

POSTER ABSTRACTS
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Chronic Disease
46

Organizational Characteristics and Chronic Disease Care: A Conceptual Model

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Background Cost and quality of chronic disease care depend on many variables. Published reports that seek to identify key variables affecting outcomes and costs often fail to consider a broad enough set of variables and thus may reach spurious conclusions.

Methods: We developed a conceptual model of how factors at five inter-related levels (patient, provider, clinic, medical group, and health plan) may influence chronic disease care outcomes and costs. The conceptual model was derived from a multi-year investigational process that included literature review and in-depth discussions with experts in primary care, specialty care, management, organizational theory, decision science, epidemiology, population health, sociology, demographics, and economics. Subsequently, small, targeted projects were designed to identify key variables at each level, and a larger project to simultaneously test for key variables and interactions between variables across levels has been designed, funded, and fielded.

Results: Initial analysis of a three-level model (patient, provider, clinic) to predict clinical outcomes in patients with diabetes demonstrated that over 80% of observed variance in glycemic control, lipid control, and eye exam rates was assigned to the patient level, with a smaller but significant portion of variance at the physician level, and insignificant variation at the clinic level. Project QUEST will provide a full test of the 5-level model for clinical outcomes and costs for two distinct clinical conditions across 19 medical groups with 85 eligible clinics, 642 providers and 4600 patients.

Conclusion: It is likely that identification of key variables related to cost and quality of care at each level (patient, provider, clinic, medical group, health plan) will lead to development of novel strategies to improve chronic disease care and reduce costs.