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Successful

Digitalisation Pathways

HCO's Using Digital Tools to Rebound from Pandemic, Supply Chain Issues

The last 3 years have been very difficult times for healthcare organisations as they have faced and dealt with the challenges of COVID-19, supply chain disruptions, and staffing problems. The 2022 Digital Health Most Wired survey, conducted by CHIME, shows how facilities are increasingly turning to digital tools to address infrastructure, security, administrative/supply chain, analytics/data management, innovation and other clinical and business areas.

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key points

- The 2022 Digital Health Most Wired (DHMW) survey, conducted annually by the College of Healthcare Information Management Executives (CHIME), shows how facilities turned to digital tools to address several challenges in the recent years, including the impacts from COVID-19.
- 18 U.S. acute care organisations and 17 U.S. ambulatory organisations achieved the highest level of recognition. Many of them implemented advanced technologies, but they often leverage these technologies in innovative ways and have encouraged deep adoption across their entire organisation.
- Across the survey's nine sections, there are numerous of findings that show not only how care delivery organisations are rebounding from the crises of the past several years but also how they continue to advance their digital health agendas.

Results from 2022 Digital Health Most Wired Survey Show Digital Trends

Healthcare delivery organisations have faced a combination of historic global challenges over the past several years: pandemic, supply chain disruptions, and high inflation. These challenges have impacted clinical and business operations with a variety of outcomes and consequences.

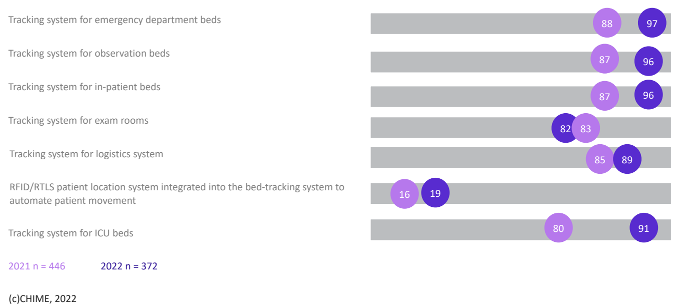
These impacts are evident in the 2022 Digital Health Most Wired (DHMW) survey, conducted annually by the College of Healthcare Information Management Executives (CHIME). This survey represents over 38,000 facilities from 10 countries, primary from the United States (U.S.). Those providers include organisations that serve patients across the continuum of care: acute care, ambulatory care, and long-term/post-acute care.

This year, 18 U.S. acute care organisations and 17 U.S. ambulatory organisations achieved the highest level of recognition, Level 10. In addition to meeting the criteria for levels 1–8, organisations at level 9 or 10 are often leaders in healthcare technology who actively push the industry forward. Not only have many of them implemented advanced technologies, but they often leverage these technologies in innovative ways and have encouraged deep adoption across their entire organisation. As a result, they are realising meaningful outcomes, including improved quality of care, improved patient experience, reduced costs, and broader patient access to healthcare services. Some of the advanced technologies used to achieve these outcomes include telehealth solutions, price-transparency and cost-analysis tools, access to data at the point of care, and tools to engage patients and their families throughout the care process.

Particularly related to the COVID-19 pandemic and resulting supply chain disruptions, the survey reports a historically high number of facilities achieving the highest level of recognition (Level 10) in the areas of Administrative & Supply Chain and Clinical Quality &

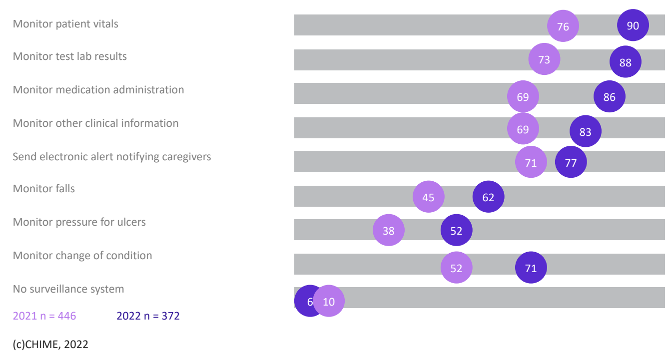
Safety as care delivery organisations rebound from this double hit.

Real-time insight into supply chains, product inventory, and bed/exam room tracking is important, but the criticality of such insight became evident over the past several years. As a result from the disruption of supply deliveries, unprecedented demand for clinical supplies, and skyrocketing emergency care demand, real-time monitoring became a paramount concern. Significant increases were reported by the DHMW survey in the use of bed/exam room tracking and patient-flow software systems as compared to 2021. Among intensive care units, an area especially hard hit by the pandemic, such tracking system use increased by 11% over the previous year.



Bed/Exam Room Tracking or Patient Flow Software

The unprecedented patient demand, especially in the areas of emergency and intensive care resulting from COVID-19 related illnesses, also impacted the extent to which care delivery facilities utilised digitally integrated clinical tools. Digitally integrated surveillance systems in the areas of monitoring patient vitals, monitoring test lab results, monitoring medication administration, and monitoring of other clinical information all increased by 20% or more over the past year.

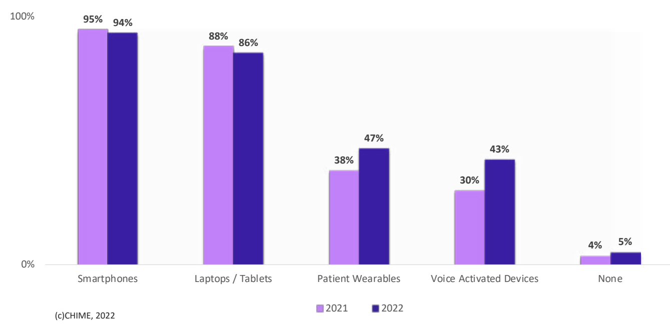


Surveillance System integrated with EHR

These results provide two important takeaways. First, leveraging digital technology to make the right information available to the right people when needed continues to be a key information technology objective. Second, the extremely high demand for clinical care for high-risk patients further increased the imperative to have digital tools integrating care into record keeping on a real-time basis. Between the high demand and staffing shortages, digitally supported care is critical to clinical quality and safety.

Across the survey's nine sections, there are numerous of findings that show not only how care delivery organisations are rebounding from the crises of the past several years but also how they continue to advance their digital health agendas. Areas ranging from wireless technology to analytics & data management to patient engagement show further adoption of digital technologies.

Infrastructure trends reported in the 2022 DHMW survey show significant year-over-year increases in mobile point of care devices (+9%) and traveling profiles (+8%) as the demand on clinical staff rapid response intensified during the pandemic and was exacerbated by clinical shortages. Furthermore, use of employee-owned devices for patient care has become near ubiquitous with 94% of facilities allowing use of employee-owned smartphones and 86% allowing use of employee-owned laptops/tablets for patient care.

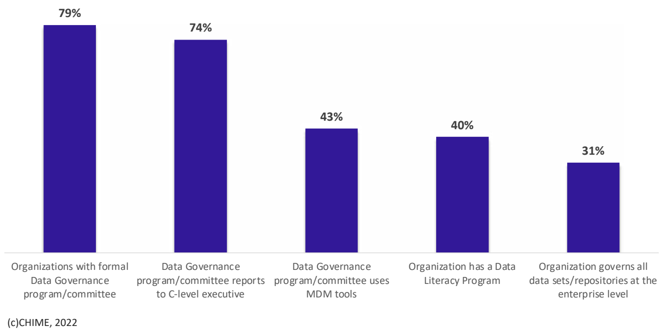


Adoption of Employee-Owned Devices in the Use of Patient Care

As widely promoted in trade show exhibitions and vendor advertisements, data analytics has been viewed as a growth area in health information technology. In fact, the survey does show significant growth in the use of near real-time analytics and in the delivery of data to clinical leaders. However, there is also evidence of gaps in adoption and level of sophistication.

Foundational components for clinical and business analytics, enterprise data warehouses (EDW) or operational data stores (ODS) exist in 94% of the responding facilities for their clinical and business intelligence efforts. But what is housed there varies: 69% send supply chain/ERP data to the EDW or ODS while only 39% send CRM data there. The survey also found that clinical quality metrics were the most commonly delivered for real-time analytics while only 45% delivered data related to social determinants of health.

Style of data governance and use of data governance tools provide an insight into the level of data management sophistication for care delivery organisations. While 79% of respondents have established a formal data governance program/committee, just 43% of them use master data management tools and only 31% govern all data sets/repositories at an enterprise level. This illustrates the evolution still ahead for most care delivery organisations.



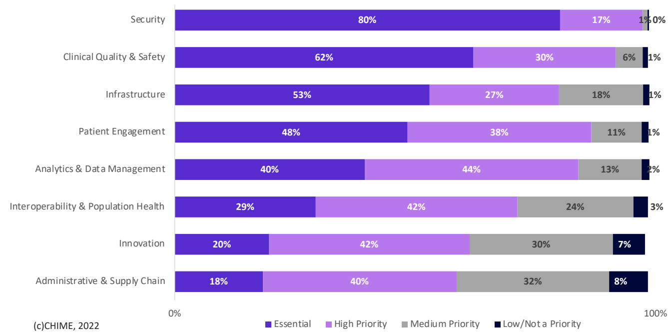
Adoption and Execution of Data Governance Program

Not surprisingly in this pandemic era, digital tools to remotely connect and engage with patients show some of the largest increases reported. Increasingly, care delivery organisations are creating dedicated digital officers to drive their digital health strategies which are often focused heavily on engaging patients outside of the facility. The survey reported 16% increases in the use of patient/family facing videos to educate patients and to share lab and test results and an 11% increase in such videos to address medication prescriptions and related matters.

Conversely, as the 2020 and 2021 hospitalisation spikes were replaced by somewhat smaller spikes in 2022, telehealth visits among reporting facilities declined by nearly 6% to just 13% of total visits. Particularly in the United States where payment methodologies may influence visits, there remains much to be done to drive care to the most effective, most efficient, and most convenient locus of care.

A new section to the 2022 DHMW survey focused on innovation. Investments in new technologies and digital solutions are clear drivers of innovation. While the ability to pursue such investments is affected by the resources available for such purposes, nearly all reporting organisations (96%) are looking to drive clinical innovation through investment in these solutions. More than 23% of all reporting organisations expect to spend 10% or more of their IT spend on experimentation/trials of technological innovation, new ideas, ventures, and related solutions. This illustrates not only how important investing in innovation is but also how many are aggressively pursuing these strategies to improve their ability to deliver care and achieve optimal outcomes.

So where does this level of investment put health care organisations on their transformational journey? Sixty-eight percent report they are on or ahead of their schedule in their digital transformation execution, compared to plan with the biggest challenges to realising a successful transformation being a lack of dedicated budget (20%), cultural resistance (15%), tendency for short-term planning over long-term planning (12%), and an over reliance on legacy technology (11%).



Organisational Priorities for 2023

Finally, the survey also asked participants to identify their organisational priorities for 2023. The highest reported priority, with 97% classifying this as an essential or high priority, was security. This was followed closely by clinical quality and safety with 92% rating this area as an essential or high priority and the third most important priority for 2023 by these respondents was patient engagement at 86%. All are consistent findings with expectations held by most and despite heavy focus and investment in these areas over the past few years, they remain at the top of most priority lists.

The primary survey is conducted each year between April and June; however, organisations may contact CHIME at any time to receive the current year's survey instrument and submit their data for scoring.
For more information, go to https://dhinsights.org/analytics and click on the I Am A New Provider Partner button. More detail on the 2022 Digital Health Most Wired survey can also be found in the National Trends Report which is available at https://dhix.dhinsights.org/wp-content/uploads/2022/11/2022-DHMW-National-Trends-Report.pdf.

Conflict of Interest

I am on contract with CHIME as their Chief Analytics Officer but I have no conflict or derive no financial gain from the publication of this article. ■

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