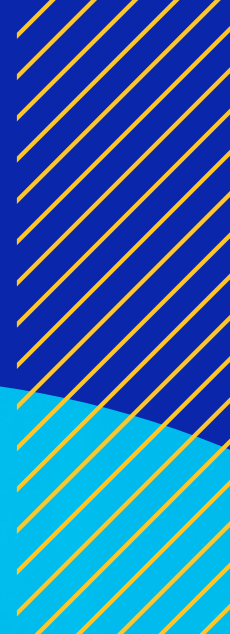




Unlocking Healthcare's Future

***THE INVALUABLE
ROLE OF CLINICAL
INFORMATICS***



Unlocking Healthcare's Future: The Invaluable Role of Clinical Informatics

Introduction

The collaborative nature of healthcare underscores the pivotal role of nurse and physician informaticists in ensuring effective teamwork for the betterment of patient outcomes. Informaticists recognize the importance of data and technology in achieving quality improvement in healthcare, emphasizing the need for their practical application to avoid adding to clinician frustration and burden.

The [HIMSS Clinical Informatics Communities white paper](#), published in 2022, outlines specific clinical informatics roles and highlights the collaboration between nurse and physician informaticists and how their partnership in practice impacts the healthcare ecosystem by balancing the needs of all clinical functions for the ultimate benefit of the patient. In this paper, the Clinical Informatics Communities took a deeper dive into the value this collaboration, specifically the role of informaticists, can bring within healthcare organizations and the advancement of the broader healthcare industry.

Medicine is a team sport. Nurse and Physician informaticists play on this team and understand how patient outcomes depend on this team effectively working together. With this experience as their foundation, they build on their skills by learning how data and technology can become invaluable tools in the constant drive for quality improvement. However, it's only when these tools are effectively applied that they can lead to improved outcomes versus increased frustration and burden on clinicians. This is where informatics excels. Informaticists understand end-to-end workflows and can assist in ensuring the technology meets the needs to support those workflows and support the best clinical outcomes.

Essential Team Roles

Informaticists are positioned as essential connectors between the clinical and technology realms, acting as team captains to unite key roles within healthcare organizations. These key roles form a vital quartet with distinct expertise to achieve a unified purpose and focus.

- **Clinical Leaders** (including nurses and physicians) bring their deep domain knowledge to the forefront. They understand medical workflows and patient care dynamics, ensuring technology solutions align seamlessly with evolving patient needs. Their involvement fosters a direct connection between technology and enhanced patient outcomes.
- **Operational Leaders** act as strategic architects, bridging the gap between vision and execution. Their adept management skills facilitate the seamless integration of healthcare information technologies, ensuring alignment with strategic objectives and operational efficiency, leading to sustained improvements in healthcare delivery.
- **Information Services** (IS), Technology, Application Support, Training, and Education Teams are the technical backbone, propelling the technology

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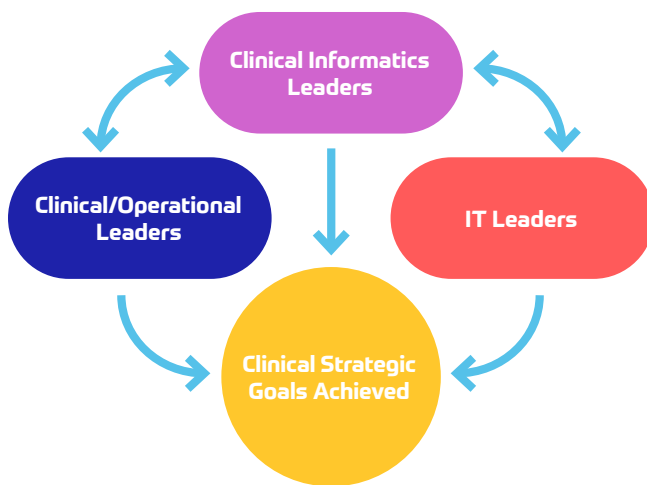
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solution toward optimal utilization. They offer specialized expertise in various areas like system architecture, cybersecurity, and user training. Their efforts ensure robust and secure infrastructure while equipping stakeholders with the necessary skills to harness the solution's full potential.

Clinicians in IS bring a nuanced understanding of healthcare workflows and patient needs, facilitating a seamless connection between technical solutions and the intricate clinical landscape.

- **Clinical Informatics Professionals** play a pivotal role as catalysts, translating complex clinical data and insights into actionable intelligence. They empower the triad by leveraging data-driven decisions, optimizing clinical processes, and enhancing patient safety. The role of clinical informatics professionals can vary in different healthcare settings, underscoring their adaptability to meet the unique needs of various environments.

All roles and teams are integral to successful healthcare technology selections, full lifecycle implementations, workflow mapping and redesign, sustaining systems, and data-driven decision-making for interprofessional informatics-supported projects in clinical settings, operations, and administration. For selection and investment in resources for a healthcare IT project, the benefit of the clinical informaticists' skills, knowledge, and essential interconnections to value-based care must be demonstrated to organizational leadership. The following section addresses mechanisms to identify, measure, and strengthen these contributions.



Section 2: Helping Leadership Understand Informatics Value and its Contribution to Organizational Quality

Informatics Needs a Seat at the Executive Table

How does informatics become the crucial catalysts to a successful team of healthcare leaders? It starts with ensuring a seat at the table. Informatics leaders need to be in the discussions where strategy is developed, and goals are set. From a fundamental understanding of data from which to base these to discussions to a broad understanding of technology, informatics leaders can support strategy that impact patient outcomes and staff retention. Informatics leaders may often find themselves needing to ask to have that seat at the table because other leaders may not be sure of their role and what they have to offer. Demonstrating and reinforcing the value of informatics with organizational leadership can help shift this mindset.

Much of what informaticists do can be described using process improvement language healthcare leaders are familiar with and core to the success of any organization. Informaticists start with a deeper understanding of the problem from multiple perspectives and then can approach solutions that include the right people, technology, and processes. Once a problem is appropriately scoped by diving into the root cause and relevant data, their collaborative approach can result in an understanding of the current state to develop a desired future state. Then, capitalizing on their technical and clinical expertise, they can develop the solutions to achieve the vision and improved outcomes. Informaticists are experts in user centered design and implementation science which is a key need for setting up systems that are tailored to the end user.

Informatic leaders such as, the CMIO and CNIO, are also able to apply these skills at the strategic level. Partnering with organizational leadership to solve the problems of today and tomorrow. An example of a key clinical initiative for nursing leadership is the growing nursing shortage. According to the article, Why the CNIO is Critical (Article: Why the CNIO is Critical), ninety-one percent of nurses believe the shortage is worsening, with burnout being one of the top reasons. This perspective highlights how imperative it is to simplify the burden of EHR documentation and add more automation into nurse's workflow. Informatics leaders, like the CNIO, director



of informatics and others, have the clinical background to help guide the optimization and implementation of technologies to ensure we are alleviating and not increasing the burden. The article found the roles of CNIO are expanding to include vital elements such as:

- Optimizing workflows
- Identifying technology trends
- Connecting the myriad of smart devices and technology solutions into a complete architectural solution
- Serving as the liaison between an IT and a clinical role with critical change management skills.

These crucial informatics roles can also help navigate new care models and develop a robust and effective roadmap for successful technology adoption within matrixed healthcare organizations.

Clinical Informaticists Roles Impacting Clinical Quality

Informaticists apply their knowledge of healthcare delivery and information technology solutions to improve the quality and efficiency of patient care, which is a crucial factor in having them at the decision-making table. They also understand the workflow across the continuum of care in a multidisciplinary approach, which makes them valuable members of the clinical team as experts in care coordination, compliance with regulatory requirements, and the optimization of healthcare IT solutions.

Example of how informaticists improve quality:

- **Facilitating the coordination of care across departments, breaking down silos and increasing collaboration.** Informaticists do this by analyzing clinical workflows and identifying the information needs and gaps of different stakeholders. They also design, implement, and evaluate health IT solutions that support the communication and data exchange among clinicians, patients, and other parties involved in the care process. By doing so, informaticists enable a seamless and

patient-centered care delivery that improves outcomes and satisfaction.

- **Ensuring that the regulatory needs are met with as minimal disruption as possible.** Clinical informaticists stay up to date on the latest standards and regulations that affect the healthcare industry, such as the Cures Act, TEFCFA, HT-1, and other policy. They also assess the impact of these regulations on the clinical workflows and the health IT solutions currently in use and provide guidance and training to the staff on how to comply with them. By doing so, informaticists help health systems avoid penalties, protect patient privacy, and enhance quality reporting.
- **Optimizing the healthcare IT solutions that support all clinical workflows and patient care.** Informaticists apply their expertise in healthcare technology principles, methods, and tools to evaluate the usability, functionality, and performance of the healthcare IT systems. They also solicit feedback from the end-users and stakeholders and propose improvements and enhancements to meet their needs and expectations, with the aim to with reducing administrative, cognitive and documentation burden. By focusing on systemness – the complex interactions between patients, their care teams, and the technology solutions in place – informaticists help health systems reduce errors, improve efficiencies, decrease clinician burnout, and enable quality, evidence-based care delivery.

Clinical Informaticists are more than liaisons between technology and healthcare, they are a core of the clinical or IS teams that facilitate digital health. They understand the clinical workflows and the impact they have on patient outcomes, and they leverage their informatics skills to coordinate care across departments, ensure regulatory compliance, and optimize health IT solutions. They help organizations save money, particularly in a value-based care ecosystem where quality and efficiency are rewarded. Informaticists are essential for advancing healthcare in the digital age and bridge the multidisciplinary approach to care.

Informaticists also play a critical role in ever-evolving clinical workflows with emerging technologies closely



linked with promoting health equity to keep the patient top of mind and ensure improved outcomes. Incorporating novel solutions into the clinical workflow is essential to address new challenges in healthcare. With the growing focus on personalized medicine, improving outcomes, capturing data efficiently, and addressing social determinants of health (SDOH) for health equity, electronic health records (EHR) and other informatics applications are key instruments. EHRs and informatics applications offer vast potential to revolutionize clinical workflows and address health equity. The key is to approach these challenges systematically, always keeping the patient at the center of all decisions.

Application of the types of personalized medicine that promote quality care include:

- **Clinical Decision Support (CDS):** Enhancing EHRs with CDS tools that provide evidence-based recommendations to clinicians at the point of care. This aids in the early diagnosis and optimal treatment options.
- **Predictive Analytics:** Using machine learning and AI to predict patient deterioration, readmissions, and adverse outcomes.
- **Efficient Data Capture:** Ambient listening using LLM's (Large Language Models), natural language processing hence decreasing time in typing and helps extraction of data from free text notes.
- **Using SDOH for Health Equity:** Embedding SDOH data within the EHR, making it part of the clinical workflow. This allows clinicians to have a holistic view of the patient and connect patients with local community resources. This data can be used to understand health disparities in the community and develop targeted interventions.

Section 3: Realizing Cost Benefits with Clinical Informatics Across Varied Roles

Clinical informatics teams exhibit remarkable adaptability and versatility, spanning roles that encompass analysts to leaders within healthcare domains like information services, data science, data analytics, research, education, and training. Their expertise positions them as invaluable assets within healthcare organizations, exerting substantial

influence on the cost-benefit dynamics of healthcare technology endeavors.

Unlocking Substantial Value in Healthcare

In the realm of healthcare leadership, recognizing the substantial value derived from investments in technology, time, and resources, such as clinical informatics, is paramount. The concept of value in healthcare revolves around a delicate equilibrium between quality, outcomes, and cost. Founded on the Institute of Medicine's 1990 definition, quality signifies the alignment of health services with desired health outcomes, while adhering to professional standards. This intricate concept finds expression in the following equation:

$$\text{Value} = \frac{\text{Quality [Outcomes (individual and population, encompassing mortality and Quality of Life) + Experience (patient and provider)]}}{\text{Cost [Materials and Effort]}}$$

Measuring Returns and Impact

To evaluate the tangible returns stemming from investments in clinical informatics, it's essential to pinpoint key performance indicators. These indicators enable the assessment of financial and qualitative benefits accrued from these investments. The financial impact report should meticulously document cost savings, cost avoidance, and new revenue across defined periods (e.g., year 1, years 2-3, years 4-6) in alignment with organizational expectations.

As explored above, clinical informaticians are pivotal change agents in healthcare transformation, wielding their expertise to analyze, design, implement, and assess information and communication systems. To effectively convey their value, organizations must identify metrics tailored to their context, coupled with real-world illustrations showcasing the impact of clinical informaticians on health system leadership.

- **Enhanced Clinical Efficiency and Workflow**

Optimization: Clinical informaticians adeptly bridge the divide between healthcare providers and technology solutions. They leverage their deep comprehension of clinical processes to seamlessly integrate technology solutions with clinical workflows. This streamlining reduces the time clinicians spend navigating electronic health records (EHRs) and automating routine tasks, resulting in substantial improvements in healthcare staff productivity.

These efficiency gains translate into cost savings through reduced labor costs and enable clinicians to allocate more time to patient care (Iuppa, 2023).

- **Elevating Patient Experience:** Clinical informaticians play a pivotal role in aligning healthcare organizations with initiatives aimed at enhancing the patient experience. For instance, one academic health system identified opportunities to improve processes across operating rooms, clinics, and hospital service departments. By leveraging health IT tools to provide real-time updates to family members while their loved ones were in surgery, the organization realized numerous benefits. These included improved communication, accurate information, efficient scheduling for providers, transparency, and heightened patient satisfaction, all contributing to exceeding benchmark data. Furthermore, this initiative enhanced efficiency by eliminating time-consuming manual updates to families (Penn Medicine, 2019).
- **Holistic Approach to Quality, Safety, and Cost Management:** Clinical informaticians bring a holistic perspective to healthcare technology solutions, incorporating clinical, quality, and patient safety considerations. Whether integrated within traditional IT or solely focused on clinical informatics, these professionals ensure that technical aspects harmonize with human and organizational factors. Collaboration with operations, information services, and other leaders empowers individuals with clinical informatics backgrounds to advocate for patient safety, reduce medical errors, and elevate care quality. Organizations can measure improvements and cost savings by comparing baseline metrics with post-implementation data.

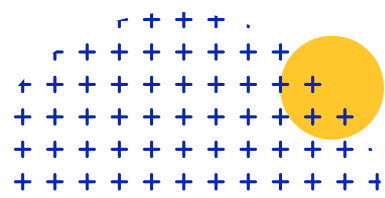
Clinical informaticians serve as linchpins in healthcare, enhancing clinical efficiency, aligning organizations with value-based care principles, and embracing comprehensive strategies for quality, safety, and cost management. Their unique ability to bridge healthcare and technology realms yields tangible cost benefits through enhanced operational efficiency, improved patient outcomes, and judicious resource allocation. Whether assuming roles as analysts, leaders, or team members, clinical informaticians are indispensable drivers of positive change in healthcare delivery. The quantification of their value underscores the imperative for their continued integration into healthcare organizations to foster improvements in quality, efficiency, and cost-effectiveness.

Section 4: Impact on Implementations: From innovation to outcomes

To be truly innovative, clinical informaticists need to be daring in their implementations by moving quickly and challenging the status quo. In healthcare, this means balancing a fine line to ensure the first iteration will not impact patient safety while also working through ways to rapidly improve in successive iterations or accept failure quickly and move on. This is where informatics skills around change management and stakeholder engagement are key. Implementing a new technology such as a wearable monitoring device for patients requires understanding of the clinical impacts and anticipating the questions and support the clinicians will need not only prior to the implementation, but during. During such an implementation at one organization, the informaticists were able to round on the nurses placing these devices on patients and learning how to see the data in their EHR and how to best use that information. They were able to quickly find workflow issues in the real-life scenarios and address them. After an initial pilot period, the informaticists also pulled together focus groups to gather feedback on the usefulness of the device and how to improve going forward. These efforts led to a rapid cycle of improvements in the product, process, and people acceptance.

Clinical Informaticist improving organization's success outside of new technology

Though innovation is usually equated with new technology, it's not the only type of improvement that is essential to an organization's success. Adding ways to better capture Social Determinants of Health (SDOH) within one's existing EHR for example, can have a lasting impact on patient's outcomes. At Houston Methodist, Informaticists were able to add a new process to capture SDOH responses to 5 domains required by CMS for all admitted inpatients by asking the screening questions on admission. While Informaticists were able to determine the workflow to optimize the capture of the data, they were also able to optimize the process by removing other questions in the navigator. They also ensured a complete patient-centered process was in place including the workflow for social workers to effectively receive this information and ensure they had adequate resources to provide patients with the needed assistance. Their pilot found 21% of the patient population flagged as high risk for needing social



work intervention during their admission stay around transportation, housing, food, utilities, or personal safety. This finding highlights the value of obtaining this data and the potential impact on patient outcomes. A continued focus on patient outcomes from these changes may demonstrate relationships in areas such as a decrease in readmission rates. Providing this data to operational and clinical leadership can help drive future strategic decisions.

Securing innovative changes into the future

Innovations should begin with the definition of precise objectives, encapsulated in Specific, Measurable, Achievable, Relevant, Time-based (SMART) goals, which align seamlessly with the overarching organizational mission, whether it be improving patient outcomes, reducing costs, or streamlining clinical and operational workflow. Moreover, these objectives represent the first step in a holistic approach. Engaging stakeholders, continuously measuring key performance indicators (KPIs), prioritizing comprehensive training, fostering a culture of continuous improvement, ensuring data integrity, and managing change effectively are all integral components. Also, a diligent cost-benefit analysis and a commitment to long-term strategic planning ensure that these initiatives not only meet immediate needs but are also primed to evolve in tandem with future healthcare challenges and opportunities. At its very core, clinical informatics as a field rest not merely in the technology itself but in how harnessing informaticists' skills and knowledge effectively it drives positive clinical and operational outcomes.

Recommendations to Operationalize Innovation

Clinical informaticists should ensure innovations keep the following core epithets top of mind during all phases of implementation:

- **Define Clear Objectives:** Before implementation, establish specific, measurable, and realistic objectives for the informatics project (SMART goals). These objectives should align with organizational goals, such as improving patient care, reducing costs, or enhancing operational efficiency.
- **Measure Key Performance Indicators (KPIs):** Continuously track and measure KPIs related to the project's objectives. This may include metrics like patient outcomes, workflow efficiency, cost savings, or user satisfaction. Regularly review these metrics to assess the project's impact and be able to share those effectively with project.
- **Engage Stakeholders:** Involve key stakeholders, including clinicians, IT staff, administrators, and end-users, at the onset and throughout the project's lifecycle. Their input and feedback can help refine the system and ensure it meets their needs.
- **Train and Educate:** Invest in comprehensive training and education programs for staff to maximize their proficiency with the informatics system. Well-trained users are more likely to utilize the system effectively and capture its full value.
- **Foster Continuous Improvement:** Establish a culture of continuous improvement by soliciting feedback from end-users and regularly updating the informatics system to address evolving clinical needs and technology advancements.
- **Assure Data Quality:** Ensure the accuracy, completeness, and reliability of data collected. High-quality data is essential for making informed decisions and deriving value from the project. A data driven culture enables this. The future of clinical informatics is beyond adoption and optimization - it is the data that is derived from our clinical systems that is used for operational and clinical outcome benefits.
- **Operationalize Change Management:** Implement a robust change management strategy to help users adapt to the new system. Address any resistance to change by providing adequate support, communication, and resources. Clinical informatics should be central in planning for these efforts.



- **Regularly assess cost-Benefit Analyses:** Continually evaluate the project's costs and benefits to determine its return on investment (ROI). Calculate both tangible (e.g., cost savings) and intangible (e.g., improved patient experience/improved provider experience) benefits.
- **Share Success Stories:** Promote and share success stories and best practices within the organization. Highlight instances where the informatics project positively impacted patient care, staff efficiency, or financial outcomes.
- **Encourage Long-Term Strategic Planning:** Incorporate the informatics project into the organization's long-term strategic planning and avoid working in siloes. Consider how the health system will need evolve to meet future healthcare challenges and opportunities and ensure agility is built-in to help meet those challenges is "baked in" to the plan.

Successful implementation of innovation projects is essential to optimize operational efficiency and clinical outcomes. With the core principles in mind, clinical informaticians can impact all project facets and phases.

Section 5: A Healthcare IT Industry Lens on the Value of Clinical Informatics.

In previous sections, we discussed the essential value clinical informaticists bring to an organization and the impact they can have of staff retention and ROI relating to EHRs from clinicians. In this section we present real-world feedback on the value of clinical informatics from Healthcare IT industry expert partners.

Healthcare IT Consultant

- "As a health IT consultant, I see day in and day out the power and value of clinical informatics in my work. More importantly, I see the adverse outcomes that result when health provider organizations haven't focused on championing the use of clinical informatics. I am often engaged in helping organizations evaluate a switch of core enterprise technologies such as the EHR and revenue cycle system. The correlation between an organization's ability to empower clinical informaticists and implementation success is tightly correlated. When

clinical informaticists are not part of the technology governance, a key voice and perspective is not present and that creates a disconnect that can adversely impact system usage and outcomes."

- Zahid Rathore, Vice President, Healthlink Advisors

Industry Market Supply Partners

- "Clinical informaticists working at vendor organizations serve as 'ambassadors' that translate medical information to technical, and vice versa. I worked at one EHR vendor where a software engineer approached me about a new way to display growth chart information – a novel way to chart height, weight, and head circumference. He had no way of knowing that the CDC growth curve is a clinically validated instrument that every pediatrician in the US is trained to use. EHR designs that reflect clinical workflows don't happen automatically, good design requires clinical informaticians to ensure that the product design reflects clinical realities. As an EHR vendor working with clients, one of the biggest red flags for me is when the client doesn't have a robust informatics team to support implementation of the EHR. The informatics team needs to understand the software well enough to develop change management and training strategies reflecting local processes and current state, then more importantly, take ownership of the EHR in the post go live period. Learning EHR capabilities at the deepest levels, again, doesn't happen automatically – it requires dedicated informatics resources who understand the software and can focus on enhancements for the betterment of all clinicians using the EHR."

- Holly Urban, MD, MBA, Vice President, Product Management, CliniComp

- "Working both for an integrated delivery network (IDN), and now for Oracle Cerner," Dr. Reddy emphasizes, "I believe that informatics takes on distinct hues within a health system and with a vendor. When I was working inside a health system, it was about crafting digital solutions and workflows enabled by the latest technologies to impact quality, patient-centric care. Now, working with a large EHR vendor, clinical informatics has the ability and potential to amplify

this impact, turning data into innovative solutions that empower not just one institution but an entire healthcare ecosystem, steering it toward a more efficient and interconnected future.”

- Rakhil Reddy, MD, MS, FAMI, FACHE, Lead Physician Executive, Oracle Health

Chief Medical Officer

“As the Chief Medical Officer of a health system, I appreciate the work of our clinical informaticists who use analytics tools to optimize the use of the EHR and enhance the well-being and satisfaction of our clinicians. These tools allow our informaticists to:

- Access user-level data on how our physicians and other clinicians interact with the EHR, such as In Basket management, order entry, documentation, and clinical review.
- Compare the performance and satisfaction of our clinicians with their peers within and across departments, as well as with the best practices in the wider EHR user community and identify areas for improvement.
- Evaluate the impact of interventions such as training, personalization, and optimization on the efficiency and satisfaction of our clinicians and help them become more proficient and confident with the EHR.
- Ask appropriate questions to identify inefficiencies in build design, workflows, and processes, and provide tailored solutions for groups of users who might benefit from new features, tools, or training.
- Help our clinicians save time and reduce frustration with the EHR, which can improve their wellness, engagement, and patient care outcomes.
- Using that analytic data, our clinical informaticists can support our clinicians in delivering high-quality care while maintaining their own well-being.”

- Jose Lopez, MD MBA, Chief Medical Officer Holy Cross Health – Trinity Health

Vice President

“In my role as the Vice President of Applications and Digital Health, coupled with my extensive nursing and operations experience, my appreciation for clinical informaticists is profound. Clinical informatics, integrated across information services, data analytics and reporting, training, operations, clinical teams, and other departments, play a pivotal role in advancing care delivery and leveraging technology solutions for effective data visualization. Our focus has evolved beyond the EMR, and the emphasis now lies in driving value from data through clinical decision support tools, such as best practice alerts, machine learning algorithms, and generative AI.

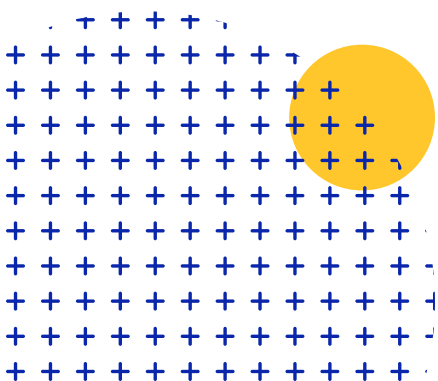
We recognize that the true measure of success lies in the impact on the individuals who interact with these technologies—patients, clinicians, and administrators alike. Our commitment is to assist clinicians in saving time and reducing cognitive burden, ensuring that the benefits of technology are maximized to enhance overall healthcare delivery. The synergy of clinical informatics with various departments underscores our dedication to optimizing technology for the well-being and efficiency of those we serve.”

-Anna Schoenbaum, DNP, MS RN, NI-BC, FHIMSS, Vice President of Applications and Digital Health, Penn Medicine Information Service

Section 6: From Reading to Action: Practical Steps for Implementing and Improving Your Organization.

We hope you found the previous five sections beneficial and gained valuable insights which you can start implementing at your organization right away. Below are some key points to consider:

- Clinical informatics leaders, such as CNIOs and CMIOs, play a vital role in bridging the gap between clinical practice and technology, along with aligning digital solutions with the strategic goals and needs of an organization.
- As the digital transformation of healthcare progresses, organizations need to cultivate a culture of learning and innovation that supports CNIOs and CMIOs in pursuing continuous education, research, and collaboration with other experts in the field. This will



enable them to stay abreast of the best practices, emerging technologies, and latest trends that can enhance organizational revenue and care delivery.

- Clinical Informaticists not only play a role in bridging the gap between clinical practice and technology, they also have a positive return for an organization's ROI. Informatics should be viewed as a revenue center and not a cost center by organizations.
 - The soft ROI of Informatics can be measured in terms of mitigation of burnout, efficiencies in workflow and process improvement.
 - The hard ROI can be measured by the actual reduction of non-value added tasks that allow the clinical teams to generate revenue.
- CFOs of organizations should be educated on the ROI of Informatics.
 - CFOs and the organization's finance team should, during the budget cycle, consider beginning with 1-2 Clinical Informatics roles focused on optimizing healthcare operations that is pivotal in enhancing clinical workflows, ensuring efficient utilization of health information technologies, and promoting a data-driven approach to health care delivery.
 - Be sure to include tangible improvements in operational efficiency, data quality, and overall cost-effectiveness. In parallel, Informaticists themselves need to be educated on how they can promote their expertise in terms of revenue generating.

In closing

Successful healthcare innovation led by clinical informaticists, requires daring implementations while prioritizing patient safety, encompassing clear objective

definition, stakeholder engagement, continuous improvement, rigorous data quality assurance, effective change management, and integration into long-term strategic planning for optimal clinical and operational outcomes. Below highlights some practical steps to take toward ensuring success utilizing clinical informatics:

1. It is critical to gain an understanding and articulate to other members of the leadership team the role of the clinical informatics professional.
2. Ensure clinical informatics leaders have a seat at the table where strategy for organizations is developed. The informatics professional's knowledge of quality improvement processes, clinical workflows, and innovative solutions combined with their collaborative approach will lead to successful goal attainment.
3. As a clinical informatics leader, establishing KPIs that can be translated into quantifiable ROIs such as clinician retention, patient satisfaction, or improved quality outcomes facilitates the connection between informatics work and achieving organizational leadership goals.
4. Include clinical informatics in technology projects impacting clinicians to ensure effective implementation through using change management skills and data focused outcomes analysis that can be used for continuous improvement efforts.

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