

Panels, Presentations, and Posters by Penn State Faculty and Graduate Students/Alumni at 2009 AcademyHealth

POSTERS

- **Organizational & Market Predictors of Multidimensional Process Measures of Hospital Quality: A Multi-Level Analysis**

Azza AbuDagga, Ph.D.; Robert Weech-Maldonado, Ph.D.; *Rhonda BeLue*, Ph.D.

Presented by: Azza AbuDagga, Ph.D., Health Policy & Administration, Penn State University, 604 Ford Building, University Park, PA 16802, **Email:** ama220@psu.edu

Research Objective: The robustness of patient assessments of care as measures of health care quality has been established empirically. However, the literature in this area is plagued by several weaknesses: lacking theoretical foundations; being mostly based on simple analyses; being limited to a single or few organizations. These weaknesses are implicated in the inconsistent findings on predictors of patient assessments of care. This study capitalized on the 2002 Picker/NRC survey of Patients' Evaluation of Performance in California (PEP-C) to quantify and partition overall true variations in patient assessments of care into within-hospital, between-hospital, and between-market components and employed predictive models to account for these variations. The conceptual framework for this study derived from Donabedian's Structure-Process-Outcome framework, whereby Picker's multidimensional domains of patient assessments of care – coordination of care, continuity/transition of care, physical comfort, emotional support, information & education, involvement of family & friends, and respect for patient preferences – were conceptualized as measures of process quality.

Study Design: Using PEP-C, American Hospital Association (AHA) survey, and Area Resource File (ARF) data, this study examined patient assessments in a sample of 24,887 medical/surgical patients from 173 short-term hospitals in 46 counties in CA. It employed three-level hierarchical linear models to decompose variations in the domains of process quality across patients, hospitals, and markets. Patient, organizational, and market predictors were introduced, at their respective levels, in a sequential model-building approach to explain these variations.

Population Studied: The sample represented 80% of counties in CA and accounted for 47% of eligible hospitals, 51% of hospital discharges, and 54% of the licensed beds in the state.

Principal Findings: Variations in all domains of process quality were abundant. Strikingly, however, most of the overall variations (95% - 99%) were predominately within-hospitals (i.e., due to differences among patients at the hospital level), rather than between-hospitals or between-markets. Patient demographic/insurance type characteristics accounted for only up to 13% of variations at the within-hospital level. At most 3.4% of the true overall variations existed between hospitals and a maximum of 1% of these variations were attributable to differences across hospital markets. Interestingly, despite the relatively small between-hospital and between-market variations, net of patient characteristics, organizational and market level characteristics predicted a sizable amount of these variations: up to 61% of between-hospital variances and up to 99% of the between-market variances in process quality measures.

Conclusion: The findings of this study suggest that most of the variations in patient assessments of care exist within the patient-health-care-provider relationship. On the other hand, relevant organizational and market predictors need to be accounted for upon making comparisons across hospitals in quality report cards.

Implications for Policy, Delivery or Practice: This study supports the relevance of patient-centered measures of quality, as opposed to the traditional mortality and morbidity measures, for elucidating sources of variations in patient outcomes across organizations and markets. Patient-centered measures can be derived from multiple data sources, including reporting systems for patients' experiences, such as NRC Picker surveys and the Hospital-CAHPS program. Furthermore, these measures can be readily used to answer policy-specific questions.

Theme: Quality and Efficiency: Measurement

• Socioeconomic Disparities in Development in Early Childhood

Marianne Hillemeier, Ph.D.; George Farkas, Ph.D.; Paul Morgan, Ph.D.; Steven Maczuga, M.S.
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Research Objective: The objective of this research is to quantify patterning of sociodemographic disparities in cognitive functioning in early childhood, and identify predictors of low cognitive functioning.
Study Design: Two-stage, multiple logistic regression analyses examine associations between sociodemographic characteristics and low cognitive functioning at 9, 24, and 48 months, and test whether gestational and birth-related factors mediate these associations.
Population Studied: Data come from 6,037 singleton and 1,248 multiple births in the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B).
Principal Findings: Among singletons, persistent poverty and non-white race/ethnic status are not related to risk of cognitive delay at 9 months, but are statistically significant predictors at 24 and 48 months. In contrast, birth conditions—very and moderately low birthweight and very and moderately preterm birth—produce very high odds of low cognitive functioning at 9 months, but these decline by 24 and 48 months such that they are less than or equal to those of socioeconomic variables. The high risks associated with persistent poverty and race/ethnicity at 24 and 48 months occur controlling for gestational age and birthweight. Similar patterns are observed for multiple births.
Conclusion: Sociodemographic disparities in poor cognitive functioning emerge by 24 months and intensify by 48 months, but are not mediated by gestational or birth characteristics.
Implications for Policy, Delivery or Practice: Further investigation of processes whereby social disadvantage adversely affects development in

• Agency Characteristics & Changes in Home Health Quality after Home Health Compare

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Research Objective: Home health care is an important source of post-acute follow-up care for the elderly. The demand for home health care is expected to rapidly grow as the population ages and health care costs increase because home health care is viewed as preferable to costly facility-based care. As home health services become increasingly important, assuring high quality home care is a priority. As part of quality improvement initiatives, the Center for Medicare and Medicaid Services (CMS) recently implemented a public reporting program, Home Health Compare (HHC), for Medicare-participating home health agencies. This study examines whether home health quality improves after HHC and whether the changes in quality differ by home health agency characteristics.
Study Design: We examine the changes in seven quality measures reported in HHC from 2003 to 2007. The measures include the improvement in bathing, transferring to bed, managing oral medications, walking, pain control, hospitalizations, and the use of emergent care. Using a linear regression model, we examine the associations between home health agency attributes and quality improvement. Agency characteristics that are examined include agency profit-status, whether an agency is hospital based or not, branch affiliation, Medicare tenure, and the number of Registered Nurses.
Population Studied: We use Medicare-certified agencies that submit HHC data for all years from 2003 through 2007. The number of agencies used in our analysis varies between 4,525 and 5,306, depending on the quality measure used for analysis.
Principal Findings: Significant improvements are found in quality after HHC for all indicators examined, except for the use of emergent care. However, there was substantial variability in the level of quality change across individual agencies. The degree of quality improvement also varies by quality measures: the largest improvement is shown in the measure of walking ability (6.3 percentage points; 19% above the baseline percentage), and the smallest improvement is in hospitalization rates (1 percentage point; 3% improvements). There is a positive association between agencies' not-for-profit status and quality

improvement, and hospital-based agencies show greater improvement in quality than non-hospital based agencies.

Conclusion: Quality scores of the measures reported in HHC have improved over years. While the improvement is found in all types of agencies, the degree of quality improvement varies by quality indicators and by agency characteristics.

Implications for Policy, Delivery or Practice: Despite the growing importance of home health care, little is known about home health quality. This study provides us with information about what agency characteristics are related to improvement (or lack of improvement) in home health quality after a public reporting initiative. Large variation in quality and quality improvements across agencies suggests that there are further opportunities to improve home health care quality. It also suggests that agency characteristics and quality indicators (e.g., utilization or functional activities) need to be considered in developing effective strategies to improve quality in home health care.

Funding Source(s): Social Science Research Institute at Penn State University

• Which Response Rates to Report in Health Surveys? Implications of Different Response Rate Calculations & Reporting in Health Services Research

Grant Martsof, M.P.H., R.N., Ph.D.; David Johnson, Ph.D.; Kurt Johnson, Ph.D.;

Dennis Scanlon, Ph.D.

Presented by: Grant Martsof, M.P.H., R.N., Ph.D., Graduate Assistant, Health Policy & Administration, Penn State University, 504 Ford Building, University Park, PA 16802-6500, **Phone:** (814) 863-0875;

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Research Objective: We examine the patterns of awareness and use of public provider quality reports in a population of people with chronic illnesses by testing the following hypotheses: 1) individuals with chronic illnesses are more likely to be aware of and use physician reports than hospital reports; 2) those who are more “activated” are more likely to report greater awareness and use of both physician and hospital reports; 3) individuals with chronic illnesses for which there is more quality information in reports specific to their illnesses are more likely to use physician quality reports; and 4) the more reports that are available and the longer the reports have been available, the more likely are people to be aware of and use them.

Study Design: This paper presents a general overview of various response rate calculation techniques with particular emphasis on the most widely used techniques in health services research: AAPOR and CASRO. AAPOR is a more conservative calculation technique used primarily by public policy researchers. CASRO is used to calculate response rates for the Behavioral Risk Factor Surveillance Survey (BRFSS) which is a commonly cited and analyzed survey. To illustrate the importance of the choice between these two methods, we calculate both the AAPOR response rates as well as CASRO response rates for a large random digit dial telephone survey of individuals with chronic disease.

Population Studied: Adults residing in 14 Aligning Forces for Quality (AF4Q) communities, who are 18 years or older and have at least one of the five following five chronic conditions: diabetes, hypertension, heart disease, asthma, and depression (N=7,337). The random-digit dial (RDD) telephone survey was conducted from June 2007 through August 2008 to collect data from the target population.

Principal Findings: We find that there are large differences in response rates depending on the method employed. For the entire survey, response rates using AAPOR were equal to 27.1% while response rate using the CASRO methodology were 48.4%. We also find that there is wide variation in the difference between CASRO and AAPOR by sampling region. For example, in Cincinnati the AAPOR response rate was equal to 55.7% while the CASRO response rate was equal to 25.8% (54% lower) whereas the CASRO and AAPOR response rates in Minneapolis/St.Paul were 47.1 and 34.2 respectively (27% lower). This shows that the differential between the rates is not consistent suggesting that CASRO rates cannot be easily transformed into AAPOR rates and vice versa without the original response data. This makes the comparisons of response rates by readers and editors even more complicated.

Conclusion: Because the willingness of journals to publish and the ability of readers to interpret findings are at least partially conditional on response rates, this study suggest that the calculation methodology matters. Some implications of this study include: 1) Health services researchers using survey data must better understand the differences between the response rate calculation techniques and the implication this has for response rate reporting; 2) These differences must also be communicated to other academic

and lay consumers of survey results for better interpretation of findings; 3) Because journal editors do consider response rates in publication decisions, better standardization and communication of response rate calculations and expectations is important.

Funding Source(s): RWJF

- **Do Rural Reproductive-Aged Women Receive Less Preventive Healthcare Consulting than Urban Women?**

Jennifer McCall-Hosenfeld, M.D., M.Sc.; **Carol Weisman**, Ph.D.

Presented by: Jennifer McCall-Hosenfeld, M.D., M.Sc., Assistant Professor of Medicine & Public Health Sciences, Medicine & Public Health Sciences, Penn State Milton S. Hershey Medical Center, 500 University Drive, Mailcode: HU-15, Hershey, PA 17033, **Phone:** (717) 531-8161;

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Research Objective: Preventive health screening is less frequent among rural women compared to urban women. Preventive counseling is equally important for high quality primary healthcare delivery, but little prior research has explored whether rurality impacts receipt of preventive counseling. We investigate the impact of rurality on preventive counseling among reproductive-aged women.

Study Design: Guideline-concordant preventive healthcare counseling was based on United States Preventive Services Task Force recommendations before 2004: screen and counsel all adults for tobacco use and alcohol misuse, provide routine counseling about effective contraception, and provide intensive counseling to promote weight loss for obese patients. Subjects self-identified demographics, rurality was classified by Rural-Urban Commuting Area codes, and obesity was calculated from self-reported height and weight. Subjects identified whether they had discussed smoking, alcohol/drug use, birth control, nutrition, weight management, or physical activity with a health professional within the past year. We assessed bivariate relationships between receipt of counseling and rurality, then developed multivariate models to investigate the independent contribution of rurality to each of the following: counseling for 1) smoking, 2) alcohol/drug use, 3) contraception, and, among obese subjects only, counseling for 4) diet, 5) weight management, and 6) exercise. Multivariate analyses employed logistic regression, controlling for age, race, education, and regular healthcare provider.

Population Studied: The Central Pennsylvania Women's Health Study, a cohort of 2002 women aged 18-45. Data were collected during 2004-2005.

Principal Findings: 768 (39%) of the women were rural. Compared to urban women, rural women were more likely to be of the oldest age group (35-45 years) (54% versus 49%, $p < .05$), white (97% versus 85%, $p < .001$), have a regular healthcare provider (91% versus 88%, $p = .05$), and have less than or equal to a high school education (45% versus 37%, $p < .001$). There were no significant differences between urban and rural women in household income or gaps in health insurance. In unadjusted models, rural women were less likely to receive counseling for alcohol/drugs (10% versus 13%, $p = .03$) and birth control (30% versus 36%, $p = .01$), but equally likely to receive tobacco counseling. Among 444 obese women, rural women were less likely to receive exercise counseling (53% versus 66%, $p < .01$), but equally likely to receive diet and weight management counseling. In six multivariate models, rurality was independently associated with lack of preventive counseling in only one (exercise counseling among obese women.) Adjusting for demographics fully attenuated the effect of rurality in each of the five remaining models. Older age was independently associated with nonreceipt of preventive counseling in three models (tobacco use, alcohol/drug use, birth control) a finding that was preserved in analyses controlling for smoking and binge drinking. The interaction of poverty and rurality is explored.

Conclusion: In multivariate analysis, obese rural women were less likely to receive exercise counseling than obese urban women. Rurality did not affect counseling for tobacco, alcohol and birth control. Older age may be associated with decreased preventive counseling, regardless of locality.

Implications for Policy, Delivery or Practice: All healthcare providers should ensure counseling for alcohol, tobacco use and birth control to older reproductive-aged women. Rural providers should ensure comprehensive weight management counseling for obese patients.

Funding Source(s): Pennsylvania Department of Health

Theme: Gender and Health

• Long-Term Employment Effects of Surviving Cancer

John Moran, Ph.D.; **Pamela Farley Short**, Ph.D.; Christopher Hollenbeak, Ph.D.

Presented by: John Moran, Ph.D., Assistant Professor, Health Policy & Administration, Penn State University, 504 Ford Building, University Park, PA 16802, **Phone:** (814) 865-8893;

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Research Objective: As survival rates have dramatically improved, cancer is being transformed from a fatal disease into a chronic illness. As with other chronic illnesses, successful treatment of cancer must be measured in terms of the long-term quality of life of patients. Our research objective was to examine one important aspect of quality of life, namely, the long-term effects of cancer on employment. Because earlier research on this question has focused more on workers diagnosed at older ages, we were particularly interested in employment effects for younger workers and in comparing effects for younger and older workers.

Study Design: Four telephone interviews were conducted annually with 1173 adult cancer survivors, who were 25 to 62 years of age and working when diagnosed with cancer in 1997-1999. A non-cancer comparison group of 4723 similarly aged adults working in June 1998 was identified from a national longitudinal survey, the Panel Study of Income Dynamics (PSID). Probit/Tobit regression and propensity score matching were used to compare employment between the two groups in 2002, 3-5 years after diagnosis for the cancer survivors. Three measures of employment were considered: the percent working, the percent working full-time (35+ hours per week), and average hours per week (including non-workers). The regression and matching estimators controlled for other factors likely to affect employment, including socio-demographic characteristics, baseline job characteristics, and the presence of other health conditions.

Population Studied: The cancer survivors were identified from the cancer registries of four medical centers in Pennsylvania and Maryland. Included were survivors of all cancer types, except for common skin cancers and Stage 4 cancers where extended survival was unlikely. The PSID comparison group was nationally representative of adults in the U.S. population, excluding cancer survivors. Separate comparisons were made for four groups: older males (55-65 years of age in 2002), younger males (27-54 years of age in 2002), older females, and younger females. Additionally, employment effects were estimated separately for survivors who remained cancer-free and those with recurrences or second cancers.

Principal Findings: All measures of employment were significantly lower for cancer survivors in each demographic group, except for the employment rate among older women where the difference was smallest and less precisely measured. There were no significant differences in employment effects across demographic groups. Average employment effects ranged from 4.4 to 9.9 percentage points for any employment, 9.8 to 17.3 percentage points for full-time employment, and 4.6 to 6.2 hours per week. There was little effect on the probability of working for survivors who were cancer-free, but significant reductions in full-time employment and hours were observed for all groups except older women.

Conclusion: Even over the long-term, cancer survivors work less than other adults. Effects on the employment of workers who are nearing retirement are not very different from effects on younger workers. Effects on cancer-free survivors are largely confined to hours worked, not the likelihood of working at all.

Implications for Policy, Delivery or Practice: Like other chronic illnesses, cancer has long-lasting effects on patients' quality of life that should be monitored and addressed as part of their ongoing care.

Funding Source(s): American Cancer Society

Theme: Prevention and Treatment of Chronic Illness

ALUMNI

• Factors that Explain Racial Disparities in Restrictive Placement of Children in Special Education & Mental Health Services

Sule Ochai, Ph.D.

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Research Objective: Two main objectives were central to this study--1) evaluate factors that predict children's placement in restrictive settings of special education (SPED) and mental health services (MHS), and 2) examine whether restrictive placement predictors in SPED and MHS differ by race.

Study Design: Multivariate logistic regression models were used to analyze a subset of data on 1,199 children collected as part of the Fast Track Project, a longitudinal study of children at risk for emotional and/or behavioral problems conducted in four locations: Durham, North Carolina; Nashville, Tennessee; rural Pennsylvania; and Seattle, Washington. Two categorical dependent variables were constructed to indicate level of placements in SPED and MHS. For SPED placement, students that received their services in regular classrooms assumed a categorical value of 0 (least restrictive) while those that had their placement in separate or resource rooms took the value of 1 (most restrictive). For MHS placement, children that obtained past-year MHS from any outpatient services sectors were given a categorical value of 0 (least restrictive) while those that secured their mental health services from any inpatient services sectors took the value of 1 (most restrictive).

Population Studied: 1,199 children at the risk of emotional and behavioral problems.

Principal Findings: The relative risk of placing children in a restrictive SPED setting is higher for children whose mothers have higher level of education (OR=1.37, $p<0.001$) and come from households with other adults present (OR=1.31, $p=0.01$). The presence of biological father decreases the relative risk of children's placement in self-contained classrooms (OR=0.68, $p=0.02$). The relative risk of black children receiving SPED in self-contained classrooms compared to white children is highly significant (OR=1.90, $p<0.001$). Teachers' report of a child's inattention problem, diagnoses of mental retardation, learning disabilities and emotional and behavioral problems are significant predictors of a child's relative odds of placement in self-contained classrooms for SPED. Students with higher level of intelligence are relatively less likely to be placed in the restrictive inpatient MHS setting as opposed to the outpatient setting (OR=0.93, $p<0.001$). Students exhibiting greater oppositional and aggressive behavior have a significant greater risk of experiencing inpatient admission (OR=3.53, $p<0.001$). White children who are diagnosed with emotional and behavioral problems are most likely to be placed in an inpatient mental healthcare setting compared to the outpatient sector.

Conclusion: Racial and ethnic disparity persists in the "full" model in the context of restrictive SPED placement but remains insignificant in the context of inpatient MHS placement; suggesting that other variables not fully captured in the present study may yet underlie the observed differences in black and white children's level of placement in the two service sectors examined. Furthermore, the variables that predict children's placement in the restrictive settings of SPED and MHS vary by race and ethnicity.

Implications for Policy, Delivery or Practice: The understanding that children who are placed at certain levels in SPED are more likely to have access to and use MHS calls for inter-agency cooperation in service delivery to behaviorally and emotionally challenged children.

PAPERS ABSTRACTS BY SESSION

Issues in Improving Behavioral Health Care for Children (Chair: Haiden Huskamp)
Monday, June 29 * 11:30 a.m.–1:00 p.m.

• Child Mortality at Pediatric & Other Hospitals

John Moran, Ph.D.; Robert Kanter; Joseph Terza

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Research Objective: Regionalization of pediatric hospital care, in which high-risk patients are admitted to regional comprehensive pediatric hospitals while other patients are hospitalized closer to home, has been advocated by the American Academy of Pediatrics and the American College of Critical Care Medicine, among others. However, evidence supporting these recommendations is limited to small subsets of disorders and hospitals. The evaluation of hospital quality is complicated by the propensity of more severely-ill patients to receive care at higher-quality hospitals, a phenomenon that leads to the well known problem of case-mix bias. We estimate the relative quality of care provided by pediatric hospitals using an instrumental variables approach that mitigates these biases.

Study Design: Comprehensive pediatric hospitals were identified as those in the top decile statewide for both clinical volume and diversity of diagnostic disorders, as well as having an accredited pediatric residency. Eleven of the 241 hospitals in our data met these criteria. Child mortality rates were compared at pediatric hospitals and other hospitals. Patient characteristics and diagnosis-related groups (DRGs) were used to control for observable case-mix variation. To account for unobservable case-mix differences, we instrumented for hospital choice using the differential distance from each patient's residence to the nearest pediatric hospital, relative to the nearest hospital. Differential distance partially affects treatment (choice of a pediatric or other hospital) but does not directly affect outcome, thus mimicking a randomization to the type of hospital.

Population Studied: All children age 14 years and younger hospitalized in New York State during the period 1996-2002, excluding neonates. Additional analyses were performed for a subgroup of children with an elevated risk of death. Our estimation samples contained 903,388 and 355,571 children, respectively.

Principal Findings: The overall child mortality rate was 3.5 deaths / 1000 hospitalizations. Analysis controlling only for patient characteristics indicates that pediatric hospitals have an excess mortality rate of 7.7 / 1000 hospitalizations. Adding DRGs to the set of control variables reduced the excess mortality at pediatric hospitals to 3.0 / 1000. However, when the instrumental variables estimator was employed, the mortality rate at pediatric hospitals was lower than at other hospitals by 4.7 deaths / 1000. For high-risk patients, the mortality reduction at pediatric hospitals was three times larger: 14 deaths / 1000.

Conclusions: Our estimates provide evidence that pediatric hospitals treat sicker patients than non-pediatric hospitals, that part of the difference in illness severity is unobservable, and that after adjusting for case-mix differences, pediatric hospitals provide higher quality care than other hospitals, especially for children whose clinical characteristics heighten their risk of death.

Implications for Policy, Delivery or Practice: Our findings support a role for regionalization of hospital services for children and suggest that regulatory interventions should balance the efficiency gains from competition in hospital markets with the superior clinical outcomes that arise when patients have appropriate access to comprehensive pediatric hospitals.

PANELS ABSTRACTS BY SESSION

Community-Level Healthcare Reform & Multistakeholder Collaboratives: Findings from the Aligning Forces for Quality Project (Dennis Scanlon, Ph.D.)

Tuesday, June 30 * 8:00 A.M.-9:30 A.M.

• Community-Level Initiatives to Execute Consumer Engagement Activities

Grant Martsof, M.P.H., R.N., Ph.D.; Patricia Keenan, Ph.D.; **Dan Maeng**, Ph.D.; **Jessica Mittler**, Ph.D.; **Dennis Scanlon**, Ph.D.; Robert Hurley, Ph.D.

Presented by: Grant Martsof, M.P.H., R.N., Ph.D., Graduate Assistant, Health Policy & Administration, Penn State University, 504 Ford Building, University Park, PA 16802-6500, **Phone:** (814) 863-0875, **Email:** grm153@psu.edu

Research Objective: Effective approaches to promote patient engagement and self management are needed to improve health care quality and address rising costs. This study examines how grant funded initiatives in 14 communities devise and execute viable consumer engagement strategies. We assess how they define consumer engagement, assemble coalitions of stakeholders, and implement strategies and how these efforts progress over time. These strategies are an integral part of a region-focused program to enhance quality of care for patients with chronic conditions carried out by coalitions of multi-sector stakeholders.

Study Design: The study is part of a multi-methods evaluation of the Aligning Forces for Quality program of the Robert Wood Johnson Foundation. The assessment of consumer engagement (CE) activities draws on three data sources: 1) review of proposed activities of each community to address the solicitation aims of organizing and enacting CE initiatives; 2) refined CE work plans developed by the communities during their first, second, and third year while receiving technical assistance and participating in a learning collaborative; and 3) protocol-driven baseline interviews with 276 key informants across the communities; 4) 46 protocol-driven bi-annual interviews with alliance leaders; 5) routine tracking of consumer engagement activities through web-searches, document review, and observation of meetings and discussions.

Population Studied: The community-based coalitions are the unit of analysis. The teams are composed of representatives of providers, health plans, employers, community organizations, consumers, and consumer advocates with a special emphasis on persons with chronic conditions.

Principal Findings: Early on in the process, the coalitions spent much of their time assembling CE work teams, coming to consensus on CE definitions, and trying to determine areas of focus. Now that CE work teams have been functioning for multiple years, select communities are now making progress on a number of pointed initiatives in the areas self management programs, assisting consumers in choosing high performing providers of care, and promoting health literacy. However, progress remains slow in this area and initiatives often highly focused on a single disease or issue.

Conclusions: Even with grant funds, general guidance, and expert technical assistance, crafting a large, community-based strategy for CE is a long process. Evidence from multiple years of the AF4Q initiative highlights the opportunities and the challenges of promoting more active consumer roles in influencing quality of chronic care and a commitment to quality improvement.

Implications for Policy, Delivery or Practice: The slow pace of progress on large-scale, community-level consumer engagement may limit the immediate impact of "consumer directed" healthcare reform. And while significant population-level changes in consumer engagement is likely to be a long process requiring patience and perseverance, many communities have been successful at building infrastructure to promote change.

Funding Source(s): RWJF

- Determinants of Stakeholder Participation in Multi-Stakeholder Health Alliances

Jessica Mittler, Ph.D.; Jeff Alexander, Ph.D.; **Laura Bodenshatz**, M.S.W.; **Grant Martsof**, M.P.H., R.N., Ph.D.; **Dennis Scanlon**, Ph.D.

Presented by: Jessica Mittler, Ph.D., Assistant Professor, Health Policy & Administration, Penn State University, 601 Ford Building, University Park, PA 16802-6500, **Phone:** (814) 865-1925, **Email:** dxs62@psu.edu

Research Objective: A number of communities are developing voluntary health collaboratives, called alliances, among health care plans, providers, purchasers and consumers to facilitate integration and coordination of efforts to improve the quality of care for the chronically ill. A key factor hypothesized to facilitate the success of such voluntary, multi-stakeholder alliances is securing sustained participation of community stakeholders. Using a cost-benefit framework, we examine the early experiences of voluntary multi-stakeholder alliances formed to improve care for the chronically ill in 14 communities to identify key factors influencing participation from the stakeholder perspective.

Study Design: Data are from 14 communities developing multi-stakeholder alliances to improve chronic care community-wide as part of the Aligning Forces for Quality demonstration. These data were gathered through structured surveys and semi-structured face-to-face interviews with 570 and 275 survey and interview respondents, respectively, across the 14 communities. Descriptive analysis and multivariate regression were used to identify factors affecting stakeholders' level of participation, investment and commitment to the alliance.

Population Studied: All stakeholder participants in the 14 multi-stakeholder health alliances of the Aligning Forces for Quality demonstration

Principal Findings: Survey results suggest the benefits of participation in the alliances outweigh the costs overall, although there was substantial variation by community (from 60% to 95% of a community's respondents). Stakeholder perceptions of greater benefits of alliance participation were significantly related to more effective alliance leadership and stronger shared vision of alliance purpose and goals. Important benefits of participation included moving the respondent's own organization towards its goals, getting access to key policy-makers, developing collaborative relationships with other organizations, gaining access to target populations, and being perceived as a leader in the community. Stakeholder perceptions of higher costs of alliance participation were significantly associated with less effective leadership and better management of the alliance. Qualitative data indicate that key participation challenges include lack of agreement on the methods to achieve alliance goals, competing priorities for resources, aims that are at variance with their organizational interests, and skepticism about benefits accruing to their organization and the community. Many participants expressed serious concerns about the ability to retain the active participation of members over time if the alliances are not able to demonstrate observable results that align with their particular organization's interests.

Conclusions: Stakeholders are sensitive to the structure and leadership of multi-stakeholder alliances; they affect their perceptions about the potential success of the alliance and thus their willingness to participate, invest and commit to these efforts. Although general concerns about these alliances are similar across sites, the strength of these concerns varies across communities, which have different histories of collaboration.

Implications for Policy, Delivery or Practice: A thorough understanding of stakeholder priorities is imperative for developing health alliances that attract and sustain broad participation and progress. We believe that alliances that are responsive to their community's particular history and priorities and appropriately modify their governance structures and functioning as these efforts and their communities evolve will likely enhance their chances of success.

Funding Source(s): RWJF

- A Community-Level Effort to Achieve Physician Certification from NCQA's Diabetes Physician Recognition Program

Dennis Scanlon, Ph.D.; **Beich Jeff**, Ph.D.; Patti Simino Boyce, Rn., Ph.D.

Presented by: Dennis Scanlon, Ph.D., Associate Professor, Health Policy & Administration, Penn State University, 504 Ford Building, University Park, PA 16802-6500, **Phone:** (814) 865-1925, **Email:** dxs62@psu.edu

Research Objective: The objective of this study was to study a pay-for-participation approach to motivate quality improvement (QI) within primary care physician practices. The intervention was formulated by a multi-stakeholder health coalition and consisted of monetary (a \$1,000 honorarium and payment of application fees) and nonmonetary incentives (consulting services and claims-based registry reports) to primary care physicians to encourage participation in the National Committee on Quality Assurance's (NCQA's) Diabetes Physician Recognition Program (DPRP).

Study Design: This was an exploratory case study of a nonrandomized intervention with no control sites. The outcomes of interest were receipt of DPRP recognition and performance on DPRP measurements, as well as qualitative information regarding practice decisions about quality improvement. Primary data were collected over a two-year period. Data were gathered from interviews with key members of the coalition, practice managers and QI staff of participating physician practices. Data, including practice level data submitted to NCQA, were also obtained from the clinical consultant working with participating practices.

Population Studied: The intervention took place over a two-year period in eight primary care physician practices with large minority patient populations located in the Rochester, NY area. The unit of analysis was the physician practice.

Principal Findings: Eight of 11 invited practices participated in the program. Out of a total of 79 physicians, 37 (47%) received NCQA DPRP recognition. Receipt of recognition was likely the result of a combination of pre-existing performance and improvements in processes made during the project. Practices performed well in LDL and BP control; moderately well in HbA1c control, foot examinations and nephropathy assessment; and, poorly in documentation of diabetic retinal exams. While sample size prevented hypothesis testing, size of practice was unrelated to receipt of DPRP recognition. All practices with an electronic medical record and patient registry achieved recognition. Strong physician leadership and the presence of a QI infrastructure were believed to be associated with DPRP recognition. Physician leaders noted several motivations for participation including, the honorarium, the opportunity to measure performance against national benchmarks and a general desire to improve quality.

Conclusions: The majority of participating practices listed the pay-for-participation program as positive for the practices' QI efforts, suggesting this type of pay-for-participation program may be a viable strategy for promoting QI in physician office practices. Importantly, participating practices in this pilot were self-selected and thus hypotheses generated from this study would need to be further tested.

Implications for Policy, Delivery or Practice: Participating physicians in this program were employed in safety net practices so it is uncertain if the incentives provided would be as effective in recruiting non-safety net practices. Also, while the practices noted that the program stimulated their interest in QI activities, absent financial or other incentives, it is uncertain that they will sustain their efforts in the future. It is also unclear if and how a program of this nature can reach scale to influence most primary care physician practices in the community, and if so, where the resources to fund such an effort would come from.

Funding Source(s): RWJF