

Medical Practice in Rural Saskatchewan: Factors in Physician Recruitment and Retention

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ABSTRACT

Background: The recruitment and retention of family physicians to rural communities is a challenge throughout Canada and across the globe. Saskatchewan is certainly no different and much attention has recently been paid to physician recruitment and retention in rural Saskatchewan. In 1975, a group of medical students visited rural communities with medical practices, producing a summary report titled Medical Practice in Saskatchewan.

Hypothesis/Research Questions:

1. What factors have motivated Saskatchewan physicians to select rural locations for practice?
2. What factors have motivated physicians practicing in rural Saskatchewan to remain in that community?

Methods/Methodology: Standardized, direct interviews were conducted with physicians practicing in rural Saskatchewan. Ultimately, of the 105 communities profiled, 99 communities were visited, and of those a physician interview was conducted in 66 communities. Five community interviews overlapped as the physician provided service in multiple communities; therefore, 62 community interviews were included in the data analysis. A qualitative, inductive analysis was used to determine the various themes that motivate rural family physicians to practice in rural Saskatchewan.

Results/Findings: The following themes were identified from the interviews: community factors; personal factors; practice factors; and, compensation factors. Of these themes, the most prevalent for recruitment were: the scope of practice; desire for a rural lifestyle; and, having a rural background. In terms of retention, the most prevalent themes were: scope of practice; feeling appreciated by and getting to know patients well; and, spouse and/or family being happy in the community.

Discussion: In order to provide sustainable physician services to rural Saskatchewan, a better understanding of the factors that influence physicians to establish and maintain a rural practice must be understood and revisited on a regular basis.

Conclusions: Future strategies for recruitment and retention of physicians in rural Saskatchewan should take the themes identified by physicians currently practicing into account.

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Perceived Barriers to Family Physician Provision of Medical Abortions

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ABSTRACT

Background: Approximately 28% of pregnancies worldwide will end in abortion. In Canada in 2011, 92,524 therapeutic abortions were performed, with medical abortions comprising only 0.4% of the total. Although legality does not affect abortion rates, where abortion is legal, as it is in Canada, both medical and surgical abortion are regarded as safe procedures.

Hypothesis/Research Questions: What barriers - both modifiable and non-modifiable - prevent family physicians in urban Saskatchewan from providing medical abortions?

Methods/Methodology: Ethics approval was obtained from The University of Saskatchewan Behavioural Research Ethics Board. All 422 actively practicing family physicians in Saskatoon and Regina were invited to participate in the study. The survey included questions about medical background, current practice regarding abortion and perceived barriers to provision of medical abortion. Data was entered into IBM SPSSv.20 for analysis, including descriptive statistics and Chi-square and ANOVA where appropriate.

Results/Findings: The response rate was 28.23% (117/418). Saskatchewan urban family physicians identified ethical, personal and religious reasons as the most common non-modifiable barrier to abortion provision. The most common modifiable barriers to abortion provision were related to lack of procedural knowledge. If the modifiable barriers were rectified, physicians would consider providing medical abortions.

Conclusions: Medical abortions are common, safe procedures, within the scope of family medicine. The majority of practicing family physicians have patients requiring abortion counselling or requesting abortion services.

The non-modifiable barrier to abortion provision most frequently selected was related to ethical, personal or religious beliefs. The main modifiable barriers selected revolved around lack of procedural knowledge and lack of support from colleagues. Many current non-providers who identified modifiable barriers would consider providing medical abortions if those barriers were rectified.

Recommendations: Increased training and education on medical abortion may result in more urban Saskatchewan family doctors becoming medical abortion providers.

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A Breast Milk Bank for Saskatchewan: What do you think?

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ABSTRACT

Background: Human milk is the gold standard for infant nutrition. Barriers such as distance, stress, or medical conditions may prevent provision of human milk for the infant by their mother. In such instances, donated human milk would be helpful. There is only one Human Milk Bank (HMB) in Canada, and it cannot meet the country's needs.

Hypothesis/Research Questions: (a) Do Saskatchewan mothers support development of a local HMB? (b) Would they donate breast milk? (c) Would they use donor breast milk if prescribed? (d) What barriers are identified as important with respect to donating, using or accessing breast milk?

Methods/Methodology: A cross-sectional study of post-partum women at Royal University Hospital in Saskatoon, Saskatchewan was conducted. Nurses provided surveys to each woman on the postpartum ward. Statistical analyses were carried out using IBM SPSS v.20 software, including descriptive statistics and Chi-square using Fisher's Exact test.

Results/Findings: The participants were in favor of establishing a HMB (89.5%;n=212/237). However, out of 241 respondents only 33.6% (n = 81) indicated that they would consider donating milk, 43.6%, (n = 105) were unsure if they would donate milk and 22.8% (n=55) would not donate. Additionally, 36.3% (n=81) indicated that they would use donor milk, while 42.1% (n=101) were unsure, and 21.7% (52) indicated that they would not.

Discussion: Although there was clear support for the establishment of a HMB, the results demonstrated that there is a great deal of uncertainty around donor milk. Safety surrounding use of donated milk was selected most often by participants who were unsure or would not use donor milk. This concern is also prevalent among health care providers. This important issue has to be addressed in order to ensure the success of the HMB.

Conclusions: Establishment of a HMB is supported by Saskatchewan mothers.

Recommendations: An educational campaign for the general public and health care providers will be required regarding the safety and process of donation and milk bank use, to ensure participation in, and sustainability of a HMB. Issues of transportation and access for both urban and rural patients need to be addressed.

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Family physician referral letters: Are we getting the message across?

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ABSTRACT

Background: Referral letters are frequently the mainstay of communication between family physicians and specialists. Poor communication can negatively impact patient care and result in disrupted continuity of care, delayed diagnoses, repeated investigations, and poly-pharmacy. Conversely, good communication can result in improved patient and doctor satisfaction, and improved communication back to family physicians.

Research Question: In Regina, how well do family medicine referral letters to general surgery adhere to the recommended standard?

Methods/Methodology: A retrospective chart audit was done of 97 referral letters to a General Surgeon in Regina using a validated assessment tool. Inter-rater reliability was assessed based on three raters' analysis of the same ten letters. The remaining letters were evaluated by one of the three raters, with the collected information entered into IBM SPSS v.20 for analysis.

Results/Findings: Of the ten letters scored by all three raters, there was a high level of inter-rater reliability. Inter-rater reliability for the total score was 0.93. The interclass correlation coefficient for the overall 1-5 rating scale was 0.82, with a high level of agreement between the overall rating of a letter and the sum of the checklist items ($r(95) = 0.93, p = 0.000$). The mean of the total score for the referral letters was 12.63 out of 23 ($SD=4.00$). For the 5 point overall appreciation mark, the mean score was 2.54 ($SD=1.00$).

Discussion: The assessment tool had previously been validated using standardized letters. The high inter-rater reliability in this study speaks to the validity of the tool in a community setting. The use of electronic medical records in practice may facilitate, or alternately hinder the referral letter process.

Conclusions: Referral letters from community family physicians are frequently sub-optimal. By identifying current gaps in communication, using standardized criteria and assessment tools, strategies for intervention and improvement can be developed and tested.

Recommendations: The referral letter assessment tool was quick and easy to use; it would be useful as an aid to help family physicians improve the quality of their referral letters and to provide more comprehensive communication.

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INRs in the Family Medicine Unit: Are We Keeping Them Within the Therapeutic Range?

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ABSTRACT

Background: The benefits of warfarin in the prevention and treatment of thromboembolic events is balanced with the risk of bleeding. This risk is mitigated by targeting a narrow therapeutic range, the INR. Increasing the time in therapeutic range (TTR) has been shown to decrease both the bleed and stroke risk.

Research Question: How effective are we in the Family Medicine Unit (FMU) at maintaining therapeutic INRs over a twelve month period in patients who have been on warfarin therapy for a preceding minimum of three months?

Methods/Methodology: A retrospective chart review was undertaken at the FMU. We identified 82 patients who had been on warfarin for a minimum of 3 months, and collected 12 months of subsequent INR data. Baseline demographic data was recorded including data required to calculate stroke and bleed risk scores. The primary outcome was the TTR, as calculated using the Rosendaal method. Secondary outcomes included frequency of INR monitoring, major bleeding events, and the average number of units out of target INR range.

Results/Findings: In all, there were 1790 INR results from 82 patients over a span of 12 months. The average number of INRs per patient was 21.8 tests in 12 months. The average TTR was 72%. The most common cause for out-of-range INRs was related to incorrect dosing.

Discussion: The improvement in the FMU TTR compared to usual care is likely secondary to the exclusion of warfarin-naïve patients, the use of dosing algorithms, and the academic focus of the FMU. Interestingly, we are testing INRs more frequently than the recommended four weekly testing. Lastly, 50% of our patients had HAS-BLED scores of 3 or greater, putting them at high risk of bleeding sequelae.

Conclusions: Overall, the FMU's performance on maintaining INRs within a therapeutic range 72.03% of the time was comparable to studies that have looked at the TTR in stable patients, and higher than the TTR for usual care where warfarin naive patients were included.

Recommendations We recommend decreased INR testing in stable patients to better align with current guidelines, yearly reassessment of bleeding and stroke risk, a patient education handout for patients with frequent INRs out of range. Consideration should also be given to the use of new oral anticoagulants when appropriate.

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Community Usage of and Satisfaction with Services Provided by Family Physicians with Enhanced Skills in a Rural Saskatchewan Centre

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ABSTRACT

Background: Rural Saskatchewan family physicians used to provide a wider variety of services, including obstetrics, surgery, anesthesia, and emergency medicine. With the advent of Health Regions, these services have been largely centralized, requiring rural residents to travel to access healthcare. A potential solution is the provision of these services by family physicians with enhanced skills, which is the case in Meadow Lake.

Research Questions: How do patients who obtain their health care services from the Meadow Lake Associate Clinic rate enhanced services provided by FPs in obstetrics, surgery, anesthesia, and emergency medicine? Are these patients aware these services are provided by FPs? Do they value the services? Do they feel they are important? What barriers do they associate with travelling to get healthcare services?

Methods/Methodology: Information from participants was gathered using a short survey. Data was entered into IBM SPSS v20, for descriptive analysis.

Results/Findings: Results showed participants were aware of obstetrics, surgery, anesthesia, and emergency medicine services and that more than half of the participants had accessed them. They placed a great deal of importance on having the services available and were satisfied with obstetrics, surgery and anesthesia. They were less satisfied with the quality of care in emergency medicine. Cost of traveling and being away from family and supports were chosen, among others, as barriers to travelling to access healthcare.

Discussion: The participants were quite satisfied with all except emergency medicine, perhaps because of long wait times. However, some participants commented that they would prefer to have more access to primary care than the services of family physicians with enhanced skills.

Conclusions: Family physicians with enhanced skills provide a highly recognized and valuable service in Meadow Lake. However, there remain some deficiencies in emergency medicine and the importance of the services of family physicians with enhanced skills may not be balanced with the availability of primary care.

Recommendations: A future study should address why emergency medicine satisfaction was lower than all others; as well as, the importance of offering these services relative to primary care. More study is also needed regarding the feasibility of offering the services of family physicians with enhanced skills in other communities.

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Comparing Homeless and Housed: Emergency Department Care, Cost, and Utilization

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ABSTRACT

Background: Homeless individuals have unique patterns of health care utilization which are high in cost and may produce poor health outcomes. Homelessness is a risk factor for increased morbidity and mortality, and is exacerbated by other social and medical factors such as substance abuse and mental illness. The homeless typically make heavy use of Emergency Departments.

Research Questions: What are the costs of providing Emergency Department (ED) care for men in Prince Albert, SK who are under-housed, and how do they compare to those who are well-housed? What is the pattern of ED use among and between these groups? How do housed and under-housed men differ in terms of other social determinants of health and medical comorbidities?

Methods: Twenty-three under-housed men, identified by a social work flagging program, were included in a detailed ED chart review, including data on the pattern of care, as well as medical comorbidities, substance abuse, and other social determinants of health. A cost-analysis and comparison with aged-matched male controls was conducted.

Results: Under-housed and housed men did not have significantly different costs associated with their ED care. A subset of under-housed individuals were frequent users of the ED and had much higher associated costs, largely due to overhead and staffing costs rather than investigations or treatments. Differences existed in the pattern of care between the frequent user group and both the housed and under-housed regular user groups in chief complaint and disposition, and fewer visits by frequent users resulted in admission. Social determinants of health were poorly documented.

Discussion: Homelessness was not associated with frequent or costly ED care, but the subset of under-housed patients that used the ED frequently were disproportionately costly. The differences in care patterns between frequent and regular users may have indicated more frequent social emergencies, but this group also experienced medical emergencies which did require emergency department care.

Conclusions: Homelessness in and of itself does not account for increased ED costs. There is a great deal of variation in ED use patterns among individuals, but the frequent user group is particularly complex, and requires individualized, team-based solutions that may result in cost reduction in the ED, and may have better health outcomes than a broad 'homeless solution'.

Recommendations: Individual solutions for frequent ED users could reduce unnecessary visits and associated costs. There are many models that may address different needs, including case management, increased multi-sector involvement and co-operation, shelter-based primary care, or managed alcohol programs. Broad generalizations about homeless individuals attending the ED should be avoided; this practice is both inaccurate and unproductive.

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Emergency Medical Services versus Self-Transport: Profile of Patients presenting with Acute Coronary Syndrome to Cypress Regional Hospital

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ABSTRACT

Background: Acute Coronary Syndrome (ACS) benefits from early time to treatment, and thus, in large geographical areas, it is difficult to provide patients with quick access to treatment. The Cypress Regional Hospital serves the Cypress Health Region, an area of 44,000 square kilometers. Patients presenting to the CRH with ACS have the choice of using Emergency Medical Services (EMS) or transport by personal vehicle driven by themselves or someone else (Self Transport). Use of EMS provides the opportunity to have earlier contact with medical providers and may have an impact on patient outcomes.

Hypothesis/Research Questions: What is the patient profile of those experiencing ACS that self-present via EMS? Additionally, what were the door-to-needle times, onset of symptoms to needle time, and is distance from hospital associated with choice of transport?

Methods/Methodology: One hundred patient charts were included in the analysis based on inclusion criteria. Patient demographics, times of symptom onset, hospital arrival and treatment, and patient outcomes were recorded. The data collected was entered into IBM SPSS v.20 for analysis, including descriptive statistics, Chi-Square and ANOVA where appropriate.

Results/Findings: Thirty-seven percent of the patients utilized EMS. 72% were male, the mean age was 71 years (SD=13.7) and the mean distance from hospital was 37 km (SD=48.0). The patient charts reviewed had a large number of CAD risk factors but patients with risk factors did not choose EMS more than those without. Hypertension was the only risk factor showing a statistically significant difference. Seventeen patients had a STEMI, with fourteen receiving fibrinolytic therapy. The mean time from hospital arrival to fibrinolytic therapy was 118 min (SD = 186.10385). EMS transport reduced that mean time. Primary outcomes could not be statistically compared as 67% were transferred to a tertiary hospital and lost to follow up.

Discussion/Conclusions: Despite having EMS available, over half of our patients chose to present to the hospital by self-transport. As a direct result of this decision, these patients are putting themselves at risk for suffering catastrophic events while en route, and a delay in receiving vital medical treatments, which could greatly affect their prognosis.

Recommendations: Primary care physicians have the opportunity to screen for Coronary Artery Disease risk factors early to implement primary prevention of ACS. There is also the opportunity to manage the patients with risk factors proactively with stress tests to find ischemic heart disease before it develops into ACS as well as educate our high risk patients about the use of EMS in the event of chest pain.

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Are we ready for LEAN? Taking the Temperature of Teamwork in the Regina General Emergency Department

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ABSTRACT

Background: In 2012, Regina Qu'Appelle Health Region (RQHR) launched LEAN, a system that depends on its front-line staff to come together as teams to identify and solve inefficiencies in healthcare delivery in order to improve the flow of patients through the health system. In Emergency Departments, its use has led to decreased patient wait times, length of stay, and leaving without being seen.

Hypothesis/Research Questions: What are the attitudes of staff towards teamwork? And, what is the level of commitment to RQHR and the Emergency Department (ED) in Regina's General Hospital?

Methods/Methodology: A voluntary anonymous online survey was open to all staff working in the Regina General Hospital (RGH) ED. The survey consisted of 50 items related to 11 constructs, from previously validated instrument in addition to an overall work satisfaction item and demographic questions. The data were exported into IBM SPSS v.20 for analysis, including item and construct means. Pearson correlations were used to examine the association between constructs.

Results/Findings: Seventeen responses were received. Respondents had a high preference for teamwork as well as propensity to trust their co-workers, and these constructs were correlated. They had low trust in institutions, strangers, and their management, and trust in management and company commitment was correlated. High scores in both these constructs correlated with high job satisfaction. Commitment to RQHR/ED was generally good, but the RQHR/ED was scored low in terms of interest in getting their point of view.

Discussion: The fact that the staff did not feel that RQHR/ED was interested in their opinions is concerning as this is a key factor in success of LEAN.

Conclusions: Regarding the implementation and success of LEAN, staff members in the ED are generally team-oriented, but have some distrust in management.

Recommendations: If LEAN is to be successful in RGH ED, then RQHR and the ED must take measures to make front-line staff feel empowered and that their input has value.

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Evaluation and Management of Children & Adolescents with Sports-Related Concussion: How have these Clinical Practice Guidelines been Implemented into Practice?

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Background: In January, 2012, The Canadian Paediatric Society (CPS) published a Position Statement entitled "Evaluation and Management of Children and Adolescents with Sports-Related Concussion" in which the CPS recognized that sports-related head injuries were a common occurrence in children aged 5-16 years and a common cause for Emergency Department presentation. The Position Statement goes on to acknowledge that concussions in this patient population were difficult to diagnose and manage. The most significant update in the Position Statement was the adoption of the Consensus Recommendations of the Third International Conference on Concussion in Sport (held in 2008 and published in 2009).

Hypothesis/Research Questions:

1. In what ways will the adoption of these Recommendations improve the care of this patient population in our community?
2. What are the challenges of implementing these Recommendations into practice?
3. What are the perceived deficiencies in the Recommendations?

Methods/Methodology: Between March-April, 2013, one-time, in-depth interviews were conducted with Family Physicians, Emergency Physicians, Pediatricians, and Sports Medicine Responses were paraphrased and approved by the participants.

Results/Findings: All of the physicians who agreed to participate were aware of the updated recommendations and anticipated that the updated guidelines would significantly improve the care of children suffering from sport-related head injuries in our community. Perceived benefits were: progress in standardizing care; and, enhancing clinician-family communication. Concerns expressed were: about the clarity of the timeline described in the guidelines; the practicality of adhering to the guidelines; and, an ongoing lack of accurate diagnoses of concussions in children.

Conclusions: The updated recommendations endorsed by the Canadian Paediatric Society are expected to result in long-term improvement in the overall standard of care for children suffering from sport-related head injuries in our community. However, there remain some concerns about the overall level of clinical understanding about pediatric concussions amongst primary care practitioners.

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Through the eyes of Family Medicine Residents/Graduate Students: Program Evaluation of an On-line Aboriginal KT Program

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ABSTRACT

Background: No matter where they live, the Aboriginal peoples of Canada face unique health challenges. The College of Family Physicians of Canada recently indicated that "Residents must develop the skills to work with and provide appropriate care for Aboriginal populations".

Research Questions: Will an Aboriginal Cultural Awareness on-line course provide sufficient historical perspective and knowledge to serve as a potential knowledge translation (KT) tool for medical residents and graduate students? Will the content help Family Medicine residents and graduate students to better understand and care for Aboriginal individuals and communities?

Methods/Methodology: Nine participants were recruited to evaluate an on-line course. Participants were given an evaluation form to complete. The evaluations were anonymous, and the data from the completed forms was collected and analyzed using descriptive statistics. All participants were invited to attend a debriefing and group discussion. Results of this discussion served as part of the qualitative evaluation of the course in the form of field notes.

Results/Findings: All participants agreed that the course's objectives were clearly stated and were reflected throughout the different modules. For the most part, participants found the technical components and interface used in the course to be easily navigated, user friendly, and somewhat novel including its use of audio/visual components. All participants agreed or strongly agreed that this course should be included as part of the post-graduate curriculum; however, the course was seen as having limited potential to influence practice.

Discussion: The background and prior experiences of the participants may have been related to the amount of new information they acquired from the course and may have influenced the perceived effect on future practice; however, the effect of hearing the Aboriginal peoples' perspective or "Story" in their own words was profound and together with additional face to face experiences, participation in the course may help future family physicians gain a more holistic perspective.

Conclusions: The Aboriginal Cultural Awareness on-line course would serve as a valuable KT tool for improving family medicine residents' understanding of Aboriginal peoples, their culture, and the social and historical context around them, which, together with practical experiences, may ultimately improving the quality of care provided.

Recommendations: It is our recommendation that the Aboriginal Cultural Awareness on-line course be formally incorporated into the Family Medicine Residency Training Program at the University of Saskatchewan.

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Optimal Health for All: Encouraging a Culture of Scholarly Activity amongst Family Physicians

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ABSTRACT

Background: An increasing number of medical students and residents are going to spend time training in rural and remote sites. This expansion and movement towards a distributed model of medical education is going to require many Family Physicians to act as preceptors for undergraduate medical students and residents. Thus, it is imperative that an environment be created that supports not only practice but also teaching and research (scholarly activity) along with a positive feedback cycle which could result with the net effect being a dramatic increase in scholarly activity.

Research Question: What factors hinder or prevent family physicians practicing in rural Saskatchewan from doing research?

Methods/Methodology: An embedded mixed method design was used. Consent was obtained prior to proceeding with a semi-structured questionnaire via a face-to-face interview of no more than 30 minutes. Family physicians practicing outside of Prince Albert, Regina or Saskatoon were invited to participate.

Results/Findings: The semi-structured questionnaire was well received (N=24) and elicited thoughtful discussion about research/scholarly activity within rural family practice. The opportunities for change identified by the participants were: Faculty Development, research networks, the need for translation research; and, relief from clinical responsibilities. The barriers identified by the participants were: lack of support; lack of skills; lack of time; and, lack of financial support.

Discussion: These findings were comparable to those identified in similar studies looking at research amongst family practitioners in general.

Conclusions: By determining what prevents rural physicians from participating in research/scholarly activities, targeted solutions can be formulated to address these barriers and create an increasingly scholarly environment amongst rural family physicians in Saskatchewan.

Recommendations: Additional research could provide a better understanding of the balance needed between direct financial compensation versus the provision of relief of clinical duties and its impact on facilitating rural research/scholarly activity.

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Chlamydial Testing Practices: An Aggregate Data Analysis and Chart Review in Northern Saskatchewan, Canada

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ABSTRACT

Background: Genital chlamydia trachomatis infections are increasing in Canada and its north, with female rates several times higher than males. Understanding testing practices may aid in the development of strategies to reduce chlamydial rates.

Hypothesis/Research Questions:

1. To what effect are testing frequencies contributing to the difference in chlamydial rates between females and males?
2. Which testing approaches are most effective in the identification of chlamydia infections?

Methods/Methodology: Aggregated data for 2009 to 2012 of northern Saskatchewan chlamydial testing was analyzed utilizing age, gender, and positivity. Additionally, a chart review on testing practices was conducted on 400 chlamydial tests at a northern clinic.

Results/Findings: Across northern Saskatchewan, the annual incidence rate of chlamydia for females was found to be 2.49 times greater than males (13001.4 versus 5218.6/100,000/year). Women's testing rates were 3.46 times greater than males (337.1 versus 97.5/1000/year). However, men had a 1.52 fold greater rate of positivity (16.76% versus 11%). For one medical clinic, contact tracing returned the greatest percent positive cases, with 50% positivity. High-risk females were identified to be high risk significantly more often than males. Routine tests on patients 30 years old and over were 35.3% of the total tests, although male and female positive rates in these ages were 0.72% and 0.85% respectively.

Discussion: If males were tested to a similar frequency as females, male rates may increase. Female and male chlamydia rates were over 4000/100,000 until age 30, suggesting that screening recommendations include these ages in this high-prevalence population. Contact tracing resulted in the most percent positive cases, highlighting its importance. While routine screening occurred frequently, many occurred in older age groups with low prevalence, producing very few positive results.

Conclusions: Males were tested less frequently than females, which could be leading to underestimated male rates. Consideration should be given for screening both males and females under age 30 in high incidence populations.

Recommendations:

1. In high-incidence populations, focus testing efforts on sexually active males and females under the age of 30.
2. Review the practice of routinely testing low-risk individuals.
3. Complete contact tracing protocols.

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Assessing the relevance of an environmentally preferable purchasing policy in the Saskatoon Health Region

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ABSTRACT

Background: The Canadian health care sector is a resource intensive industry that consumes large amounts of natural resources both in supplying and maintaining its operations. As health care providers we have an ethical responsibility to environmental stewardship in order to minimize future impacts on human health. Environmentally preferable purchasing (EPP) policies incorporated into hospital supply chains are one way to accomplish this.

Hypothesis/Research Questions: Common medical products purchased by the Saskatoon Health Region (SHR) do not meet EPP standards as the SHR does not endorse an EPP policy. Alternative products are available that would be considered environmentally preferable to items in use in the SHR.

Methods/Methodology: Ten commonly used health products were selected and investigated using as a guideline, a standardized questionnaire. Based on this information, they were compared to alternative products considered to be more environmentally friendly to determine if the SHR is making safe and environmentally friendly product choices.

Results/Findings: Of the ten items audited, data was obtained on only seven items due to suppliers not responding to information requests. All of the items did poorly on the natural resource section of the audit but did better on the portion of the audit concerning harmful chemicals, with the exception of carcinogens and/or human reproductive toxins.

Discussion: Collecting data on all of the products was a challenge, and on completion of the project data was still missing. This limited the ability to accurately assess the environmental impact of current products.

Conclusions: 1. It is neither easy nor straightforward to collect environmental information on commonly used health care products. 2. Limited access to information would make environmentally preferable purchasing policies difficult to follow.

Recommendations: While the selected products did not perform poorly in all domains on the questionnaire, there is still room for improvement. The Saskatoon Health Region would benefit from an Environmental Preferable Purchasing policy that includes transparency with respect to relevant environmental information, reduction of natural resource use, and elimination of chemicals harmful to human health.

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Community Strengths identified in four Community-based Surveys: A Qualitative Analysis

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ABSTRACT

Background: The World Health Organization had recognized that an asset/strength-based approach to health promotion was essential for the promotion of health and wellness; as well as, for mitigating health inequalities. This study was informed by the integration of community-based participatory research and transformative action research.

Research Questions: What would you identify as the strengths of your community that contributes to or supports health and well-being? What are the different things in or about your community that helps to make you healthy? What kind of things in or about your community makes it hard for you to be as healthy as you want to be?

Methods/Methodology: The four community-based surveys were undertaken with vulnerable communities and used a mixed methods design integrated with participatory processes. These questions were a part of a much larger community-based survey which has been reported elsewhere. To analyze these research questions, an inductive analysis was undertaken.

Findings/Discussion: The response rates were different for the four community-based surveys; however, they ranged from 61% to 98.6%. These questions were answered by a total of 2189 participants from the four communities.

Although all of the social determinants of health were more or less identified, the following six were more commonly identified: the social gradient (SES); stress; social support; addictions; transportation; and, food. Those that played a major role in the happiness of people were: the social gradient (SES); social support; and, lack of stress. Those that appeared to be a barrier to people's desire to be healthy were: the social gradient; addictions; and, stress.

Conclusions: An asset/strength-based approach to health promotion is essential and practical for the promotion of health and wellness; and, for the reduction of health inequalities.

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