Healthcare providers are moving to digital healthcare for a variety of reasons including government policy and incentives, reduced cost, increased effectiveness, improved patient outcomes and reduced errors. Whatever the reason, there is a push in every part of healthcare to move to electronic systems including electronic medical records (EMR), patient portals, remote patient monitoring, telemedicine, and technologies to improve patient-provider communications. Despite the potential benefits of digital transformation, there are some barriers and good planning is essential to developing cost-effective and sustainable electronic systems that work in healthcare.

To transform into the digital age and develop an informatics culture within a healthcare organization, these organizations and professionals must develop a collaborative and innovative culture. An informatics culture requires a vision to develop the policies, funding, infrastructure, and education to instill the knowledge and skills needed by all organization staff and the tools to gather and analyze amassed data (Hebda, Czar, & Hunter, 2018). Collaboration in health care has been defined as health care professionals assuming complementary roles and cooperatively working together, sharing responsibility for problem-solving and making decisions to formulate and conduct plans (O'Daniel & Rosenstein, 2008). To truly adopt an informatics culture and make a system-wide change the most effective it can be, getting health care professionals from different departments of the entire organization to work together is imperative. Having an innovative culture in a system promotes forward-thinking, and encourages staff to think of "the art of the possible" and to work together to problem solve and develop IT systems that solve identified problems, short-comings and areas of improvement in hospital systems (Sullivan, 2019).

The first step in the process of developing and informatics culture is assessing the current state to determine gaps (Hebda, Czar, & Hunter, 2018). There are foundational skills that are required for an information-driven culture. These include computer literacy, information literacy, and patient health literacy (Hebda, Czar, & Hunter, 2018). There are several steps necessary when project planning to initiate an informatics culture in a healthcare organization. Project planning is a critical first step in any planning process to determine what an organization wants in the future (Hebda, Czar, & Hunter, 2018). Organizations can use proven methodologies that provide a systematic and disciplined approach to project design, execution, and evaluation (Hebda, Czar, & Hunter, 2018). The Project Management Institute notes that regardless of the size of the organization or the project, the process will always remain the same and organizations should deploy these methods consistently or risk project failure (Hebda, Czar, & Hunter, 2018).

The first step to initiating change involves establishing a baseline (Sullivan, 2019). This process begins once leadership and involved stakeholders decide about the current system and if it can be upgraded or if a new system is required to fully replace the legacy system (Hebda, Czar, & Hunter, 2018). In this step systems are examined to see what is working, what is not working, being sure to examine all parts of the system, not just the electronic health record (Sullivan, 2019). The second step involves completing a needs assessment. Goals are identified based on the organization's vision and mission—for achieving the planned or needed change. This involves the design team in prioritizing each department's wish list within the budget (Sullivan, 2019). This is where a SWOT analysis might be used to help identify gaps in the current system, as well as potential opportunities if a new or updated system is implemented (Hebda, Czar, & Hunter, 2018). This step involves identifying the teams "wish lists," looking at what's possible, attempting to "future proof" the plan, and nailing down metrics (Sullivan, 2019).

The third step in the development process includes figuring out the processes and technology. This part of the process defines distinct parts of the project and who is responsible for what part. If it has been determined that new technology is needed, this step defines that technology and how it will be obtained and implemented. Several months are often spent on vendor and system selection assessments (Hebda, Czar, & Hunter, 2018). Once the strategic plan has been approved and the vendor selection process is complete and agreed on by the organization, the actual project management process begins (Hebda, Czar, & Hunter, 2018). There are five phases of the project management process including design/plan, implementation, monitoring and control, evaluation, and lessons learned with knowledge transfer (Hebda, Czar, & Hunter, 2018). The fifth and last step includes ongoing service and support once the new systems are in place and implemented. This involves IT and having integration support and a point of responsibility to address when things go wrong (Sullivan, 2019).

Developing an informatics culture in an organization is a complex process requiring a large amount of financial and staff resources. The process is multi-faceted, long, and complex, but using proven methodologies that provide a systematic approach can help organizations develop an informatics culture that results in successful system implementation and adoption of electronic systems.



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