Chapter 7

Organizational Factors Influencing the Use of Clinical Decision Support for Improving Cancer Screening Within Community Health Centers

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ABSTRACT

Adoption of clinical decision support (CDS) systems leads to improved clinical performance through improved clinician decision making, adherence to evidence-based guidelines, medical error reduction, and more efficient information transfer and to reduction in health care disparities in under-resourced settings. However, little information on CDS use in the community health care (CHC) setting exists. This study examines if organizational, provider, or patient level factors can successfully predict the level of CDS use in the CHC setting with regard to breast, cervical, and colorectal cancer screening. This study relied upon 37 summary measures obtained from the 2005 Cancer Health Disparities Collaborative (HDCC) national survey of 44 randomly selected community health centers.

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A multi-level framework was designed that employed an all-subsets linear regression to discover relationships between organizational/practice setting, provider, and patient characteristics and the outcome variable, a composite measure of community health center CDS intensity-of-use. Several organizational and provider level factors from our conceptual model were identified to be positively associated with CDS level of use in community health centers. The level of CDS use (e.g., computerized reminders, provider prompts at point-of-care) in support of breast, cervical, and colorectal cancer screening rate improvement in vulnerable populations is determined by both organizational/practice setting and provider factors. Such insights can better facilitate the increased uptake of CDS in CHCs that allows for improved patient tracking, disease management, and early detection in cancer prevention and control within vulnerable populations.