

Chapter 28

Extending Care Outside of the Hospital Walls: A Case of Value Creation through Synchronous Video Communication for Knowledge Exchange in Community Health Network

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ABSTRACT

In healthcare settings knowledge exchange among important stakeholders such as doctors, family and patients, and other care providers is a critical imperative. However, such a community modelled approach is missing, limited in scope or its business value not well understood. In this study, the authors illustrate the value potential and subsequent development of a business model for knowledge exchange within the healthcare delivery model outside a hospital setting. Specifically, they illustrate how Synchronous Video Consultation with social media features, in a staged approach, can support knowledge exchange among a network of community health care professionals who address global health disparities and sustain this exchange through resource generation. The authors discuss the contributions and implications of the proposed framework towards value creation in a collaborative setting in general and suggest opportunities for future research.

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INTRODUCTION

Community health information networks (CHIN) are fundamentally community and payer-centric means to healthcare prevention assessment; albeit with higher patient engagement through a collaborative support model. Two elements constitute a CHIN's foundation. First, a centralized knowledge platform and repository that contains individual level demographic, clinical, and eligibility information for a geographically defined community of stakeholder organizations (e.g. local agencies, payers, employers, and researchers). The stakeholder organizations are also consumers of the data for evaluation, diagnostic, or treatment activities and similar purposes (Rubin, 2003). Second, CHIN involves the use of a platform to enable both the community and patient to be actively engaged in the care delivery and management through collaboration, education and knowledge dissemination.

A number of CHIN models have shown success such as an Iowa based community health network (Japsen, 1996) and Wisconsin based community network (Payton & Brennan, 1999). Existing studies note that CHINs are emerging as successful in providing a platform for information collection, storage, archival and access (Vest & Gamm, 2010). Indeed, some CHINs have, over time, become regional health information organizations or health information exchanges (HIEs) and started supporting a wider community by efficiently providing information exchange services to participating stakeholders. The success of CHINs and later HIEs in the exchange of aggregate care related information has not translated into collaboration in support of care at an individual patient level. Hardly any successful CHINs today support collaboration among patients and care providers synchronously as and when needed in the continuity of care, especially when a patient is not within the confines of a hospital. While lack of trust in safeguarding patient information and limited or no financial incentives are partly to blame for not addressing patient care outside of the hospital, community can play an important role in addressing such care and leverage the best form CHIN efforts.

The role of community in support of pre and post-hospital care is critical for two reasons: First, although the current US healthcare delivery system (we call it as "inside hospital walls") is efficient and effective enough to provide "sick care", understanding its impact outside the hospital walls remains a challenge. For example, the current health system is not able to motivate a pre-diabetic patient to run a mile an hour or adhere to a diet control plan. Similarly, the current system does not provide emotional support to a cancer patient who has undergone chemotherapy with side effects that have a bearing on the physical and emotional state of the patient. A patient post-surgery may be able to reduce pain with pain-killers, but need avenues to discuss and get support for the emotional pain associated with the side-effect of the pain-killers or even the surgery itself. Similar examples reflect the type of emotional and cognitive states of patients, and disease management and treatment needs outside of a hospital will become critical if continuity of care is to become a key goal of CHINs. Hence, creating a platform to support a current patient (post-discharge) or a future patient (through prevention efforts) through community engagement is essential, if CHINs are to become relevant at an individual patient level.

As much as CHINs have a social objective to extend the care outside of the walls of the hospitals, there is no incentive in the current US healthcare to such extended care. As a result, many CHIN initiatives fail to sustain their work, specifically, after a period when the social objective faces the challenge of sponsorships or additional grants than the initial funding source. In this context, the avenue to generate revenue from operations or activities is crucial for the CHINs. Thus, as much as CHINs can shape their avenues of making money and plan their activities to meet the revenue generation goals, they will be able to go long way in providing service to the community. Studies have suggested that inappropri-

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