a "deeper dive" into three broad issues covered in this section: inventory management, financial management and personnel management. Emerging from this effort, we uncovered several factors reinforcing the critical role technology plays in optimizing an HCO's administrative and supply chain performance — a role poised to grow in importance as HCOs are continually challenged to realize cost savings.

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Defining Administrative and Supply Chain

Administrative and Supply Chain are two separate, yet intrinsically connected issues. As health care administration typically deals with the daily operational aspects of an organization such as monitoring legal compliance, managing medical records, processing insurance claims, and recruiting and training personnel, the term “administrative” has come to connote a broad array of non-clinical activities. Arguably, supply chain management activities fall under the administrative rubric. Yet because a “pen in a doctor’s hand” has often been referred to as the most expensive medical item in an HCO, supply chain has historically tended to be treated as a special class within healthcare.

In the context of CHIME’s 2023 Digital Health Most Wired (DHMW) survey, an HCO’s Administrative and Supply Chain capabilities was adjudicated by assessing the management of three operational areas:

1. Inventory
2. Financial
3. Personnel

Representing approximately 9% of an HCO’s total DHMW performance score, the Administrative and Supply Chain section of the survey reflects the basic core functions required to operate an HCO.

“Though the administrative and supply chain activities in a healthcare system are often treated as an after-thought to the organization’s clinical or analytical technologies, the technology supporting a health system’s administrative and supply management services are no less critical,” noted Lorren Pettit, CHIME’s Vice President of Digital Health Analytics (DHA), on the weighting assigned to DHMW’s Analytics and Data Management section. “These technologies can help a healthcare system in many ways, from speeding up processes and reducing costs to providing varied stakeholders with a better overall experience. Given the immense pressure on healthcare providers to reduce costs, it is easy to understand how significant a health system’s performance in administrative and supply chain can be to keeping the organization competitive.”

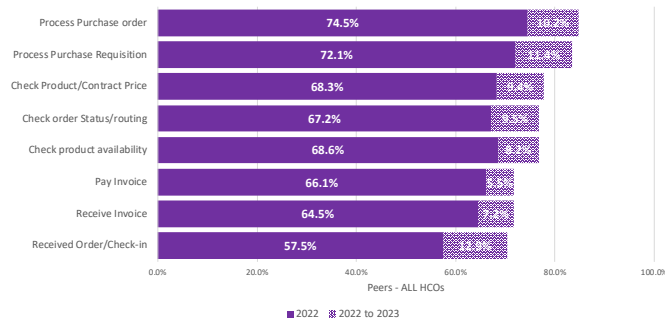
1 Infrastructure Support

The first category considered in the Administrative and Supply Chain section of the DHMW survey addressed technology used to support an HCO's supply chain management efforts. In this section, five questions were used to assess survey participants:

Automated Pharmaceutical Supply Activities

Question 23

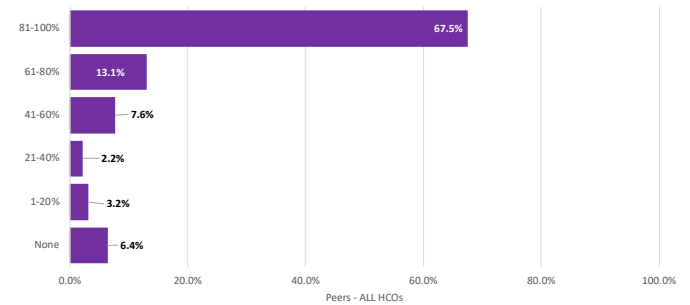
Select the method best describing how your organization completes the majority of the following pharmacy supply activities - Automated



Automated Reordering of Pharmaceutical Supplies

Question 24

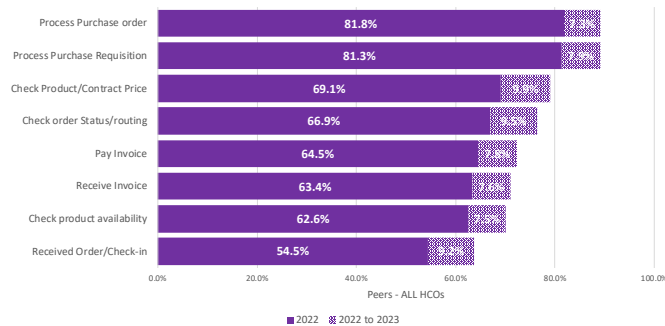
What percentage of your pharmaceutical supply orders are electronically generated once they reach a predetermined par level?



Automated Medical/Surgical Supply Activities

Question 25

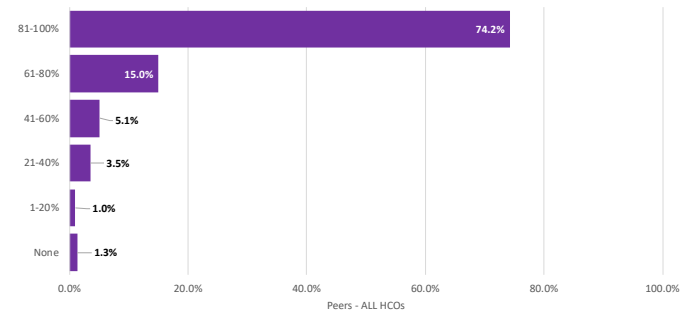
Select the method best describing how your organization completes the majority of the following medical/surgical supply activities - Automated



Automated Reordering of Medical/Surgical Supplies

Question 26

What percentage of your medical/surgical supply orders are electronically generated once they reach a predetermined par level?

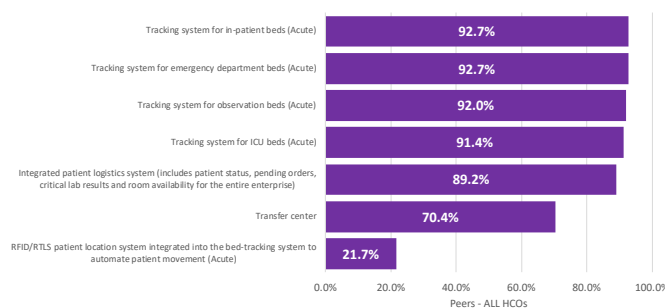


Automated Medical/Surgical Supply Activities

Question 29

Which of the following settings in your organization use a bed/patient tracking system or patient-flow software system

(Note: bed tracking/patient-logistics management may be functionality included within your electronic health record?)



The intent of the first four questions was to gauge the use of automated tools in the resupplying of an HCO's pharmaceutical and medical/surgical inventory. As these questions have been used in the DHMW survey for several years now, we have a good pulse on where technology is changing within the supply chain market. To that end, the reliance on automated tools to support supply chain activities appears to have increased notably from 2022 to 2023. Across all pharmaceutical and medical/surgical processes considered, the percentage of HCOs leveraging automated tools increased on average by roughly 9%. Automatically receiving order/check-in was the one process experiencing the greatest increase in use from 2022, growing by about 11% (pharmaceutical grew by 12.9%; medical/surgical grew by 9.2%).

On the market's increased reliance on automated supply chain processes, Pettit said, "As automated supply chain software pulls data from orders without manual input and feeds that data into other critical systems, it affords users a degree of assurance allowing healthcare systems to create a single source of truth within their organization and confidently track order statuses all the way through the supply chain."

With respect to the skewed percentage of HCOs auto generating supply orders once a predetermined par level has been met, Pettit recognized the need to re-evaluate the utility of this question for the 2024 DHMW survey. "Clearly, the majority of healthcare systems use automated reordering systems to some extent, with most organizations using it to cover more than 80% of their supplies. To ensure the value of this question to an HCO's DHMW score, we will need to 'tighten' the coverage response ranges or address this issue in an entirely new way."

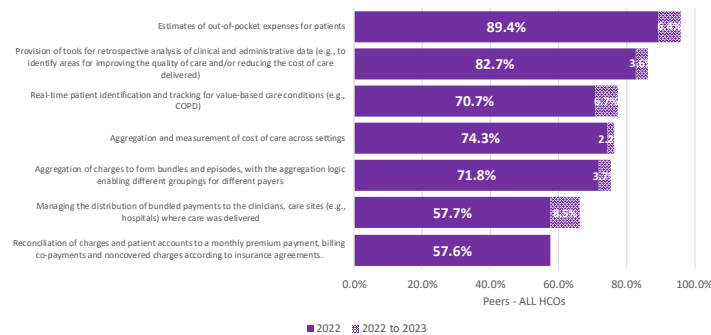
2 Financial Management

A second category assessed by the DHMW survey focused on varied aspects of an HCO's financial management practices. In this section, participants were presented with two distinct facets of an HCO's financial management effort:

Tech Enabled Revenue Cycle/Contracts Management Capabilities

Question 27

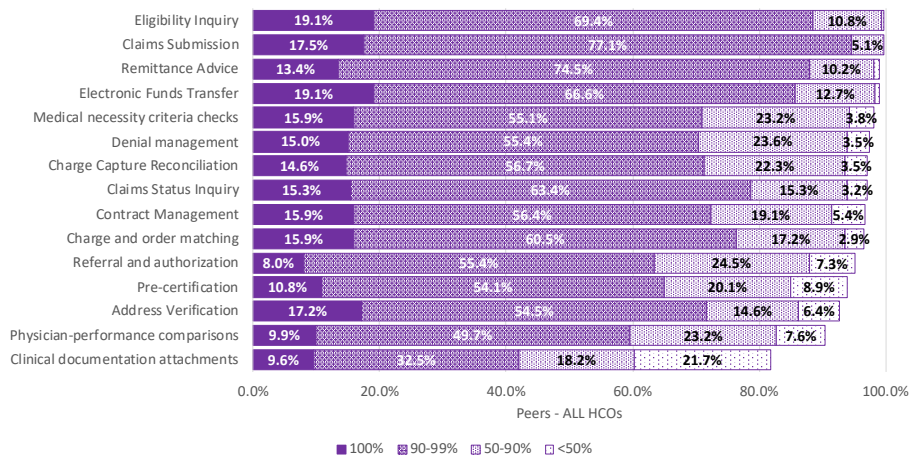
Which of the following deliverables does your organization's revenue-cycle and contracts-management application offer:



Usage of Automated Payer Activities

Question 28

What percentage of the following payer-related activities are accomplished using automated electronic routines and/or software?



Reflecting on the findings in this section, Pettit remarked that the financial management practices captured in the DHMW survey were “not too surprising.” As revenue-cycle management (RCM) activities and payers are critical to the survival of any healthcare organization, it’s understandable organizations will be well-positioned with technology to support activities impacting their revenue. “An essential fundamental function of any healthcare organization is Revenue Cycle Management,” he explained. “It is a company’s brain and bloodstream. Without RCM, revenue does not flow through the organization depriving it of much-needed cash flow for the organization to thrive and grow.”

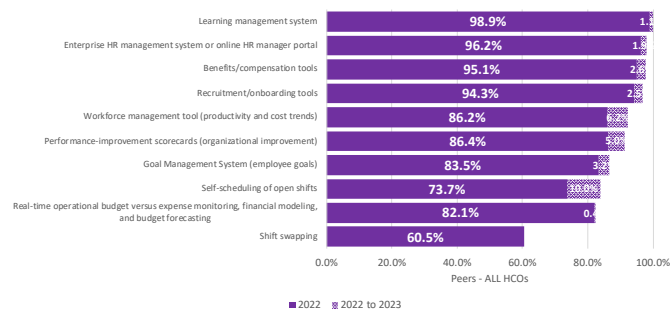
3 Personnel Management

The third and final category of questions included in the Administrative and Supply Chain section of the DHMW survey were designed to assess the HCO’s use of technology to support their human resource efforts. The following two questions were used to profile HCOs in this are:

Tech Enabled Employee Management Tools

Question 30

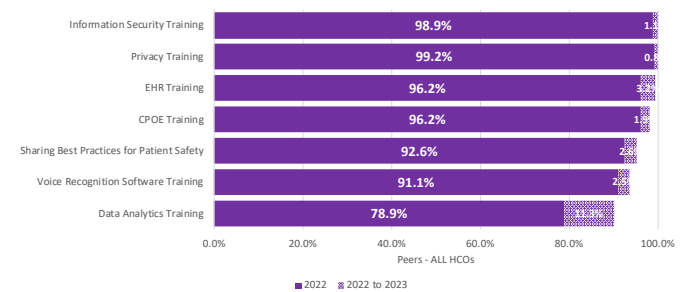
Which of the following management tools are available electronically/online to employees throughout your organization?



Computer-Based Clinical Education Offerings

Question 31

Which of the following types of computer-based clinical education offerings do you provide to clinicians in your organization



Perhaps one of the most significant findings in this section surrounds the percentage of HCOs supporting the switching of shifts via technology. Nurse scheduling software gives nurses more control over their schedules, allowing them to request time off or swap shifts with other nurses as needed. This can help improve their work-life balance because they can better plan their personal lives and reduce the stress of last-minute schedule changes. This is a critical area for HCOs struggling with clinician shortages, retention, recruitment and burn-out.

4 Final Thoughts and Considerations

HCOs face a multitude of challenges in effectively managing their administrative and supply chain operations. These challenges often lead to inefficiencies, waste, and potential errors, which can negatively impact patient care, financial performance, and overall operational success.

While HCOs have invested heavily in clinical systems over the past decade (e.g., EHRs), the need to invest in financial and operational systems has remained. Spurred on in large part by the industry’s push towards a value-based care system, healthcare providers need the availability of a full array of financial and operational data to effectively realize organizational efficiencies.

The pandemic has also made it clear that patient care, organizational strategy, operations and financial management are tightly intertwined—one cannot respond to challenges in one area without affecting the other. HCO finance, HR, and supply chain leaders own extremely important levers to ensure that the highest quality of patient care is available. The importance of drawing insights from operational data to improve planning and speed decision making has been brought into sharp focus throughout this crisis.

Investing in technology can be a powerful solution to address these challenges and enhance the efficiency, accuracy, and cost-effectiveness of administrative and supply chain processes. Some key considerations for HCOs looking to invest more in technologies to improve administrative and supply chain management, include:

- **Enhancing Data Management and Analytics:** Healthcare organizations generate vast amounts of data from various sources, including patient records, clinical data, financial transactions, and supply chain operations. However, managing and analyzing this data effectively can be a daunting task. Technological solutions such as data warehouses, business intelligence platforms, and data analytics tools can help healthcare organizations transform this data into actionable insights. These insights can be used to identify trends, optimize processes, make informed decisions, and improve overall performance.
- **Streamlining Administrative Processes:** Administrative tasks in healthcare, such as patient scheduling, appointment reminders, insurance claims processing, and billing, can be time-consuming and prone to errors. Automating these RCM tasks through technology can significantly improve efficiency, reduce errors, and free up staff to focus on more patient-centric activities. Electronic health records (EHRs), patient portals, and automated billing systems are examples of technologies that can streamline administrative processes.
- **Optimizing Supply Chain Management:** The healthcare supply chain is complex and involves managing a wide range of products, from medications and medical devices to laboratory supplies and surgical equipment. Technological solutions such as supply chain management (SCM) software, inventory management systems, and real-time tracking tools can help healthcare organizations optimize their supply chains, reducing stockouts, overstocking, and unnecessary costs.
- **Improving Patient Care Coordination:** Technology can facilitate better coordination of patient care across different providers and departments. EHR systems, secure messaging platforms, and telemedicine tools can enable seamless communication and collaboration among healthcare professionals, ensuring that patients receive consistent and high-quality care.
- **Enhancing Patient Safety and Quality:** Technology can play a crucial role in improving patient safety and quality of care. EHRs can help prevent medication errors by providing real-time alerts about potential drug interactions and allergies. Clinical decision support systems can guide clinicians in making evidence-based treatment decisions.
- **Reducing Costs and Improving Financial Performance:** Implementing technology solutions can lead to significant cost savings in various areas of healthcare operations, including administrative overhead, supply chain expenses, and patient care delivery. By automating tasks, improving efficiency, and reducing errors, healthcare organizations can optimize their resource allocation and improve their overall financial performance.
- **Preparing for Future Challenges:** The healthcare industry is constantly evolving, and healthcare organizations need to be prepared for emerging challenges and opportunities. Investing in technology can provide the agility and adaptability needed to navigate changes in regulations, patient expectations, and technological advancements.

In conclusion, investing in technology is essential for healthcare organizations to address the challenges and opportunities they face in administrative and supply chain management. By leveraging data and technology effectively, HCOs can improve efficiency, reduce costs, enhance patient care, and ensure their long-term sustainability in an ever-changing healthcare landscape.



About CHIME

The College of Healthcare Information Management Executives (CHIME) is an executive organization dedicated to serving chief information officers (CIOs), chief medical information officers (CMIOs), chief nursing information officers (CNIOs), chief innovation officers (CIOs), chief digital officers (CDOs), and other senior healthcare IT leaders. With more than 5,000 members in 58 countries plus 2 US territories and over 190 healthcare IT business partners and professional services firms, CHIME and its three associations provide a highly interactive,

trusted environment enabling senior professional and industry leaders to collaborate, exchange best practices, address professional development needs, and advocate the effective use of information management to improve the health and care in the communities they serve. For more information, please visit chimecentral.org.



About Digital Health Analytics

Digital Health Analytics (DHA) is a global market intelligence and survey research hub for digital health technology. Provided by the College of Healthcare Information Management Executives (CHIME), DHA was created in 2022 to supercharge organizations' digital health transformation capabilities by moving from a one-snapshot-in-time, static Most Wired survey to a 365/24/7 data and analytics resource. DHA is the gateway for provider organizations

and companies to better understand how digital technology supports leaders in transforming health and care and delivering data insights that help them make the greatest business impact possible. For more information, please visit dhanalytics.org.

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