to improve public health outcomes; and 3) the potential for Common Ground to be used as a vehicle for practice transformation in other health departments.
Study Design: NORC is conducting a four-year, multi-method process evaluation. This is the third year of the evaluation. Data collection methods include grantee telephone interviews, focus groups, surveys, and site visits. NORC also conducted a data analysis comparing the characteristics of Common Ground health departments to non-grantee health departments. NORC will deliver a final evaluation report to RWJF in 2011.
Population Studied: The population is thirty-one state and local health departments funded by Common Ground: 15 Informatics Capacity (IC) grantees that were funded in 2006 for 15 months to analyze and redesign their business processes to support essential public health services, and 16 Requirements Development (RD) grantees that were funded for three years to analyze and redesign their business processes and develop requirements for information systems.
Principal Findings: Grantees implemented projects that focus on business processes in various areas of public health practice, including emergency preparedness, chronic disease management, and information exchange. The RD grantees collaborated through national work groups to document common public health processes and develop information system requirements that can be applied across diverse health departments. A post-initiative survey of the IC grantees found that analyzing and redesigning business processes can foster new relationships within health departments, enhancing cross-divisional and cross-organizational communication. Site visits with the RD grantees demonstrated the value of Common Ground as a performance improvement tool. Some of the RD grantees conducted regional training sessions for other health departments in business process analysis and redesign. Several grantees defined requirements for information systems, though few purchased or developed new systems. Grantees reported challenges associated with translating business process principles to public health practice as well as lessons learned.
Conclusions: Findings show that Common Ground offers tools for facilitating quality improvement in public health departments and that most grantees will require additional funding to adopt new information systems.
Implications for Policy, Delivery or Practice: Health departments face growing demands to effectively share information within and across agencies to promote public health, deliver quality care, and efficiently respond to public health threats. Common Ground is a tool that can help health departments to improve the way they do their work – establishing the conditions by which they are better able to serve their populations, and respond to emerging health issues. Further, given its focus on quality improvement, Common Ground may have implications for health departments as they prepare for agency accreditation.
Funding Source(s): RWJF

• Quality Improvement in Local Health Departments: The Development of a Classification System
Brenda Joly, Ph.D., M.P.H.; Prashant Mittal, M.S.C., M.S.

Presented by: Brenda Joly, Ph.D., M.P.H., Public Health and Health Policy, Muskie School of Public Service, PO Box 9300, Portland, ME 04104; **Phone:** (207) 288-8456; **Email:** bjoly@usm.maine.edu

Research Objective: To define and score the maturity of a local health department's maturity with respect to its quality improvement culture, capacity and competency, and alignment and spread.
Study Design: As part of its evaluation of a 16-state evaluation, the authors developed a survey based on known factors shown in the literature to promote or influence the adoption and spread of quality improvement within an organization. The survey was administered to 1178 local health departments following review by an expert panel, cognitive testing and piloting. Respondents were matched based on department name, state, city and zip code information, with a database provided by National Connection for Local Public Health (NACCHO). Factor analysis was conducted on survey data from respondent local health departments to identify sub-domains related to each of the three primary domains: culture, capacity and competency, and alignment and spread. With these observations and results from hierarchical clustering, an optimum cluster solution was found to explain differences among local health departments with respect to domains and sub-domains. A scoring algorithym was devised to measure self-reported QI maturity by domain and across domains.
Population Studied: The analysis was conducted on a matched set of 640 local health departments which completed both the evaluation survey and the 2008 NACCHO (National Association for Local Public Health)survey.
Principal Findings: Major findings include: 1) A five cluster solution most ideally explains the differences among local health departments with respect to the three domains and nine sub-domains, 2) These have been found to be completely discreet clusters, and 3) Clusters can be used as a scoring algorithm and to place a local health department within a continuum based on survey responses.
Conclusions: Our working assumption at the start of this research was that local health departments vary significantly in their practice and use of quality improvement tools and techniques. A primary purpose of this research was to distinguish among local health departments on factors or characteristics that account for the adoption and use of quality improvement. Our research concludes that the maturity of a local health department can be defined and scored based on self-reported assessments of culture, capacity and competency, and alignment and spread.

Implications for Policy, Delivery or Practice: Given the advent of national voluntary accreditation and the program's anticipated launch date of 2011, exploring the readiness of agencies to embrace quality improvement is timely and directly relevant to the public health practice community. Based on a recently updated statement of policy from the National Association of County and City Health Officials (NACCHO), it is clear that the country's national organization representing approximately 3,000 local health departments (LHDs) is encouraging each governmental entity responsible for public health to engage in quality improvement and prepare for accreditation through QI processes and activities. In addition to NACCHO support, several other national entities representing the practice community have been vocal about their the need for public health agencies to enhance QI capacity, including the Association of State and Territorial Health Officials8 and the Centers for Disease Control and Prevention. The proposed objectives for Healthy People 2020 also include new areas related to quality improvement. This level of attention and support suggests that public health practitioners, organizations and associations are aware of the movement, momentum and potential surrounding quality improvement. The National Public Health Systems Research Agenda, published in 2006, identified the need to explore agency performance and outcomes as one of three top priorities. Research assessing quality improvement maturity will likely accelerate knowledge and interest in building capacity and core competencies.
Funding Source(s): RWJF

Organizational Factors and Care Delivery

Chair: Christopher Friese

Monday, June 28 * 9:45 am–11:15 am

• Economies of Scale and Scope: The Case of Specialty Hospitals

Kathleen Carey, Ph.D.; James Burgess Jr., Ph.D.; Gary Young, Ph.D.

Presented by: Kathleen Carey, Ph.D., Associate Professor, Health Policy and Management, Boston University School of Public Health, 715 Albany Street, Boston, MA 02118; **Phone:** (781) 687-2140; **Email:** kcarey@bu.edu

Research Objective: The recent growth of physician-owned hospitals specializing in cardiac, orthopedic, and surgical specialty services (specialty hospitals) in the U.S. has generated considerable controversy, yet there is little understanding of the economic logic of organizing hospital services around these single specialties. Because specialty hospitals are small relative to the general hospitals with which they compete, an important economic question that arises is: Do specialty hospitals have sufficient size to achieve economies of scale and economies of scope? This paper takes a multiple output hospital cost function approach to empirical investigation of this issue.
Study Design: We estimated two hospital random effects models that regressed total annual operating costs on discharges, outpatient visits, average length of stay, indices for inpatient and outpatient case-mix, input prices, and teaching and ownership status. In order to analyze economies of scale and scope separately for distinct types of specialty hospitals, the first model included cardiac specialty hospitals and the second model included orthopedic and surgical specialty hospitals. Binary variables indicating whether a particular hospital was a specialty hospital were entered as main effects and interacted with output variables. Using regression results, we calculated measures of ray scale economies for the two key outputs of discharges and outpatient visits. We also estimated economies of scope by simulating the cost of producing outputs separately in general hospitals and specialty hospitals compared to producing the same level of outputs jointly in general hospitals. The primary data source was the Medicare Cost Reports. Identification of specialty hospitals was made with the assistance of the Centers for Medicare and Medicaid Services supplemented by web searches. Additional data came from the American Hospital Association Annual Survey Database.
Population Studied: The models were estimated on all specialty hospitals operating during the period 1998-2007 in the 10 key states in which 90 percent of specialty hospitals were located, as well as all acute care general hospitals serving the same market areas, defined as Dartmouth Hospital Referral Regions.
Principal Findings: The empirical results suggest that general hospitals realize significantly greater economies of scale than either cardiac or orthopedic/surgical specialty hospitals. Specialization of either cardiac or orthopedic/surgical services in separate facilities does not lower total cost compared to joint service in general hospitals.
Conclusions: Previous research has found specialty hosptials to be less cost efficient than general hospitals. This paper suggests that part of the explanation may be that specialty hospitals do not produce enough output to achieve economies of scale and of scope.
Implications for Policy, Delivery or Practice: Following the recent lift of a three-year moratorium on new physician-owned cardiac, orthopedic, and surgical specialty hospitals, a number of bills have been introduced in the U.S. Congress that would ban the referral of Medicare and Medicaid patients to specialty hospitals by physician-owners. The results generated in this paper inform this heated policy debate over the future organization of hospital services.
Funding Source(s): RWJF