

**Title:**

Structured Data in Electronic Health Records to Capture Nursing Work in Complex Care Management

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**Session Title:**

Health Information Technology Tools to Support the Implementation of a Complex Care Management Program

**Slot:**

F 09: Friday, 28 July 2017: 2:30 PM-3:45 PM

**Scheduled Time:**

3:10 PM

**Keywords:**

Complex Care Management, Electronic Health Record and Templates

**References:**

National Quality Forum. (2014). Priority Setting for Healthcare Performance Measurement: Addressing Performance Measure Gaps in Care Coordination. 1-45.

Schultz, E., Pineda, N., Lonhart, J., Davies, S., & McDonald, K. (2013). A systematic review of the care coordination measurement landscape. *BMC Health Services Research*. 13(119), 1-12.

**Abstract Summary:**

The use of electronic health records (EHRs) has changed the way healthcare is delivered and documented. Structured templates and other data are important to measure the impact of nurses in the complex care management. These methods may be used globally, recognizing nurses as unique members of the care team.

**Learning Activity:**

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to describe the use and implementation of structured data fields in electronic health records (EHRs) as a tool to measure the impact of nursing in the primary care setting.	We will discuss the two main examples of structured templates and data created to support complex care management at the Community Health Center, Inc. This will include the structure, reason for collection, and implementation of structured data within an EHR.
The learner will be able to discuss the challenges of structuring electronic health records to measure the nursing role in complex care management in primary care.	We will discuss common challenges faced with structuring data for complex care management, along with specific solutions that could be applied to improve development, and implementation for all agencies utilizing EHRs.

The learner will be able to explain the global implications of defining structured data collection using electronic health records for complex care management in the primary care setting.	We will discuss lessons learned and implications of structured data collection with regard to nurses performing complex care management in community settings.

**Abstract Text:**

Complex care management in primary care has proven difficult to track and measure. Electronic health records (EHRs) initially were designed to document the care of individual patients and for insurers for reimbursement of services, not for measuring population data or clinical processes. Since the implementation of EHRs, many have worked to create ways to utilize structured data to fulfill this need, but more work is needed to develop best practices particularly when it comes to the contribution of nurses in complex care management.

Various templates and structured data fields were created within Community Health Center, Inc.'s (CHCI) EHR to allow for tracking of population metrics as part of the implementation of a complex care management program across 12 clinical sites of CHCI. CHCI is a statewide agency providing care to individuals with low socioeconomic status, including many that are uninsured and underinsured. It has 14 integrated patient-centered primary care sites, delivering medical, behavioral health and dental services along with other ancillary care services such as those delivered by registered dietitians, podiatrists or chiropractors to name a few. CHCI delivers care in over 200 total service delivery sites, when school based clinics and health care for the homeless sites are included in the total count.

CHCI faced many challenges, and celebrated some successes with adding many areas of structured data to the EHR to capture the work primary care nurses were completing every day in their role as nurse care managers. The team involved with creating the structured fields included members of leadership, frontline nurses, business intelligence and health information technology (HIT) personnel. The two main examples focused in care management were related to a template that captured important elements of transition management, and structured data fields to document motivational interviewing and self-management goal setting.

For transition management, CHCI created a template for nurses based on Coleman's Pillars (2004) to better capture structured data collection needed to support transition from hospital to home. Once the transition template is completed by the nurse, they would then choose the most appropriate template relating to the reason for admission, typically an exacerbating chronic illness. Once these templates were implemented, challenges included the length of time it took to complete overall data collection, and duplicative fields for chronic illness data that added some confusion for nurses. Nurses did, however, collect more meaningful data to support transition care than prior to implementation.

For the motivational interviewing and self-management goal structured fields, nurses are able to capture key data to support ongoing follow-up. The first data field addresses whether the patient is ready to set a self-management goal, and then if so, would prompt the nurse to document the confidence level and whether motivational interviewing was used. If the patient is not ready to set a self-management goal, then it would prompt the nurse to document whether motivational interviewing was done. If the patient is following up on a self-management goal, the template also has fields to document that along with progress toward the goal set prior. There are unstructured places for nurses to document notes on the specific goal, and any additional supportive information This allows for some structure, but also room for the nurse to ensure more patient-specific documentation.

For both examples, nurses had varied success at completing the fields. For the transition template it was clear that nurses did not complete all data fields the majority of the time, as opposed to the self-management goal template which was much shorter. The self-management goal template was mainly used within the context of comprehensive diabetes visits, where it is embedded into this visit template. Unfortunately, the self-management template has not yet had its full intended effect, which is for nurses to access it for any situation where self-management would apply.

Structured data is extremely important to being able to create any other HIT tool. Both Dashboards and Scorecards draw on items that are structured within the EHR. Each structured field must be carefully considered and have standard definitions that address a specific clinical outcome measure. They must also address the growing trend of adding additional “clicks” to already challenging multi-tasking. Business Intelligence is key along with HIT personnel to design the most efficient approach to data capture. All in all, it appears that structured fields ensure more uniform data collection, and support standardized practice and measurement among nurses with regard to complex care management. However, more work is needed to perfect implementation and training strategies for frontline personnel to ensure wider use of these important tools.