Sponsored By

WellStack semperis Artisight IMPULSE STRATEGIC SOLUTIONS

PHILIPS neteera luma

WHITE PAPER

THE FUTURE OF CARE SPACES

INNOVATIONS AND STRATEGIES FOR SUCCESS

Table of Contents

Executive Summary

Summarized insights from presentations by Becky Fox, Terri Couts, Maureen Nylin, Erin Langmead, Roxanne Foreman, Charity Darnell, Katherine Evans, Scott Raymond, Jonathon Copley, Tim Diamond, Joel Vengco, and Maulik Purohit.

Improving Patient Outcomes

This paper explores the emerging trends in healthcare technology and data utilization, emphasizing the need for effective change management, patient-centric approaches, and collaborative partnerships. The sources highlight the growing importance of data-driven decision-making in healthcare, extending beyond the implementation of individual technologies to focus on actionable insights that improve patient outcomes and enhance operational efficiency.

Several Key Themes

Importance of Change Management: Healthcare professionals desire influence, preparedness, and a clear understanding of the value associated with new technologies and processes. Effective communication strategies, comprehensive training, and a focus on the benefits for both patients and clinicians are crucial for successful adoption.

Patient-Centric Care: Meeting patients where they are and prioritizing convenience and personalized experiences are essential for improving compliance and outcomes. Remote monitoring, telehealth, and seamless data integration contribute to a more patient-centered approach.

Data as a Strategic Asset: The focus is shifting from individual devices to the data generated and its actionable insights. Healthcare organizations are striving to become patient-centric data companies, leveraging data to drive innovation, personalize care, and optimize operations.

Building a Robust Data Foundation: Healthcare data is often siloed and inconsistent, requiring a comprehensive data strategy to centralize, harmonize, and standardize information. This foundation enables robust analytics, AI applications, and real-time insights for informed decision-making.

Collaboration and Partnerships: Cross-industry collaboration is vital for driving innovation and addressing healthcare challenges. Organizations are seeking partners with expertise in data management, analytics, and AI to accelerate their digital transformation journey.

The sources collectively focus on the healthcare industry undergoing a significant transformation, fueled by advancements in technology and data utilization. This shift demands a comprehensive approach that prioritizes patient needs, empowers clinicians, and fosters collaboration across stakeholders to achieve the shared goal of better healthcare for all.

Fostering a Culture of Change and Innovation in Healthcare

Becky Fox, Former Chief Clinical Informatics Officer, Intermountain Health

Summary

Becky Fox explores the challenge of cultural change in healthcare settings, focusing on the importance of building a "state of readiness" for constant innovation and technological upgrades. Fox emphasizes the need for consistent communication and feedback, comprehensive training and support, and a culture of "always ready" to embrace change. She argues that organizations should identify "rock stars" who embody these qualities and empower them to lead and mentor others.

Main Themes

There's a great emphasis on cultivating a culture of change and innovation within healthcare organizations. Change is often perceived as difficult, but this perception can be shifted by fostering a culture of readiness. However, change is relative and feels less daunting when individuals are prepared and understand the benefits. By prioritizing communication, training, and empowerment, healthcare leaders can ensure that their teams are equipped to embrace change and drive positive outcomes for patients and staff alike.

What it Takes to Foster a Culture of Change and Innovation

Change is only hard for the unready. Organizations must proactively prepare and make a mindset shift toward embracing change. "We need to get to a place where instead of being unready, we're in a steady state of readiness, because we know that there's always going to be change," says Fox. Below are key ways to begin fostering a culture of change.

Shifting From Change Aversion to Change Readiness:
Healthcare organizations need to move beyond the perception of change as a disruptive force and cultivate a culture where change is embraced as an opportunity for growth and improvement.

- Identify "What's in it for me?" and communicate the benefits of change clearly to all stakeholders, including doctors, nurses, administrative staff, and patients. Clearly defining the mission, vision, and values of the team is essential for alignment and motivation.

The Importance of Communication and Feedback:
Consistent and transparent communication, coupled with effective feedback mechanisms, is crucial for ensuring successful change implementation.

- Organizations like Intermountain Health have implemented daily huddles that cascade information from the frontline to the CEO and back down, ensuring everyone is informed and feels heard. Organizations should strive to establish a consistent and transparent communication process regarding upcoming changes.

Empowering and Leveraging "Dream Teams":
Identify passionate, skilled, and communicative individuals within the organization and empower them to lead and drive change initiatives. Build teams have characteristics like creativity, strong communication skills, and a proactive mindset to pilot and lead change initiatives.

- Infuse "rockstars" throughout the organization that have the skills and leadership qualities of high-performing individuals by strategically placing them in different departments to facilitate cross-pollination and knowledge transfer.

The Role of Training and Support:
Providing adequate training and ongoing support is essential for equipping healthcare professionals with the knowledge and confidence to adapt to new technologies and processes.

- Training and support are essential for successful change implementation. Training should move beyond basic instruction to mastery, involving trainers in the planning process and ensuring ongoing support. Cross-training and talent mobility are encouraged to foster innovation and prevent knowledge silos.
- Partnering with vendors: Engage technology vendors to provide training and support, ensuring seamless technology integration and empowering staff to utilize new tools effectively.

Modernization and the Culture of Innovation:
Embracing technological advancements in healthcare requires a parallel shift in organizational culture towards innovation and adaptability.

- Encourage the development of strong social networks within the organization to facilitate idea sharing, collaboration, and the spread of innovation.
- Cultivating a culture of innovation requires assessing the existing culture, providing exposure to new ideas, encouraging collaboration, and fostering social networking skills. Leaders should "walk the walk" by embracing change and demonstrating its value.

"Technology is going to be more successful in a culture of innovation. Mindset and changing together make a difference," says Fox.

Creating an Innovative Command Center Approach to Healthcare

Terri Couts, Digital Information Officer, Guthrie Clinic

Summary

Terri Couts covers the implementation of a command center system for patient care at Guthrie Clinic, an integrated health system. The command center utilizes a central location to manage virtual nursing, centralized telemetry, tele-ICU, and a transfer center, all with the goal of improving patient experience, care coordination, and workforce efficiency. She also addresses the importance of choosing the right technology partners, developing a compelling business case, and measuring the success of the system through data and outcomes.

Main Themes

Workforce shortages in a rural area and the pandemic's strain on resources necessitated innovative solutions for patient care delivery. "Workforce is a huge challenge in our area. We have to expand our reach, " says Couts. Guthrie Clinic's implementation of a centralized command center model to address healthcare delivery challenges in a rural setting. Guthrie Clinic's command center approach demonstrates a forward-thinking, data-driven response to the evolving challenges of healthcare delivery. By prioritizing scalability, strategic partnerships, and a focus on staff well-being, this model has yielded demonstrable improvements in patient care and organizational efficiency. The clinic's success and expansion plans suggest this approach could serve as a model for other healthcare systems facing similar pressures. "We didn't build our solution to scale initially, but we built it knowing that it needed to scale," says Couts.

Organizations that create a centralized hub housing diverse functions like virtual nursing, centralized telemetry, transfer center, bed placement, and security could have goals such as:

- Enhanced patient experience and outcomes
- Improved team collaboration and workforce efficiency
- Data-driven decision making by bringing clinical and operational data together Key Benefits Realized: Reduced falls and errors
- Decreased blood wastage and readmissions
- Improved staff recruitment and retention
- Increased capacity to accept patient transfers

Steps for Creating Innovative Command Center

- **Partnerships:** Emphasis on strategic partnerships with vendors, prioritizing scalable and collaborative solutions over transactional relationships. "It is something that you need that you should have to have a partner or somebody in that table with you that takes you to actually Co develops with you that understands you that your organization because it is very different," says Couts.
- **Scalability and Expansion:** Successful model being extended to ambulatory care facilities, home health and hospice, remote patient monitoring, and potential support for other health systems.
- **Staffing Model:** Focus on cross-functional synergy among nurses with varied expertise. Central location, separate from hospitals, is beneficial to avoid disruption and foster a distinct team identity. Experienced nurses (minimum 5 years) required for specialized roles. Considered a desirable and sought-after position within the organization.

Virtual Nursing Technology

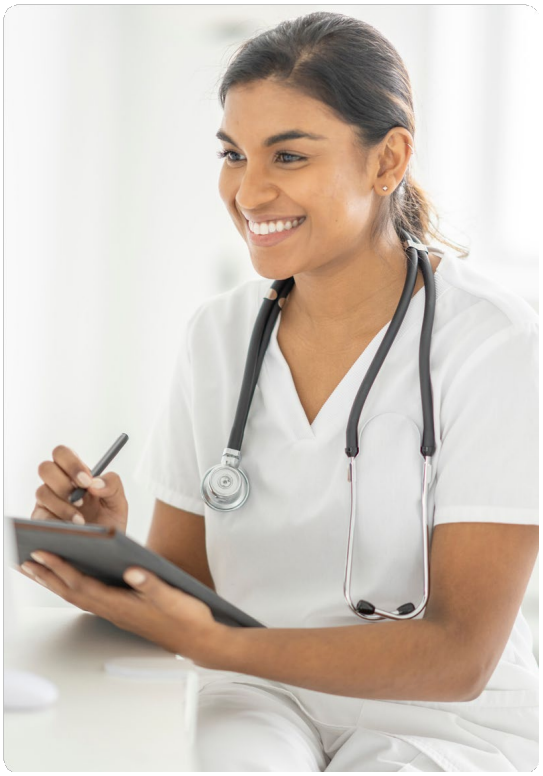
Erin Langmead, Director if Clinical Informatics, WellSpan

Summary

Erin Langmead focuses on the implementation of virtual nursing technology at WellSpan Health. Langmead details the program's origins, its successful rollout across multiple hospitals, and the positive impact it has had on patient care and nurse workloads. She also discusses the challenges of integrating this technology, such as addressing concerns about nurse burnout and ensuring proper training and support for staff.

Main Themes

Virtual nursing aims to alleviate the increasing documentation burden on nurses, freeing them to focus on direct patient care. Concerns exist about potential unintended consequences of virtual nursing, such as shifting responsibilities rather than reducing workload, and the potential for exacerbating existing staffing issues. WellSpan Health's successful implementation of virtual nursing technology across its hospitals showcases its potential to revolutionize patient care and address nursing shortages.

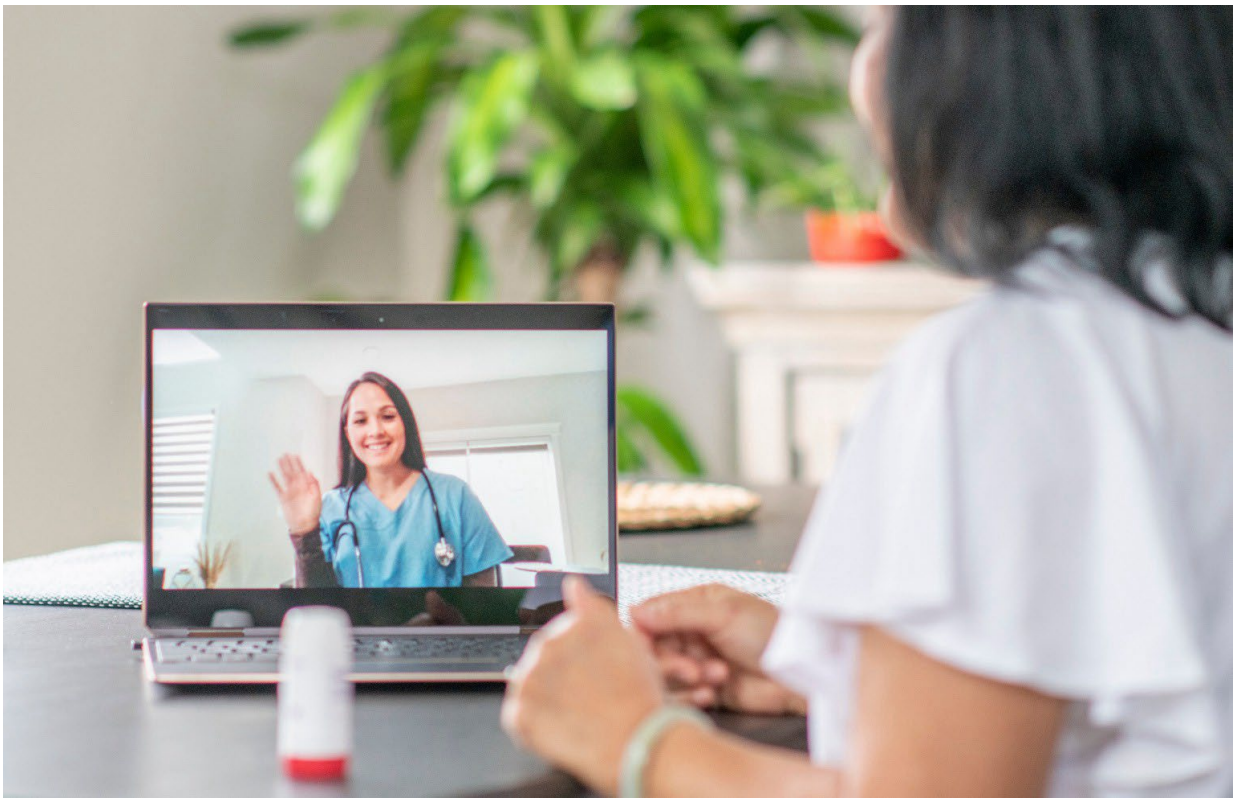


WellSpan Health's implementation:
The organization rapidly deployed virtual nursing technology across its hospitals, with impressive results in fall reduction, patient satisfaction, and discharge readiness. They focused on these key areas:

- **Focus on efficiency and workload reduction:** Virtual nursing initiatives are geared towards streamlining processes like admissions assessments and education, freeing up nursing time.
- **Expanding applications:** Virtual nursing is expanding beyond observation and step-down units to include critical care, emergency departments, and even home-based settings.
- **Leveraging AI and automation:** There is significant interest in utilizing AI for tasks like real-time documentation and code support, aiming to further reduce manual workload.
- **Potential unintended consequences:** Concerns exist about the potential for increased workload despite technology implementation, as seen with previous transitions like electronic health records.
- **Impact on staffing and work-life balance:** The shift towards virtual nursing raises questions about its impact on existing nursing roles, work hours, and the attractiveness of the profession.

Conclusion

Overall, Langmead highlights the promise of virtual nursing technology in transforming healthcare delivery, but also emphasizes the need for careful consideration of potential challenges and unintended consequences. Balancing technological advancements with the needs and well-being of nurses will be crucial for successful and sustainable implementation.



Remote Patient Monitoring (RPM) and Chronic Care Management

Maureen Nylin, Clinical Nursing Informatics, Genesis Health System

Summary

Maureen Nylin with Genesis Health System explains the benefits of RPM for patients, particularly in terms of improved health outcomes and reduced costs. She highlights the importance of integrating data from RPM devices into existing healthcare systems to make it more effective and efficient.

Main Themes

Remote patient monitoring (RPM) can significantly improve patient outcomes and reduce costs. RPM technology empowers patients to take control of their health and implementing RPM requires careful consideration of clinical, financial, and technical aspects. Moreover, data integration and analysis are crucial for maximizing the impact of it.

Benefits of RPM

- **Improved patient outcomes:** Studies show significant decreases in A1C and blood pressure levels in patients using RPM. "It's about changing people's lives. You want to do the right thing for the right reasons," says Nylin.
- **Reduced hospitalizations and emergency visits:** Continuous monitoring allows for timely interventions, preventing complications and reducing the need for acute care.
- **Increased patient engagement:** RPM tools provide patients with real-time data and insights, empowering them to actively participate in their care.

Financial impact and reimbursement opportunities: Healthcare providers can bill for RPM services using specific device and clinical time codes. In addition, improved patient outcomes lead to reduced healthcare utilization and lower overall costs. Finally, effective RPM implementation can create a new revenue stream for healthcare organizations.

Technical Considerations

- **Technology selection:** Choose RPM devices and platforms that meet the specific needs of the patient population and integrate seamlessly with existing systems.
- **Data management:** Establish efficient workflows for collecting, analyzing, and sharing patient data.
- **Security and privacy:** Ensure compliance with HIPAA regulations and protect patient data.

Challenges and Opportunities

- **Data overload:** The abundance of data generated by RPM can be overwhelming for clinicians. AI and machine learning tools can help analyze and interpret this data.
- **Health equity:** Access to RPM technology and support is not equal across all populations. Strategies are needed to ensure equitable access to these services.
- **Integration with existing workflows:** Successfully implementing RPM requires integrating new technologies and processes into existing clinical workflows.

Conclusion

RPM and chronic care management represent a significant opportunity to transform healthcare delivery. By leveraging technology to empower patients and improve care coordination, we can achieve better outcomes, reduce costs, and create a more equitable healthcare system.

Asynchronous Care

Roxanne Foreman, VP Clinical Applications, Marshfield Clinic

Summary

Roxanne Foreman, a healthcare professional, discusses her experience working with asynchronous care programs at a healthcare system in Wisconsin. She highlights two specific programs: a 24-hour virtual care service that allows patients to avoid unnecessary visits to the clinic and a program that provides proactive monitoring for patients with implantable defibrillators. Foreman emphasizes the benefits of asynchronous care, particularly in reaching patients in rural areas, reducing unnecessary visits, and improving patient satisfaction. She also discusses the system's commitment to providing translation services for diverse populations.

Achieving Asynchronous Care

- **Meeting patients where they are:** Marshfield Clinic is focusing on asynchronous care models to expand healthcare access for patients in largely rural areas, serving their needs without requiring them to physically come to the clinic.
- **Utilizing technology to improve care:** The clinic is leveraging digital platforms and technology to deliver care remotely, improve efficiency, and address staffing challenges.
- **Expanding asynchronous care models:** Marshfield Clinic is exploring the application of successful asynchronous care models to other health conditions beyond the current initiatives.

Core Ideas

- **MyWay - 24/7 Virtual Nurse Line:** To address common concerns and triage patients, especially for situations where an immediate in-person visit might not be necessary (e.g., a child's cough). This was offered as a free service to Marshfield Clinic health plan members and at a fixed rate for other payers. There is a high patient satisfaction and significant adoption. In addition, there were reduced unnecessary ER visits and strain on in-person clinic resources.

'

- **Anticoagulation Management Program:** This helped to provide comprehensive remote monitoring and support for patients on anticoagulation therapy. Features included proactive monitoring of INR levels and medication adherence, and timely intervention and communication regarding lab results and medication adjustments. Over 4000 patients were enrolled. There was also a significant reduction in emergency room admissions related to anticoagulation. Finally, we reduced staffing needs through efficient digital monitoring and communication.
- **Addressing Language Barriers:** Another challenge we had was to serving a diverse patient population with large Hispanic and Hmong communities. To help with this, we implemented translation services to ensure effective communication and equitable care.

Future Directions

- **Optimizing existing programs:** Exploring digital communication methods like texting to further enhance patient engagement and reduce reliance on phone calls.
- **Expanding to other conditions:** Identifying other health conditions, such as diabetes, where similar remote monitoring and management programs could be beneficial.

Overall, Marshfield Clinic's initiatives highlight the growing importance of asynchronous care models in delivering accessible, efficient, and high-quality healthcare, particularly in rural areas facing geographical and resource limitations.

Digital Patient Experience

Charity Darnell, VP, Chief Clinical Informatics Officer, Cook Children's

Summary

Charity Darnell with Cook Children's discusses the patient experience at a healthcare system. Darnell, a nurse, discusses the organization's efforts to improve patient care by using technology. She describes a comprehensive program that integrates virtual care, telehealth, and entertainment systems into a user-friendly platform.

Main Themes

- **Patient-centric design:** Cook Children's prioritizes patient needs and feedback in designing its digital platform. This is evident in their focus on features like ordering food, accessing entertainment, and understanding medical information through user-friendly interfaces.
- **Empowerment and transparency:** The digital platform empowers patients and families by providing them with direct access to information, resources, and control over their healthcare experience.
- **Integrated care:** Cook Children's seamlessly integrates virtual care, telehealth services, and remote monitoring into their system, extending care beyond the hospital walls.
- **Support and education:** Recognizing that technology can be overwhelming, Cook Children's provides robust support through their Tech Zone and dedicated healthcare technologists who assist patients and families with navigating the digital tools.

Insights from Cook Children's

- **Customized MyChart Platform:** Serves as a central hub for patients to manage various aspects of their care, including accessing medical records, viewing educational materials, and communicating with their care team.
- **Inpatient Virtual Care:** Enables remote consultations and specialized services for patients at Prosper Campus, bridging the geographical gap with their main campus.
- **Digital Whiteboard:** Promotes transparency and keeps patients informed by displaying real-time information like care team members, dietary needs, and staff entering the room.
- **Telehealth Navigator:** Streamlines telehealth visits for both patients and clinicians, simplifying the process and ensuring easy access to interpreters when needed.
- **Entertainment and Education:** Recognizes the importance of normalcy and comfort for pediatric patients, providing access to entertainment options and educational resources tailored to their needs.
- **Tech Zone:** A dedicated physical space and a virtual resource where patients and families can access technology support, purchase devices, receive personalized assistance with setup and troubleshooting.

Conclusion

Cook Children's is a leading example of how healthcare organizations can leverage technology to improve the patient experience. Their patient-centric approach, commitment to empowerment and transparency, and dedication to providing comprehensive support makes their digital platform a valuable resource for patients and families alike. By focusing on integration and accessibility, they ensure that technology enhances, rather than complicates, the delivery of quality care.

Building a Value-Based Care Model for Cardiology

Katherine Evans, President, Novocardia

Summary

Katherine Evans, president of Cardiovascular America, discusses the company's innovative care model for cardiology. The model aims to improve patient experience, reduce healthcare costs, and increase efficiency by utilizing technology, a hybrid approach to virtual and in-person care, and a focus on preventative care. Evans highlights the company's success in reducing hospital admissions, improving patient outcomes, and sharing the savings achieved with healthcare providers through value-based care arrangements.

- **Focus on Heart Failure:** Recognizing heart failure as a significant driver of healthcare costs and a major health concern, the program focuses heavily on its management. Our program leverages technology to manage patients with heart failure, including home-based diagnostics and telehealth visits. "Ten percent of the Medicare population has heart failure is either the number one or number two driver of readmissions for pretty much every health [condition]." Says Evans.
- **Technology-Driven Approach:** Technology is heavily integrated into our care model, including remote patient monitoring (RPM), connected health monitoring (CHM), home-based diagnostic, tools like mobile X-ray machines, and EHR integration for seamless data sharing.
- **Value-Based Arrangements and Partnerships:** Cardiovascular America engages in various value-based care arrangements with payers, including total cost of care arrangements, condition-specific bundles, and shared savings models. There's also the importance of customization and adaptability in these arrangements to cater to specific payer needs.

  In addition, with the challenge of integrating digital tools for both patients and providers, there's the need for dedicated support and user-friendly interfaces, which is where our partnerships come into play.
- **Scalability and Growth Strategy:** While currently focused on deepening penetration in existing states, Evans acknowledges the potential for wider expansion through strategic partnerships or network development. Focus on replicating the successful care model rather than expanding geographically for now.

Enhancing Care Delivery through Technology and Partnerships

Scott Raymond, Chief Innovation and Information Officer, Nebraska Medicine

Summary

Scott Raymond, Chief Information and Innovation Officer at Nebraska Medicine, discusses an innovative approach to integrating technology and fostering partnerships to enhance care delivery and improve patient outcomes. Raymond highlighted Nebraska Medicine's commitment to leveraging technology to address key challenges in healthcare, including staff shortages and the evolving needs of patients and their families.

Main Themes

Rethinking Care Delivery: A central element of Nebraska Medicine's innovation strategy is the creation of its Innovation Design Unit (IDU). This unique initiative combines a 17-bed clinical care unit with an attached innovation lab, enabling the seamless transition from ideation and testing to implementation of new technologies and care models. The unit is designed with flexibility in mind, featuring modular "DIRTT" walls that allow for easy reconfiguration of the space to accommodate different patient needs and care delivery models. Every employee in the IDU is hired with a mindset of innovation and change, understanding that their work environment and the technologies they use will be constantly evolving. This commitment to embracing change is crucial for successfully piloting and implementing new solutions within a clinical setting.

Prioritizing Patient and Clinician Experience: IDU focuses on improving both the patient and clinician experience. Key features of the unit include:

- Patient Interactive Experience: Digital whiteboards provide patients with real time information about their care team, medications, scheduled appointments, and educational resources. They also offer access to entertainment options and communication tools, allowing patients to stay connected with loved ones.
- Virtual Nursing: The IDU integrates virtual nursing capabilities, allowing clinicians to provide on-demand care without physically moving from room to room. This technology helps address staffing challenges while ensuring patients receive timely attention.
- Seamless Technology Integration: The IDU leverages a variety of technologies, including Real-Time Location Systems (RTLS), electronic health record system, and smart beds, to create a seamlessly integrated experience for both patients and clinicians.
- Cultivating a Culture of Innovation: Beyond the physical space and technology infrastructure, Raymond stressed the importance of establishing an innovation operating model to guide the IDU's work. This model includes a structured process for ideation, solution development, piloting, evaluation, and scaling of successful innovations.
    - Nebraska Medicine also established various committees, including an External Advisory Board, to ensure their innovation efforts align with community needs and enterprise priorities. To manage the influx of ideas and avoid overwhelming the system, the IDU will initially focus on projects from trusted partners and clinical practice committees before opening up to frontline staff suggestions.

Measuring Success and Sharing Knowledge

A key aspect of the IDU's approach is the emphasis on measuring the impact of innovations and sharing lessons learned, both internally and externally. This commitment to data-driven decision-making and knowledge dissemination will help ensure that successful innovations are scaled and adopted across the healthcare system, ultimately leading to improved outcomes for patients and clinicians alike.

By combining a state-of-the-art facility, a dedicated team of innovative thinkers, a robust operating model, and a commitment to collaboration and knowledge sharing, Nebraska Medicine's Innovation Design Unit serves as a model for healthcare organizations seeking to leverage technology and partnerships to transform care delivery and shape the future of healthcare.

Patient Growth vs Provider Supply

Jonathon Copley, Chief Innovation and Digital Officer, Franciscan Health

Summary

Jonathon Copley discusses the challenges facing the healthcare system, particularly the shortage of clinicians and the need to improve the provider experience. He believes that technology can play a key role in solving these problems by automating tasks, reducing administrative burden, and providing real-time access to patient information.

Main Themes

- **Healthcare Provider Shortage:** The most significant challenge facing the healthcare system is the shortage of clinicians, particularly nurses. This shortage impacts patient care, discharge times, and reliance on expensive traveling nurses.
- **Leveraging Technology to Address the Shortage:** Technology, particularly AI and virtual care solutions, can bridge the gap created by the shortage. These technologies can streamline workflows, improve documentation efficiency, and allow clinicians to focus on direct patient care.
- **Focusing on Provider Experience:** To successfully implement new technologies, the focus must shift from the patient experience (already robust in this system) to the provider experience. This involves providing appropriate training, ensuring user-friendly interfaces, and demonstrating tangible benefits like reduced workload and increased time with family.
- **Data-Driven Insights and Governance:** Understanding data trends, like peak demand times versus staffing levels, allows for strategic deployment of technology to maximize its impact. Additionally, establishing governance models and policies around data usage and AI training are crucial for ethical and effective technology implementation.

Putting it to Practice

- **Use Technology as a Solution:** Virtual nursing, digital assistants, and AI-powered documentation tools can alleviate the pressure on clinicians during peak demand periods.
- **Achieve Provider Buy-in:** Clinicians are enthusiastic about the potential of technology after experiencing its benefits in a simulation lab.
- **Educated Leadership:** Some organizations have infrastructure modernization challenges, especially in older facilities – not to mention challenges with regulatory landscapes, including licensing digital assistants. The opportunities lie in educating leadership about AI's potential and utilizing governance models to guide its ethical implementation.

Optimizing Healthcare Operations and Revenue Cycle Management

Tim Diamond, Chief Information Officer, Methodist Hospitals

Summary

Tim Diamond discussing efforts to improve efficiency in healthcare through a system that automatically calculates patient care levels.

Optimizing Healthcare Operations and Revenue Cycle Management

Below are strategies for improving efficiency and revenue capture within a healthcare setting.

- **Focus on Process Improvement:** Diamond emphasizes streamlining workflows and eliminating redundant processes. He highlights successful initiatives that have "reduced growing revenue" by optimizing existing programs.
- **Technology as an Enabler:** Diamond suggests using technology to automate tasks and improve data capture. He references a system that helps "calculate [and] determine the different level[s]" of care, presumably to ensure accurate billing and coding.
- **Addressing Physician Concerns:** Diamond acknowledges potential resistance from physicians accustomed to traditional methods. He stresses the importance of communicating the benefits of new systems, particularly the ability to free up time for patient care.
- **Financial Sustainability:** The speaker highlights the need for creativity in managing revenue, particularly in environments with a high percentage of Medicare and Medicaid patients. He alludes to leveraging equipment and technology to achieve financial stability.

The Importance of a Data-Driven Approach

Joel Vengco, CDO, Hartford HealthCare

Summary

Joel Vengco, the Chief Information Digital Officer for Hartford HealthCare, discusses the importance of data in transforming healthcare and shares Hartford HealthCare's strategy for achieving this goal. Vengco emphasizes the need for a patient-centric data company and highlights their vision to create personalized, coordinated care.

Main Themes

- **Data as the Foundation:** "It's all about the data. And I would argue that we want to be a patient-centric data company," says Vengco. Data is the bedrock of all digital transformation initiatives. Now more than ever, there is the need for healthcare to embrace data to fuel innovation and personalization.
- **Patient-Centric Approach:** Hartford HealthCare's vision is to deliver trusted, personalized, and coordinated care. Organizations should know the individual patient, orchestrate their care journey, and provide seamless experiences across all touch points.
- **Cloud Migration and Data Platform:** Hartford HealthCare is transitioning from a traditional data center model to a cloud-based infrastructure hosted on Google Cloud Platform (GCP). This transition enables the creation of a robust data platform called H2D2 (Hartford HealthCare Data and Digital Platform), a data lake house architecture that centralizes and harmonizes data from various sources.
- **Empowering Citizen Data Analysts:** A key aspect of the data strategy is empowering business users to become citizen data analysts, granting them access and tools to analyze data and derive insights independently.
- **Real-Time Data and Analytics:** While the focus is on building a robust data foundation, Vengco acknowledges the need for real-time data, particularly in operational areas like command centers. The organization is exploring real-time streaming data to optimize patient flow and resource allocation.

Insights from Use Case

- Digital transformation is a multi-faceted journey: It involves cloud migration, data platform development, and building digital tools for new patient and staff experiences. These initiatives are being pursued in parallel rather than sequentially.
- Funding for digital transformation: Hartford HealthCare is taking a self-funded approach, reinvesting savings from cloud migration into data platform development and digital initiatives. They project $40 million in savings over 10 years.
- The H2D2 data platform: This platform aggregates all data types, utilizes a unified data model, and leverages partners like Well Stack for efficient data ingestion and pipeline creation.
- Early successes: Hartford HealthCare is seeing early successes in utilizing data for patient access optimization, clinician empowerment through AI agents, and improving patient flow through data-driven insights.
- Data governance: The organization has a well-defined data governance model with eight workgroups focused on various data domains. The challenge lies in accelerating the governance process and ensuring organizational buy-in.

Conclusion

Hartford HealthCare is pursuing a data-centric approach to digital transformation, aiming to deliver personalized and coordinated patient care. The organization is making significant investments in cloud infrastructure and data platform development, while simultaneously empowering business users to leverage data for decision-making. Their journey highlights the complexities and opportunities associated with leveraging data to drive innovation and improve patient experiences in healthcare.

The Neuroscience of Influence: Making Your Case for Change

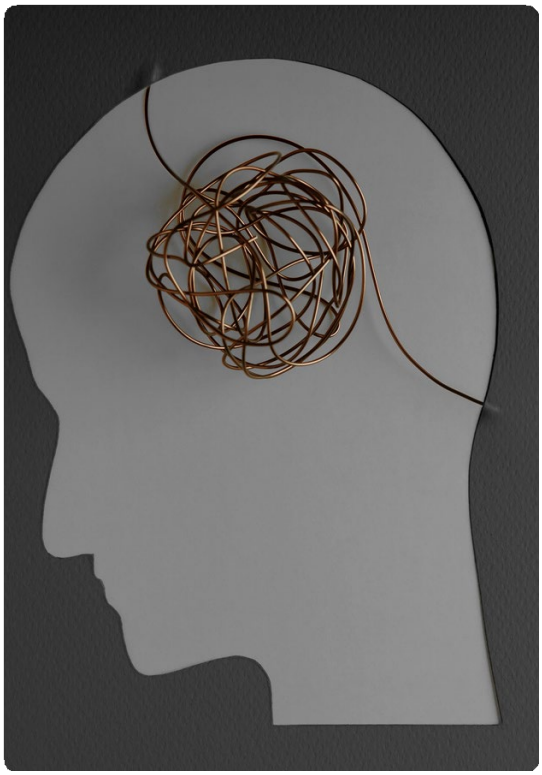
Maulik Purohit, Chief Innovation Officer, PAM Health

Summary

Maulik explores the connection between neuroscience, stress, and leadership, highlighting how understanding brain function can improve leadership skills and organizational performance.

Main Themes

- **Leadership Requires Unlearning:** Effective leadership involves "unlearning" ingrained habits that may no longer serve us. This is crucial as past success does not guarantee future success.
- **Stress Impacts Brain Function:** There are physiological effects of stress, particularly the impact of prolonged cortisol elevation on the prefrontal cortex (cognitive function) and hippocampus (memory). Chronic stress can literally cause these areas to decay, impairing decision-making and emotional regulation.



Stress Affects Leadership in Two Ways:

- **Emotional Instability:** Stress hinders emotional control, leading to unpredictable behavior and inconsistent leadership.
- **Negative Communication**: Stressed leaders often struggle with clear and positive communication, impacting team morale and performance.

Five Pillars of Health for Stress Management to Combat Stress and Improve Brain Function

1. **Connect:** Build strong relationships and connections with yourself, peers, and a coach/mentor.
2. **Relax:** Engage in relaxation techniques like the breathing exercise demonstrated in the presentation.
3. **Sleep:** Prioritize quality sleep, especially between 10 PM and 2 AM, when the brain replenishes most of its energy (ATP).
4. **Move:** Incorporate regular physical activity into your routine.
5. **Nourish:** Maintain a healthy diet to fuel your brain and body.

Putting it to Practice

- **The Importance of Breathing:** Correct breathing techniques can significantly improve brain function by enhancing the flow of information and activating the prefrontal cortex. "This person has a little bit of breathing that balance, meaning they can handle that flow of information better."
- **Sleep Deprivation Impairs Cognitive Performance:** The detrimental effects of insufficient sleep, demonstrating through Functional MRI (fMRI) scans, show how sleep deprived brains struggle to activate key areas for cognitive tasks.
- **Knowing Yourself Through Data:** Take an objective self-assessment using tools like personality tests (Briggs Myers, Hogan) to gain a deeper understanding of your strengths, weaknesses, and tendencies.
- **Value of Coaches and Mentors:** Coaches provide invaluable external perspectives, helping individuals identify blind spots and develop strategies for improvement.
- **Prefrontal Cortex vs. Limbic System:** There is a constant interplay between the rational prefrontal cortex and the emotional limbic system (amygdala). Mastering this balance is crucial for making sound decisions and avoiding impulsive reactions. 99% decisions are made by this part of the brain [limbic system] for most people. And then justified by this part of the brain [prefrontal cortex].
- **Engaged Employees Lead to Better Outcomes:** Engaged employees contribute to increased productivity, safety, and retention, ultimately leading to cost savings and higher profitability.

Conclusion

Overall, it's important to incorporate neuroscience principles into leadership development and organizational strategy. By understanding the brain's response to stress and implementing strategies to optimize brain function, leaders can create healthier, more productive, and successful teams.

Building a Roadmap for Successfully Deploying New Technology in Health Systems

This covers key takeaways from a workshop on building a roadmap for successfully deploying new technology in health systems. The workshop focused on six key phases of technology deployment, the importance of stakeholder engagement, and change management strategies to encourage adoption. It also includes case studies of three teams who tackled specific challenges within their respective health systems, such as addressing staffing shortages, enhancing patient engagement, and leveraging data to improve healthcare access.

Overall Process

The workshop outlined a six-phase process for technology deployment:

1. Identifying needs
2. Vendor selection
3. Pilot testing
4. Full implementation
5. Adoption and training
6. Monitoring and evaluation

Core Themes

Several themes emerged as crucial for successful technology implementation:

- **Comprehensive Stakeholder Engagement:** Engaging all relevant stakeholders, including often overlooked groups like regulatory/compliance, facilities, and marketing, is essential. Understanding their levels of influence, interest, and preferred communication methods is key. As Team 1 highlighted, "Expanding Stakeholder Groups" beyond initial assumptions is critical for buy-in and smooth implementation.
- **Focus on Joy and Satisfaction:** Technology should aim to improve both clinician and patient experiences. Addressing burnout and "bringing the joy back to medicine" (Team 1) are crucial for successful adoption.
- **Data-Driven Decision Making:** Data should inform every stage, from identifying needs and prioritizing solutions to measuring success. Team 3 emphasized the need to collect the right data, address potential skepticism, and use insights to guide an iterative "land and expand" approach.
- **Change Management as a Core Element:** Proactive change management is vital to address resistance, build excitement, and ensure smooth transitions. Strategies like clear communication, robust training and support, and user feedback loops are essential.
- **Iterative Development and Piloting:** Phased implementation, pilot testing, and iterative development allow for refinement and value demonstration before full-scale deployment. This minimizes risk and allows for adaptation based on real-world feedback.

Team-Specific Insights

Addressing Staffing Insufficiency

- Proposed a "Pulse Center" – a virtual nursing and tele-sitter care model.
- Emphasized the importance of engaging executive leadership and recognizing the influence of clinical informatics and project management within IT.
- Championed "bringing the joy back to medicine" as a core change management strategy. Enhancing Patient Engagement
- Advocated for a patient-centric approach, involving patients in design to ensure solutions meet their needs.
- Highlighted the need for readiness assessments and collaboration to align patient needs with clinician workflows.
- Emphasized champion identification, incentivization, and using metrics like engagement rates and health outcomes to measure success.

Using Data to Solve Demand

- Focused on defining access, understanding the target population, and identifying the point of access to ensure solutions address the right needs.
- Stressed the need to build trust and credibility around data-driven solutions.. Highlighted the importance of providing the "right care, at the right time, through the right channel."
- Advocated for an "evangelism task force" to promote data-driven approaches and inspire stakeholders.

Summary

By prioritizing stakeholder engagement, change management, data-driven decision making, and iterative development, healthcare organizations can maximize the chances of successful implementation and ultimately improve patient care and overall healthcare experiences.

Conclusion

In conclusion, the points covered offer a comprehensive overview of current trends and innovations in healthcare, emphasizing patient-centric care, data utilization, technological advancements, and collaborative strategies.

- **Patient-centric approach:** Several sources highlight the shift towards a patient-centered healthcare model. For instance, Charity Darnel discusses Franciscan Digital's efforts to enhance patient experience through digital platforms. Roxanne Foreman presents the benefits of asynchronous care models like the 24-hour nurse line and the "MyWay" platform, allowing patients to access care conveniently. Katherine Evans emphasizes the importance of patient onboarding and education when implementing digital tools, highlighting the need for a dedicated technology specialist to support patients in adopting these tools.
- **Data as a strategic asset:** The sources consistently emphasize data as a critical driver for improved healthcare outcomes and operational efficiency. Joel Vengco from Hartford HealthCare underlines the importance of building a robust data foundation to enable advanced analytics and AI capabilities. He describes the "HD2IN Jordan" initiative, which aggregates various data types into a centralized platform, enabling access for diverse stakeholders. Terri Couts, discussing command centers, emphasizes the power of integrating clinical and operational data to drive insights and improve patient care. She highlights the importance of using data to support business cases and demonstrate the return on investment for innovative solutions.
- **Technological Advancements:** The sources explore various technologies transforming the healthcare landscape. Telehealth, remote patient monitoring, and virtual nursing emerge as key trends. For example, Becky Fox advocates for a shift from "adoption to mastery" in training programs, underscoring the need for ongoing support and integration of training into workflows. She also emphasizes leveraging "dream teams" to pilot and scale new technology implementations effectively. Terri Couts shares how virtual nursing, implemented through a command center model, helps address staffing challenges and enhances patient safety.

- **Collaborative Strategies:** The sources highlight the importance of collaboration within healthcare organizations and with external partners. Becky Fox stresses the need to involve passionate individuals in change management initiatives and the significance of communication and transparency throughout the process. Jonathan Copley underlines the importance of partnering with technology providers who focus on data utilization and can support care teams in improving patient outcomes. Similarly, Tim Diamond, discussing the implementation of a Facility Charge Calculator at Methodist Hospital, emphasizes the need for strong vendor partnerships and collaboration to ensure successful technology integration and adoption.

In addition to these key themes, the sources provide valuable insights into specific healthcare challenges and solutions. For example, Tim Diamond discusses the challenges associated with manual Emergency Department coding and presents the benefits of automated solutions. The sources also highlight the importance of cybersecurity, emphasizing the need for robust security protocols and incident response plans. They introduce the concept of a "waiting room" platform to manage security breaches effectively.

The sources also underscore the role of leadership in driving innovation and navigating change within healthcare organizations. Maulik Purohit, discussing the neuroscience of influence, emphasizes the importance of understanding brain function, stress management, and connection for effective leadership. He advocates for self-awareness and data-driven approaches to enhance personal and team performance.

Overall, the sources paint a picture of a healthcare system undergoing rapid transformation driven by technology, data utilization, and a commitment to patient-centered care. They emphasize the importance of collaboration, strong leadership, and continuous learning to navigate this evolving landscape successfully.

Sources

Fostering a Culture of Change and Innovation in Healthcare
Becky Fox, Former Chief Clinical Informatics Officer, Intermountain Health

Creating an Innovative Command Center Approach to Healthcare
Terri Couts, Digital Information Officer, Guthrie Clinic

Remote Patient Monitoring (RPM) and Chronic Care Management
Maureen Nylin, Clinical Nursing Informatics, Genesis Health System

Virtual Nursing Technology
Erin Langmead, Director of Clinical Informatics, WellSpan

Asynchronous Care
Roxanne Foreman, VP Clinical Applications, Marshfield Clinic

Digital Patient Experience
Charity Darnell, VP, Chief Clinical Informatics Officer, Cook Children's

Building a Value-Based Care Model
Katherine Evans, President, Novocardia

Enhancing Care Delivery through Technology and Partnerships
Scott Raymond, Chief Innovation and Information Officer, Nebraska Medicine

Patient Growth vs. Provider Supply
Jonathon Copley, Chief Innovation and Digital Officer, Franciscan Health

Optimizing Healthcare Operations and Revenue Cycle Management
Tim Diamond, Chief Information Officer, Methodist Hospitals

The Importance of a Data-Driven Approach,
Joel Vengco, Chief Digital Officer, Hartford HealthCare

The Neuroscience of Influence: Making Your Case for Change,
Maulik Purohit, Chief Innovation Officer, PAM Health

Building a Roadmap for Successfully Deploying New Technology in Health Systems
Collective Group Contribution