Compilation of 18 CAHSPR 2014 Conference Abstracts: HSPRN Sponsored Workshop and Presentations involving HSPRN Members

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2014 CAHSPR Conference: Workshop Abstract

Writing Blogs and Op-Eds for Health Services and Policy Research

Led by: Karen Born; Jeremy Petch; Paul Taylor; Steve Morgan Trainee Workshop, Monday May 12, 1:00-4:00 pm

Coordinated by the CAHSPR Student Working Group Collectively sponsored by: the CAHSPR SWG, HSPRN and Healthy Debate

This preconference workshop is intended for students and post-doctoral trainees who are interested in learning how to disseminate their research to online audiences.

This workshop will provide a basic introduction on how health care blogs and opinion editorials (op-eds) can be effectively used as knowledge translation tools. The interaction portion of the workshop will help integrate learned concepts using sample blogs generated from different areas of research.



Patterns of Care for Children who are Persistently High Resource Utilizers: Implications for Policy

Presented by: Astrid Guttmann, Senior Scientist, Institute for Clinical Evaluative Sciences (ICES), HSPRN Rapid Fire Poster Presentation, Tuesday May 13, 8:15-8:30 am; Poster, 9:45-11:00 am, RF1.2

This study described the characteristics, costs, and patterns of health care use among pediatric (high resource utilizer) HRU patients and analyze the clinical and socio-demographic predictors of persistently high utilization in a population-based sample in a universal health insurance system. Complete health system use and costs were analyzed for all non-newborns (< 18 yo) in Ontario, Canada (population 14 million) from 2007-2012 using linked health administrative databases. HRUs were defined as the top 1% of the population in terms of total cost in 2007. Persistence was defined as ongoing top 1% in the subsequent four years. We used logistic regression to test the association of clinical and socio-demographic characteristics with persistence. 28,642 children were in the top 1% in 2007 (median [IQR] cost Canadian \$22,945 [\$13,419, \$49,316]. In the four subsequent years, 138 (0.5%) died, and 2,472 (10.5%) persisted in the top 1% of costs. The highest rates of persistence were among those with neurological impairment (38%) and multiple complex chronic conditions (16%) as compared with more acute, self-limiting problems such as trauma and severe infections (both <1% persistence). In multivariable analyses, those with technology assistance were four times more likely (aOR 3.86, 95% CI 3.46 - 4.29) to be persistent HRUs. Socioeconomic status was not associated with persistence. Among the persistent HRUs, home care use was the largest contributor to cost (58.3% of total) followed by inpatient use (15.4%). 37% did not have any inpatient use in the follow-up period although 82% had an Emergency Department visit. Pediatric HRU populations characterized by technology assistance, neurologic impairment and complex chronic conditions are most likely to have continued high healthcare costs although the majority do not have persistently high costs year over year. Policy focused on bending the cost curve by targeting pediatric HRU inpatient use may not result in substantial savings.

Co-authors: Eyal Cohen, Hospital for Sick Children, HSPRN; Matthew Kumar, ICES, HSPRN; Qendresa Hasanaj, ICES, HSPRN



Adoption of New Innovations in Acute Care Hospitals

Presented by: Jennifer Innis, MA, NP, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN

Poster Presentation, Tuesday May 13, 9:45-11:00 am

How healthcare organizations learn and use new knowledge is particularly important in acute care hospitals, where organizational knowledge directly impacts the health of users. Using the example of health literate best practices, this presentation examines the factors that influence organizational learning capacity in acute care hospitals. In order to understand organizational learning capacity in acute care hospitals a literature review framed by two conceptual frameworks and a key concept was done. The Consolidated Framework for Implementation Research contains five general domains: the intervention, the inner setting, the outer setting, the individuals involved and the implementation process. Argote & Miron-Spektor's framework for analyzing organizational learning was used to understand how new knowledge is used in organizations. As well, the concept of organizational absorptive capacity fits within the domains of the CFIR and it is a key construct in the understanding of organizational learning. The literature review was used to develop a new conceptual framework that is focused on the factors influencing the learning capacity and uptake of best practices in acute care hospitals. This framework looks at the influence of the following factors on the absorptive capacity of the organization: the innovation or the best practice, incentives, external organizational response, organizational culture and structural characteristics. All of these factors affect and are affected by the absorptive capacity of the organization. It is this absorptive capacity that influences the organization's cycle of learning, which can lead to the uptake of the innovation. The adoption of new innovations such as health literate best practices has the potential to improve patient outcomes and decrease healthcare costs. The use of this new framework has the potential to facilitate improved hospital performance as well as improved use of acute care health resources.

Co-authors: Whitney Berta, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN



Identification of Structural Components of Primary Care Practices Association with Lower Hospital Utilization

Presented by: Jocelyn Pang, Master's Student, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN

Poster Presentation, Tuesday May 13, 9:45-11:00 am

Primary care (PC) is the foundation of the Canadian healthcare. PC reform is a top priority in Ontario, with an increasingly popular PC delivery concept being the patient-centred medical home (PCMH). This study intends to identify the structural components of PCMH associated with better patient outcomes in the province. Sub-study within the Quality and Cost of Primary Care study, an international PC performance measurement study. Ontario family/general practice physicians were emailed invitations to participate. One physician per practice was allowed to enroll. Participants completed physician and practice surveys, and distributed patient experience surveys for completion by 9 patients per practice. Survey data measured the extent PC practices resembled PCMH. Survey data was linked with administrative data for all participating physicians' patients to capture non-urgent emergency department (ED) visits and ambulatory care sensitive (ACS) hospitalizations. Hierarchical logistic regression models determined the relationship between PC practice characteristics and patient hospital utilization. Survey data was collected from 183 PC practices and 1,760 patients. Results are being linked with administrative data. Surveys show 96% of patients report it was easy to get an appointment, 68% report different healthcare providers work together effectively in their care and 78% report it was not difficult to get referral to a medical specialist. 67% of PC practices use electronic medical records (EMR) to support prevention/follow-up reminders. Complete study findings will be available by March 2014. Based on the Canadian PCMH definition, we expect PC practices with higher accessibility to care, use of interprofessional teams, coordination of care, use of EMR to support patient safety and quality improvement, and access to resources/funding availability will be correlated with fewer ED visits and ACS hospitalizations. Results from linking comprehensive PC survey data with health administrative data in Ontario may support evidence-based decisions in the ongoing PC reform. Due to the central role that PC plays, stronger PC may lead to a positive change in the performance of the overall healthcare system.

Co-authors: Walter Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN; William Hogg, Canadian Primary Health Care Research and Innovation Network; Jan Barnsley, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN



Impact of Health Literacy on Chronic Disease Management: A Literature Review

Presented by: Jennifer Innis, MA, NP, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN

Poster Presentation, Tuesday May 13, 9:45-11:00 am

The objectives of this literature review were to find out the characteristics of effective health literacy interventions in chronic disease management, the impact of these interventions on patient outcomes and to find out if there is evidence that these interventions impact use of acute care services. The management of chronic disease depends on a high level of self-management and this management can be challenging for patients with low health literacy. Patient education that is focused on the needs of individuals with low health literacy is a strategy that has the potential to improve patient outcomes. In October 2013, a search for health literacy interventions was completed using Ovid MEDLINE®. The inclusion criteria were interventions used with participants with low health literacy and participants with a chronic disease. Exclusion criteria were: interventions used in mental health and outcomes that were focused on advanced directives and informed consent. This review of the literature found 19 empirical studies that examined the use of health literacy interventions in chronic disease management. There were 6 types of interventions: self-management strategies, education sessions, phone calls, video, pill cards and demonstration of technique. The health literacy interventions that were the most effective had an individualized patient focus to meet the needs of the participants, used multiple modalities and emphasized self-management strategies. All of the studies demonstrated improved patient outcomes on at least one health-related outcome. These outcomes included decreased number of deaths, decreased acute care service use postdischarge, improved knowledge of disease, enhanced self-efficacy and self-confidence in management of a chronic disease, improved medication management and enhanced symptom monitoring. When patients have improved health outcomes, they have been found to have reduced use of acute care services. The use of health literacy interventions in chronic disease management has the potential to lead to decreased healthcare costs and improved use of acute care services throughout Canada.



Who are the High-cost Users? A Method for Person-centred Attribution of Health Care Spending

Presented by: Sara Guilcher, Post-Doctoral Fellow, St. Michael's Hospital, HSPRN
Panel Presentation Participant, Tuesday May 13, 1:00-2:15 pm, A4.3

Among individuals accounting for the top percentiles of Ontario health care expenditures: (1) To develop and use person-centered care episodes to describe the main clinical reasons for expenditures; (2) To attribute costs related to specific episodes by health sector (e.g., emergency department, hospitalizations, home care, physician billings). Data were drawn from linked administrative databases of all publicly funded health care in Ontario for individuals who comprised the top 1 % and 5% of total costs between April 1, 2010 and March 31, 2011. Care episodes started with acute care admissions and temporally linked to end after a service gap of 30 days. For each episode of care, the reason for admission was categorized into one of: pregnancy, low birth weight, iatrogenic causes, trauma, mental illness and addictions, avoidable acute conditions, acute planned surgical episodic elective, acute planned medical, cancer, and other. Costs were calculated for each episode of care and compared across individuals. A total of 662,248 and 132,230 individuals were identified in the top 5% and 1% of high cost users, respectively. As of April 1, 2010, 11% of individuals were residing in an institution for the top 5% and 33% for the top 1%. The most common reasons for episodes were: acute unplanned medical (29.8%), acute planned surgical (11.9%) and iatrogenic causes (7.9%). Ambulatory care sensitive conditions accounted for a relatively small proportion of episodes. Descriptive data showed that the median number of chronic conditions was 8 and more than half of persons were on 10+ different drugs. While a major cost driver was acute care services, long-term care services had a particularly pronounced effect on certain populations. There is a need to understand the underlying factors related to episodes of care for high cost users, in order to assist with targeted interventions and policy planning. Our study provides a novel methodological approach to categorize high cost users into meaningful person-centered categories.

Co-authors: Walter Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, Institute for Clinical Evaluative Sciences, HSPRN; Susan Bronskill, Institute for Clinical Evaluative Sciences, HSPRN, Institute of Health Policy, Research & Evaluation - University of Toronto



Transitions of Care--The Hospital Discharge Experience of Patients with Complex Chronic Disease

Presented by: Julia Ho, Research Assistant, Ryerson University, HSPRN Oral Presentation, Tuesday May 13, 1:00-2:15 pm, A6.2

The objective of this study was to determine hospital discharge concerns reported by persons with complex chronic conditions, defined as the presence of one or more health conditions that require a high level of resource use from the health care system. This study was a secondary analysis of qualitative data from a large scale, mixed methods study which took place in 2011 at Bridgepoint Hospital, a complex continuing care and rehabilitation facility in Toronto, Canada. One-hundred and sixteen patients were interviewed individually using a self-designed survey comprised of open- and closed-ended questions. All data related to hospital discharge was extracted and examined using qualitative descriptive analysis. Each theme was analyzed to determine if there were any apparent trends. Three overarching themes were identified representing key discharge concerns of hospital patients: process (next steps in the care plan, friction in the provider-patient relationship, premature discharge), consequences (relocation, impact on family, leaving the comforts and security of the hospital), and needs (availability of home care, managing daily activities, navigating the pre-disability home). The three themes represented patients of all age groups, sexes, different marital status groups, and a range of health conditions. A re-design of our hospital-centric health care model is essential in providing seamless transitions in patient care across the continuum. The integration of hospital in- and out-patient services, home care, and community services is necessary to improve the patient discharge experience.

Co-authors: Kerry Kuluski, Bridgepoint Collaboratory for Research and Innovation, HSPRN; Ashlinder Gill, Bridgepoint Collaboratory for Research and Innovation, HSPRN



QUALICO-PC in Canada, Australia, and New Zealand: Recruitment, Responses, and Initial Cross Country Comparison with Australia and New Zealand

Presented by: Sabrina Wong, Associate Professor, UBC; Alan Katz, Professor, Manitoba Health Policy Centre; Walter Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN; Gary Teare, Health Quality Council, Saskatchewan; Fred Burge, Dalhousie University

Panel Presentation Participant, Tuesday May 13, 2:30-3:45 pm, B2.1

This panel will provide comparative information on primary care performance across three countries: Canada, Australia, and New Zealand. Investigators from the Canadian arm of the QUALICO-PC study will present data and results based on collaborative research from these. Dr. Wodchis will introduce the QUALICO-PC research program, implementation and partnerships in Canada and internationally, Dr. Katz will report comparative information on the primary care practices, highlighting aspects of practice composition and accessibility of practices through practices such as extended hours. Dr. Wong will report on survey results of the differences and similarities in patient experience from the same practices as those reported in the physician practice surveys. Clinicians (Dr. Burge) and decision-makers (Mr. Teare) who participated in the Canadian QUALICO-PC arm will respond to the results. The panel, while reporting on comparative results, will also highlight the challenges of developi ng robust performance measurement in primary care and recruiting physicians to participate in surveys and in opportunities are made possible through international collaborative research efforts as exemplified by QUALICO-PC. Context: Performance measurement in primary care (PC) can be used to evaluate and identify opportunities for improvement at the practice and system level. QUALICO-PC evaluates the quality, equity and costs of primary care systems across 33 mostly European countries but also in Canada, Australia, and New Zealand. Design: Descriptive cross-sectional surveys of practices, providers, and patients. The three surveys were designed to be integrated in the analysis phase. Setting: In all countries, one provider per practice participated. Patients (n=10) from their participating provider were approached. Patients were > 18-90 years old, read English or French, and were not cognitively impaired. Providers administered the survey on a day representative of their practice. Recruitment of physicians was similarly low (<15%) across all three countries. Data collection yielded similar numbers of PC physician and practice surveys (n=678, n=173, n=168), patient experiences surveys (n=6099, n=1190, n=1150) and patient values surveys (n=648, n=133, n=103) from Canada, Australia, and New Zealand, respectively. Canada had the lowest percentage of practices using a family practice nurse, were less likely to receive any kind of quality improvement feedback or to segment their patient panels by age, diagnosis/risk factor, medications, of generate reminders from their electronic medical records. In Canada, an average panel size consists of 1,450 patients; 50% of practices have extended hours of service four times/week but 54% are not open on weekends. Compared to Australia and New Zealand, Canadian patients reported lower access to a PC physician on weekends or at night and had the longest waiting time for their last visit. Conclusions: Differences are likely due to the structure of the primary care systems. The findings from these three countries provide some insights into specific improvements that may address concerns raised about the Canadian primary care system.



Understanding the Characteristics and Health Care Utilization Patterns of Palliative and End-of-Life Patients in Ontario Using Administrative Datasets

Presented by: Suman Budhwani, PhD Student, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN

Oral Presentation, Tuesday May 13, 2:30-3:45 pm, B5.2

The objective of this research study was to use health administrative databases to identify palliative and end-of-life patients across acute and community health care settings in Ontario. The secondary objective of this study was to understand the health care utilization patterns of these patients. Differences between palliative and end-of-life patients were conceptualized. Administrative data from the Institute of Clinical and Evaluative Sciences (ICES) were used in prospective and retrospective cohort approaches to identify palliative and end-of-life patients. Patients were captured if they were either assessed or received care under the palliative care and/or end-of-life designation. Various settings were examined, including hospitals, long-term care homes, and patient homes. Following identification, patterns of health care utilization and costs for all identified patients were analyzed. Almost 76% of all individuals who died in Ontario over a two year time period had at least one indication of receiving palliative care. 30% of these patients were also designated as end-of-life in available administrative data. Almost 71% of Ontarians died in a hospital or long-term care home, with Ontarians spending on average about 2 weeks of their last 90 days in the hospital. Almost 60% of costs incurred in the last 3 months of life were a result of inpatient services. The proportions of those receiving palliative care, those designated as end-of-life, those who had both statuses, and those had neither were generally similar across Ontario's health regions. This study delineated the characteristics, health care utilization, and costs of palliative and end-of-life patients across health care settings in Ontario. The findings of this study will allow policy makers to gain the background information that is foundational to efforts in improving the quality of care for these patients.

Co-authors: Walter Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN; Peter Tanuseputro, Ottawa Hospital Research Institute - University of Ottawa, HSPRN; Yu Qing Bai, HSPRN



Does Socioeconomic Status Moderate the Effect of Increasing Chronic Disease Burden on Three-year Survival in a Population-based Cohort?

Presented by: Natasha Lane, MD/PhD Student, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN

Poster Presentation, Wednesday May 14, 9:45-11:00 am

Lower socioeconomic status (SES) is associated with increased risk of multimorbidity and poorer survival. The direct link between the SES gradient in multimorbidity and survival, however, has not been well described. This study sought to determine whether the effect of increasing multimorbidity on patient survival is moderated by SES. This retrospective cohort study used linked administrative data from April 1, 2009 to March 31, 2012. The study sample consisted of 6,639,089 Ontarians up to age 105 years as of April 1, 2009 with at least one of 16 prevalent chronic conditions. A multivariable proportional hazards regression model was constructed to examine correlates of individuals' survival over a three-year time period. Covariates included the number and type of chronic conditions, as well as sociodemographic and health service utilization characteristics. Interactions between neighbourhood income quintile (SES proxy) and the number of chronic conditions were examined. Preliminary analyses indicate that individuals with higher multimorbidity had significantly poorer survival than those with fewer conditions. After controlling for demographics and health services utilization, higher neighbourhood income quintile was associated with longer survival. However, there was no significant interaction between high disease burden and income quintiles in predicting survival. The number of chronic conditions individuals have is highly predictive of their survival and should be considered when targeting interventions to improve health outcomes in complex patients. Although an SES gradient in survival exists among multimorbid patients, the impact of high disease burden on survival is consistent across SES groups.

Co-authors: Andrea Gruneir, Women's College Research Institute, HSPRN; Colleen J. Maxwell, University of Waterloo School of Pharmacy, HSPRN; Susan E. Bronskill, Institute for Clinical Evaluative Sciences, HSPRN; Walter P. Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN



Level of Disability, Multi-morbidity and Breast Cancer Screening: Does Severity Matter?

Presented by: Sara Guilcher, Post-Doctoral Fellow, St. Michael's Hospital, HSPRN Poster Presentation, Wednesday May 14, 9:45-11:00 am

Breast cancer screening is important in the early identification and treatment of breast cancer. Previous research has shown that women with disability are less likely to be screened; however research is limited on the extent to which level of disability and multi-morbidity influence appropriate screening. Thus, we aimed to determine the screening rates for women by level of disability and multi-morbidity and identify the influence of disability, multi-morbidity and sociodemographic variables on screening. Using a retrospective population-based cohort study design, we linked administrative data to identify breast cancer screening in Ontario. The cohort was identified using two waves of the Canadian Community Health Survey (2005 and 2007/08). In total, 10,363 women were identified for study inclusion, 4,660 of whom reported some level of disability. Women with disability were significantly more likely to be older, separated or divorced, have less education, lower income and multi-morbidity compared to women without disability. Women with a moderate level of disability had higher screening rates than both women with no disability or severe disability (71.4% vs. 62.0% and 67.9% respectively). In multivariate regression, women with moderate level of disability had higher odds of being screened compared to women with no disability (OR 1.2 [1.09-1.38]). Similarly, women with one chronic condition had higher odds of screening compared to women with no chronic conditions (OR 1.31 [1.17-1.46]). Our findings suggest that intermediate levels of disability and morbidity are associated with the highest likelihood of breast cancer screening. Future research should focus on the context and mechanisms involved in the entire screening process that explain these findings in order to inform targeted strategic interventions.

Co-authors: Aisha Lofters, Department of Family and Community Medicine - St. Michael's Hospital, Institute for Clinical Evaluative Sciences; Rick Glazier, Department of Family and Community Medicine - St. Michael's Hospital, Institute for Clinical Evaluative Sciences; Susan Jaglal, University of Toronto, Institute for Clinical Evaluative Sciences; Ahmed Bayoumi, St. Michael's Hospital, Institute for Clinical Evaluative Sciences



Organizational Factors in Integrated Healthcare Delivery Models: A Review of Measurement Tools

Presented by: Jenna Evans, Post-Doctoral Fellow, Institute of Health Policy, Management & Evaluation –
University of Toronto, HSPRN
Poster Presentation, Wednesday May 14, 9:45-11:00 am

Mixed performance outcomes across community-based integrated care models may be explained partly by differences in organizational factors. This study identified, organized and assessed quantitative measures to describe and compare organizational structures, capabilities and contexts, and potentially predict the success of integrated care initiatives. A comprehensive conceptual framework of organizational factors was developed - the Context for Integrated Care (CIC) Framework - by drawing from literature reviews and seminal works on innovation implementation, performance improvement, and integrated care delivery. Relevant quantitative instruments were identified using an expert consultation process (n=40) and a literature search. The instruments were mapped to the framework and systematically summarized, compared and assessed by their scientific properties and practical considerations. A further search was conducted to determine the use and empirical base of all identified measurement instruments. The CIC Framework consists of four categories: (1) Organizational Structure and Design (e.g., resources, governance, performance management), (2) Organizational Leadership and Strategy (e.g., leadership style, clinician engagement, strategic focus on improvement), (3) Social/Psychological Context (e.g., climate for teamwork, organizational culture, readiness for change), and (4) Organizational Processes (e.g., teamwork, clinical practices, inter-organizational collaboration). Over 125 quantitative instruments were identified across these diverse constructs, primarily self-administered questionnaires with Likert-type scales. Most instruments focused on teamwork and social/psychological factors, while relatively few focused on structural constructs. Psychometric properties varied with most measures requiring further use and testing, and there was considerable overlap across instruments in some areas. In this presentation we will highlight recommended measurement instruments acr oss the four overarching categories in the CIC Framework. Researchers and practitioners can use this bank of valid, reliable measures to describe and compare a range of organizational factors that are empirically linked to improved organizational performance. We provide standardized tools for data collection and comparison across care providers and settings with particular value for evaluating integrated care initiatives.

Co-authors: Agnes Grudniewicz, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN; Ross Baker, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN; Walter Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN



Developing a Person-Centred Electronic Patient-Reported Outcome Tool: Findings from Focus Groups with Patients

Presented by: Carolyn Steele-Gray, Post-Doctoral fellow, Bridgepoint Collaboratory for Research and Innovation, HSPRN

Poster Presentation, Thursday May 15, 9:30-11:45 am

This study determines what aspects of care are most important to patients with complex care needs (multimorbidities) to support the development of a Person-Centered Electronic Patient-Reported Outcome (PC-EPRO) tool. The PC-EPRO is intended to help support the health care needs of patients with complex care needs in a primary care setting. A Design Evaluation Approach is used to ensure the tool captures aspects of primary care delivery that are most important to patients with complex care needs. The initial design phase involved focus groups with patients with complex care needs and their caregivers. Patients were recruited through a Family Health Team based in the east end of Toronto. Four focus groups were conducted with fourteen individuals. Focus groups were audio recorded and transcribed. Transcriptions were thematically double-coded by two researchers. Patients and caregivers identified several areas of importance with regard to the health care services they receive. They identified the need for: 1) improved two-way communication between themselves and their primary care, and other, providers; 2) improved information sharing between providers to help manage their multiple chronic issues; 3) better access to services when needed; and, 4) better symptom management, particularly around pain and mobility. When presented with examples of electronic tools participants saw significant potential for these tools to address the challenges they face in managing their care and health day to day. However, participants were also concerned that these types of tools could be costly and take the place of necessary face to face visits with providers. Several key domains were identified by participants including: communication, information sharing, symptom management, and medication management. These findings will be used to inform the next phases of the design of the PC-EPRO tool

Co-authors: Kerry Kuluski, Bridgepoint Collaboratory for Research and Innovation, HSPRN; Cheryl Cott, University of Toronto, HSPRN; Lyons Renee, Bridgepoint Collaboratory for Research and Innovation, HSPRN



Productivity of Primary Care Physicians in Ontario

Presented by: Maude Laberge, PhD(c), Institute of Health Policy, Management & Evaluation – University of Toronto, HSPRN

Poster Presentation, Thursday May 15, 9:30-11:45 am

The present study explores factors that affect the productivity of primary care physicians in Ontario. Productivity is defined by the outputs of physicians measured as the number of visits in relation to the number of hours worked by the primary care physician. The study uses cross-sectional data collected directly from Ontario primary care practices. A request for participation was sent to all Ontario primary care physicians and those interested in participating were sent surveys to be completed. Survey questions can be categorized into characteristics of physicians, characteristics of the organization and of the structure of the primary care practice, and patient characteristics. Information collected included data on the inputs and outputs of the primary care practices. Regression analyses were conducted to determine the effect of the different inputs on the outputs achieved by physicians. A total of 185 physicians participated in the study with a high level of incomplete surveys. Different regression models were run to account for the incomplete data and to have as many observations as possible. The main variable affecting the number of encounters physicians can have is the average consult time which has a high variability ranging from 7 to 30 minutes with an average of 15 minutes. There was a high correlation between practice characteristics such as the staff employed and the percentage of income from different sources. Salary payment compared to fee-forservice and a higher percentage of patient rostered are associated with a lower productivity whereas a larger panel is associated with higher productivity. With the high effect that consultation time has on productivity, this study questions the value of measuring productivity without considering the value of the time spent by a physician with his/her patients. More research is needed to understand how to better measure the value of the outputs of physicians' work.



2014 CAHSPR Conference: Workshop Abstract

The Health Care Cost of Dying: A Population-Based Examination across Health Care Sectors in the Last Year of Life

Presented by: Peter Tanuseputro, Research Fellow, Ottawa Hospital Research Institute – University of Ottawa, HSPRN

Poster Presentation, Thursday May 15, 9:30-11:45 am

The purpose of this study is to: 1) Describe overall health care cost across health care sectors in the last year of life; 2) Describe the socio-demographic characteristics of individuals who use each health care sector at the end-of-life; 3) Describe the cost curves for each health sector as the population approaches death. We conducted a retrospective cohort analysis of decedents between April 1, 2010 to March 31, 2012 in Ontario. For each decedent, we examined health care use and cost in the 12 months prior to death using various health administrative databases held at the Institute for Clinical Evaluative Sciences. We examined the effect of sociodemographic variables, and describe the trajectory of use and cost in the months prior to death. We captured 175,478 decedents and recorded health care use for 173,139 in the last year of life. The average cost incurred was \$49,924, with a total cost of \$8.76 billion. 45.5% of all costs were incurred in the acute inpatient hospital setting, followed by long-term care costs (16.7%), physician costs (10.1%), and home care costs (8.4%). There were very little gender differences, with the highest costs observed in the middle-older age groups (55-84 years). There were no consistent gradients of use and cost across neighborhood income quintiles. Health care cost increased greatly in the last 60 days prior to death, largely due to increasing cost in acute care settings. The direct health care cost in the last 12 months of life is significant. The majority of costs occurred in acute care settings, and in the last 60 days of life. Interventions that focus on shifting care to community and continuing care settings will likely reduce overall costs.

Co-authors: Doug Manuel, Ottawa Hospital Research Institute - University of Ottawa, HSPRN; Walter Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN



Solutions in Primary Health Care for High Users of Health Services

Presented by: Emily Marshall, Dalhousie University (moderator); Kim McGrail, Capital Health; Walter Wodchis, Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN; Jean Mireault, MédiaMed Technologies; Fred Burge, Dalhousie University

Panel Presentation, Thursday May 15, 1:15-2:30 pm

Insert abstract once/if we receive it ...



The Comorbidity Pattern and the Quality of Diabetes Care in Ontario

Presented by: Yelena Petrosyan, Dr., Institute of Health Policy, Research & Evaluation - University of Toronto, HSPRN

Oral Presentation, Thursday May 15, 1:15-2:30 pm, F4.1

Diabetes is a highly prevalent condition in Canada which can be controlled with appropriate care management, particularly in primary care. This study aims to evaluate the impact of policy changes targeted at improving care and patient outcomes on diabetes hospitalizations in British Columbia and Alberta. We used a before-and-after design with longitudinal administrative data on physicians' claims and hospitalization records for diabetes from 1998/99 to 2009/10. For each year, the study population consisted of all the people under 75 years of age who were covered by their respective provincial health insurance plan and who had been diagnosed with diabetes in the two years prior to each study year. Regression analyses were conducted to study the effect policies related to diabetes care in primary care settings on the annual rate of hospitalizations for diabetes among diabetics in each province. Hospitalization rates for diabetes were decreasing since 1998 and continued to decrease after the reforms in both provinces. The rates in BC were lower than in Alberta. In 1998, the hospitalization rate for diabetes was 3.1% in Alberta and 1.6% in British Columbia compared to respectively 1.3% and 0.75% in 2009. In BC, the rate seemed to be plateauing just before the policy was implemented and then started to decrease again which suggests that the policy could have had a positive effect on reducing diabetes hospitalizations. In Alberta, the curve shows a steep decline from 1998 to 2003 and a slower decline subsequently. Regression results suggest that the period post-2003 is associated with a significantly lower hospitalization rate with a slower decline in BC. The hospitalization rates were already declining in both provinces before the reform. Thus, it is challenging to disentangle the decrease that could be attributable to policy changes. More research is needed to better understand the impact of changes in primary care on outcomes like hospitalizations for diabetes.

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Effectiveness of Policies to Improve Diabetes Care and Outcomes: The Case of British Columbia and Alberta

Presented by: Maude Laberge, PhD(c), Institute of Health Policy, Management & Evaluation – University of Toronto, HSPRN

Oral Presentation, Thursday May 15, 1:15 to 2:30 am, F4.3

The present study explores factors that affect the productivity of primary care physicians in Ontario. Productivity is defined by the outputs of physicians measured as the number of visits in relation to the number of hours worked by the primary care physician. The study uses cross-sectional data collected directly from Ontario primary care practices. A request for participation was sent to all Ontario primary care physicians and those interested in participating were sent surveys to be completed. Survey questions can be categorized into characteristics of physicians, characteristics of the organization and of the structure of the primary care practice, and patient characteristics. Information collected included data on the inputs and outputs of the primary care practices. Regression analyses were conducted to determine the effect of the different inputs on the outputs achieved by physicians. A total of 185 physicians participated in the study with a high level of incomplete surveys. Different regression models were run to account for the incomplete data and to have as many observations as possible. The main variable affecting the number of encounters physicians can have is the average consult time which has a high variability ranging from 7 to 30 minutes with an average of 15 minutes. There was a high correlation between practice characteristics such as the staff employed and the percentage of income from different sources. Salary payment compared to fee-forservice and a higher percentage of patient rostered are associated with a lower productivity whereas a larger panel is associated with higher productivity. With the high effect that consultation time has on productivity, this study questions the value of measuring productivity without considering the value of the time spent by a physician with his/her patients. More research is needed to understand how to better measure the value of the outputs of physicians' work.

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