

## ASSIGNMENT



Write up on Future Of Healthcare

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# Future Of Healthcare

By Piyush Kumar Sahu

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## 1 Introduction

Healthcare is a dynamic industry with significant opportunity, but cost concerns, uncertainty, and complexity can also make it an unnerving one. Substantial upside exists for players that can deliver value certainty solutions and thrive under uncertainty.

Health and well-being of people are determined by many factors – genes, culture, living conditions and social determinants. Social determinants influence and are influenced by economic, environmental and political determinants. Health professionals and academics have known this for a long time. There has always been call for politicians, policy makers, funders, providers and health professionals to look at the broader determinants of well-being.

Future healthcare system must address the issues of access, affordability, comprehensiveness and relevance for the users. It must start by imagining what that future looks like and make the decision today for a dual transformation to move to that future.

## 2 Clinical Mobility

Clinical Mobility is the use of mobile devices (such as handheld mobile computers, tablets and mobile printers) by physicians, nurses and other healthcare professionals at the point-of-care. Thanks to the adoption of clinical mobility, hospitals around the world are eliminating manual, error-prone procedures and replacing them with digital solutions that increase the accuracy of patient identification, streamline processes, improve the quality of patient care and enhance overall visibility. By digitally capturing information, data can be transmitted in real time to clinical staff, reducing – even eliminating – errors and delivering critical time savings.

## 3 An Evolving Healthcare Ecosystem

At the heart of creating a successful clinical mobility program is understanding the users who employ the devices in their day-to-day work environments as well as those they serve. These individuals include nurses, physicians, pharmacists, lab technicians, radiologists, patients and more. While nurses are actively engaged at the patient's bedside and use technology daily, it's the IT team that must implement and maintain the system while ensuring compliance with security and patient privacy requirements. Patients must grow accustomed to technology's evolving role in their care. For some,



Figure 1: A Visual of Future Healthcare



Figure 2: HEALTHCARE



Figure 3: Clinical Mobility

this will be extraordinarily difficult. For more technologically astute patients, clinical mobility will not be a leap but quite possibly a demand.

## 4 Advancing Care And Increasing Efficiency

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## 5 Improving Staff Communication Is Essential

Throughout the healing process, patients may require care from a broad range of medical practitioners, from nurses, physicians and specialists to technicians, therapists, pharmacists, and more. Communication between the disciplines is critical, but remains a pervasive problem. In fact, more than a quarter



Figure 4: Healthcare Ecosystem

of hospital readmissions could be avoided with better communication among healthcare teams and between providers and patients.

## **6 Modernizing The Healthcare Infrastructure**

The role of the IT department is clearly evolving. Currently, hospitals' clinical mobility policies are primarily created by hospital administration, followed by IT management. In the future, respondents expect that dynamic to shift with IT executives taking a stronger leadership position in developing the actual policy rather than just in implementing the solution. In some ways, the use of technology in the hospital setting is something that can bring IT and nurse managers together. For example, both nurse managers and IT executives see patient privacy concerns as well as a lack of adequate IT and health information systems as obstacles to attaining organizational approval to implement clinical mobility. As part of the increased level of collaboration in clinical mobility implementation, IT is involving key players from all departments and might be surprised to find an ally in the nursing staff.

## **7 The Consumerization Of healthcare**

Society's adoption of technology is driving the digitization of hospital services. As a result, patients are taking greater advantage of services like telehealth to help limit the number of hospital visits. Technology is freeing up hospital staff to provide the proper level of care required in a more efficient manner. As hospitals contemplate clinical mobility, it's imperative that they consider the needs and habits of today's smartphone tethered, ever-connected patients. Hospitals that don't adopt clinical mobility will likely have a difficult time attracting and treating patients who are beginning to expect technology to be a central part of their care.

## **8 Realizing The Power Of Data**

Ninety percent of the world's data was created in the last two years.<sup>4</sup> Medical institutions are no exception, generating data from an ever-growing number of devices, sensors and emerging technologies. Maximizing the usefulness of these complex data streams requires an integrated systems approach that extends accessibility to a vast expanse of healthcare workers. IT has the arduous task of ensuring that all data collection systems are compatible with each other. While this is a thorny process, there's no denying how useful that data can be in the diagnosis and treatment of patients.

### **8.1 Predictive Analysis Is The Future**

These new sources of data are providing a new opportunity for physicians and nurses to provide unprecedented levels of care. Vital patient information, from prescriptions and lab results to individual lifestyle data, can drastically improve the quality of healthcare. IT executives ranked artificial intelligence as one of the top technology trends most likely to impact the daily work experience. Access to this type of data at the moment it's needed, can help health professionals better analyze a situation, more accurately predict outcomes and take action.

## **9 Streamlining Hospitals Operations**

Hospitals are large, complex facilities that include miles and miles of similar looking hallways, offices, treatment areas and patient rooms. Keeping track of assets, staff and patients is a daunting challenge. Industry estimates suggest that these operational challenges contribute to delayed procedure start times, decreased clinician productivity, and lost medical equipment, specimens and supplies. In an effort to curtail these losses and increase visibility, hospitals are adopting Real-Time Location Systems (RTLS) and mobile computing to automatically track the real-time geographic location of everything from equipment, supplies and pharmaceuticals to patients and staff.



Figure 5: Digital Healthcare

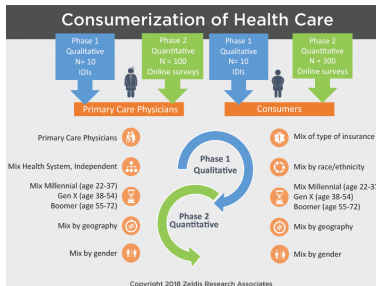


Figure 6: Consumerization

## 10 Embracing The Clinical Mobility Evolution

While it's clear that more and more hospitals are embracing clinical mobility, we are still at the beginning of this transformative aspect of healthcare. Hospitals have started to lay the groundwork for implementing clinical mobility by equipping bedside nurses with mobile devices and connecting data from equipment, supplies, and health information systems. Now is the time for widespread adoption in hospitals since not only nurses and IT decision makers see the benefits, but the new generation of patients that welcome and expect technology to be part of their healthcare treatment.

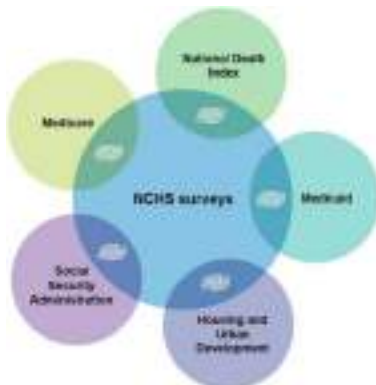


Figure 7: DATA IN HEALTHCARE