

**THE DEVELOPMENT OF AN EVALUATION PLAN FOR THE
IMPLEMENTATION OF THE FEET FIRST PROGRAM TO RURAL
HEALTHCARE SITES WITHIN THE CENTRAL REGIONAL HEALTH
AUTHORITY OF NEWFOUNDLAND AND LABRADOR**

by

© Chantal Parsons

A report submitted to the School of Graduate Studies in partial fulfillment of the
requirements for the degree of

Master of Nursing

School of Nursing

Memorial University of Newfoundland

August 2016

St John's, Newfoundland and Labrador

Abstract

Background: The Central Regional Health Authority (CRHA) offers a nurse-led diabetic foot education program, known as Feet First, at two urban healthcare sites. The CRHA is now in the process of implementing this program at three rural healthcare sites in the region, however there is no plan to evaluate the implementation of the program.

Purpose: To develop a short-term evaluation plan for the implementation of the Feet First program to rural healthcare sites, namely Twillingate, Harbor Breton, and Springdale, within the CRHA in Newfoundland and Labrador (NL).

Methods: (1) A literature review was conducted to establish context and need for practicum project and to identify a framework to guide the evaluation of the Feet First program; (2) Consultations were performed with key stakeholders at the CRHA, as well as a clinician in the province of Ontario involved in a similar program; and, (3) An evaluation plan for the implementation of the Feet First program at three rural healthcare sites in the CRHA was developed.

Results: Findings from the literature review and consultations, and components of the evaluation frameworks, The Knowledge-to-Action Framework used within the Registered Nurses Association of Ontario (2013) and The Program Evaluation Toolkit released by the Ontario Centre of Excellence for Child and Youth Mental Health (2013), guided the development of the short-term evaluation plan entitled “*Evaluation Plan for the Implementation of the Feet First Program to Rural Healthcare Sites in the Central Region of Newfoundland and Labrador*”. The plan identifies facilitators and barriers to program implementation and a data collection plan outlining short-term program

objectives, program indicators (e.g., program attendance numbers, number of completed foot assessments), and suggests strategies to collect information on each indicator.

Conclusion: An evaluation plan for the implementation of the Feet First program to rural healthcare sites was developed. The evaluation plan will be presented to the CRHA to be used in the short-term evaluation of the Feet First program at the rural healthcare sites. In the future, it will also be important to evaluate the long-term impact of the program.

Acknowledgements

I would like to take this time to express my deepest gratitude to all those who helped me complete this report.

- Special thanks to my practicum supervisor Dr. Julia Lukewich who has helped guide this work to be the best it can be. I have enjoyed this practicum program and the great experience has been due to your support and guidance.
- I would also like to thank all the staff at the Central Regional Health Authority who were involved with providing me necessary data to complete this report. The time you took out of your busy schedules to help provide valuable data did not go unnoticed.
- Thanks to the management team at the Central Regional Health Authority, for whom this report was developed, for granting me permission to complete this report. Special thanks to Sandra Carpenter who was always available to lend a helping hand and point me in the right direction.
- Last, but definitely not least, I would like to thank my family. My husband Matthew has done endless proof reading and always pushed me to further my learning even with a newborn. My parents, Dexter and Tina have always done whatever they could to ensure I had an environment conducive to learning. Your unwavering support has never gone unnoticed.

Table of Contents

Abstract	ii
Acknowledgements	iv
Introduction	1
Objectives	2
Methods	3
Summary of Literature Review	3
Summary of Consultations	6
Summary of Evaluation Frameworks	8
Summary of Resource: Evaluation Plan	10
Advanced Nursing Practice Competencies	13
Next Steps	15
Conclusion	16
References	17
Appendix A – Literature Review	20
Appendix B – Consultation Report	45
Appendix C – Evaluation Plan	68

Introduction

Diabetes is a debilitating chronic illness that is steadily increasing in prevalence within Newfoundland and Labrador (NL) (Canadian Diabetes Association, 2013). The Canadian Diabetes Association (2013) identifies that diabetics experience morbidity and mortality associated with the foot, and prevention of amputation in the diabetic population requires many factors, including patient education and regular foot examinations. The CRHA recognizes that diabetes is a prominent chronic disease with a higher prevalence in the central region in comparison to the provincial prevalence (Central Health, 2013). Thus, the CRHA wants to combat complications of the diabetic foot by offering a nurse-led education program, namely the Feet First program.

The Feet First program was developed with funding acquired from the Public Health Agency of Canada (Central Health, 2011). The Feet First program is currently only offered at the two urban healthcare sites in Central Health, namely Gander and Grand Falls Windsor. The program aims to educate individuals with diabetes on the importance of proper foot care. It also serves to alert healthcare professionals about issues associated with the diabetic foot. Clients who participate in the Feet First program are given foot assessments and education on foot care, including education on the importance of wearing proper fitting footwear, how to take care of toenails, and the risks associated with small injuries on the foot. Nurses in particular play a large role in the Feet First program. For example, education and assessments are vital components of the program which are typically completed by nurses. Referrals to specialists, such as the wound care consultant, can also be completed through this program by the nurse or other provider delivering the program. A new approach has been taken by the CRHA to implement the Feet First

program at three rural healthcare sites in the region (i.e., Twillingate, Springdale and Harbor Breton). At the urban sites a nurse coordinator is in charge of hosting the programs. Rural sites have Chronic Disease Lead Teams, which consist of CRHA employees from various disciplines and differ at each healthcare setting depending upon the staff members employed there. One facilitator will be trained to host the program, however all members of the Chronic Disease Lead Team will be in charge of the program at their healthcare site. Although the CRHA evaluated the implementation of the Feet First program within urban sites, there is currently no evaluation plan in place for the implementation of the program to the rural healthcare sites. Therefore, the purpose of this practicum project was to develop an evaluation plan to be utilized for the implementation of the Feet First program to rural healthcare sites, with a specific focus on short-term evaluation.

Objectives

The following objectives were completed to address the stated purpose:

1. Conduct a literature review to establish context and need for practicum project and to identify a framework to guide the evaluation component of the project.
2. Conduct consultations with key stakeholders of the CRHA to obtain information related to the need and suggested methods to evaluate the implementation of the Feet First program to rural healthcare sites within the CRHA of NL.
3. To develop an evaluation plan for the implementation of the Feet First program utilizing findings from a literature review and consultations, and identified framework(s).

4. Demonstrate advanced practice nursing competencies while completing the various components of this practicum project.

Methods

Several methods were utilized to complete this project. A comprehensive review of the literature and consultations with key stakeholders were completed. A copy of the literature review report is located in Appendix A and a copy of the consultation report is located in Appendix B. Findings from the literature review and consultations, and the identified evaluation frameworks (i.e., Knowledge-to-Action Framework as used by the Registered Nurses Association of Ontario, Program Evaluation Toolkit developed by the Ontario Centre of Excellence for Child and Youth Mental Health) were used to guide the development of an evaluation plan. A copy of the proposed evaluation plan is located in Appendix C. Each of the above methods are discussed in detail in subsequent sections.

Summary of Literature Review

A comprehensive literature review was completed. Databases searched included CINAHL, PubMed, American Diabetes Association Diabetes Care journal database, Google Scholar, Wiley Online Library, and Science Direct. In addition, key websites were searched, including provincial nursing associations and the CDA. Search terms included “nursing,” “diabetes,” “education,” “evaluation,” “evaluation framework,” “implementation,” “Feet First program,” “diabetic foot,” “rural health sites,” “rural,” “barriers,” “facilitators,” and “program roll out”. Only articles published within the last 10 years and written in the English language were included. The Centre for Disease Control, the World Health Organization, the Registered Nurses Association of Ontario, and the Ontario Centre of Excellence for Child and Youth Mental Health websites were

reviewed to identify potentially relevant evaluation frameworks. Twenty-two articles were retrieved, however, after reviewing the abstracts and full-text of the articles, only seven studies met the inclusion criteria. These studies were critically appraised using the Public Health Agency of Canada's Critical Appraisal Toolkit and were given a rating as strong, moderate or weak study strengths (Public Health Agency of Canada, 2014).

Important themes emerged from the literature review and will be discussed below.

Feet First Program

No literature could be located specifically on the Feet First program; however, the initial evaluation of the Feet First program offered at the urban healthcare sites in the CRHA of NL was reviewed and short-term program objectives and program indicators were identified (e.g., pre and post client questionnaire, program attendance numbers). These indicators were used as a measure of whether or not short-term program goals were being met (Central Health, 2013). The initial report also contained a logic model that was reviewed. Although this report did not comment on any strengths or limitations of the evaluation measures (e.g., pre and post client questionnaire, program attendance numbers) it did list successes and challenges, as well as lessons learned from the evaluation of the Feet First program at the urban healthcare sites. Successes of program evaluation included that the clinics were better equipped to provide assessments and education on the importance of foot care to those living with diabetes, and education sessions provided to healthcare providers in the CRHA increased their awareness of the importance of foot care in diabetics. Challenges with program implementation at the urban sites that emerged from the evaluation included time constraints as the nursing coordinator only worked part time and poor access to healthcare providers around the region. As well, the funding for

the project ended March 2013 after 2 years of the program running, and as a result, the urban sites were not able to offer clinic as frequently. Lessons learned from the evaluation included the need to have a weekly clinic in place (instead of less frequent clinics) and the need to have a nurse coordinator position to promote the program (Central Health, 2013).

Diabetic Foot Education Programs

A review of the literature on diabetic education programs, focused specifically on diabetic foot education components, found that nurse-led diabetic foot education programs are effective at decreasing ulceration, decreasing amputation rates, and increasing client compliance to proper foot care (Adib- Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al., 2011; Mat et al., 2011; Meng Ren et al., 2014; Woodbury et al., 2013).

After reviewing the literature on diabetic education programs only studies that specifically focused on diabetic foot education programs were applicable. Several studies noted that preventative measures for diabetic foot care are not being taught to this at risk group. These studies also identified that once clients are taught preventative foot care that they became empowered to be involved in their own care (Adib- Hajbaghery, & Alinaqipoor, 2012; Lavery et al., 2010; Mat et al., 2011; Woodbury et al., 2013). With respect to the locations of education sessions, there was variation across studies. Adib- Hajbaghery, & Alinaqipoor (2012), Fujiwara et al. (2011) and Meng Ren et al. (2014) offered the education programs in one jurisdiction/hospital, only one study utilized a number of different sites, and reasoning as to site choice or implementation methods were not discussed (Woodbury et al., 2013). Barriers to program implementation found within the literature included negative staff attitudes towards diabetic foot education/foot care, frequent rotation of patient educator, language/culture barriers, and lack of awareness of

diabetic foot complications by clients (Mat et al., 2011). In contrast, facilitators were identified and included commitment to monitoring and evaluation by staff, straightforward data collection processes during program implementation, and ensuring the availability of support and resources for data collection (Stubbs & Achat, 2011).

Evaluation of Diabetic Education Programs

Six studies stated the importance of program evaluation, identified how auditing processes are necessary, and emphasized that without evaluation data a program would have no method of demonstrating its value (Adib- Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al., 2011; Harris et al., 2015; Mat et al., 2011; Meng Ren et al., 2014; Woodbury et al., 2013). Mat et al. (2011) and Woodbury et al. (2013) discussed using program indicators as a method of evaluation, including client satisfaction questionnaires, pre and post clinic test scores, clinic attendance numbers and referral rates (Mat et al., 2011; Woodbury et al., 2013).

Summary of Consultations

Consultations were conducted with key stakeholders to address the following objectives: (1) to gain an understanding of facilitators and barriers to program implementation at rural healthcare sites; (2) to identify indicators of successful program implementation; and (3) to gain an understanding of potential evaluation techniques that could be used to evaluate the Feet First program at the rural healthcare sites, as well as a similar program offered in Ontario. Six participants were invited to participate in the consultations; two healthcare managers at the CRHA, three Chronic Disease Lead Team leaders at the CRHA, and a lead clinician involved in a similar program in the province of

Ontario. In total, five consultations were completed, including two consultation interviews by teleconference and three consultation questionnaires.

Consultations with management addressed facilitators and barriers to program implementation. Managers were asked to draw upon previous experiences implementing programs within rural healthcare settings in NL. Program facilitators identified included consistent staff training, mandatory regular program schedules, and host commitment to program success. Barriers discussed with management included lack of support for program host and feelings of animosity between healthcare sites regarding who gets to offer the program. Indicators of successful program implementation noted were high attendance levels, positive client feedback and evaluation, positive staff feedback and evaluation, and a high number of referrals in and out of the program. Indicators of ineffective implementation were poor attendance, lack of uptake by community, negative feedback from staff, and avoidance of the clinics by program host.

The Chronic Disease Lead Team leaders had varied experience with program implementation at rural healthcare sites within the CRHA of NL. The individuals with more experience noted that previous program implementation was successful when there was management support, consistent staff available, and time available to work out any kinks in the program. Barriers to previous successful program implementation identified included staff shortages, heavy workloads, lack of funding, limited space, poor uptake of the program within the community, and large geographical regions. All consultants agreed that the Chronic Disease Lead Team was an effective group to mobilize the Feet First program at their respective healthcare sites. Suggested indicators of successful program implementation included a drop in diabetic foot complications, timely

interventions for foot problems, at least 80% of diabetics being seen in the Feet First clinic, and clinics being offered on a regular basis. A proposed method for aiding program implementation was having management help by encouraging providers to refer to the program and providing resources to staff to become competent in diabetes education.

The consultation with a lead clinician involved in the Feet First: Steps for Health program in Ontario was relevant, as clinics were set up in rural regions of Ontario, much like the plan to implement the program to rural regions in the CRHA of NL. They developed the program following the completion of a needs assessment that identified a gap in service for diabetic clients. The initial site that hosted the program demonstrated good uptake by the community and as a result, within six months another site began offering the program. There was no budget set forth for secondary rural sites, therefore the choice of location was dependent upon resource availability, mainly clinic space. Rural sites were better able to offer office space and staff were receptive to offering the program. Facilitators of program implementation were staff initiative to offer the program and the program's high attendance rate, while barriers consisted of budgetary constraints and securing clinic space. The Feet First program in Ontario was evaluated primarily through clinic attendance numbers. However, the number of education sessions provided and a questionnaire on self-care administered after the clinic were also means of program evaluation.

Summary of Evaluation Frameworks

Evaluation frameworks identified that related to evaluation of program implementation included frameworks developed by the Centre for Disease Control, the World Health Organization, Registered Nurses Association of Ontario, and the Ontario

Centre of Excellence for Child and Youth Mental Health (Centres for Disease Control, 2011; Centre of Excellence for Child and Youth Mental Health, 2013; Registered Nurses' Association of Ontario, 2013; World Health Organization, 2007). In particular, two of these frameworks were deemed to be relevant to this practicum project and used in the development of the evaluation plan.

The Registered Nurses Association of Ontario (2013) provides a revised Knowledge-to-Action framework (originally developed by Straus, Tetroe, and, Graham (2009)) in the document entitled “*The Assessment and Management of Foot Ulcers Best Practice Guidelines*”. The framework follows a sequence pattern beginning with identifying the program, adapting knowledge to local context, assessing facilitators and barriers, tailoring implementation strategies, evaluating outcomes, and finally sustaining knowledge use. In particular, the evaluating outcomes component was reviewed in developing the evaluation strategy for the Feet First program as it outlined specific indicators that could be used within the evaluation plan. Indicators of successful evaluation found within the Knowledge-to-Action Framework, that also aligned with indicators in the literature review and results from the consultation, included staff and client feedback and the use of pre and post clinic client questionnaires. The framework recommended evaluation of knowledge use therefore, the pre and post clinic client questionnaire could be used to determine if there is an increase in client’s knowledge in regards to self management of the diabetic foot. This method of pre and post clinic client questionnaire was suggested by participants in the consultations, as well as utilized in the initial evaluation of the Feet First program to urban healthcare sites. The Knowledge-to-Action Framework also suggested some long-term indicators (e.g., cost benefit to

organization); however, these were not included in the resource as the resource was developed for short-term program evaluation only.

The Ontario Centre of Excellence for Child and Youth Mental Health (2013) released a Program Evaluation Toolkit to use when developing an evaluation plan. Although the framework is not specific to a diabetic foot education program the information contained within the framework aided in the development of an evaluation plan. This toolkit aided in the building of a logic model for the evaluation framework of the Feet First program to the rural healthcare sites. The logic model contained within the developed resource was also built upon findings from the literature review, consultations, as well as review of the initial logic model used by the CRHA for the Feet First program at the urban health care sites. The toolkit also suggested using program indicators to evaluate a program as they provide information on how successfully the program is achieving its intended activities and outcomes. Examples provided within the toolkit included participation rates, referral rates, improved scores on a standardized measure, and positive feedback from program participants.

Summary of Evaluation Plan

The developed resource is entitled the *“Evaluation Plan for the Implementation of the Feet First Program to Rural Healthcare Sites in the Central Region of Newfoundland and Labrador”* (Appendix C). The resource is a 17-page PDF document that includes typed information, as well as tables and figures. The purpose of the document is to provide the CRHA with a framework to help guide the short-term evaluation of the Feet First program to rural healthcare sites. The resource is organized into five sections, including project objectives, background, facilitators and barriers, evaluation plan (which

outlines short-term program objectives, indicators of program success, data collection strategies), and conclusion. A step-by-step breakdown of the evaluation plan beginning with step one: data collection, step two: data synthesis and interpretation, and step three: make recommendations is contained within the resource as well.

Specifically, the project objectives and background sections aid the user of the resource in understanding the goals of and need for the evaluation plan. A table listing facilitators and barriers found in the literature and consultations is included in the resource for quick viewing. Both frameworks used to guide this practicum project suggested the need to explore facilitators and barriers to program implementation. The identification of facilitators and barriers within the report provides management with helpful information when implementing the program at the rural healthcare sites as it alerts them to potential factors that might require special attention. Facilitators that were addressed for program implementation discussed by staff throughout consultations were: the availability of resources (e.g. staff, time, space, funding), staff initiative to see the program succeed, management support, consistent training for program host, and a consistent clinic time with a consistent host. Barriers addressed included poor uptake by community, large geographical regions and increased workloads. Although no specific strategies were identified in terms of how to overcome these barriers to aid in successful program implementation, the identification of these barriers is an important starting point in this process.

The evaluation plan section specifically highlights indicators found within the literature and were discussed in the key informant consultations that can be used to measure successful program implementation. These indicators also align with examples

provided within the evaluation frameworks. A quick reference table is included in the resource that breaks down the desired short-term outcomes of the Feet First program (as outlined with the CRHA plan used for the implementation of the program to urban sites) and what key indicators are suggested to be used to measure each outcome. As well, suggested methods and measurements for each indicator is included in the table.

The Program Evaluation Toolkit released by the Ontario Centre of Excellence for Child and Youth Mental Health (2013) recommended the use of more than one indicator to accurately understand evaluation questions. Using the components outlined above from the Knowledge-to-Action Framework and the Program Evaluation Toolkit, and data gathered from the consultations and literature review, five indicators are recommended to be used in the short-term evaluation of the Feet First program: (1) program attendance numbers; (2) completed foot assessments; (3) client questionnaires; (4) referral numbers; and (5) staff and client feedback. It is important to note that these indicators can be used for the short-term/immediate evaluation of the program. The report defines each of these in detail (Appendix C).

Short-term evaluation is the goal of this practicum, therefore the majority of the indicators namely, clinic attendance number, referral numbers, and number of completed foot assessments is a form of process evaluation (i.e. a method of evaluation used to monitor program implementation) (McKenzie, Neiger, & Thackeray, 2013). These indicators are relatively easy and inexpensive to collect; however they do not adequately address the degree to which change occurs over the long-term (McKenzie, Neiger, & Thackeray, 2013). The short-term indicators do help determine whether program activities were accomplished, how well the program was implemented, and if the target

audience was reached. Summative evaluation relates to a program's effectiveness and this can be measured using the pre and post clinic client questionnaire (i.e., to understand if the program had an effect on the client's knowledge of diabetic foot care) (McKenzie, Neiger, & Thackeray, 2013). While it is beneficial to have summative evaluation data there are some disadvantages with using a pre and post-test design. For instance, there is generally no control group, subjects are exposed to potential bias, implementation of questionnaires requires several resources (e.g., time, money), and data is more time consuming to collect (Fink, 2015). Long-term indicators identified (e.g., cost benefit analysis, decreased amputation rates) were not incorporated in this report, however, should also be monitored by the CRHA.

Advanced Nursing Practice Competencies

Advanced Nursing Practice is described by the Canadian Nurses Association (CNA, 2008) as "...an advanced level of clinical nursing practice that maximizes the use of graduate educational preparation, in-depth nursing knowledge and expertise in meeting the health needs of individuals, families, groups, communities and populations" (p. 10). These competencies are divided into four categories: clinical, research, leadership, and consultation and collaboration. These competencies were demonstrated throughout this practicum project and are discussed further below.

Clinical competencies are demonstrated when the nurse works with the client and other members of the healthcare team to provide comprehensive care (CNA, 2008). Although clinical competency was not directly demonstrated in this practicum, my nursing experience working with diabetics and my knowledge base on diabetes was

drawn upon in developing this resource. In completing this project my clinical knowledge related to diabetes has also increased.

Research competencies are demonstrated when the nurse creates and utilizes research (CNA, 2008). Throughout this practicum, although a research study was not conducted, this competency was demonstrated in several ways, including the development of methods for a literature review and consultations, synthesis of literature, data collection and analysis, interpretation of findings, writing of reports, and dissemination of findings. A literature review and consultations with key stakeholders was completed to collect the data necessary to develop the evaluation plan resource for the CRHA. In addition, writing is an important research skill that was demonstrated through writing of the evaluation resource for the CRHA and this final practicum report. This report also included the preparation of tables and figures which are often used to present findings in research. Furthermore, dissemination is an important research skill and presenting the CRHA with the resource containing the evaluation plan and supportive data is a means of disseminating the results.

Leadership competencies are demonstrated when the nurse is the driving force for change, looking for ways to benefit the client and the public in how they receive care, as well as influence healthy public policy (CNA, 2008). This competency was demonstrated through the independent completion of a valuable project for the CRHA. Importantly, the need for an evaluation plan for the implementation of the Feet First program to rural healthcare sites was identified and leadership was demonstrated by taking initiative to address the identified need.

Consultation and collaboration competencies are demonstrated when the nurse is able to work in partnership and confer with colleagues at the organizational, provincial, national, and international level (CNA, 2008). This competency was demonstrated through direct consultations with key stakeholders of the Feet First program at the organizational-level within the CRHA and with a provincial contact in Ontario. Completion of consultations demonstrated the ability to confer and work with others. Effective collaboration with the practicum supervisor throughout the whole project was also required.

Next Steps

As part of this practicum project, an evaluation plan for the implementation of the Feet First program to rural healthcare sites within the CRHA of NL was developed. Next steps involve the dissemination, implementation, and evaluation of this resource. With respect to dissemination, the resource will be presented to the key stakeholders at the CRHA by the practicum student, and education and support regarding components of the evaluation plan will be offered to stakeholders involved in the Feet First program at the CRHA. Implementation of the resource requires development of a data collection plan. Management will need to determine what data they want collected and provide education to the Chronic Disease Lead Teams who will be in charge of gathering the data. When developing the data collection plan, required resources will need to be considered (e.g., human resources, budgetary). Data collection should start as soon as the program begins being implemented at the rural healthcare sites to ensure important data is not missed (date is to be determined). A data synthesis and interpretation plan will also need to be developed and a plan to disseminate results will need to be prepared. Recommendations

for data synthesis, interpretation of results, and a communication plan based on the data collected are outlined in the developed resource (see Appendix C). Evaluation of the Feet First program will be an ongoing process and will need to be reassessed as goals of the program are met. Long-term evaluation of the Feet First program should also be considered (e.g., ulceration rates, amputation rates).

Conclusion

Nurse-led diabetic foot education programs have resulted in decreased ulceration and amputation rates (Mat et al., 2011; Woodbury et al., 2013). The Feet First program provides clients with specific benefits such as foot assessments, diabetic foot education, and referrals to other health care professionals if necessary. Ensuring that the Feet First program is being offered correctly and effectively will benefit individuals with diabetes at rural healthcare sites within NL offering the program. The need for an evaluation plan was identified and in turn a specific evaluation plan for the implementation of the Feet First program to rural healthcare sites in NL was developed. The development of the *“Evaluation Plan for the Implementation of the Feet First Program to Rural Healthcare Sites in the Central Region of Newfoundland and Labrador”* was guided by findings from a literature review, consultations, and evaluation frameworks. The evaluation plan provides the CRHA with suggestions to evaluate the short-term goals of the Feet First program implementation to rural healthcare sites. Importantly, the resource lays the groundwork for program evaluation and future work regarding long-term evaluation plans. In completing and offering this resource, evidence of whether diabetic clients who lacked this service are indeed receiving this service, will now be available.

References

- Adib- Hajbaghery, M., & Alinaqipoor, T. (2012). Comparing the effects of two teaching methods on healing of diabetic foot ulcer. *Journal of Caring Sciences*, 1(1), 17-24.
- Canadian Diabetes Association. (2013). *Clinical practice guidelines: Foot care*. Retrieved from <http://guidelines.diabetes.ca/browse/Chapter32>
- Central Health. (2013). *Feet First know what you need: Foot care resource kit. Project evaluation*.
- Centres for Disease Control. (2011). Developing an effective evaluation plan. Retrieved from <http://www.cdc.gov/obesity/downloads/cdc-evaluation-workbook-508.pdf>
- Fink, A. (2015). *Evaluation fundamentals: Insights into program effectiveness, quality, and value* (3rd ed.). Sage.
- Fujiwara, Y., Kishida, K., Terao, M., Takahara, M., Matsuhisa, M., Funahashi, T., et al. (2011). Beneficial effects of foot care nursing for people with diabetes mellitus: An uncontrolled before and after intervention study. *Journal of Advanced Nursing*, 67(9), 1952-1962 11p. doi:10.1111/j.13652648.2011.05640.x
- Lavery, L. A., Hunt, N. A., Lafontaine, J., Baxter, C. L., Ndip, A., & Boulton, A. J. (2010). Diabetic foot prevention: A neglected opportunity in high-risk patients. *Diabetes Care*, 33(7), 1460-1462 3p. doi:10.2337/dc10-0310
- Mat, S., Panduragan, S. L., Saharuddin, A., Durai, R. P. R., & Hassan, H. (2011). A diabetic foot education program at a primary health care clinic in kuala lumpur: A best practice implementation project. *Pacesetters*, 8(2), 25-30.

McKenzie, J., Neiger, B., & Thackeray, R. (2013). *Planning, implementing, and evaluating health promotion programs: A primer* (6th ed.). Chicago, IL: Pearson.

Meng Ren, MD., Chuan Yang, MD, Diao Zhu Lin, MS., Hui Sheng Xiao, MS., Li Fang Mai, BS., Yi Chen Guo, BS., et al. (2014). Effect of intensive nursing education on the prevention of diabetic foot ulceration among patients with high-risk diabetic foot: A follow-up analysis. *Diabetes Technology & Therapeutics*, 16(9), 576-581 6p. doi:10.1089/dia.2014.0004

Ontario Centre of Excellence for Child and Youth Mental Health. (2013). Program Evaluation Toolkit. Retrieved from <http://www.excellenceforchildand youth.ca/sites/default/files/docs/programevaluationtoolkit.pdf>

Public Health Agency of Canada. (2014). *Critical appraisal toolkit*. Retrieved from http://publications.gc.ca/collections/collection_2014/aspc-phac/HP40-119-2014_eng.pdf.

Registered Nurses' Association of Ontario. (2013). Assessment and management of foot ulcers for people with diabetes nursing best practice guideline (2nd ed). Retrieved from http://rnao.ca/sites/rnaoca/files/Assessment_and_Management_of_Foot_Ulcers_for_People_with_Diabetes_Second_Edition1.pdf

Straus, S., Tetroe, J., & Graham, I. (2009). *Knowledge Translation in Health Care: Moving from Evidence to Practice* (2nd ed.). Oxford, UK: Wiley-Blackwell.

Woodbury, M. G., Botros, M., Kuhnke, J. L., & Greene, J. (2013). Evaluation of a peer led self management education programme PEP talk: Diabetes, healthy feet and

you. *International Wound Journal*, 10(6), 703-711. doi:10.1111/iwj.12188

Appendix A – Literature Review

Literature Review:

Evaluation of Implementation Process for Feet First Program

Chantal Parsons

Memorial University

Introduction

Diabetes is a prominent health issue in Newfoundland and Labrador. It is estimated that 47,000 people were diagnosed with Type 1 or Type 2 diabetes in 2010 (Canadian Diabetes Association [CDA], 2009), and it is estimated that by the year 2020 the number of individuals will reach 73,000 (CDA, 2009). Newfoundland and Labrador, Nova Scotia, and Ontario have the highest prevalence of diabetes in Canada (Public Health Agency of Canada [PHAC], 2011). With the high rates of diabetes comes a higher cost to the health care system through an increased number of physician visits and hospitalizations. Furthermore, individuals with diabetes are almost 20 times more likely than those without diabetes to experience lower limb amputations not related to trauma (PHAC, 2011). Nine out of 10 individuals who are diagnosed with diabetes have Type 2 diabetes, and the Government of Canada's Healthy Canadians document (2015) recommends that individuals diagnosed with Type 2 diabetes should minimize the risk of complications associated with the disease. One way to minimize the risk of complications associated with Type 2 diabetes is taking care of diabetic feet by examining the foot regularly (Government of Canada, 2015).

The Feet First program was adapted by Central Health through funding from the Public Health Agency of Canada to provide screening, early detection, and guidelines in caring for diabetic feet within the region of Central Newfoundland and Labrador (Central Health, 2011). The Feet First program is delivered by a registered nurse on a weekly basis to diabetic clients. The nurse completes a foot assessment and can also complete referrals to other health care professionals as needed (e.g. wound care consultant). A large component of the program includes education surrounding self-care of the diabetic

LITERATURE REVIEW EVALUTION PROCESS

foot and minimizing risk of ulcer formation. Clients at risk of diabetic foot complications are recommended to receive foot examinations by health care providers at least once a year, foot care education (including the importance of wearing properly fitted footwear), and early referrals to necessary health care providers as per the CDA (2013) Clinical Practice Guidelines (CDA, 2013).

Evaluation is a necessary component in understanding a program's effectiveness, quality, and value (Fink, 2015). Monitoring and evaluating any program is necessary to ensure its being delivered effectively (World Health Organization [WHO], 2007).

Evaluation is useful in determining if there are any issues with program implementation and if it is in fact reaching and benefiting its target audiences (WHO, 2007). An evaluation plan is a document that illustrates how a program will be evaluated and monitored throughout its implementation. It also describes how to utilize the evaluation results and who needs to be involved (Centres for Disease Control [CDC], 2011).

Evaluation routines must be planned, directed, and intentional with the involvement of the necessary program stakeholders (CDC, 2011).

The initial Feet First program offered in two urban centres in Central Health has had two evaluations completed. In 2013, after the program had been in place for two years, the first evaluation of the Feet First program was completed by the program's coordinator (Central Health, 2013). The second evaluation was completed in 2013 by the Public Health Agency of Canada to ensure that the program was meeting its set objectives (Central Health, 2013). Objectives of the program were to develop, implement and evaluate a program designed to create awareness around diabetes and footcare and strengthening partnerships in preventing diabetic foot ulcers by assembling health care

LITERATURE REVIEW EVALUTION PROCESS

professionals and community resources. Both evaluations provided evidence that the program was meeting the goals set forth in the program-planning phase.

The next step of the Feet First program is dissemination of the program to rural health sites within the Central Health region. Evaluation of the Feet First implementation process to the rural healthcare sites within the Central Regional Health Authority of Newfoundland and Labrador is necessary. The implementation process is different than what was used previously in the two urban health sites at Central Health, namely Gander and Grand Falls–Windsor. The Feet First program will be facilitated and implemented by the Chronic Disease Lead Teams at each of the three rural health centres. These teams consist of interdisciplinary health care professionals who are involved with chronic disease prevention and management at that particular site; the members will differ depending upon disciplines employed at each site. The member who will be the lead in facilitating the Feet First program will be given training on the proper implementation of the program. Ensuring that the program is delivered to rural sites effectively using this described implementation strategy is important.

Purpose of Literature Review

A literature review is completed to gain insight on details already available on the topic at hand. It provides information on data already collected on a particular subject as well as any gaps present in the literature (McKenzie, Neiger, & Thackeray, 2013). The purpose of this literature review is to gather data on diabetic foot education programs, facilitators and barriers related to implementing a program in a rural health site, and evaluation frameworks. Findings from this literature review will be used to inform the evaluation of the Feet First program implementation process to rural sites in Central

LITERATURE REVIEW EVALUTION PROCESS

Health of Newfoundland and Labrador. In completing a literature review, issues that may have been present with evaluations in past literature can be taken into account.

Methods

Databases searched for the literature review included CINAHL, PubMed, American Diabetes Association Diabetes Care journal database, Google Scholar, Wiley Online Library, and Science Direct. In addition, key websites (e.g. provincial nursing associations, CDA) and the grey literature Canadian Diabetes Association, American Diabetes Association, Health Canada and World Health Organization websites were also searched. Keywords utilized included “nursing”, “diabetes”, “education”, “evaluation”, “evaluation framework”, “implementation”, “Feet First program”, “diabetic foot”, “rural health sites”, “rural”, “barriers”, “facilitators” and “program roll out”. Only articles published within the last 10 years and written in the English language were included. The Centre for Disease Control and the World Health Organization websites were reviewed to identify evaluation frameworks. Studies were critically appraised using the Public Health Agency of Canada’s Critical Appraisal Toolkit. Using this tool the studies were rated as strong, moderate or weak study strengths (PHAC, 2014). The study strength scores can be seen in Appendix A in the results section.

Results

Seven studies met the article selection criteria and are summarized in this review. The search strategy retrieved twenty-two articles. After reviewing the abstracts, many of the studies were excluded because they discussed specific aspects of diabetes education (e.g. weight loss, healthy eating) not pertinent to this literature review. The studies were conducted worldwide, including Canada, Japan, Iran, and Australia. Five of the seven

LITERATURE REVIEW EVALUTION PROCESS

studies evaluated diabetic foot education programs, one study evaluated high-risk clients' exposure to preventative diabetic foot services, and one study reviewed program implementation and evaluation in a health care setting. The study designs ranged from strong study designs (e.g. non-randomized controlled trials) to weaker designs (e.g. descriptive studies). Refer to Table 1 within Appendix A for a detailed summary of the literature included in this review.

Diabetic Foot Education Programs

There is evidence that diabetic education programs are effective (Adib-Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al., 2011; Mat, Panduragan, Saharuddin, Durai, & Hassan, 2011; Meng Ren et al., 2014). With respect to foot care, nurse-led diabetic education has led to a decrease in diabetic ulceration rates, decrease in amputation rates, and an improvement in client compliance to foot care (Adib-Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al., 2011; Mat et al., 2011; Meng Ren et al., 2014; Woodbury, Botros, Kuhnke, & Greene, 2013). Educating clients who have diabetes on the importance of foot care and assessments empowers them to become more involved in their care leading to an earlier recognition of foot related complications (Adib-Hajbaghery, & Alinaqipoor, 2012; Mat et al., 2011; Woodbury et al., 2013). Moreover, there is evidence that suggests that preventative measures for foot ulceration and amputation are not being provided to this at-risk population (Lavery et al., 2010; Mat et al., 2011). Lavery et al. (2010) discussed how high risk diabetic clients are often not receiving the education and follow-up required to prevent diabetic ulcers and amputations. With the increasing prevalence of diabetes and the increasing cost to the health care system, prevention is imperative. There is a high-cost associated with wound

LITERATURE REVIEW EVALUTION PROCESS

care and surgical procedures related to foot ulcers; a community based prevention program is much less expensive to offer. (Mat et al., 2011; Meng Ren et al., 2014; Woodbury, 2013).

The majority of the diabetic foot education programs identified in the literature were facilitated in one jurisdiction or hospital (Adib- Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al., 2011; Mat et al., 2011; Meng Ren et al., 2014). Woodbury et al. (2013) was the only study found that offered a peer-led education program to clients with diabetes at 12 different sites across Canada, however, reasoning as to site choice or implementation methods were not discussed.

Barriers that may exist when implementing a diabetes foot education program to rural sites are not well documented in the literature. Stubbs and Achat (2011) discussed overcoming barriers of evaluation when implementing a large-scale community-based program. Some facilitators to implementation were commitment to monitoring and evaluation by staff, straightforward data collection processes during program implementation, and the availability of support and resources to ensure evaluation data is collected (Stubbs & Achat, 2011).

Evaluation of Diabetic Education Programs

Auditing processes are used to evaluate program outcomes (Mat et al., 2011). Auditing will ensure that a nurse-led diabetic education program is being followed as was set forth in the implementation phase of program development (Harris et al., 2015; Mat et al., 2011). Evaluation of diabetic education programs are important to ensure client satisfaction and positive results are being accomplished, without this information a program would have no value (Adib- Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al.,

LITERATURE REVIEW EVALUTION PROCESS

2011; Harris et al., 2015; Mat et al., 2011; Meng Ren et al., 2014; Woodbury et al., 2013).

Feet First Program

The Feet First program is a community-based nurse-led education program where diabetics are given assessments of their feet and education to recognize and prevent foot ulcers. Although no literature was found specifically on the Feet First program, it is a diabetic education program and the literature has shown positive results in helping diabetic clients (Adib- Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al., 2011; Mat et al., 2011; Meng Ren et al., 2014; Woodbury et al., 2013).

Literature was reviewed on the initial evaluation of the Feet First program completed by Central Health. The evaluation was completed using a mixed methods approach through document reviews, chart reviews, pre-post questionnaire, feedback forms, and key informant interviews (Central Health, 2013). Document reviews consisted of reviewing the proposal submitted for funding, steering committee minutes, financial reports, general program files, attendance records, and the Project Evaluation and Reporting Tool that was submitted to the Public Health Agency of Canada (Central Health, 2013). These documents were reviewed to examine the progress of meeting program goals. Chart reviews were completed to assess the number of clients who received recommended foot care, including foot care counseling, monofilament testing, referrals, and follow-up appointments (Central Health, 2013). The pre-post test questionnaire was administered at the initial visit and at subsequent follow-up visits at six and 12 months to assess if knowledge level of footcare practices had been improved as a result to the program. Health care professionals completed feedback forms after the Feet First nurse coordinator completed their foot screening and assessment education session.

LITERATURE REVIEW EVALUTION PROCESS

Key informant interviews were completed with stakeholders involved in the program, such as the Feet First nurse coordinator, wound care consultant and the diabetes nurse educator (Central Health, 2013). The Feet First program's initial evaluation was reviewed to aid in the development of an evaluation for the implementation process of the Feet First program. Findings from this review found that the project was carried out as planned as per the project components, partnerships were formed with organizations involved in preventing diabetic foot complications, the program was successful in reaching the target populations, and the project was successful at creating awareness around diabetes and footcare, as well as increasing screening for diabetic foot complications.

The evaluation of the Feet First program was necessary in recognizing barriers that existed for the implementation of the program. Some of the noted barriers included a vacancy in the coordinator position leading to decrease in advertising of the program, misconceptions in original posters leading to client disappointment, time restraints in the program, and engaging healthcare providers to increase referral rates. The evaluation component of the implementation process will provide a better quality implementation process when moving the program to more rural health sites within Central Health.

Evaluation Frameworks

Many evaluation frameworks or evaluation guidelines were discussed in the literature, including frameworks developed by the Centre for Disease Control, Registered Nurses Association of Ontario, the World Health Organization, and the Ontario Centre of Excellence for Child and Youth Mental Health.

The Centre for Disease Control (2011) developed a workbook on the

LITERATURE REVIEW EVALUTION PROCESS

Development of an Effective Evaluation Plan. This workbook offers six steps to follow in developing an evaluation plan. The steps consist of “engage stakeholders, describe the program, focus the evaluation, plan for gathering credible evidence, plan for conclusions and plan for disseminating and sharing of lessons learned” (CDC, 2011).

The Registered Nurses Association of Ontario (RNAO) (2013) provides a revised Knowledge-to-Action framework (originally developed by Straus, Tetroe, and, Graham (2009)) that aids in the implementation of the Assessment and Management of Foot Ulcers Best Practice Guideline document. The framework provides a tool to use as a guide when introducing a new program developed from evidence into practice. This would be of interest in the evaluation of the Feet First implementation process evaluation due to the similarity in the nature of the programs. The framework follows a sequence pattern beginning with identifying the program, adapting knowledge to local context, assessing facilitators and barriers, tailoring implementation strategies, evaluating outcomes, and finally sustaining knowledge use. The Registered Nurses Association of Ontario (2013) offers a toolkit to increase the likelihood of a successful uptake of a best practice in a health care setting. The toolkit is based on evidence and offers many recommendations to follow (e.g. leaders at all levels are dedicated to support facilitation of guideline implementation) (RNAO, 2013). The evaluation framework offered by the Registered Nurses Association of Ontario (2013) more closely resembles the evaluation of the Feet First implementation process.

The World Health Organization (2007) released a road safety manual on drinking and driving that included details on evaluating a program. This document provided

LITERATURE REVIEW EVALUTION PROCESS

information on choosing an evaluation method, as well as what studies would be necessary to assess process and outcome evaluations.

The Ontario Centre of Excellence for Child and Youth Mental Health (2013) made available a program evaluation toolkit to use when developing an evaluation plan. This toolkit aided in the development of a logic model for the evaluation framework. It also contained information on utilizing successful program indicators in the program evaluation plan.

Summary of Results

Through the literature review no studies were found on the Feet First program. Five studies were reviewed on diabetic foot education programs. Overall, diabetic foot education programs are useful, and a combined education program using both literature and self care guidance can empower clients to better manage their foot care in turn decreasing ulceration rates (Adib- Hajbaghery, & Alinaqipoor, 2012). Nurse-led diabetic foot education programs can provide great benefit to diabetic clients, preventing ulcers and amputation in high-risk patients and improving diabetic foot status (Fujiwara et al., 2011; Meng Ren et al., 2014).

No literature could be located on evaluating implementation programs to rural sites. Diabetic education programs being evaluated using auditing processes ensure staff follows best practice guidelines and leads to greater client compliance (Mat et al., 2011). There is knowledge of the benefits of diabetic education programs and how they are helpful (e.g. lower amputation rates, increased client knowledge). However, these programs generally were in one specific setting, and dissemination of the program to rural sites was not discussed in the literature (Adib- Hajbaghery, & Alinaqipoor, 2012;

LITERATURE REVIEW EVALUTION PROCESS

Fujiwara et al., 2011; Harris et al., 2015; Mat et al., 2011; Meng Ren et al., 2014; Woodbury et al., 2013). Literature on barriers and facilitators to implementing the program to rural health care sites is also lacking. Evaluation frameworks exist as well as the evaluation plan of the Feet First Program at Central Health. There is no data on evaluation of a program implementation process present. While the need for the evaluation of the implementation process is evident the method is unclear. There was a large gap present in reference to evaluation frameworks to use when evaluating an implementation process. Reviewing what is currently being used to develop evaluations will be useful to know when choosing an evaluation framework for the task of evaluating the implementation process.

Conclusion

While there is literature available on diabetic foot education programs and their usefulness, there is limited information available on how to properly implement these programs to rural health care sites. Barriers that may exist when trying to implement programs to rural sites are not well documented. Literature on completing an evaluation will need to be drawn upon to make informed decisions to meet the goals of evaluating a program implementation process as no literature could be found on this topic. In contrast, there are many well-documented frameworks that can be applied to assist in developing an evaluation plan. The Feet First program was evaluated within the Central Health region of Newfoundland and Labrador on its program effectiveness. To ensure it is kept intact, an evaluation of the implementation process to rural health care sites within Central Health is required. Through the use of a literature review and consultations with key stakeholders involved with the Feet First program, this can be developed.

References

- Adib- Hajbaghery, M., & Alinaqipoor, T. (2012). Comparing the effects of two teaching methods on healing of diabetic foot ulcer. *Journal of Caring Sciences*, 1(1), 17-24.
- Canadian Diabetes Association. (2009). *The cost of diabetes in Newfoundland and Labrador*. Retrieved from <https://www.diabetes.ca/CDA/media/documents/publicationsandnewsletters/advocacy-reports/cost-of-diabetes-in-newfoundland-labrador.pdf>
- Canadian Diabetes Association. (2013). *Clinical practice guidelines: Foot care*. Retrieved from <http://guidelines.diabetes.ca/browse/Chapter32>
- Centres for Disease Control. (2011). Developing an effective evaluation plan. Retrieved from <http://www.cdc.gov/obesity/downloads/cdc-evaluation-workbook-508.pdf>
- Central Health. (2011). *Feet First know what you need: Foot care resource kit*.
- Central Health. (2013). *Feet First know what you need: Foot care resource kit. Project evaluation*.
- Fink, A. (2015). *Evaluation fundamentals: Insights into program effectiveness, quality, and value* (3rd ed.). Sage.
- Fujiwara, Y., Kishida, K., Terao, M., Takahara, M., Matsuhisa, M., Funahashi, T., et al. (2011). Beneficial effects of foot care nursing for people with diabetes mellitus: An uncontrolled before and after intervention study. *Journal of Advanced Nursing*, 67(9), 1952-1962 11p. doi:10.1111/j.13652648.2011.05640.x

LITERATURE REVIEW EVALUTION PROCESS

Government of Canada. (2015). *Type 2 Diabetes*. Retrieved from

<http://healthycanadians.gc.ca/diseasesconditions-maladiesaffections/diseasemaladie/diabete-eng.php>

Harris, C., Garrubba, M., Allen, K., King, R., Kelly, C., Thiagarajan, M., .. Farjou, D.

(2015). Development, implementation and evaluation of an evidence-based program for introduction of new health technologies and clinical practices in a local healthcare setting. *BMC Health Services Research*, 15, 1-16 16p.

doi:10.1186/s12913-015-1178-4

Lavery, L. A., Hunt, N. A., Lafontaine, J., Baxter, C. L., Ndip, A., & Boulton, A. J.

(2010). Diabetic foot prevention: A neglected opportunity in high-risk patients.

Diabetes Care, 33(7), 1460-1462 3p. doi:10.2337/dc10-0310

Mat, S., Panduragan, S. L., Saharuddin, A., Durai, R. P. R., & Hassan, H. (2011). A

diabetic foot education program at a primary health care clinic in kuala lumpur: A best practice implementation project. *Pacesetters*, 8(2), 25-30.

McKenzie, J., Neiger, B., & Thackeray, R. (2013). *Planning, implementing, and*

evaluating health promotion programs: A primer (6th ed.).Chicago, IL: Pearson.

Meng Ren, MD., Chuan Yang, MD, Diao Zhu Lin, MS., Hui Sheng Xiao, MS., Li Fang

Mai, BS., Yi Chen Guo, BS., et al. (2014). Effect of intensive nursing education

on the prevention of diabetic foot ulceration among patients with high-risk =

diabetic foot: A follow-up analysis. *Diabetes Technology & Therapeutics*, 16(9),

576-581 6p. doi:10.1089/dia.2014.0004

LITERATURE REVIEW EVALUTION PROCESS

- Ontario Centre of Excellence for Child and Youth Mental Health. (2013). Program Evaluation Toolkit. Retrieved from <http://www.excellenceforchildand youth.ca/sites/default/files/docs/programevaluati ontoolkit.pdf>
- Public Health Agency of Canada. (2011). *Diabetes in Canada: Facts and figures from a public health perspective*. Retrieved from <http://www.phac aspc.gc.ca/cdmc/publications/diabetes-diabete/facts figures-faits-chiffres 2011/highlights-saillantseng.php#chp2>
- Public Health Agency of Canada. (2014). *Critical appraisal toolkit*. Retrieved from http://publications.gc.ca/collections/collection_2014/aspc-phac/HP40-119-2014 eng.pdf.
- Registered Nurses' Association of Ontario. (2013). Assessment and management of foot ulcers for people with diabetes nursing best practice guideline (2nd ed). Retrieved from http://rnao.ca/sites/rnaoca/files/Assessment_and_Management of_Foot_Ulcers_for_Peole_with_Diabetes_Second_Edition1.pdf
- Straus, S., Tetroe, J., & Graham, I. (2009). *Knowledge Translation in Health Care: Moving from Evidence to Practice* (2nd ed.). Oxford, UK: Wiley-Blackwell.
- Stubbs, J. M., & Achat, H. M. (2011). Monitoring and evaluation of a large-scale community based program: Recommendations for overcoming barriers to structured implementation. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 37(2), 188-196 9p. doi:10.5172/conu.2011.37.2.188
- Woodbury, M. G., Botros, M., Kuhnke, J. L., & Greene, J. (2013). Evaluation of a peer

LITERATURE REVIEW EVALUTION PROCESS

led self management education programme PEP talk: Diabetes, healthy feet and you. *International Wound Journal*, 10(6), 703-711. doi:10.1111/iwj.12188

World Health Organization. (2007). Drinking and driving: a road safety manual.

Retrieved from <http://www.who.int/roadsafety/projects/manuals/alcohol/4How%20to.pdf>

Appendix A

Author, Title, Date	Purpose, Design, Method	Results	Limitations	Conclusions
<p>Adib-Hajbaghery, M., & Alinaqipoor, T. (2012).</p> <p>Comparing the effects of two teaching methods on healing of diabetic foot ulcer. <i>Journal of Caring Sciences</i>, 1(1), 17-24.</p>	<ul style="list-style-type: none"> - Compare lecture method and combined education on diabetic ulcer healing rates -A controlled trial study was conducted in Kashan, Iran. -n=45 diabetic clients. -Two intervention groups and a control group. -Group A was given a one hour lecture, group B was taught using an integrated method of PowerPoint, lecture, and role playing. 	<ul style="list-style-type: none"> - Combined education group had the greatest decrease in ulcer surface area, followed by the lecture then the control group. - Self-care program had greater adherences in the combined education group than did the lecture group. 	<ul style="list-style-type: none"> -Small sample size will limit the ability to generalize findings. -Wound healing was measured in this study which is a very multi factorial component that is unable to be controlled, i.e. clients' nutrition, activity and blood glucose levels. 	<ul style="list-style-type: none"> - Self care in diabetics and decrease in ulcer surface area can be significantly impacted by combined method education. - Self-care education in health care systems could empower clients to better handle their foot care. -Strong study quality.
<p>Fujiwara, Y., Kishida, K., Terao, M., Takahara, M.,</p>	<ul style="list-style-type: none"> - Assess the effectiveness of a nursing diabetic 	<ul style="list-style-type: none"> - Clients who participated in the program had 	<ul style="list-style-type: none"> - There was no control group due to ethical considerations 	<ul style="list-style-type: none"> - Nurse led education program improved

LITERATURE REVIEW EVALUTION PROCESS

<p>Matsuhisa, M., Funahashi, T., Shiminura, I., & Shimizu, Y. (2011).</p> <p>Beneficial effects of foot care nursing for people with diabetes mellitus: An uncontrolled before and after intervention study. <i>Journal of Advanced Nursing</i>, 67(9), 1952-1962.</p>	<p>education program on foot care.</p> <p>-n=88; met the inclusion criteria of greater than 18 years of age, at high risk of diabetic foot ulceration as evidenced by peripheral neuropathy, peripheral arterial disease, history of foot amputation and/or ulceration, and adhered to the two-year program in Japan.</p> <p>- Data was collected from April 2005 to March 2009.</p> <p>-Client's grouped into four groups according to their level of risk. All patients received a foot care program administered by a nurse that included callus</p>	<p>a reduction in tinea pedis and an improvement of callus.</p> <p>- Clients who had a history of foot ulceration had no recurrence of the ulcer during the program.</p>	<p>therefore comparisons cannot be made.</p>	<p>the overall diabetic foot status.</p> <p>- Prevented diabetic foot ulceration especially in the high-risk ulceration group.</p> <p>- Weak study quality.</p>
--	---	--	--	---

LITERATURE REVIEW EVALUTION PROCESS

	removal, education, and demonstration of foot care.			
<p>Meng Ren, MD., Chuan Yang, MD, Diao Zhu Lin, MS., Hui Sheng Xiao, MS., Li Fang Mai, BS., Yi Chen Guo, BS., & Li Yan, MS. (2014).</p> <p>Effect of intensive nursing education on the prevention of diabetic foot ulceration among patients with high- risk diabetic foot: A follow-up analysis. <i>Diabetes Technology & Therapeutics</i>, 16(9) , 576-581.</p>	<p>- Assess the effect of intensive nursing education on the prevention of diabetic foot ulcers.</p> <p>- n=185 clients who were diagnosed in hospital as being high risk for diabetic foot ulceration using a preset definition of high risk.</p> <p>- Clients, who were of altered mental state, had cardiovascular disease, severe renal disease, or blindness were excluded.</p> <p>-Clients were given intensive nursing education of diabetes, diabetic foot diseases, proper foot care and proper</p>	<p>- Decrease in diabetic foot ulceration in high-risk diabetic clients after intensive nursing education.</p> <p>- Fewer ulcers appeared, more healed and fewer surgical procedures were necessary compared to control group.</p> <p>-Intensive education group also had improvement s in blood glucose levels, blood pressure levels, and high-density lipoprotein levels.</p>	<p>- Made generalizations that long term effect of decrease in diabetic foot ulceration is present however long terms follow up is required.</p> <p>- Small sample size, in one hospital.</p>	<p>- Intensive nursing education to the diabetic population can prevent foot ulceration and amputation in this high-risk group.</p> <p>- Moderate study quality.</p>

LITERATURE REVIEW EVALUTION PROCESS

	footwear. At every three-month check up clients were given a risk questionnaire about foot ulceration.			
<p>Mat, S., Panduragan, S. L., Saharuddin, A., Durai, R. P. R., & Hassan, H. (2011).</p> <p>A diabetic foot education program at a primary health care clinic in Kuala Lumpur: A best practice implementation project. <i>Pacesetters</i>, 8(2), 25-30.</p>	<p>- Educate nurses to use foot assessments and evidence based practices with diabetic patients to promote foot care knowledge in diabetics</p> <p>-n=56; exclusion criteria was heart and renal failure, inclusion criteria was Type 1 or 2 diabetes and agreement to be a part of the study.</p> <p>-An audit was completed at baseline.</p> <p>- Next phase of the study was the execution of best practices, using</p>	<p>- After the first audit it was discovered that the PHCC was not following best practice guidelines.</p> <p>- After the execution of the best practice policies the audit indicated that compliance rates with diabetic foot care education based on the four criteria had improved drastically.</p>	<p>- Did not indicate how diabetic foot risk assessment tool and questionnaire were developed.</p>	<p>- Major reduction in lower limb complications since the introduction of the diabetic education program.</p> <p>- Auditing process ensures staff will follow best practices leading to better patient outcomes.</p> <p>-Post implementation of evidence-based practices has led to greater client compliance.</p> <p>-Moderate study quality.</p>

LITERATURE REVIEW EVALUTION PROCESS

	<p>evidence-based practice.</p> <p>-Phase three of the study included a post implementation audit to address if evidence based practice was now being followed as evidenced through the four criteria.</p>			
<p>Woodbury, M. G., Botros, M., Kuhnke, J. L., & Greene, J. (2013).</p> <p>Evaluation of a peer-led self-management education programme PEP talk: Diabetes, healthy feet and you.</p> <p><i>International Wound Journal</i>, 10(6), 703-711.</p>	<p>- Evaluation of the PEP (Peer Education Programme) Talk: Diabetes, Healthy Feet and You.</p> <p>- Canadian peer-led self-management education programme used to help clients manage their diabetic foot, preventing ulcers and amputations.</p> <p>-Volunteers, two peer leaders and two health care professionals</p>	<p>- 62 workshops conducted across Canada.</p> <p>- Family members of diabetics and student health care professionals were also known to attend the workshops.</p> <p>- Evidence of a knowledge gain in the pre and post workshop testing scores.</p> <p>- Clients rated higher scores on the</p>	<p>- Follow-up with a participant was not built into the initial implementation therefore contacting participants was difficult.</p> <p>- A web portal was expected to be utilized by participants however not all participants have computer access or the understanding to use such a program.</p>	<p>- Program incorporates training community members as leaders reducing health care professional burden due to the increasing numbers of the disease.</p> <p>- Program allows participants and health care professionals the opportunity to recognize warning signs for diabetic foot complications.</p> <p>- Program will</p>

LITERATURE REVIEW EVALUTION PROCESS

	<p>were recruited from 12 sites.</p> <p>-Peer leaders and health care professionals were trained to hold a two-hour and thirty minute PEP peer led workshop in their community.</p> <p>- Mentorship was provided to the peer leaders and health care providers through emails, phone calls and visits.</p> <p>-Evaluations were collected pre and post workshop. Behavioral change was assessed as well.</p>	<p>diabetes empowering questions indicating they felt empowered to self manage their diabetes. High satisfaction scores by participants.</p> <p>- Telephone interviews completed in follow-up had 97% of participants reporting a change in foot self-management behaviors.</p>		<p>build self-efficacy and empower clients to mange their foot care in the community.</p> <p>-Moderate study quality.</p>
<p>Harris, C., Garrubba, M., Allen, K., King, R., Kelly, C., Thiagarajan, M., Castleman, B., Ramsey, W., & Farjou, D. (2015). Development,</p>	<p>- Discuss the process of building a transparent, sustainable, accountable, evidence-based program for introduction of</p>	<p>- A best practice guide was developed through review of the literature and stakeholder input/ involvement</p>	<p>- No research identified when making organizational decision-making. Therefore there was no way to validate expert advice/ recommendations</p>	<p>- Technology/ clinical practice program was developed using an evidence-based approach to develop,</p>

LITERATURE REVIEW EVALUTION PROCESS

<p>implementation and evaluation of an evidence-based program for introduction of new health technologies and clinical practices in a local healthcare setting. <i>BMC Health Services Research</i>, 15, 1-16</p>	<p>new technologies and clinical practices (TCPs) in a large Australian healthcare system.</p> <p>- Project was completed using the SEACHange model. This model uses four key steps: recognizing a need for change, developing a way to meet the need, implementing the plan and evaluating the degree and effect of the change.</p> <p>- Mixed methods evaluations were used to process and impact evaluation.</p>	<p>identifying seven program components.</p> <p>- Idea of being transparent and accountable was achieved due to all processes being reported/ published.</p>	.	<p>implement and evaluate.</p> <p>- These details are provided to aid other health care organizations in introducing new technologies/ clinical practices effectively.</p> <p>-Elements are likely to be easily generalized to most health care organizations.</p> <p>- Moderate study quality.</p>
<p>Lavery, L. A., Hunt, N. A., Lafontaine, J., Baxter, C. L., Ndip, A., & Boulton, A. J. (2010).</p>	<p>- Evaluate the occurrence of foot prevention strategies offered to high-risk</p>	<p>- 195 patients had received care from a podiatrist, and 70% of this group was only</p>	<p>- Did state that there may be voluntary programs that patients did not avail of.</p>	<p>- Amount of preventative services provided to clients at high risk for foot ulceration/</p>

LITERATURE REVIEW EVALUTION PROCESS

<p>Diabetic foot prevention: A neglected opportunity in high-risk patients. <i>Diabetes Care</i>, 33(7), 1460-1462</p>	<p>clients with diabetes.</p> <ul style="list-style-type: none"> - n=300; recruited by reviewing electronic health records from a multispecialty physician group. Of these clients 150 were dialysis patients and 150 had previous foot ulceration or amputation. - Followed for 30 months to assess if they had been educated on three preventative therapies; Professionally fitted footwear information, diabetes education and services offered by podiatrist. 	<p>seen after they developed an ulcer. Few were seen on a preventative nature.</p> <ul style="list-style-type: none"> - Only two patients in the dialysis group received any formal diabetes education. - Only seven percent of patients received shoes/insoles as a preventative method. - Amputation rates in these two groups were higher than that of the general diabetes population. 		<p>amputation is low.</p> <ul style="list-style-type: none"> - Study highlights the need for preventative services in this population. - Weak study quality.
--	--	---	--	--

Appendix B – Consultation Report

Consultation Report

N6660

Chantal Parsons

Memorial University

CONSULTATION WITH KEY INFORMANTS

Overview of Project

Newfoundland and Labrador, Nova Scotia, and Ontario have the highest prevalence of diabetes in Canada (Public Health Agency of Canada (PHAC), 2011). Complications associated with the foot are a major cause of morbidity and mortality in individuals suffering with diabetes, leading to the increase in healthcare usage and cost (CDA, 2013). Prevention of amputations in this high-risk group can be achieved through early education, foot examinations, early detection and treatment of foot ulcers, and proper fitting footwear (CDA, 2013). The Canadian Diabetes Association has made recommendations around foot care in the diabetic population. Foot examinations by healthcare providers should be a primary part of diabetes management to identify individuals at risk of ulceration or amputation, educate on foot care self-management, and allow early referrals to other healthcare members. Programs used to educate diabetic clients have been shown to be effective at increasing self-care practices (Adib-Hajbaghery, & Alinaqipoor, 2012; Fujiwara et al., 2011; Mat, Panduragan, Saharuddin, Durai, & Hassan, 2011; Meng Ren et al., 2014).

Health Authorities are governance models used to break up the province into regions to deliver health care. In Newfoundland and Labrador there are four regional health authorities (Eastern, Central, Western, and Labrador-Grenfell). The Central Regional Health Authority (CRHA) is the second largest health region in Newfoundland and Labrador serving 177 communities and is responsible for offering a Feet First program, aimed at the diabetic population (Central Health Newfoundland, 2008). Aims of the program include educating diabetics on the importance of foot care, providing foot assessments, and completing referrals to other members of the healthcare team as

CONSULTATION WITH KEY INFORMANTS

necessary (e.g., wound care nurse) (Central Health, 2011). Currently, there are only two sites within the CRHA that are currently offering the program regularly; these two sites are the major health centres within the region, namely Gander and Grand-Falls. The goal is to offer this program to three rural health centre sites within the CRHA initially and then eventually expand the program to all the rural health sites within the Central Region.

Currently at the two urban health centre sites at the CRHA there are Feet First program facilitators, however in the rural health centre sites the program is being guided in a new approach using Chronic Disease Lead Teams. Chronic Disease Lead Teams consist of different professions assembled within the health centre sites to create and meet goals in dealing with issues surrounding chronic disease. The Chronic Disease Lead Team will be responsible for the facilitation of the Feet First program at their site. There is currently no evaluation plan in place to evaluate the program implementation to rural health centre sites. Through a literature review and consultations with key informants an evaluation plan will be developed.

Methods

Purpose

Consultations were conducted with key stakeholders to gain important information on the Feet First program at the CRHA. Objectives of the consultation were: (1) to gain an understanding of program facilitators and barriers to implementation at the rural health centre sites; (2) identify indicators of successful program implementation, and (3) gain an understanding of evaluation techniques used to evaluate the Feet First program at the rural health centre sites as well as a similar program offered in Ontario.

CONSULTATION WITH KEY INFORMANTS

Participants

Overall, six individuals were invited to participate in a consultation. Within the CRHA, two healthcare managers and three Chronic Disease Lead Team leaders were contacted and invited to participate in a consultation. An additional consultation was obtained with a clinician involved in a program similar to the Feet First program within Ontario, Canada.

Data Collection Procedure

Managers. Two managers within the CRHA were contacted by email and asked to participate in a consultation either in-person or by teleconference (Appendix A). One manager agreed to participate and completed a 60-minute teleconference utilizing pre-established interview questions (Appendix B).

Chronic Disease Lead Teams leaders. The contact information for the team leaders was obtained from the Chronic Disease Prevention and Management Consultant (i.e. the main contact for the Chronic Disease Lead Teams regionally). The Chronic Disease Lead Team leaders were contacted via email with a letter of introduction and request for consultation (Appendix C). The email also included a copy of the consultation questionnaire in a fillable PDF format (Appendix D) and the contacts were given the option of completing the questionnaire independently or having a teleconference interview with the practicum student using the questionnaire as an interview guide. Two days after the email was sent, if no contact was made, a follow-up phone call was made to the leaders to ensure the email was received. A follow-up phone call was necessary with two of the three leaders. All three contacts chose to complete the questionnaire that was forwarded via email.

CONSULTATION WITH KEY INFORMANTS

Ontario. Within Ontario, there is a program similar to the Feet First program that had expanded from one large site to many smaller sites in the periphery, namely the Feet First: Steps for Health program in North Hamilton, Ontario. The program website had an email address listed that was used to send an introductory email requesting a consultation with an employee involved in the program (Appendix E). When there was no response a call was placed to the program's home base at the North Hamilton Community Health Centre and the individual who answered was given my introduction and request for consultation. Subsequently, a teleconference was scheduled with a lead clinician involved in the program. The out of province contact was educated on the program offered at the CRHA prior to asking the pre-established interview questions (Appendix F). The call was 45 minutes in duration and valuable data was collected.

Data Management and Analysis

Data collected through the teleconference with a manager at the CRHA and the lead clinician with the Feet First: Steps for Health program in Ontario was entered into and organized using Microsoft Word. The questionnaires from the Chronic Disease Lead Team leaders were saved as PDFs using different codes (i.e. A, B, C) to maintain participant confidentiality. Participant responses were reviewed for common themes. Results are presented as a narrative summary.

Ethical Considerations

Various individuals within the CRHA approved this practicum project, including the Director of Maternal and Population Health, the Chronic Disease Prevention and Management Consultant, and the Manager of Public Health Nursing. In addition, prior to completing any consultations the Health Research Ethics Authority (HREA) screening

CONSULTATION WITH KEY INFORMANTS

tool was completed. The results from the tool indicated that the purpose of the research is quality/evaluation and there would be no further intervention required. A copy of the completed HREA tool can be found in Appendix G.

All contacts were contacted initially by email introduction. Within the introductions it was noted that participation in the consultation process was voluntary and that confidentiality would be maintained. Scheduling an appointment for an interview/teleconference or completing the questionnaire would be the participants consent to participate. The teleconferences took place in a private office with the answers being recorded on a password-protected computer that was kept in a secure location. The questionnaires were also saved on the password-protected computer.

Results

Overall, two interviews were completed by teleconference and three individuals completed the consultation questionnaire. All individuals consulted within the CRHA were familiar with the Feet First program.

Management Consultation

The management consultation entailed discussion of past experience with program implementations. It was stated that there is benefit to starting with a smaller scale roll out to work out any concerns before the program is implemented regionally. Program facilitators included consistent staff training ensuring that all staff receive the same information. When a program is mandatory provincially and must be done on a regular basis, it has been noted to be more successful, rather than having programs that are only utilized as needed which often results in fragmented implementation. The manager also reported that the program's host must be committed to the programs success. Barriers

CONSULTATION WITH KEY INFORMANTS

noted from previous program implementation included feelings of animosity from staff when one site gets chosen over another to implement a program and distance of program leader from the Chronic Disease Lead Team causing inability to provide support when needed. The manager felt that the Chronic Disease Lead Teams can identify local needs much better as they know the people within the community and can recruit diabetics to the program, as well as provide stability and continuity to the program.

Indicators of successful program implementation stated by the manager were high attendance levels, positive client feedback and evaluation, positive staff feedback and evaluation, and a high number of referrals in and out of the program. Signs of ineffective implementation were poor attendance, not much uptake by community, negative feedback from staff, and avoidance of the clinics by program host. Furthermore, it was noted that data for evaluation of the program currently being collected is strictly attendance numbers and that it would be helpful to have the number of no-shows for the program, number of repeat clients, and the number of referrals out of the program collected as well.

Chronic Disease Lead Team Leader Consultations

The team leaders had varied experiences with program implementation; one team leader had no experience while the other two did. It was noted that in the past program implementation was successful when there was management support, consistent staff available, and time available to work out any kinks in the program. All team leaders listed the availability of other staff as facilitators to program implementation at their sites, such as primary health care facilitators, nurse educators and community development nurses. Physicians, continuing care nurses, and diabetic educators were all listed as professions that would be beneficial to the Chronic Disease Lead Teams and their ability

CONSULTATION WITH KEY INFORMANTS

to successfully offer the Feet First program. Barriers to previous successful program implementation present at their health centre sites included staff shortages, heavy workloads, lack of funding, limited space, poor uptake of the program within the community, and large geographical regions. It was a general consensus that the Chronic Disease Lead Team is an effective group to implement the program, however one leader reported some worries about the teams ability to deliver the program regularly. The team leaders did feel there are ways to make program implementation better. A consistent staff member designated as the host of the program and able to offer clinics with the diabetic nurse educator before or after the Feet First program was suggested. The team leaders felt that management could help with program implementation by encouraging providers to refer to the program and providing resources to staff to become competent in diabetes education. Suggested indicators of success of the Feet First program included a drop in diabetic foot complications, timely interventions for foot problems, at least 80% of diabetics being seen in the Feet First clinic, and clinics being offered on a regular basis. The Feet First program is not yet being offered at the three rural health sites and therefore evaluative data collection is not taking place at this time. However it was suggested that client questionnaires be completed after two clinic visits to assess self-management of the diabetic foot. General comments made by participants that related to the implementation of the Feet First program included the program's advantages, its importance to partner with other health care members, and its importance to get referrals from health care members.

Ontario Consultation

CONSULTATION WITH KEY INFORMANTS

The Feet First: Steps for Health program consultation began with some background information on how the program is offered in Ontario as well as how it is funded. The program was implemented initially after a community survey was completed and there was a need for diabetic foot education identified. One main site had initially offered the program and within six months of the initial site, another site began offering the program. The implementation to rural sites was done at sites that could provide office space, as there was no budget for secondary sites. Rural sites were better able to provide clinic space and staff were very receptive to offering the program. Facilitators of the program were staff initiative to offer the program and the program's high attendance rate, while barriers consisted of budgetary constraints and securing clinic space. High clinical numbers evidenced the programs success and was the main way of evaluating the program. Number of education sessions provided and a questionnaire on self care administered after the clinic were also means of program evaluation. Additional comments by the clinician included the importance of a diabetic foot education program and its value of cost efficiency to the health care system.

Conclusion

Throughout the consultations the importance of the program to the employees of the CRHA was evident. The staff members felt the program will benefit their communities largely. Facilitators to program implementation included utilizing staff resources available at each site, ensuring that management support is offered to the Lead Teams, allowing time made available to focus on program implementation, and ensuring site specific facilitating recommendations be considered. Barriers to program implementation included lack of funding, lack of human resources and space, lack of

CONSULTATION WITH KEY INFORMANTS

program recognition in community, and the large geography of the region causing long distances from Lead Team. Indicators of the program's success identified from the consultations included high attendance rates, questionnaires measuring increase in self-management of the diabetic foot after attending Feet First clinics, and high numbers of referrals in and out of the program. Within Ontario the Feet First: Steps for Health program is bringing many benefits and as soon as the program was offered at one site in the periphery it had a snowball effect and many other satellite sites were quickly offering the program. Program attendance numbers, number of clinic sessions offered, referrals to the program, referrals out of the program, and self-management questionnaires were all common evaluation techniques brought forth within the province, as well as methods used in Ontario. All of these evaluation suggestions offer implications for the final practicum project which is focused on building an evaluation plan for the implementation of the Feet First program to rural health sites. Using the data gained through consultations and the literature review a comprehensive evaluation plan can be developed.

References

- Adib- Hajbaghery, M., & Alinaqipoor, T. (2012). Comparing the effects of two teaching methods on healing of diabetic foot ulcer. *Journal of Caring Sciences*, 1(1), 17-24.
- Canadian Diabetes Association. (2013). *Clinical practice guidelines: Foot care*. Retrieved from <http://guidelines.diabetes.ca/browse/Chapter32>
- Central Health. (2011). *Feet First know what you need: Foot care resource kit*.
- Central Health Newfoundland. (2008). Retrieved April 8, 2016, from <http://www.centralhealth.nl.ca>
- Fujiwara, Y., Kishida, K., Terao, M., Takahara, M., Matsuhisa, M., Funahashi, T., et al. (2011). Beneficial effects of foot care nursing for people with diabetes mellitus: An uncontrolled before and after intervention study. *Journal of Advanced Nursing*, 67(9), 1952-1962 11p. doi:10.1111/j.1365 2648.2011.05640.x
- Mat, S., Panduragan, S. L., Saharuddin, A., Durai, R. P. R., & Hassan, H. (2011). A diabetic foot education program at a primary health care clinic in kuala lumpur: A best practice implementation project. *Pacesetters*, 8(2), 25-30.
- Meng Ren, MD., Chuan Yang, MD, Diao Zhu Lin, MS., Hui Sheng Xiao, MS., Li Fang Mai, BS., Yi Chen Guo, BS., et al. (2014). Effect of intensive nursing education on the prevention of diabetic foot ulceration among patients with high-risk diabetic foot: A follow-up analysis. *Diabetes Technology & Therapeutics*, 16(9), 576-581 6p. doi:10.1089/dia.2014.0004
- Public Health Agency of Canada. (2011). *Diabetes in Canada: Facts and figures from a public health perspective*. Retrieved from <http://www.phac-aspc.gc.ca/cd>

CONSULTATION WITH KEY INFORMANTS

mc/publications/diabetes-diabete/factsfigures-faits-chiffres-2011/highlights
saillantseng.php#chp2

Appendix A

Letter of Introduction for Managers

As a part of my Master's of Nursing practicum course I have chosen to evaluate the implementation process of the Feet First program to rural health centre sites in Central Newfoundland. This program implementation process is new for the Central Regional Health Authority and therefore, there is currently no comprehensive plan available to evaluate the process.

In conducting a consultation with managers involved in the Feet First implementation process valuable details can be gained. The consultation process is essential to the development of an evaluation plan.

I am requesting a 60-minute interview, in-person or by teleconference, at a time and place of your choosing at your earliest convenience. The scheduling of the interview will be considered your agreement to participate in the consultation process, and your participation in this process is voluntary. There are no preparation requirements for this interview. However, I have attached the interview questions for your review. All information obtained will be stored securely and your confidentiality will be maintained.

I would like to thank you for your assistance and time in this development process.

Sincerely,

Chantal Parsons, BNRN
Memorial University

Appendix B

Interview Questions to Guide Consultations with Managers

- 1) What are your past experiences with program implementation to rural health sites?
- 2) Are there any barriers or facilitators that you are aware of related to implementing programs to rural health sites? If so, can you please describe them?
- 3) Do you feel the implementation process using the Chronic Disease Lead Teams has been effective? Explain why or why not?
- 4) What do you feel are indicators of:
 - (a) Successful implementation of the Feet First program in rural health sites?
 - (b) Ineffective implementation of the Feet First program in rural health sites?
- 5) Do you feel all data to complete evaluations of the program is currently being collected? If no, what data would you like to see collected?
- 6) Do you have any other comments or feedback related to the implementation of the Feet First Program to rural sites?

Appendix C

Letter of Introduction for Team Leaders

As a part of my Master's of Nursing practicum course I have chosen to evaluate the implementation process of the Feet First program to rural health centre sites in Central Newfoundland. This program implementation process is new for the Central Regional Health Authority and therefore, there is currently no comprehensive plan available to evaluate the process.

In conducting a consultation with team leaders from the Chronic Disease Lead Teams involved in the Feet First implementation process valuable details can be gained. The consultation process is essential to the development of an evaluation plan. Your expertise in the implementation of this program in a rural health site is data that cannot be obtained elsewhere.

I am requesting your participation either by completion of a short questionnaire at your earliest convenience or an interview with me via teleconference at a time of your choosing. The completion of the questionnaire or arrangement of the interview will be considered your agreement to participate in the consultation process, and your participation in this process is voluntary. You will receive a phone call to ensure you received this email as well as the opportunity to ask any questions you have surrounding the consultation process and provide additional feedback regarding the implementation of the Feet First program. All information obtained will be stored securely and your confidentiality will be maintained. Please contact me if you have any additional questions or would like to discuss this project further.

I would like to thank you for your assistance and time in this development process.

Sincerely,

Chantal Parsons, BNRN
Memorial University

Appendix D

Consultation Questionnaire for Chronic Disease Lead Team Leaders

Please answer questions listed below. Please feel free to use extra space if needed.

- 1) What are your past experiences with implementing programs at your health centre?

- 2) What facilitators are present at your health centre to support the implementation of a new program?

- 3) What barriers are present at your health centre that hinder the implementation of a new program?

CONSULTATION WITH KEY INFORMANTS

- 4) Do you think the current implementation plan (i.e. using the Chronic Disease Lead Team to implement the Feet First program) is going to be effective? If not, please explain why.

- 5) Do you feel the Chronic Disease Lead Team has all the members necessary to effectively implement the Feet First program? If not, what profession(s) would help?

- 6) Do you feel there are any ways to make the implementation of the Feet First program better?

CONSULTATION WITH KEY INFORMANTS

- 7) Is there anything management could do to help make the implementation of the Feet First program to rural sites more effective?

- 8) What do you feel are indicators of success of the Feet First program that should be measured at your rural health site?

- 9) Do you feel all data to complete evaluations of the program is currently being collected? If no, what data should be collected?

- 10) Do you have any other comments or feedback related to the implementation of the Feet First Program to rural sites?

Appendix E

Letter of Introduction for Out of Province Contact

As a part of my Master's of Nursing practicum course I have chosen to evaluate the implementation process of the Feet First diabetic education program to rural health centre sites in Central Newfoundland, Canada. This program implementation process is new for the Central Regional Health Authority and therefore, there is currently no comprehensive plan available to evaluate the process.

In conducting a consultation with other jurisdictions in the country that have implemented a similar program to rural sites valuable details can be gained. The consultation process is essential to the development of an evaluation plan.

I am requesting a 45-minute interview by teleconference, at a time of your choosing at your earliest convenience. The scheduling of the interview will be considered your agreement to participate in the consultation process, and your participation in this process is voluntary. There are no preparation requirements for this interview. However, I have attached the interview questions for your review. All information obtained will be stored securely and your confidentiality will be maintained.

I would like to thank you for your assistance and time in this development process.

Sincerely,

Chantal Parsons, BNRN
Memorial University

Appendix F

Consultation Guide - Out of Province Contact

1) How did you implement the Feet First: Steps for Health program to the rural health sites within Ontario?

2) What were:

(a) Facilitators to implementation?

(b) Barriers to implementation?

3) What indicators of successful implementation were measured?

4) How did you evaluate the implementation process?

5) Do you have any other comments/feedback related to the implementation of the Feet First Program to rural sites in Ontario?

CONSULTATION WITH KEY INFORMANTS

Appendix G

Health Research Ethics Authority Screening Tool

	Question	Yes	No
1.	Is the project funded by, or being submitted to, a research funding agency for a research grant or award that requires research ethics review	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.	Are there any local policies which require this project to undergo review by a Research Ethics Board?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	IF YES to either of the above, the project should be submitted to a Research Ethics Board. IF NO to both questions, continue to complete the checklist.	<input type="checkbox"/>	<input type="checkbox"/>
3.	Is the primary purpose of the project to contribute to the growing body of knowledge regarding health and/or health systems that are generally accessible through academic literature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Is the project designed to answer a specific research question or to test an explicit hypothesis?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5.	Does the project involve a comparison of multiple sites, control sites, and/or control groups?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6.	Is the project design and methodology adequate to support generalizations that go beyond the particular population the sample is being drawn from?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7.	Does the project impose any additional burdens on participants beyond what would be expected through a typically expected course of care or role expectations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LINE A: SUBTOTAL Questions 3 through 7 = (Count the # of Yes responses)			
8.	Are many of the participants in the project also likely to be among those who might potentially benefit from the result of the project as it proceeds?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9.	Is the project intended to define a best practice within your organization or	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CONSULTATION WITH KEY INFORMANTS

	practice?		
10.	Would the project still be done at your site, even if there were no opportunity to publish the results or if the results might not be applicable anywhere else?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Does the statement of purpose of the project refer explicitly to the features of a particular program, Organization, or region, rather than using more general terminology such as rural vs. urban populations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Is the current project part of a continuous process of gathering or monitoring data within an organization?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LINE B: SUBTOTAL Questions 8 through 12 = (Count the # of Yes responses)			
SUMMARY See Interpretation Below			

Interpretation:

- If the sum of Line A is greater than Line B, the most probable purpose is **research**. The project should be submitted to an REB.
- If the sum of Line B is greater than Line A, the most probable purpose is **quality/evaluation**. Proceed with locally relevant process for ethics review (may not necessarily involve an REB).
- If the sums are equal, seek a second opinion to further explore whether the project should be classified as Research or as Quality and Evaluation.

These guidelines are used at Memorial University of Newfoundland and were adapted from ALBERTA RESEARCH ETHICS COMMUNITY CONSENSUS

INITIATIVE (ARECCI). Further information can be found at:

<http://www.hrea.ca/Ethics-Review-Required.aspx>

Appendix C – Evaluation Plan

**Evaluation Plan for the Implementation of the Feet First Program
to Rural Healthcare Sites in the Central Region of Newfoundland
and Labrador**



**Central
Health**

Chantal Parsons

Memorial University

2016

Preface

This report was developed as a practicum project for the Masters of Nursing program at Memorial University. The Central Regional Health Authority (CRHA) in Newfoundland and Labrador (NL) recognized a need to evaluate the implementation of the Feet First program to rural healthcare sites. Therefore, an evaluation plan of short-term goals was developed using a comprehensive approach, consisting of a review of existing literature and consultations with key stakeholders, including individuals involved in the Feet First program within the CRHA and a clinician involved in a similar program in Ontario, Canada. Furthermore, the development of the evaluation plan was guided by existing frameworks, namely the Ontario Centre of Excellence for Child and Youth Mental Health's "Program Evaluation Toolkit" (1), and components of the "Knowledge-to-Action Framework" from the Registered Nurses' Association of Ontario (2).

This document contains an overview of the Feet First program and the CRHAs plan to implement the program at three rural healthcare sites. In addition, it describes facilitators and barriers to program implementation, indicators of successful program implementation, and evaluation collection methods for short-term evaluation. A plan for data synthesis and interpretation and dissemination of findings is proposed as well.

Project Objectives

The following objectives guided the development of this evaluation plan:

1. To determine indicators of successful implementation of the Feet First program to rural healthcare sites within the CRHA in NL.
2. To identify the data that needs to be collected to evaluate the implementation of the Feet First program to rural healthcare sites within the CRHA in NL.

Background

The prevalence of diabetes is high in NL and it is expected to rise in the coming years. It is estimated that 47,000 people were diagnosed with Type 1 or Type 2 diabetes in NL in 2010 (3) and by the year 2020 the number of individuals will reach 73,000 (3). Complications associated with the foot are a major cause of morbidity and mortality in individuals suffering with diabetes, leading to the increase in healthcare usage and costs (3). Prevention of amputations in this high-risk group can be achieved through early education, foot examinations, early detection and treatment of foot ulcers, and proper fitting footwear (3). In fact, the CDA recommends that patients with diabetes have their feet assessed at least once a year as per their clinical practice guidelines (3). The CRHA is currently offering the Feet First program at two urban healthcare sites (i.e. Gander and Grand Falls Windsor) to prevent complications in the diabetic foot. The Feet First program provides nurse-led foot assessments, education, and referrals to other healthcare professionals as necessary.

The CRHA recognizes that diabetes is a prominent chronic disease affecting many individuals within their health authority, and therefore wants to increase the reach of this program and service to rural healthcare sites as well, including *Twillingate, Harbor Breton, and Springdale (Figure 1)*. Clients who have diabetes and are educated on the importance of foot care and assessments become empowered to be more involved in their care, leading to an earlier recognition of foot related complications (4-6).

The program will be implemented at the rural healthcare sites through established Chronic Disease Lead Teams (CDLT) at each of the healthcare sites, which are made up of healthcare professionals involved in treating clients with chronic diseases. One facilitator will be trained to host the program; however all members will be in charge of the program at their healthcare site. This is a new way of program implementation in the CRHA and therefore an evaluation of this implementation process is necessary. Throughout the consultations with key members of the CRHA (2016) involved in the Feet First program it was discussed how the Feet First program is key in helping individuals with diabetes. A common theme that resonated amongst staff is the invaluable service

that the Feet First program will provide to individuals with diabetes within rural communities that have otherwise been lacking in diabetic services.

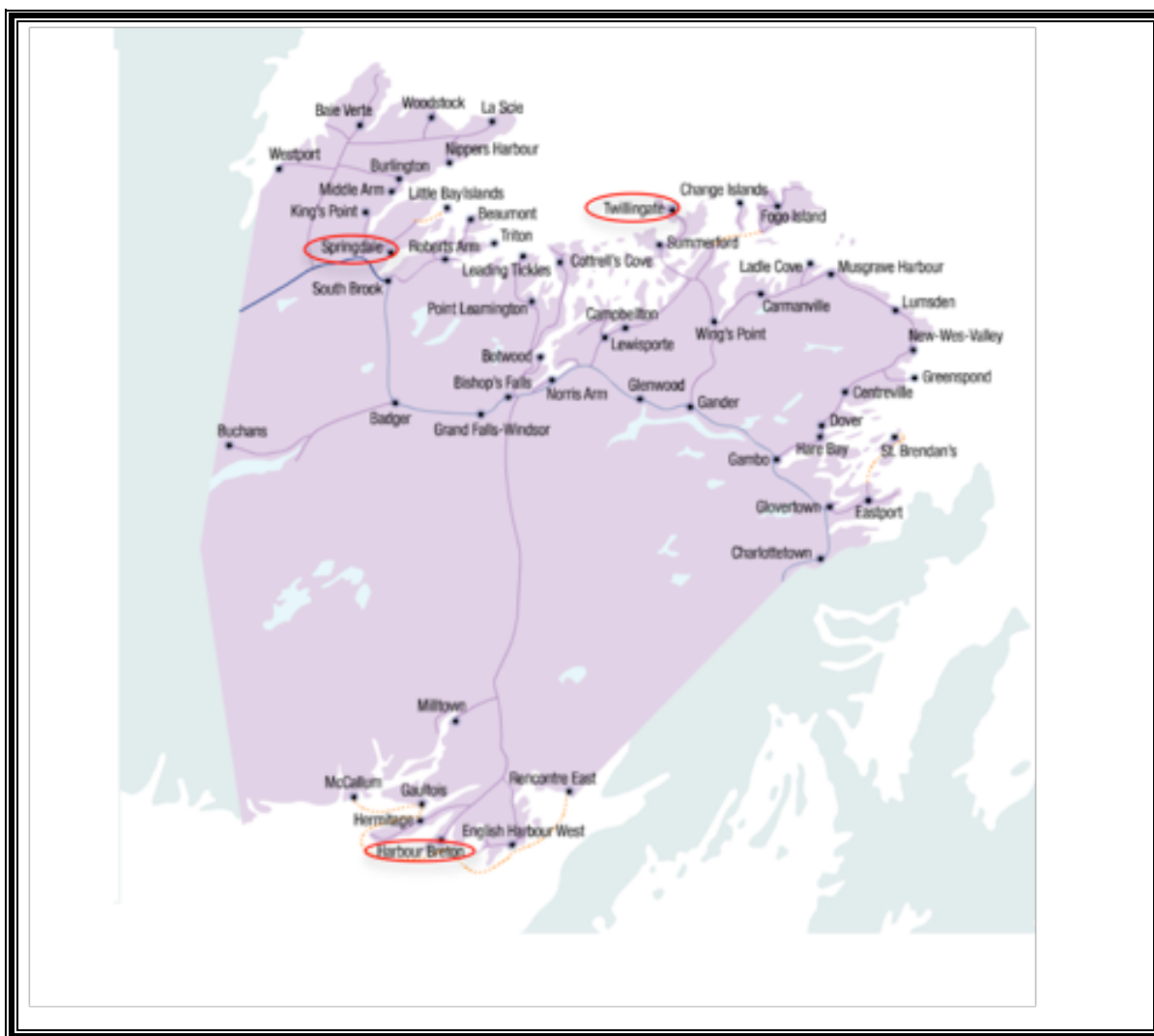


Figure 1: Map of CRHA- Rural healthcare sites introducing Feet First program circled in red.

Programs like Feet First are effective in helping diabetic clients (4-6). Therefore, the CRHA must ensure it is offered effectively at the rural healthcare sites. Nurse-led diabetic foot education programs can provide great benefit to diabetic clients, preventing ulcers and amputation in high-risk patients and improving diabetic foot status overall (7-8). The strength of the program is not in question. However, program evaluation is

required to monitor and determine whether or not it is successfully meeting the needs of its target population.

A logic model already exists to guide the evaluation of the Feet First program at the urban healthcare sites (9); however this logic model did not fit the evaluation needs for the implementation of the program to the rural healthcare sites due to the fact it dealt solely with the initial start-up of the Feet First program (e.g. hiring a nurse coordinator for setting up and running the clinics). Therefore, a modified logic model was developed based on the initial model and the short-term goals of the Feet First program. As well, the context of implementing the program to rural healthcare sites was taken into consideration (*Figure 2*). Within the logic model, program inputs and resources consist of training staff from each of the three rural healthcare sites, ensuring resources are available at each rural healthcare site (e.g. clinic space, clinic funding, availability of staff), and having administrative/management support available to all sites involved in implementing the Feet First program. Activities of the program include promoting the program to the public, offering the clinics regularly to promote consistency, and increasing awareness of the program to other healthcare providers to boost referrals to the program. Outputs from this program are high clinic numbers, assessments provided to the diabetic foot, and an increase in client knowledge in caring for their diabetic feet. An understanding of indicators of successful program implementation and the data required to measure successful implementation are key.

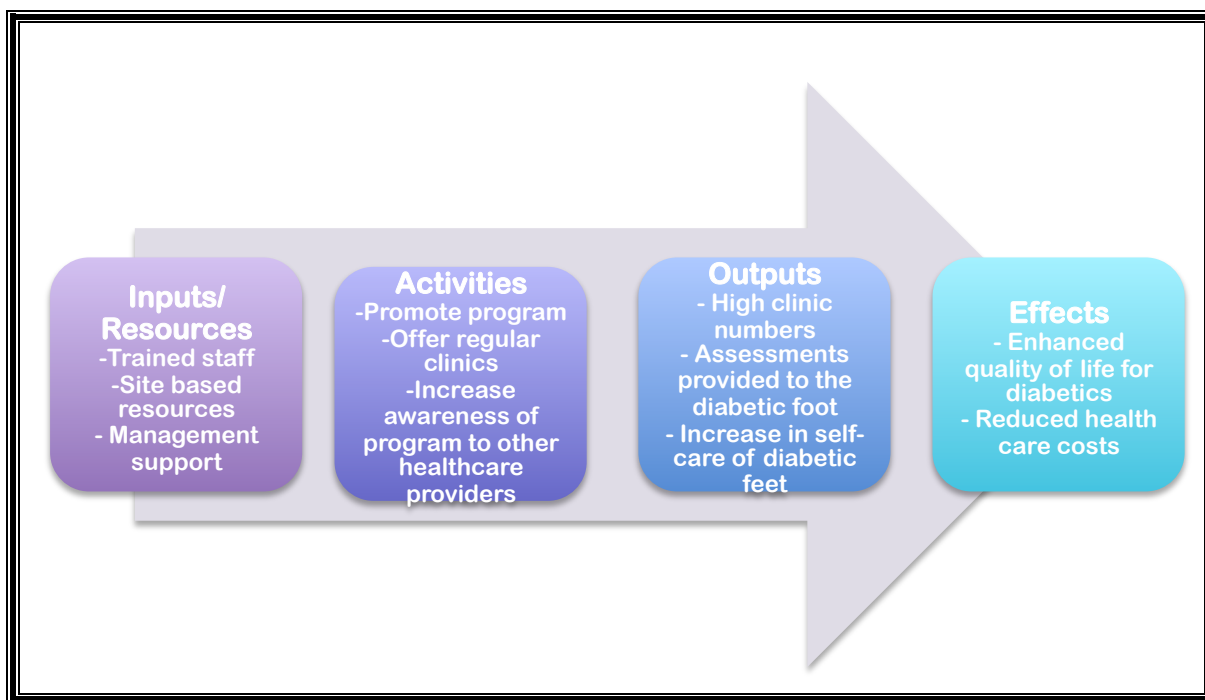


Figure 2: Logic Model – Implementation of Feet First to Rural Healthcare Sites

Facilitators and Barriers

Through a literature review and the consultations with staff from the CRHA program facilitators and barriers were identified (Table 1). Identifications of facilitators and barriers to program implementation was recommended by the evaluation frameworks utilized, the Program Evaluation Toolkit (1) and Knowledge-to-Action Framework (2). Some suggested ways of gaining this information was through the use of focus groups and interviewing (1,2). A factor facilitating the implementation of a program found in the literature was commitment to monitoring and evaluation by staff (10). Within the CRHA of NL, this can be accomplished by using the CDLT. In utilizing the CDLT, the CRHA is relying on staff that work in the community to take control of the Feet First program. In using this method the staff are given autonomy in choosing clinic location and times that they feel work best for the population they serve. Facilitators to program implementation discussed by staff throughout consultations were the availability of resources (e.g., staff, time, space, funding), staff initiative to see the program succeed, management support,

consistent training for program host, and a consistent clinic time with a consistent host. Poor uptake by community, large geographical regions and increased workloads were discussed by stakeholders as barriers to successful program implementation. Regular meetings should take place with the CDLT to address and enhance foreseeable program facilitators and overcome anticipated barriers. *Table 1* lists facilitators and barriers to be considered.

Table 1: Facilitators and Barriers to Program Implementation at Rural Health Sites	
FACILITATORS	BARRIERS
<ul style="list-style-type: none"> ➤ Committed and available staff ➤ Regular clinic times and available clinic space ➤ Availability of resources ➤ Managerial support ➤ Consistent training for a reliable program host ➤ Consideration of site specific needs 	<ul style="list-style-type: none"> ➤ Large geographical areas of service ➤ Poor community uptake of program ➤ Increase in workloads for members of the Chronic Disease Lead Teams

Evaluation Plan

Identifying key indicators and evaluating patient-related outcomes are important when evaluating a program's effectiveness. When selecting indicators of success for the Feet First program, the program's short-term outcomes will be considered as well as the methods of assessing these outcomes. Long-term evaluation is an important component to be considered (e.g., ulceration rates, amputation rates) however this is beyond the scope of this resource. Findings from the literature review, consultations with key informants and the evaluation frameworks directly informed the development of this recommended evaluation plan. *Table 2* provides a detailed summary of the evaluation plan and displays proposed indicators of successful program implementation. The Feet First program short-

term outcomes are listed which were accessed through the Central Health (9) evaluation document on the Feet First program to urban healthcare sites.

Table 2: Evaluation Plan Summary		
Desired Program Outcomes (9):	Key Indicators *	Methods & Measurements *
<i>Increased awareness of Feet First clinics and the importance of diabetic foot care</i>	<ul style="list-style-type: none"> Referral numbers Program attendance numbers 	<ul style="list-style-type: none"> Ask clients in attendance how they heard about the program Tally referrals sent out and received into the program Take attendance at each clinic
<i>Increased screening and early intervention for diabetic foot complications</i>	<ul style="list-style-type: none"> Client questionnaires Number of completed foot assessments Referral numbers sent to other health care providers 	<ul style="list-style-type: none"> Pre & Post client questionnaire Tally number of foot assessments completed at each clinic Tally referrals sent out of the program
<i>Increased ability of providers to provide diabetic foot care and self-management support</i>	<ul style="list-style-type: none"> Client questionnaires Client feedback Staff feedback 	<ul style="list-style-type: none"> Comments section at end of Pre & Post client questionnaire Discussions with staff at CDLT meetings

*Indicators established based on findings from the literature review (1,5,6) and consultations with key stakeholders. Refer to full practicum report for further details.

Five indicators were chosen to be used in evaluating the implementation of the Feet First program at the rural health centre sites. The program evaluation toolkit developed by the Ontario Centre of Excellence for Child and Youth Mental Health (1) recognized all five of the indicators listed below as indicators that can be used to signify how well a program is meeting its intended outcomes.

1. **Program attendance numbers:** Collecting program attendance numbers is a simple data collection measure that could be used to determine the uptake of the program within the community it is serving (5,6).

2. ***Completed foot assessments:*** The number of completed foot assessments will indicate whether there is an increase in screening diabetic clients for associated foot complications (5,6). This is a simple measurement that program hosts' can determine at each clinic.
3. ***Client questionnaires:*** Pre & Post clinic client questionnaires could be offered to clients and was used in the initial evaluation of the Feet First program. Increases in correct responses on the post clinic questionnaire would indicate that clients have an increase in knowledge and possess a greater understanding of self-management of the diabetic foot after attending the clinic (5,6,11). This form of evaluation was used in the initial evaluation of the Feet First program at the urban healthcare sites and could be useful in determining the programs success at the rural healthcare sites as well (see Appendix A) (9).
4. ***Referral numbers:*** Identifying referral numbers is a method that can be used to evaluate the amount of referrals coming into and out of a program. Referrals into the Feet First program can be measured by asking clients on a questionnaire how they were referred to the program (e.g., by another health care professional). Referrals out of the program can be measured simply by determining whether a referral to another health care provider was made during that particular clinic visit. Referrals into the program can be used to assess if other health care professionals are promoting the program (5). Referrals out of the program can be used to help with health human resource planning to aid in program sustainability.
5. ***Staff and client feedback:*** Collecting feedback from staff on how the program is running at a particular health centre will be useful for management when evaluating how the program is going (5). This could be collected from the CDLT as a whole, as well as the program's host. Management could use this information to offer support if there are noted difficulties with program implementation. Collecting feedback from clients on how they feel program is going will help staff determine

program uptake in the community. The CDLT as well as management can use feedback from clients to understand ways the program could be offered more effectively to the population. This data could be collected through additional space provided for comments on the pre and post clinic questionnaire.

There are advantages and disadvantages to the proposed methods of data collection. Advantages include the majority of the data collection methods are simple and inexpensive to collect (e.g., clinic attendance numbers, number of completed foot assessments, referral numbers, staff and client feedback) and all indicators demonstrate short-term benefits of the program (11). Disadvantages to proposed methods mainly relate to the pre and post clinic client questionnaire (e.g., response rate, required resources, feasibility) (11,12). When considering the proposed methods it is important to remember that short-term evaluation is the goal of this practicum therefore the indicators listed do not capture long-term impacts of the program.

Data Synthesis and Interpretation

The date of program launch at the three rural health sites is to be determined at present. Nevertheless, evaluation of the Feet First program within the CRHA of NL needs to be conducted once the program is launched. Suggested data collection methods are outlined within Table 2; however, depending on resource availability these methods may need to be modified. Once data is collected, data synthesis and interpretation needs to take place. To avoid evaluator bias, it is recommended that more than one evaluator be involved in the synthesis and interpretation of results (11). Therefore, it is recommended that a manager involved in the Feet First program regionally as well as a member from the CDLT at each site be involved in the data synthesis and interpretation for the program at their site. A meeting involving key stakeholders to discuss and interpret the results is also recommended to ensure all perspectives are represented (11). A communication plan is important when deciding how to incorporate the CDLT in the interpretation and dissemination of results.

A step-by-step breakdown of the evaluation plan is offered below:

➤ ***Step 1: Data Collection***

- Feet First clinic attendance numbers
- Pre & Post clinic client questionnaires
- Referral numbers in/out of Feet First clinic
- Number of completed foot assessments
- Program host feedback
- Client feedback

Timeline: Continuous data collection for a minimum of one year. The initial Feet First evaluation ran for 2 years; at least 1 year is needed to collect a reasonable amount of data (9).

➤ ***Step 2: Data Synthesis and Interpretation***

- Compile results for each of the three rural healthcare sites
- Management determines best strategy to share results with CDLT (e.g. meeting, a printed document, email).
- CDLT should have at least one member take part in data synthesis and interpretation pertinent to their site.
- Team meetings, including key stakeholders of the program, should take place to ensure diverse perspectives from each site are taken into consideration when reviewing results

Timeline: Ongoing throughout data collection.

➤ ***Step 3: Make Recommendations***

- Make recommendations to modify Feet First program as necessary

Timeline: Ongoing throughout evaluation phase.

Conclusion

This report has been developed to contain recommendations to evaluate the implementation of the Feet First program to rural healthcare sites. Utilizing the CDLT to provide the Feet First program is a new method of program dissemination within the CRHA and therefore no existing strategy exists for evaluating this method of program implementation. Using the literature review, consultations, and evaluation frameworks, an evaluation strategy for short-term evaluation was developed. This report sets the

foundation for more robust, long-term evaluations to take place in the future. Committed staff will ensure the program's success and in turn offer great benefits to diabetic clients in the Central region.

References

1. Ontario Centre of Excellence for Child and Youth Mental Health. (2013). Program Evaluation Toolkit. Retrieved from http://www.excellenceforchildand youth.ca/sites/default/files/docs/program_evaluationtoolkit.pdf
2. Registered Nurses' Association of Ontario. (2013). Assessment and management of footulcers for people with diabetes nursing best practice guideline (2nd ed). Retrieved from http://rnao.ca/sites/rnaoca/files/Assessment_and_Management_of_Foot_Ulcers_for_Peole_with_Diabetes_Second_Edition1.pdf
3. Canadian Diabetes Association. (2013). *Clinical practice guidelines: Foot care*. Retrieved from <http://guidelines.diabetes.ca/browse/Chapter32>
4. Adib- Hajbaghery, M., & Alinaqipoor, T. (2012). Comparing the effects of two \ teaching methods on healing of diabetic foot ulcer. *Journal of Caring Sciences*, 1(1), 17-24.
5. Mat, S., Panduragan, S. L., Saharuddin, A., Durai, R. P. R., & Hassan, H. (2011). A diabetic foot education program at a primary health care clinic in kuala lumpur: A best practice implementation project. *Pacesetters*, 8(2), 25-30.
6. Woodbury, M. G., Botros, M., Kuhnke, J. L., & Greene, J. (2013). Evaluation of a peer led self management education programme PEP talk: Diabetes, healthy feet and you. *International Wound Journal*, 10(6), 703-711. doi:10.1111/iwj.12188
7. Fujiwara, Y., Kishida, K., Terao, M., Takahara, M., Matsuhisa, M., Funahashi, T., et al. (2011). Beneficial effects of foot care nursing for people with diabetes

- mellitus: An uncontrolled before and after intervention study. *Journal of Advanced Nursing*, 67(9), 1952-1962 11p. doi:10.1111/j.13652648.2011.05640.x
8. Meng Ren, MD., Chuan Yang, MD, Diao Zhu Lin, MS., Hui Sheng Xiao, MS., Li Fang Mai, BS., Yi Chen Guo, BS., et al. (2014). Effect of intensive nursing education on the prevention of diabetic foot ulceration among patients with high risk diabetic foot: A follow-up analysis. *Diabetes Technology & Therapeutics*, 16(9), 576-581 6p. doi:10.1089/dia.2014.0004
 9. Central Health. (2013). *Feet First know what you need: Foot care resource kit. Project evaluation.*
 10. Stubbs, J. M., & Achat, H. M. (2011). Monitoring and evaluation of a large-scale community based program: Recommendations for overcoming barriers to structured implementation. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 37(2), 188-196 9p. doi:10.5172/conu.2011.37.2.188
 11. McKenzie, J., Neiger, B., & Thackeray, R. (2013). *Planning, implementing, and evaluating health promotion programs: A primer* (6th ed.). Chicago, IL: Pearson.
 12. Fink, A. (2015). *Evaluation fundamentals: Insights into program effectiveness, quality, and value* (3rd ed.). Sage.

Contact Information

Chantal Parsons, BN RN
 Gander, NL
chantal.hodder@mun.ca

Appendix A – Central Health Client Questionnaire

Central Health. (2013). *Feet First know what you need: Foot care resource kit. Project evaluation*. [Permission obtained from Central Health to include copy of survey within the present report]



We are asking for your feedback to better understand diabetic foot care
If this is your first visit or 6-month follow-up visit, please take your time to think about these questions and answer them as best as you can

Please put an "X" in the box to show your answer

TYPE OF APPOINTMENT

☐ 1st Appointment

☐ 6 Month Follow-Up

DIABETES AND YOUR FEET- These questions are about your diabetes and caring for your feet

1. Are you male or female? ☐ Male ☐ Female
2. What is your age? ☐ Younger than 20 ☐ 20-29 ☐ 30-39 ☐ 40-49
☐ 50-59 ☐ 60-69 ☐ 70-79 ☐ 80+
3. How many years have you been living with diabetes?
☐ Less than 1 year ☐ 1-5 years ☐ 6-10 years ☐ 11-15 years ☐ 15+ years
4. Do you monitor your blood sugars? ☐ Yes ☐ No

IF YES: How often are your blood sugars between 4 and 7 before your meals?

☐ Always ☐ Usually ☐ Sometimes ☐ Rarely ☐ Never

IF NO: Why don't you monitor your blood sugars? _____

5. Do you wear shoes at all times, indoors and outdoors? ☐ Yes ☐ No
6. During the last 7 days, how many days did you or a caregiver check your feet?
☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7
7. During the last 12 months, has a healthcare provider talked to you about caring for your feet? ☐ Yes ☐ No

IF YES: Which healthcare provider(s)? (Check all that apply)

☐ Diabetes Nurse Educator ☐ Foot Care Nurse ☐ Physician
☐ Community Health/Public Health Nurse ☐ Other _____

TRUE/FALSE SECTION- This short quiz will help test your knowledge of diabetic foot care

8. You should check your feet every day for cracks, cuts, and red areas ☐ True ☐ False
9. Pointy-toed shoes are better for your feet than round-toed shoes ☐ True ☐ False
10. Managing your blood sugar levels is important for healthy feet ☐ True ☐ False
11. You should apply a fragrance-free moisturizer to your feet everyday ☐ True ☐ False
12. When moisturizing your feet, you should put lotion in-between your toes ☐ True ☐ False
13. You should always take off your shoes and walk bare foot at home ☐ True ☐ False
14. You should always check the temperature of your bath with your toes ☐ True ☐ False

Thank you for your feedback!