The Silo Next Door: Primary Care Leaders’ Perspectives On Collaborating with Hospitals During Hospital-to-Clinic Care Transitions in the Safety Net

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Background: Poorly coordinated care between hospital and outpatient settings, and delayed access to primary care contributes to hospital readmissions. Given financial penalties for readmissions, hospitals are investing in interventions to improve care transitions following discharge. In parallel, Medicaid managed care organizations are providing incentives to primary care clinics to improve care coordination. Despite this, there is little collaboration between hospitals and primary care practices in efforts to improve care coordination following discharge. We sought to understand what primary care leaders perceived as barriers and facilitators to working with hospitals to improve patient transitions from acute inpatient hospital settings to outpatient care.

Methods: We conducted semi-structured telephone interviews with primary care leaders in California, focusing on ‘safety net’ clinics serving Medicaid and uninsured patients, who are at higher risk of readmission. We purposely sampled clinics to maximize variation in geography, urban vs. rural, and types of county health systems. Participants included medical directors, CEOs, and clinic champions for transitional care, care coordination or quality improvement. Questions focused on barriers and facilitators to collaboration with hospitals, including clinic priorities and quality improvement efforts, past or on-going collaboration with hospitals, and existing infrastructure. We systematically coded transcripts to identify emergent, recurring policy-relevant themes using thematic analysis and an inductive framework strategy.

Results: We interviewed 21 primary care leaders (45% response) at safety net clinics in 10 urban and rural counties. We identified the following themes around working with hospitals on transitions: Barriers: 1) current reimbursement does not provide incentives for care coordination; 2) competing priorities for resources (spending on physical infrastructure, expanding clinic capacity, core clinic functions, and measurement of policy-mandated quality measures) limits opportunities to focus on transitions and hospital collaboration; 3) lack of a shared communication infrastructure connecting settings/institutions. Facilitators: 1) external funding support for dedicated personnel and program development; 2) existing personal relationships with hospital leaders; 3) having a large number of shared patients with a hospital; 4) alignment of clinic and hospital missions.

Conclusions: Primary care leaders perceived reimbursement, competing priorities and lack of a shared communication infrastructure as major barriers to hospital collaboration, while facilitators included external funding, relationships with hospital leadership, a shared patient population and alignment of organizational priorities. Stakeholders interested in improving care coordination after discharge should consider revising reimbursement policies to align hospital and primary care incentives, providing resources for dedicated personnel and program development and facilitating information technology interoperability.
The Correlation Between Patient Propensity for Active Participation in Decision-Making and Actual Shared Decision Making Behaviors During Chronic Care Encounters

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Background: Optimal shared decision making requires patients to be actively engaged in agenda setting, information exchange, valuation of outcomes, and decisions. While there are tools to measure one’s propensity for activation, it is not clear if this corresponds with actual activation during an encounter. We sought to assess the relationship between patient propensity for activation and actual activation behavior during encounter decision making.

Methods: Prospective study using dual, blinded rating of transcribed audiotapes of a consecutive sample of 98 consenting participants aged 40-80 years old with 3 or more chronic conditions seeing their internist (N=11) for a routine appointment. Prior to each encounter, patients completed a survey to measure their propensity for participation in shared decision making based on their knowledge (health literacy), skills (medication adherence), and confidence (locus of control). Each domain was scaled to 10 and summed, yielding a total “patient activation propensity” score. Using transcriptions, actual patient activation was rated on a scale of 1-10 (based on relationship symmetry, control of session, quality of questions, directness of decision making, specificity of responses, and focus). Each encounter was also rated by level of decision-making complexity (low, medium, high) and shared decision making (0-10 scale; with additional categorization of each encounter as doctor- or patient-dominated). All encounter measures were dual-rated by 3 authors (GR, DB, PO), with disagreements reconciled through consensus.

Results: Patients were 53% female, 33% Caucasian, mean age was 66, 88% were on 5 or more medications, and 30% had very good or excellent functional status. Doctors were 55% female, mean age 48yo, and had a mean of 19yrs since graduation. The level of decision making was: 61% Low, 39% Medium/High. Patient propensity for activation was moderate to high (mean: 19.8, on scale of 0-30) while actual patient activation during the encounters was low (mean: 4.0; SD 1.6, on a scale of 0-10). There were higher patient activation scores with increasing levels of decision making (means: 3.75 for low complexity vs 4.39 moderate to high complexity; p = 0.05). Encounters were overwhelmingly doctor-dominated (88/98), with low levels of sharing in decision making (mean score: 4.4, range 0-10). There was no correlation between patient propensity for activation and actual activation (r=0.14; p=0.24), though there was a trend toward correlation with actual shared decision making (r=0.27, p=0.07). However, observed patient activation was strongly correlated with the observed degree of shared decision making (r=0.65, p < 0.001).

Conclusions: Patient propensity for activation in encounters does not correlate with actual patient activation, and may be suppressed by doctor domination and other structural components of the interaction. Further work is needed to improve the interactional facilitation of patients’ participation in shared decision making.
Screening for Schistosomiasis and Strongyloides Among Brazilian immigrants in the United States

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Background: Schistosomiasis and strongyloides are endemic to Brazil, with estimated prevalence rates of active disease of up to 20% and 5%, respectively. Clinical manifestations of fulminant disease include pulmonary hypertension and multi-system failure. Even years after initial infection, patients can transition from asymptomatic carrier status to severe illness, making treatment in the asymptomatic stage an important intervention. The Centers for Disease Control (CDC) recommends screening for schistosomiasis serum antibodies in patients from endemic areas and for strongyloides, in patients who are higher risk of infection based on clinical and demographic factors. In clinical practice, immigrants are often tested only if eosinophilia is incidentally noted. Data to support either of these practices among immigrant patients from South America is scant.

Methods: To identify patients who had a serologic test for either schistosomiasis or strongyloides performed for screening purposes, we conducted a retrospective chart review of all adult Brazilian immigrants who presented for a routine physical exam at one internist’s primary care practice in Massachusetts between April 2012 and October 2012. The study was conducted at this site as immigrant patients (mostly from Brazil) were routinely screened beginning in April 2012 for both infections. Our primary outcomes were the presence of a positive serologic tests for schistosomiasis and strongyloides (IgG detected by ELISA). We also assessed whether patient demographic factors or the presence of blood eosinophilia (> 7.0 % eosinophils) were associated with seropositivity using the chi-squared test (p-value of < 0.05 considered to be statistically significant).

Results: We identified 125 patients screened for antibodies to both schistosomiasis and strongyloides (no patients were screened for either alone). Twenty-five percent (31/125) had elevated antibodies to schistosomiasis and 6% (8/125) had elevated antibodies to strongyloides. Those with elevated antibodies to schistosomiasis were more likely to have immigrated from the Southeast region of Brazil (i.e., Minas Gerais, Sao Paulo, Rio de Janeiro, Espirito Santo) vs other areas of Brazil (97% vs 64%; p<0.01) and more likely to have lived in the US ≥ 5 years as compared to < 5 years (32% vs 0%; p=0.01) but were not statistically more likely to have an elevated eosinophil count (20% vs 10%; p=0.39). No demographic factor was predictive of strongyloides seropositivity; however, an elevated eosinophil count was associated with strongyloides seropositivity (57% vs 7%; p<0.01).

Conclusions: Results of this preliminary study: 1) suggest the possibility that clinicians might be able to selectively screen immigrants who arrive from Southeastern Brazil for schistosomiasis, and 2) provide support for the current practice of selectively screening for strongyloides in patients who have elevated eosinophil counts. Firm guidelines regarding the optimal approach to screening for these conditions will require confirmation of our findings in larger and more representative patient populations as well as additional research regarding factors such as positive predictive value of current serologic tests for active infection, the potential health risks of treating or not treating in the asymptomatic stage, and financial costs of treatment.
The Impact of the Diabetes Health Plan on Cardiovascular Risk Factors among Patients with Diabetes

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**Background:** A key objective of the Diabetes Health Plan (DHP), a new disease-specific health plan, is the avoidance of complications among diabetic patients through early identification and increased adherence to preventive care and treatments for cardiovascular risk factors. We conducted analyses to determine whether participation in the DHP is associated with better control of cardiovascular risk factors. We hypothesized that among persons with diabetes, those offered the DHP would have better glycemic (A1c) and lipid (LDL) control relative to those only offered the standard benefit.

**Methods:** The DHP includes several enhancements to a standard plan: 1) financial incentives with reduced/eliminated co-pays for medications to lower blood glucose and cholesterol as well as for office visits to the PCP and selected specialists; 2) enhanced access to care management and individualized telephonic coaching; 3) enhanced communication with beneficiaries via online data and adherence tracking; and 4) a compliance design that requires members to comply with evidence-based guidelines to receive enhanced benefits, or potentially be terminated from the plan. For these analyses, we used a longitudinal study design with a before/after comparison group. Patients with diabetes were defined as having any of the following: 1) at least one 250.xx inpatient, outpatient, or ED claim, 2) an A1c value > 6.5%, or 3) use of insulin or an oral hypoglycemic medication other than metformin. We compared eligible diabetic patients within employer groups that offered the DHP with eligible diabetic patients in employer groups that did not have access to the DHP (controls). We applied propensity score matching to select 5 control employers for each DHP employer, using matching variables including mean salary, member count, % female, and % with a chronic condition. We used a 2 year study window to measure A1c and LDL, with a 1-year “pre” period and 1-year “post” period for both the DHP and control samples, but only included patients who had at least 9 months between their “pre” and “post” lab values in the analyses. We constructed multivariate linear regressions to estimate study outcomes, controlling for individual-level income, race, education, age and gender, and compared change in the last recorded laboratory value within each period using difference-in-difference analyses. Results were expressed as predicted probabilities.

**Results:** Our analytic sample included 500 patients within DHP employer groups and 751 patients in control employer groups. At baseline, the mean A1c value was 7.17% in the DHP groups and 7.26% in the control groups. In difference-in-difference analyses, the change in A1c for DHP patients relative to control patients was -0.27% (p=0.002). At baseline, the mean LDL value was 97.6 mg/dl in the DHP groups and 94.5 mg/dl in the control groups. In difference-in-difference analyses, the change in LDL for DHP patients relative to control patients was -2.7 mg/dl (p=0.25).

**Conclusions:** We found that the Diabetes Health Plan was associated with a significant decrease in A1c values, but not in LDL values, among patients in DHP employer groups compared with similar patients in control employer groups. These preliminary results provide support for this “real-world” implementation of a disease-specific health plan in terms of improving glycemic control, but additional studies over a longer follow-up period and examining a wider range of outcomes are needed for a complete evaluation.
Community-Partnered Evaluation of Depression Services for Clients of Community-Based Agencies in Under-Resourced Communities in Los Angeles

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Background: As medical homes are developing under health reform, little is known regarding depression services need and use by diverse safety net populations in under-resourced communities. For chronic conditions like depression, primary care services may face new opportunities to partner with diverse community service providers, such as those in social service and substance abuse centers, to support a collaborative care model of treating depression. This study aimed to understand the distribution of need and current burden of services for depression in under-resourced, diverse urban communities.

Methods: We analyzed data from client screening and follow-up surveys from the baseline phase of a community-based participatory research trial to improve depression services within two under-resourced, diverse communities. 93 programs, including 17 primary care/public health, 18 mental health, 20 substance abuse, 10 homeless services, and 28 social/other community services were identified through a community-partnered process and participated in the trial. 4,440 clients were screened from the 93 programs, 1,322 were potentially depressed by PHQ-8 and gave contact information; 1,246 enrolled and 981 completed surveys. We conducted univariate analyses to describe the sample and bivariate analyses to compare types of screening locations. Significance testing (p <0.05) was conducted accounting for intra-class correlation within program using Chi-square tests for bivariate analyses. To control for potential response bias, attrition weights were constructed by fitting logistic regression models stratified by intervention condition to predict enrollment status and baseline completion from screener predictors. For item level missing data (<5% for all variables except 10-15% for income and mental health disorders assessed by the Mini-international neuropsychiatric interview), we used an extended hot-deck multiple imputation based on the predictive mean matching methods. We imputed 5 data sets, averaged results and adjusted standard errors for uncertainty due to imputation. We conducted 3 sensitivity analyses: 1) multiple imputation for missing surveys to the full eligible sample (1,322); 2) raw data; and 3) sex and age adjustment.

Results: Overall, 69.2% (SE: 2.5%) of clients had a primary care/public health visit in the prior 6 months. Depression prevalence ranged from 51.9% (SE: 3.7%) in mental health programs to 36.2% (SE: 2.5%) in primary care/public health programs to 17.2% (SE: 2.2%) in social-community programs. 41.7% (SE: 2.4%) of clients had primary care/public health visits for mental health/depression. However, primary care/public health settings had only 7.7% and mental health specialty care settings had only 26.6% of the total volume of depression contacts. Clients received most of their depression services (65.8%) outside of traditional healthcare settings, and in multiple program settings (2.0, SE = 0.1). More clients preferred counseling (90.0%, SE: 1.1%) over medication (59.9%, SE: 2.7%) for depression treatment.

Conclusions: Need for depression care was high and a broad range of agencies provide depression-related care. Although most participants had contact with primary care, most depression services occurred outside of primary care settings and the majority preferred counseling over medication for depression treatment, emphasizing the need to coordinate and support the quality of community-based services across diverse community settings.
The effect of patient-centered medical home transformation coupled with payment reform: Patient experience outcomes

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Background: The patient-centered medical home (PCMH) has emerged as a patient-focused, quality-driven, cost-effective model to revive primary care. Linking practice transformation to payment reform may incent more rapid adoption of the PCMH model. Existing literature has examined short-term patient satisfaction outcomes, but results have been mixed. We undertook a three-year quasi-experimental study to evaluate patient experience following a pilot PCMH transformation with payment reform at an intervention and control clinic site.

Methods: Study setting was 2 internal medicine clinics of a large multi-specialty group of 14 practices in greater Boston. The pilot PCMH transformation started in April 2009 and consisted of team restructuring, process improvements and replacing fee-for-service physician reimbursement with a salary scheme. To understand patient experiences with care “pre” and “post” the PCMH transformation, we analyzed 4124 responses to the Press-Ganey patient experience survey in both intervention and control sites from 2008-2010. Our primary outcome was overall visit satisfaction. Secondary outcomes reflected the core principles of the PCMH: enhanced access to care, visit coordination and care, physician communication, and whole-person orientation of care. Each outcome was rated on a 1-5 Likert-type scale from “very good” to “very poor”. Individual survey responses were linked to each patient’s medical record, providing demographic information, healthcare utilization, certain medical conditions and provider characteristics. Propensity score weighting adjusted for case-mix differences between patients in the control and intervention groups in the pre and post periods. Multivariable logistic regression models assessed the adjusted differences between patients’ experiences before and after the PCMH transformation at intervention and control sites.

Results: Between 2008 and 2010, 4124 patients at the intervention and control sites responded to the Press-Ganey patient experience survey. Pre-PCMH intervention (January 2008-March 2009), 1224 patients had received care at the intervention site and 803 received care at the control site. Post-intervention (October 2009-December 2010), 1278 patients at the intervention site and 819 patients at the control site completed a post-transformation survey. After propensity weighting on all available demographic and clinical status variables, intervention and control sites were similar with respect to all baseline variables. Pre-intervention, 62% of intervention participants were very satisfied compared with 68% post-intervention (p=0.004). At the control site, 63% of patients felt satisfied pre-intervention versus 64% post-intervention (p = 0.58). Using a difference-of-differences approach, a trend towards improved overall satisfaction emerged at the intervention site (p=0.10). In analysis of secondary outcomes, intervention participants were more likely to report faster speed of registration (p=0.04), and provide superior ratings to the four questions in the personal physician and communication domain (all p ≤ 0.05).

Conclusions: While earlier PCMH pilot studies showed no improvement in patient satisfaction, using a quasi-experimental design to evaluate patient experience following PCMH practice transformation coupled with payment reform, we found meaningful improvements in key areas. Future studies are needed to determine if physicians, over time, will thrive under salary-based reimbursement.