

Chapter 5

Organizational Factors Associated with Health Information Technology Adoption and Utilization Among Home Health/Hospice Agencies

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ABSTRACT

Health information technology (HIT) adoption has been recommended as a method to improve care coordination and promote patient safety. Home health agencies can use HIT to improve coordination of care provided in multiple locations. The purposes of this study are: 1) to determine the EMR adoption rate and use of point of care technology among a US sample of 1,036 home health/hospice facilities, and 2) to identify the organizational factors associated with EMR adoption. Analyses were performed using SAS and SAS-callable SUDAAN. The study found that not-for-profit agencies, regardless of services offered, were more likely to have an EMR system. Use of point of care documentation was associated with not-for-profit status, large patient panels, and having been in business for less than 10 years. This study extends population ecology theory into innovation adoption theories by explaining possible competitive advantages of EMR adoption within home health care.

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INTRODUCTION

Need for Home Health Care and Characteristics of the Industry

In the past century, Americans have experienced an increase in life expectancy from 46 and 48 years for males and females in 1900 to 75 and 80 years for males and females, respectively, in 2000 (Heron, 2007). The proportion of the US population aged over 65 was 14.3% in 2000; this is expected to rise to 25.9% by 2050 (United Nations, 2009).

An aging population will require more health care services, of a different type, than younger residents. In a 2011 CDC report, the majority of home health care patients were 65 and older (68.5%) and 64.0% of those patients were women (Caffrey, Sengupta, Moss, Harris-Kojetin, & Valverde, 2011). This report also discusses differences in length of service between older and younger patients. The mean length of service was longer for those patients under age 65, as compared to their older counterparts (474 days and 242 days respectively). There was also a difference of length of service between proprietary agencies (mean = 374 days) and non-profit agencies (mean = 203 days). Older individuals are more likely to suffer from functional decline subsequent to hospitalization, regardless of a positive cure of illness (Creditor, 1993). However, many aging individuals prefer to age and be treated within their own home, often times with great success (Gill et al., 2002; Romanow, 2002). Moreover, the majority of older adults report a preference to die within their home (Brazil, Howell, Bedard, Krueger, & Heidebrecht, 2005). Maintaining the independence of older individuals requires an emphasis upon home health and, as necessary, hospice services. Home health care provides assistance with activities of daily living (ADLs); such as bathing, dressing, eating, walking, toileting, and continence (Batavia, DeJong, & McKnew, 1991), as well as medical and nursing care. By the year

2050, an estimated thirteen million people will require assistance with these ADLs, thus requiring a more efficient and effective home health care industry (U. S. Department of Health and Human Services, 2003).

The home health industry in the United States is comprised of approximately 9,284 agencies that served a total of 7.1 million patients in 2000 (Pearson & Bercovitz, 2006). An additional 513,000 patients used hospice care in the year 2000 (FASTSTATS, n. d.; Hospice Association of America, 2008). In 2000, approximately 70 percent of home health patients were 65 and older; with the most prevalent admission diagnoses being heart disease (11 percent), diabetes (8 percent), cerebral vascular disease (7 percent), COPD (5 percent), and malignant neoplasms (5 percent). Other prevalent diseases included: congestive heart failure, osteoarthritis and allied disorders, fractures, and hypertension. The average length of service was 312 days (Heffler, Smith, Keehan, Clemens, Won, & Zezza, 2003). The clinical picture is one of complex diagnoses managed over an extended period of time.

Home health and hospice care is different from other types of care in that the patients are not centralized and planning efforts for service coordination must be strengthened (Pearson & Bercovitz, 2006). The interaction between provider coordination across many disciplines and lack of a common site for service delivery exacerbates the need for a tool to aid coordination of care. Fragmentation in care can lead to medical errors and quality shortcomings, which in turn lower medical outcomes and lower efficiency (Brailer, 2005). Innovations in home health care to improve care coordination and reduce communication failures for home health agencies include the use of health information technology (HIT) (Coleman, 2003; O'Malley, Grossman, Cohen, Kemper, & Pham, 2009; Rialle, Duchene, Noury, Bajolle, & Demongeot, 2002).

In particular, the use of point-of-care documentation within home health services has

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