Informing Health IT Adoption Strategies in Home Care Through Identifying Key Performance Improvement Domains for Home Health Agencies

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Improving the quality of healthcare can result in better health outcomes and patient satisfaction while possibly reducing the overall costs of healthcare.[1] Historically, a number of initiatives were designed and implemented to improve the quality of home care in the United States.[2] In the future of home care, quality improvement efforts will continue to take an important role, and health information technology (IT) will be expected to effectively serve and support such efforts.[3–5] Recently, the Centers for Medicare and Medicaid Services (CMS) proposed a rule requiring home health agencies (HHAs) to design and implement quality assessment and performance improvement (QAPI) programs to fulfill the conditions of participation in Medicare.[6] CMS set the end goal as observable improvements in the quality measures without providing specific advice about how to improve outcomes through QAPI by acknowledging its difficulty. Instead, CMS advises HHAs to adopt customized QAPI programs by considering the specific needs and conditions of their organization and patient population. To support customized QAPI programs, this study investigated quality attributes for home care with an emphasis on Medicare HHAs. These quality attributes constitute key performance improvement domains (KPIDs), which can be used to view, characterize, and improve the performance of an HHA. Consequently, KPIDs can serve as useful tools in various discussions and brainstorming activities on how contextual improvement can be achieved and how health IT can be a vehicle for improvement.

Methods: A qualitative research approach was preferred to obtain contextual and rich data.[7–9] The Framework Method,[10–13] used in many research domains including, medicine,[14–16] was adopted. Qualitative data were collected via four focus group discussions with twenty home care domain experts. Focus groups were preferred due to their dynamic nature because they enable direct involvement of all participants, facilitate interactions and discussions, and potentially lead to consensus among participants.[17] The analysis results were further refined in an online forum and validated at a final meeting.

Results: From the focus group discussions, a well-defined set of 17 KPIDs emerged under four categories, namely, (i) Economical Value: 1) worthiness, 2) affordability; (ii) Sociocultural Sensitivity: 3) cultural competency, 4) socioeconomic awareness; (iii) Interpersonal Relationships: 5) fairness, 6) courtesy, 7) reliability, 8) expectation management; and (iv) Clinical Capabilities: 9) professional competency, 10) timeliness, 11) coordination, 12) completeness, 13) engagement, 14) standards conformance, 15) customizability, 16) monitorability, and 17) accountability. An example of a KPID in the Economical Value category is affordability; participants expressed that home care delivery costs must be controlled in order to make it feasible for patients and their payers(CMS), and to maintain the HHA's sustainability as a business. A participant commented that "Access to home care should not be hindered by ability to pay. The care should be both financially and geographically accessible" (participant 6). In the Sociocultural Sensitivity category, many participants indicated that home care staff should develop cultural awareness to respond to various cultural needs of patients and caregivers, including their religions and languages. A participant stated: "If unfamiliar with cultural preferences and customs, case manager should research before start of care then speak to patient and family" (participant 15). Participants also emphasized Interpersonal Relationships by considering that home care professionals should show courtesy towards patients and caregivers; as one participant explains: "Our care must be friendly and supportive" (participant 20).

Discussion: Results indicate that performance improvement in HHAs is a lot more complicated than simply assessing whether certain clinical tasks are performed. It is important for HHAs to develop a broader view of what should be done as part of the overall care delivery process; Only then can an HHA truly have an impact on patient outcomes. For example, given the nature of home care, attention to social and cultural issues is paramount to delivering patient-centered care. In addition, it is essential that there be sensitivity to socioeconomic status of patients, where they live, community resources, family and caregiver involvement, as well as social support systems. HHAs can evaluate their health IT adoption strategy and current solutions to assess if and how they help them improve any of the KPIDs. For example, to improve the professional competency of providers, health IT solutions should provide online and electronic training to enable providers to stay up-to-date on the latest evidence-based care practices.

Conclusion: KPIDs identified in this study can help HHAs in their customized QAPI initiatives by providing useful starting points. Through the identification of relevant domains, and important information required for quality improvement, health IT strategies can be better aligned with HHA QAPI activities. HHAs should evaluate their health IT adoption strategies

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in light of this evidence and decide whether their health IT solutions help them improve the previously-mentioned domains. Therefore, our results should be immediately relevant, intriguing, and applicable to the home care industry and policy makers. In the future, results from this study could lead to a framework for developing a set of performance measures for KPIDs. We recognize that before CMS or accreditation bodies require the KPID measures, there is more work that needs to be done to validate whether the measures do have an impact on patient outcomes.

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