An Evaluation of the Healthy Start/Départe Santé (HSDS) Knowledge Development and Exchange (KDE) Strategy

Prepared for: Healthy Start/Départe Santé (HSDS) & Saskatchewan Network for Health Services in French/Réseau Santé en Français de la Saskatchewan

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Executive Summary

The present evaluation focused on the Knowledge Development and Exchange Strategy of Healthy Start/Départ Santé (HSDS) Saskatchewan, a bilingual initiative designed to support healthy eating and physical activity in early learning and childcare settings. The HSDS initiative operates through a partnership of organizations, led by the Réseau Santé en Français de la Saskatchewan (RSFS; Saskatchewan Network for Health Services in French). The initiative is funded by the Public Health Agency of Canada and the Saskatchewan Community Initiatives Fund. Using various resources and communication tools, HSDS supports directors, educators, cooks and parents of children attending early learning programs in incorporating healthy eating and physical activity into the lives of children aged 0-5 (KDE Committee, 2014). To ensure that directors, educators, cooks, parents, and external stakeholders buy-in to the initiative, and are receiving the appropriate information and resources, HSDS created a Knowledge Development and Exchange (KDE) Strategy. This strategy aims to extend the reach from front-line childcare providers to integration with provincial priorities to improve the well-being of early years children (KDE Committee, 2014). The strategy includes gaining buy-in, financial support, and continued implementation of the program by creating a strong community of practice.

Thus, the present evaluation assessed the effectiveness of HSDS's KDE Strategy. More specifically, this evaluation addressed the specified evaluation questions, following Lavis et al. (2003) five elements of evaluating knowledge translation, and various elements of the RE-AIM framework (Glasgow, Vogt & Boles, 1999).

To ensure that all research and ethical standards were met, the evaluation team worked with RSFS and identified supervisors of the project, and followed the guidelines presented by the Canadian Evaluation Society's code of ethics, standards of practice and evaluation competencies (CES, 2010).

The primary methods used in this evaluation were a document review, an adapted web-assisted telephone interviewing (WATI) survey (Norma & Huerta, 2006), and key informant interviews. The documents review included an analysis of various presentations, reports, training material, HSDS resources and previously collected data to respond to the specified evaluation questions. The survey included a series of multiple choice and open-ended questions, offered in both English and French, and was completed online via fluid surveys. To supplement this data, the evaluation team also conducted four semi-structured key informant interviews via telephone with individuals representing Saskatchewan school divisions and designated HSDS community trainers. These methods explored the messages transferred using the KDE Strategy and how this information is being used, as well as the adoption, implementation, and maintenance of HSDS as a result of the KDE Strategy. Finally, we also assessed whether a community of practice had been formed to sustain HSDS in the future.

All documents were reviewed for evidence of actionable messages, tailoring to specific target audience groups, the credibility of those transferring the messages, and interactive delivery methods. Quantitative data collected previously by HSDS was analyzed and reported to respond to the specified evaluation questions. In addition, quantitative data collected from the adapted WATI survey was analyzed to determine the percentages of respondents who agreed or disagreed to various questions measuring adoption, implementation, and maintenance of the HSDS program. These numbers were also used to determine whether the KDE Strategy successfully adheres to Lavis et al. (2003) five elements of evaluating knowledge translation. All qualitative data from the adapted WATI survey and key informant interviews was analyzed using an inductive thematic analysis approach to identify major themes in response to the evaluation questions (Braun & Clarke, 2006).

Overall, the evaluation yielded a number of important results:

- The HSDS KDE and communication tools appear to follow Lavis et al. (2003) five elements of evaluating knowledge translation, in that actionable messages are being transferred. More specifically, after reviewing all reports, presentations, training material and KDE tools, it was clear that HSDS is

providing information that is easy to understand, and includes concrete steps to implement Healthy Start in various settings.

- By offering flexible, client-centered booster sessions, HSDS also successfully adheres to Lavis et al. (2003) second element of evaluating knowledge translation which states that messages should be tailored to specific target audience groups. In addition, KDE tools, such as the Healthy Start Website, HSDS Fact Sheets, the Ministry of Education Information Sheets and external links to the website are offered in various versions designed for directors, educators, cooks, parents and stakeholders/partners. When asked about HSDS training, participants agreed that recommendations were useful, and claimed to use various HSDS tools in practice.
- By reviewing Training Questionnaires, and collecting survey data, we concluded that HSDS adheres Lavis et al. (2003) third element that explains that messages should be transferred by sources deemed credible by those receiving them. More specifically, participants stated that trainers were *"excellent, knowledgeable and engaging"* and reported an increase in knowledge about the importance of physical activity and healthy eating for early years children, claimed to act on recommendations, and pass on HSDS information to colleagues, demonstrating trust in HSDS staff, researchers, and trainers.
- In regards to presenting information in an interactive manner, we concluded that HSDS successfully adheres to this element brought forth by Lavis et al. (2003). Of particular importance, participants identified training as *"excellent and engaging",* with community trainers supporting this notion by explaining that the hands-on approach was the most effective form of training. Also, website, MailChimp and social media metrics demonstrated a high rate of traffic and followers; though newsletter and social media engagement could be improved.
- After analyzing the extent to which the program had been adopted, implemented and maintained as a result of the KDE strategy, we concluded that early learning and childcare centres are using various HSDS tools, with the LEAP HOP Manual/Binder, the LEAP Food Flair Manual/Binder, and Active Play Equipment (APE) kit being among the most popular. In addition, early learning and childcare setting have made various changes to their practice such as increased active play in classrooms and increased healthy eating options, and have even created policies and curricula to promote increased physical activity and improved nutrition for children.
- In terms of creating a community of practice, results of the evaluation indicated that there is room for improvement in facilitating communication, and exchange of information among the early learning and childcare centres, as well as with other professionals. More specifically, only 7 participants provided examples of collaboration outside of their workplace via the adapted WATI survey. When asked about collaboration during key informant interviews, participants did not report any collaboration outside of the agencies they represent. Though HSDS information is transferred to identified stakeholders and partners via presentations from HSDS staff, researchers and program committee members, participants believed that increased collaboration and communication would be helpful to sustain HSDS in Saskatchewan early learning and childcare settings.

Based on the results of the evaluation, we conclude that the HSDS KDE Strategy is effective. This strategy appears to adhere to Lavis et al. (2003) five elements of knowledge translation and has resulted in HSDS being adopted, implemented and maintained by many early learning and childcare centres in Saskatchewan and New Brunswick. Despite these successes, we suggest to consider opportunities for improvement in the following areas:

1. Promoting Newsletters and social media pages
2. Targeting a broader scope of early years settings
3. Providing more opportunities for parents to get involved
4. Increasing communication between trainers/program coordinators and ELCCs
5. Creating opportunities for networking to develop a strong community of practice
6. Developing an infrastructure to evaluate the KDE Strategy on a continuous basis

HSDS Overview

The present evaluation focused on the Knowledge Development and Exchange Strategy of Healthy Start/Départ Santé (HSDS) Saskatchewan. HSDS is a bilingual initiative developed in Saskatchewan to encourage healthy eating and increased physical activity in early learning and childcare settings. This initiative operates through a partnership of organizations, which is led by the Réseau Santé en Français de la Saskatchewan (RSFS; Saskatchewan Network for Health Services in French) and funded by the Public Health Agency of Canada and the Saskatchewan Community Initiatives Fund (KDE Committee, 2014). HSDS provides agency directors, educators, cooks and parents of children attending early learning programs with resources, training, and ongoing support from staff, to promote healthy eating and physical activity in the daily lives of children aged 0-5 years. By doing this, HSDS strives to increase the overall well-being of Canadian early years children, and allow them an opportunity to reach their full potential (KDE Committee, 2014).

To ensure that early learning and childcare (ELCC) directors, educators, cooks and parents, as well as partners, collaborators and stakeholders are engaged around an early years health promotion initiative in SK and in NB, HSDS developed a Knowledge Development and Exchange (KDE) Strategyb). This strategy also provides guidelines to deliver information and resources to the identified target audience groups, in order to integrate healthy eating and physical activity into the lives of young children,. Moreover, the KDE Strategy will contribute to achieving long-term sustainability of HSDS by increasing its reach from front-line early learning and childcare centers to integration or alignment with provincial priorities as they link to improving the health and well-being of young children. This includes gaining buy-in, financial support and continued implementation of the HSDS program by creating a network of significant partnerships (KDE Committee, 2014).

KDE Strategy Evaluation Framework

The present evaluation assessed the effectiveness of HSDS's KDE Strategy. More specifically, this evaluation addressed the specified evaluation questions, following Lavis et al. (2003) five elements of evaluating knowledge translation, and various elements of the RE-AIM framework (Glasgow, Vogt & Boles, 1999) including:

1. What was the message transferred to stakeholders according to the HSDS KDE Strategic Plan? Did KDE staff transfer actionable messages from a body of research knowledge?
2. What was the target audience of the KDE Strategy? Was the message delivered tailored for the various target audience groups?
3. By whom was the message transferred using the KDE Strategy? Was the message delivered by sources deemed credible by those receiving the message?
4. What were the knowledge transfer processes and the supporting communication infrastructure? Were the KDE tools introduced in an interactive manner?
5. How has the information transferred by the KDE Strategy been used?
6. To what extent have the target audience members adopted and implemented the HSDS program as a result of the KDE Strategy?
7. To what extent have the target audience members maintained the HSDS program as a result of the KDE Strategy?
8. To what extent has a community of practice been developed as a result of the KDE Strategy?

Methods

The present evaluation used three main methods to answer the specified evaluation questions including a document review, key informant interviews, and a survey.

Document Review

To address many of the evaluation questions, the evaluation team conducted a document review of various HSDS data sources including any reports, presentations, media interviews, booster sessions and training workshop materials used to transfer knowledge under the KDE Strategy. We also reviewed the data collected from the process evaluation, as well as mail chimp and website metrics, to determine the reach, adoption, implementation, and maintenance of the HSDS program, as a function of the KDE Strategy. Finally, we analyzed data collected from participant evaluations of training workshops to determine whether the methods of transferring knowledge of the HSDS program were deemed effective by those who participated.

Key Informant Interviews

The evaluation team conducted a total of four semi-structured interviews with a purposeful sample of key informants including a Pre-K coordinator belonging to a Saskatchewan school division, and three community trainers representing various Saskatchewan communities. Though 50 early learning and childcare centres were purposely selected to represent centres that differ in size, capacity, location, and duration of relationship with HSDS, only one response was received. We also contacted 13 community trainers; however, only three agreed to participate in key informant interviews. The interviews consisted of open-ended questions and were completed via telephone. The interviews developed for early learning and childcare centres addressed questions pertaining to the appropriateness and understanding of messages transferred by KDE staff, the credibility of presenters, the presentation and use of KDE tools, and the implementation and maintenance of HSDS in the centers they represent. In contrast, interviews aimed at community trainers included questions surrounding effective methods of delivering training, their engagement with early learning and childcare centres after training had been completed, the supports they received from HSDS staff, and suggestions to sustain HSDS in early years settings. During the interviews, the evaluation team took detailed notes, and interviews were audio-recorded with the participants' consent. These recordings were used to verify the notes taken, and all qualitative data was analyzed using a thematic data analysis (Braun & Clarke, 2006).

Survey

The evaluation team used an adapted Web-assisted Telephone Interviewing (WATI) survey (Norman & Huerta, 2006) to assess the effectiveness of the KDE Strategy regarding the adoption, implementation, and maintenance of HSDS in early learning and childcare centers. The survey was offered in both English and French and was completed online via fluid surveys. To invite individuals to participate, a link was sent out via the HSDS MailChimp email,to include as many early learning and childcare centers as possible *(See Appendix B for the adapted WATI survey)*. In total, 49 individuals responded to the adapted WATI survey (43 English, 6 French), with 87.8% representing Early Learning and Childcare Centres in Saskatchewan and 12.2% representing New Brunswick. Of the total responses received from Saskatchewan, the majority of participants worked in the Regina Qu'Appelle Health Region (23.3%) or the Saskatoon Health Region (23.3%). In terms of rurality, respondents represented both urban (46.9%) and rural(53.1%) locations almost proportionately. On average, respondents had been involved with HSDS for 20.83 months and identified as directors, managers, supervisors, educators, cooks, child development coordinators, physical activity consultants, parents, and more *(See Figure 2 for Adapted WATI Survey Participant Job Demographics).*

Figure 1: Adapted WATI Survey Participant Location Demographics

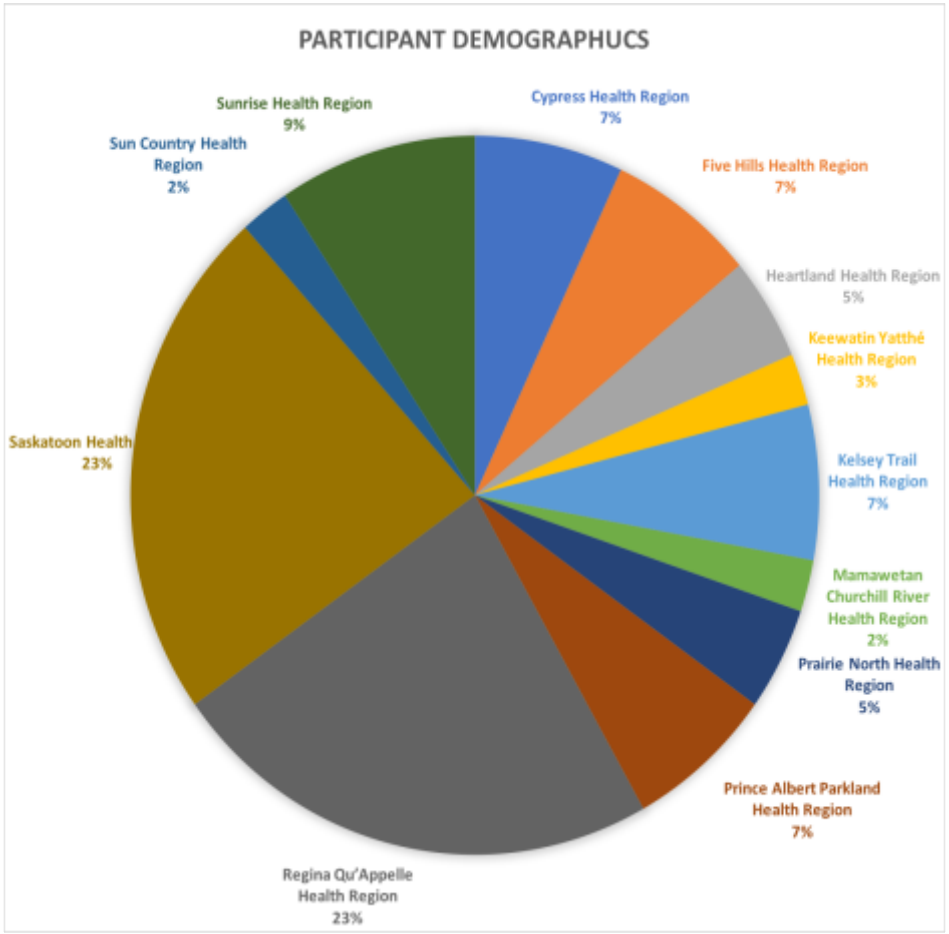
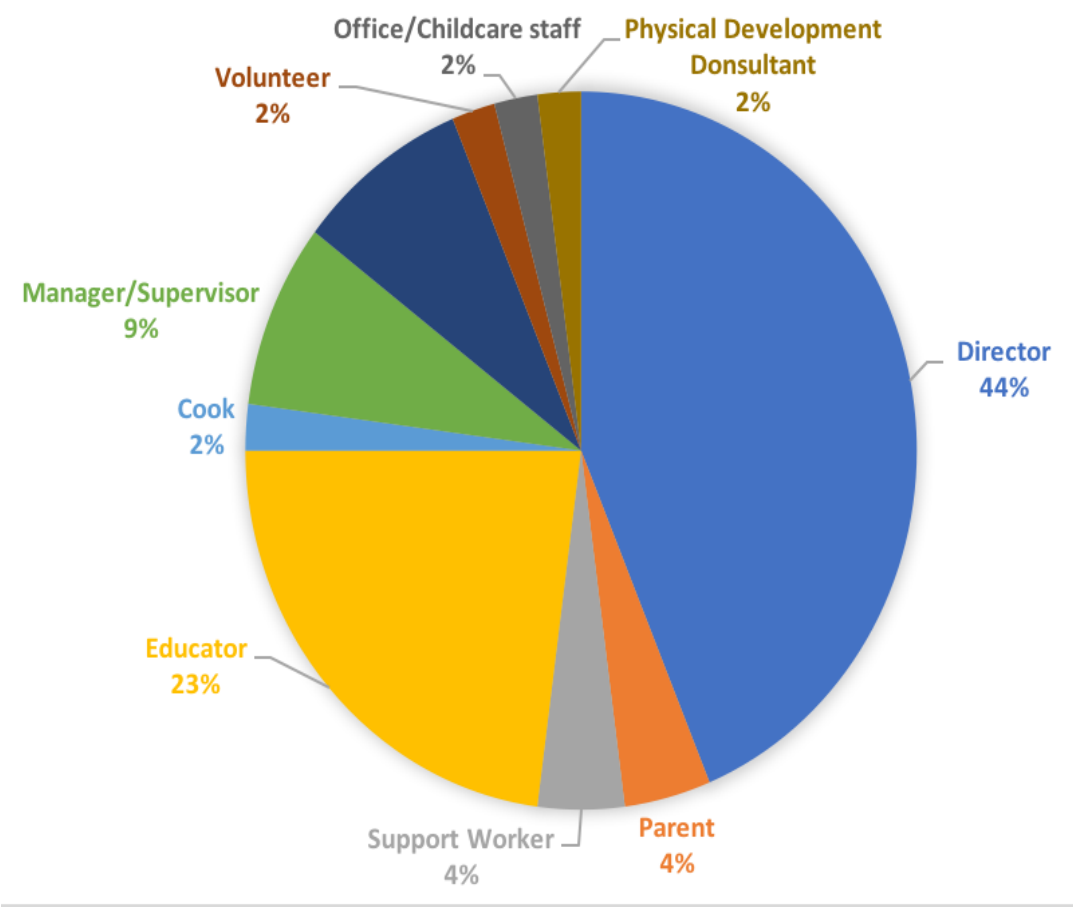


Figure 2: Adapted WATI Survey Participant Job Demographics:



The survey was also analyzed to determine the extent to which a community of practice has been created as a result of the KDE Strategy. More specifically, the survey assessed whether a community of practice has been developed after identified stakeholders have been involved in KDE for a specified amount of time, or after various workshops have been delivered. This data visually depicted the partnership network to better understand the relationships that have been created and those that are crucial to sustain HSDS in Saskatchewan *(See Figure 3 and 4 for a depiction of collaboration that has occurred in Saskatchewan and New Brunswick).*

Results

Evaluation Question 1:

What was the message transferred to stakeholders according to the HSDS KDE Strategic Plan? Did KDE staff transfer actionable messages from a body of research knowledge?

According to Lavis et al. (2003) five elements of evaluating knowledge translation, research organizations should transfer actionable messages which are empirically supported, for knowledge translation strategies to be most successful. For this evaluation, 'actionable messages' were defined as *any resource or means of communication that provides users or stakeholders with knowledge, skills or tools that can be used to achieve the goals of the KDE Strategy.* Thus, we reviewed various HSDS resources to determine whether this parameter had been met.

These resources included:

- The Healthy Start Website
- Newsletters
- Facebook
- Twitter
- Guidelines Poster
- Ministry of Education Information Sheets
- LEAP HOP Manual/Binder
- LEAP Food Flair Manual/Binder
- Healthy Start Implementation Guide
- Active Kids Manual/Binder

We also reviewed reports, presentations, and materials from booster sessions and training.

These included reports and presentations available via the Healthy Start website, such as:

- Caissie, M. *E-Learning Group: Pedagogy, strategy, design & technology* (Adobe Connect). Retrieved from https://umoncton.adobeconnect.com/_a829239444/p39qd7bvjy2/?launcher=false&fcsContent=true&pbMode=normal
- Leis, A., & Ward, S. *HSDS: A population health intervention* (PowerPoint). Retrieved from https://healthystartkids.ca/healthy-start-symposium-2017/
- Nazmi, S. (2017, January 18). *What did it cost to implement Saskatchewan/New Brunswick Healthy Start-Départ Santé intervention?* Retrieved from https://healthystartkids.ca/wp-content/uploads/2017/01/Dr-Sari-PPT.pdf
- Réseau Santé en Français de la Saskatchewan. (2017). *Healthy Start-Départ Santé final report 2016-2017.* Saskatoon, SK: Gauthier, R.
- Shanks, N., & Vatanparast, H. *The value of multi-sectoral collaboration in improving nutritional health of early years children* (PowerPoint). Retrieved from https://healthystartkids.ca/wp-content/uploads/2017/01/Hassan-Vatanparast-Naomi-Shanks.pdf
- The Bridge Youth & Family Services Society. (2013). *Healthy together – an innovative family education model.* Retrieved from https://healthystartkids.ca/wp-content/uploads/2017/01/HT-Summary.pdf
- The Bridge Youth & Family Services Society. (n.d.). *Healthy together – Issues and barriers for facilitators regarding parent engagement.* Retrieved from https://healthystartkids.ca/wp-content/uploads/2017/01/Parent-Engagement.pdf

In reviewing these resources, we concluded that all HSDS resources demonstrate actionable messages, supported by a body of empirical resources. Each resource was supported by research from the Canadian Food Guide, and focused on the importance of physical activity (e.g., preventing obesity in children; children physical activity and better health; preventing cardiovascular disease), building healthy bones through nutrition and physical activity, and fundamental movement skills. Research related to literacy, the value of pretend play, and best practice in early learning and childcare centres also supported these documents.

To supplement this data, the evaluation team also reached out to various HSDS program managers, staff and researchers via email communication to ask whether they had transferred HSDS information, and if so, to whom and how often. Responses determined that "the HSDS initiative was presented at Early Years conferences, workshops, and family conferences in Saskatchewan and New Brunswick," as well as at the Healthy Start/Depart Santé Symposium, research expositions, and university seminars. These presentations focused on HSDS information and related topics such as evaluations of planned menus in Saskatchewan child-care centres and their correspondence with provincial nutrition recommendations. These presentations were identified as being delivered to researchers' *"parent and tot play groups; early years stakeholders; early years coordinators and coalitions; [New Brunswick] Family Resource centres facilitators; [New Brunswick] Active Kids Partnership; the general public; government (ministry of education / health); Early Years Branch Childcare consultants; Public Health Nutritionists; Health promotion workers in numerous health regions; Kids First facilitators, etc,."* approximately 4-5 times a year for most program managers and associated researchers. In addition, HSDS information has been presented to staff of early learning and childcare centers in the form of training and booster sessions, which occur many times throughout any given year. In addition to dissemination in Saskatchewan and New Brunswick, one respondent spoke to international collaboration regarding a Healthy Start pilot project in Iran and working to implement Healthy Start in Guatemalan school systems.

Below is a description of each resource to demonstrate the actionable messages that are transferred through these tools:

The Healthy Start website is a central hub for nearly all of the HSDS resources. This website contains information about the HSDS program, its history, partners and team, as well as links to various research project reports and presentations. These include an evaluation of Phase I of the HSDS project (The Early Years Healthy Weight Strategy), and evidence-informed reports regarding multi-sectoral collaboration, engaging parents and families, various aspects of the HSDS program (e.g. cost, design, effectiveness) and more. The website also provides visitors with steps to implement HSDS in their workplace, resources for practitioners (including directors, educators and cooks) such as recipes, activities and games, and important information for parents regarding ways to implement HSDS at home by means of packing healthy lunches, activities for rainy days, active video games, and more.

Newsletters are also featured on the Healthy Start website, with intentions to keep practitioners, stakeholders and parents informed about HSDS. These newsletters are released monthly and provide readers with information about healthy eating, physical activity, useful recipes, literacy, success stories from early learning and childcare centres, and current developments of the HSDS program such as workshops and presentations.

The Guidelines Poster highlights important measures that each early learning and childcare centre should strive to meet when implementing HSDS. The guidelines poster suggests:

1. Offering a wide variety of food and beverage from Canada's Food Guide every day
2. Encouraging, but not forcing children to eat
3. Making water available throughout the day
4. Having staff join children at the table for meal times and role modelling healthy eatingSharing healthy eating information with parents
5. Including 180 minutes of physical activity throughout each day

6. Introducing fundamental movement skills into active play every day (e.g., roll, kick, catch, throw, bounce, skip, hop)
7. Providing opportunities for outdoor play 2 or more times a day, weather permitting
8. Having staff join children in all active play, all year round
9. Providing physical activity information to parents

Recipes were also provided via the Healthy Start website. These recipes were separated into categories such as lunch ideas, breakfast, snacks, healthy desserts, staff favorites, salads, soups, Halloween and holidays. Each recipe contained a list of ingredients, as well as step-by-step instructions for preparing the meal.

Ministry of Education Information Sheets were highlighted on the Healthy Start website to provide readers with information and suggestions to incorporate healthy eating and physical activity into early learning and child care settings (Active Solutions). These information sheets were linked to the Saskatchewan Ministry of Education, and other healthy activity programs. The information sheets were accompanied by Nutrition Mentoring Information Sheets (Mealtime Mentoring) which suggested how to make homemade and store-bought dishes to include at least 2 of the food groups from Canada's Food Guide. These information sheets provided examples from each food group to help users create a meal with high nutritional content. Links from the Saskatchewan Ministry of Education also provided information about healthy beverages and snacks, how to set a good example for healthy eating skills, dental hygiene, and how to keep young children active.

The Implementation Guide, found on the Healthy Start website, offers practitioners clear steps to execute Healthy Start/Départ Santé (HSDS) in their early learning and child care centre or school. This tool provides information about each role in the shared commitment, HSDS training, implementation, support, and maintenance. It also demonstrates the importance of healthy eating and physical activity for early years children. The implementation guide suggests that all users follow these steps to encourage healthy eating and activity:

1. Review current practices in nutrition, physical activity, and role modelling
2. Action planning
3. Developing healthy eating and physical activity guidelines
4. Getting the word out
5. Evaluating your plan

To further ease this process, the implementation guide provides users with tools to complete these steps such as, a scored questionnaire to review current practices and policies, handouts to develop guidelines and set goals, examples of common practices that encourage healthy eating and physical activity, and charts to monitor weekly HSDS activities.

The LEAP Food Flair Manual/Binder is a resource provided to users to ease the process of integrating HSDS into their early learning and childcare centres. This resource contains information about communicating with families, as well as information for parents about packing healthy meals and snacks. The LEAP Food Flair Manual/Binder also provides users with steps for menu planning, including various examples to choose from to complete a weekly menu. Additionally, users are taught how to properly read food labels, abide by food safety regulations, and are made aware of common food allergies and symptoms. Strategies are provided to introduce new foods to children, and the information is available surrounding the social aspects of food, such as the benefit of family-style dining. Finally, users are given over 50 recipes for fruit-based snacks and desserts, salads and vegetables, baking, and various main dishes.

The LEAP HOP Manual/Binder is very useful for implementing HSDS as it offers over 50 activities and games to play with children, as well as over 20 fun crafts and recipes such as maracas, bean bags, bubbles, and ginger bread cookie people. Additionally, this resource provides empirically valid information surrounding the importance of physical activity for children, building healthy bones through nutrition and physical activity,

fundamental movement skills, and the value of pretend play. To support literacy, the LEAP HOP Manual/Binder also provides users with a list of books and poetry for children to encourage the development of reading skills and to relay information about healthy eating and physical activity in a fun, age-appropriate way.

The Active Kids Manual/Binder offers users various ways to keep children active during their time at the early learning and childcare centre. These strategies include way to get infants moving (e.g., lifting legs and arms), purposeful play, sing-a-longs, and stretches. The Active Kids Manual/Binder also provides users with activities involving play equipment such as balls, ribbons, balloons, ropes, and scarves. This resource strives to engage children using fun games and activities.

On the other hand, The Healthy Start Facebook and Twitter pages are designed to provide followers with details about the program, its current projects, and workshops, as well as valuable information and research surrounding healthy eating and physical activity for early years children. These social media pages are also used to advertise job postings and display pictures and videos surrounding the HSDS program.

Though the evaluation team's review of HSDS resources, reports, presentations and training materials led to a conclusion that actionable messages are offered, we were interested in determining whether participants felt the same. Thus, we reviewed HSDS Training Questionnaires from 2013-2017. These questionnaires are provided to individuals who attend HSDS training sessions. Results showed that throughout years 1 to 3, an average of 82.1% of participants found HSDS training content to be concrete and useful, with only 0.2% rating content not useful. To support these conclusions, an average of 80.8% of participants felt confident using what they had learned to increase physical activity at the centre, while 76.0% of participants felt confident to increase healthy eating opportunities *(See Table 1 for a Summary of Year 1, 2, and 3 Training Questionnaires).*

Table 1: Summary of Year 1, 2, and 3 Training Questionnaires:

	Year 1	*Year 2*	*Year 3*
The training session content was concrete and useful	**Useful: 282 (97.6%)** Somewhat Useful: 6 (2.1%) Not Useful: 1 (0.3%) Invalid: 0 (0.0%)	**Useful: 148 (61.4%)** Somewhat Useful: 90 (37.3%) Not Useful: 0 (0.0%) Invalid: 3 (1.2%)	**Useful: 347 (87.4%)** Somewhat Useful: 49 (12.3%) Not Useful: 1 (0.3%) Invalid: 1 (0.3%)
After taking this training, how confident are you that you can use what you have learned to increase physical activity opportunities in your classroom or centre?	**Confident: 276 (95.5%)** Somewhat Confident: 10 (3.5%) Not Confident: 2 (0.7%) Invalid: 1 (0.3%)	**Confident: 151 (62.7%)** Somewhat Confident: 81 (33.6%) Not Confident: 2 (0.8%) Invalid: 7 (2.9%)	**Confident: 334 (84.1%)** Somewhat Confident: 59 (14.9%) Not Confident: 0 (0.0%) Invalid: 5 (1.3%)
After taking this training, how confident are you that you can use what you have learned to increase healthy eating opportunities in your classroom or centre?	**Confident: 270 (93.4%)** Somewhat Confident: 14 (4.8%) Not Confident: 2 (0.7%) Invalid: 3 (1.0%)	**Confident: 137 (56.8%)** Somewhat Confident: 97 (40.2%) Not Confident: 3 (1.2%) Invalid: 4 (1.7%)	**Confident: 309 (77.8%)** Somewhat Confident: 86 (21.7%) Not Confident: 1 (0.3%) Invalid: 2 (0.5%)

This data was also supplemented by an Adapted Web-Assisted Telephone Interviewing (WATI) survey, as well as various questions from key informant interviews. More specifically, because the HSDS training is one way in which knowledge is transferred under the KDE strategy, we used the adapted WATI survey to gather participants' reviews of its content and worth. After analyzing responses to various questions, we found that the majority of respondents agreed (55.1%) or strongly agreed (30.6%) that the HSDS training was successful in providing useful recommendations for incorporating physical activity and healthy eating into the centre they work in. This implies that participants viewed HSDS resources and training as providing actionable messages to support the implementation of the program. This data was further strengthened by key informant interviews. For example, one participant stated that the training was useful because:

"the Canada Food Guide had changed a bit, so receiving updated information about these changes was helpful for us. We also learned about myths about feeding children and strategies to use with kids, like allowing children to choose what they eat instead of forcing them. The games and activities were age-appropriate and cost-effective."

To further address this question, we also asked participants whether they had taken action on the recommendations that were generated at the HSDS training, in which the majority of respondents agreed (67.3%) or strongly agreed (16.3%). This was again supported by key informant interviews which confirmed that HSDS is being used in early learning and childcare settings via distribution of the HSDS newsletter, implementing LEAP HOP activities and games, and alterations to food menus and curricula to support healthy lifestyles.

Finally, we asked participants whether the centre they work in had incorporated healthy eating and physical activity into their routine since participating in the HSDS training. In response to this question, 55.1% of participants agreed, while 14.3% strongly agreed, and 20.9% remained neutral *(See Appendix C for a full breakdown of adapted WATI survey responses.* This data was supported by key informant interviews which found that many curricula address *"healthy eating, healthy choices and healthy lifestyles".* For example, one Pre-K coordinator stated that the curriculum includes *"a universal snack program,"* as well as topics like *"essential learning experiences, gross and fine motor skills, assessing developmental skills, trying new and healthy foods, interactive meal-times and healthy decisions such as washing hands before meal-time".*

We also used key informant interviews to ask participants what type of HSDS training and support they received, which resources they were provided with, and which resources and communication tools have been the most useful for staff. In response to these questions, we found that most participants had received *"basic HSDS training and a booster session".* During these trainings, participants were left with the LEAP HOP Manual/Binder, the LEAP Food Flair Manual/Binder, the Active Play Equipment (APE) kit, and various training handouts. In line with results from the survey, participants indicated that *"teachers most often use the Active Play Equipment (APE) kit, and the manual/binders."* As a means of communicating new recipes, activities and HSDS information, participants stated that newsletters and Facebook are most often used.

During interviews, we also asked participants to tell us about some of the challenges they encountered, and ways in which the HSDS training, resources and communication tools can be improved. Participants often stated that a limited amount of funding posed as a challenge to implementing HSDS. Though the HSDS activities and games were considered cost-effective, participants explained that exercising recipe changes was more challenging. For example, one participant stated that *"sometimes nutrition has been difficult regarding funding. An apple is cheaper than a mango, so its hard to supply a wide variety of fruit and buy ingredients for certain recipes sometimes."* Additionally, participants identified working with families as a challenge in that "families may be restricted by budget" as well, and *"its cheaper to buy processed foods than it is fresh produce, and choosing healthy foods may not be an option when using social supports, so families of low economic status may struggle to fully implement HSDS at home."* In terms of improving the program, a common suggestion for improvement surrounded increased support after training had been completed. For example, participants claimed that *"follow-up afterwards could be helpful. Like someone from HSDS checking in to see how things are going, and perhaps collecting data would be useful as previous projects have only collected data in daycares and not schools."* In addition, participants desired *"more frequent updates from HSDS in terms of new recipes, activities and some of the effects of implementing healthy start so far because teachers are always looking for new ideas and resources."*

Evaluation Question 2:

What was the target audience of the KDE Strategy? Was the message delivered tailored for the various target audience groups?

As demonstrated by Lavis et al. (2003), five elements of evaluating knowledge translation, research organizations should identify a target audience, and tailor messages to each target audience group. Thus, we reviewed various HSDS databases and documents to determine whom the target audience consisted of and whether messages were altered to ensure that all resources and communication tools were most useful for each target audience group. This means that HSDS resources and communication tools should be appropriate for various users to ensure that the information is fully understood and easy to implement.

In reviewing the KDE Strategic Plan, various target audience groups were identified (as suggested by Lavis et al., 2003), including:

1. Workplaces: Early Learning and Childcare Settings
2. School Divisions and Schools: Pre-Kindergarten programs
3. Homes: Families, parents, and caregivers
4. Communities: Municipalities, NGO's, local or regional health promotion initiatives (i.e., RIC's, recreation districts)
5. Health System: Ministry of Health – Health Promotion Branch; Health regions (health promotion sector)
6. Provincial Government: Ministry of Education/Early Years Branch; Ministry of Health; Parks, Culture and Sport, etc.

To determine the size and demographics of the target audience, we conducted a review of the HSDS database and the HSDS 2016/2017 Final Report. As demonstrated by this review, the Healthy Start/Départ Santé (HSDS) training has been delivered to 344 sites (32 in New Brunswick and 312 in Saskatchewan) between 2013 and 2017. Overall, HSDS information was delivered to 24, 307 individuals (21,730 in Saskatchewan and 2,577 in New Brunswick), made up of 13,615 parents, 1849 staff (directors, educators, cooks, and teachers), and 8627 children, including over 2500 members of vulnerable populations such as Newcomer, Francophone, and Indigenous children *(See Table 2 for the individual demographics of the HSDS program participants)*.

Table 2: Demographics of the HSDS Program Participants:

	Saskatchewan	**New Brunswick**	**Total**
Sites	**312**	**32**	**344**
Total Individuals	21730	2577	**24,307**
Parents	12,059	1556	**13,615**
Staff	1606	243	**1849**
Children	8065	778	**8843**

In terms of partners and collaborators, as of May 31, 2017, 98 committee members, stakeholders and partners were reached (*See Appendix D for committee make-up and identified stakeholders and partners*), as well as 23 health promotors, and 305 members of the general public including community trainers and individuals who attended scheduled training sessions, forums and symposiums.

According to the HSDS 2016/2017 Final Report, 44 presentations have been completed between 2012 and May 31, 2017. These include four oral presentations in French, 24 oral presentations in English, 12 poster sessions,

and four alternate methods of disseminating knowledge including panel sessions, manuscripts, abstracts, and workshops (*See Appendix E for a list of presentations*). These presentations focused on topics such as HSDS program framework, implementation, and evaluation, development of rural and urban early years children, obesity prevention and educators' roles in healthy eating practices for children. Other presentations focused on nutrition including descriptive analyses of lunches served in early learning and childcare settings. Finally, presentations also focused on topics related to policy development and partnerships to disseminate knowledge about sustaining healthy eating and physical activity in the lives of early years children. Many of these presentations were accessible via the Healthy Start Saskatchewan Website.

To determine whether messages were tailored towards each individual target audience group, the evaluation team reviewed various KDE tools, as well as reports, presentations, and materials from training and booster sessions (*See page 5 and 6 for a list of KDE tools and presentations/reports reviewed*). We concluded that HSDS successfully tailored messages to various target audience groups. More specifically, throughout the Healthy Start Website, various tabs exist for directors, educators, parents, cooks, and community stakeholders. This is true for the HSDS Fact Sheets, the Ministry of Education Information Sheets (Active Solutions and Mealtime Mentoring), and various external links connected to the website. For example, the HSDS Fact Sheet for Parents explains the importance of Healthy Start within the family, the role of parents, and the benefits of using Healthy Start in regards to children's literacy, increasing intake of a variety of healthy foods, and various HSDS events that are offered to families. In contrast, the HSDS Fact Sheet for Cooks explains the role of the cook in the Healthy Start program, and the ways in which Healthy start can ease the workload for cooks, such as kid-tested, dietician-approved recipes, tips for cooking with food allergies, and suggestions for working within a budget *(See Appendix F and Appendix G for Copies of the FACT Sheets for Parents and Cooks)*. Other resources are also adapted to specific target audiences throughout. For example, the Implementation Guide is designed especially for the directors of early learning and childcare centres, but includes various sections where input from other staff may also be useful. On the other hand, the LEAP HOP Manual/Binder is directed more towards educators in that it offers various activities, games, books, and poetry that can be implemented during class time. The LEAP Food Flair Manual/Binder is most useful for cooks as it provides users with various recipes, menu planning tools, and food safety information. However, though these resources may target specific groups, there are various sections that can be useful to parents as well, such as activities and recipes for use at home. In terms of community stakeholders, these resources provide crucial information about the importance of healthy eating and physical activity in early years children, which may contribute to increase buy-in from other agencies, or government personnel.

This data was also supported by an Adapted Web-Assisted Telephone Interviewing (WATI) survey and questions from key informant interviews. More specifically, the majority of participants agreed (55.1%) or strongly agreed (28.6%) that their knowledge related to the importance of physical activity for children aged 0-5 had increased after the HSDS training. Similarly, many participants agreed (51.0%) or strongly agreed (30.6%) that their knowledge related to the importance of healthy eating for early years children has also increased. This increase in knowledge demonstrates that participants were able to understand the information that was passed on during the HSDS training sessions. Also, the majority of respondents agreed (55.1%) or strongly agreed (30.6%) that the HSDS training was successful in providing useful recommendations, demonstrating that HSDS training and tools are appropriate for this audience. Participants demonstrated further understanding by agreeing (53.1%) that they have informed others of the content of the HSDS training session, and, by taking action on recommendations and implementing HSDS into the centre they work in, we can conclude that the HSDS training and tools are appropriate for the intended users, straightforward, and easy to implement *(See Appendix C for a full breakdown of adapted WATI survey responses)*.

Moreover, using the adapted WATI survey, we were able to identify the KDE tools that are most frequently used, as well as the most common changes to practice within the ELCCS or schools. In particular, the majority of respondents identified using the LEAP HOP Manual/Binder (66.7%), the LEAP Food Flair Manual/Binder (56.3%), the Active Play Equipment (60.4%), and Newsletters (47.9%). In addition, many participants stated

that the centre they work in has increased their healthy eating options (54.3%), increased active play in the classrooms (52.2%), and offered more structured play time (educator lead; 50.0%; *See Appendix C for a full breakdown of adapted WATI survey responses)*.

As previously mentioned, an analysis of Training Questionnaires showed that, throughout years 1 to 3, 82.1% of participants found HSDS training content to be concrete and useful, 80.8% of participants felt confident using what they had learned to increase physical activity at the centre, and 76.0% of participants felt confident to increase healthy eating opportunities, further demonstrating that content was suitable for intended users *(See Table 2 for a Summary of Year 1, 2, and 3 Training Questionnaires).*

To supplement the above conclusions, we conducted key informant interviews to address the usefulness of KDE tools. More specifically, when asked about HSDS training, participants explained the sessions as *"excellent and engaging,"* providing useful information and recommendations such as updated information about Canada's Food Guide, cost-effective and age-appropriate activities and games, strategies to get children to try new foods, and examples of recipes and snacks. This information was supported by key informant interviews with community trainers. During these interviews, it was explained that, though initial HSDS training is very standardized, with a manual to follow, *"booster sessions are very open,"* and *"help to encourage [centres] to continue implementing Healthy Start, or troubleshoot any problems they've had such as, high staff turnover and a need for retraining, or strategies to carry out physical activity in small spaces during the winter months".* More specifically, *"booster sessions are based on feedback, which requires flexibility. These sessions have a more open-concept, are client-centered and are tailored to the specific early learning and childcare setting."* For example, one community spoke to the effectiveness and importance of booster sessions by stating that though one of her locations *"worked well as a team, had a designated cook to prepare meals, and [was] very savvy with the training,"* she "*learned they hadn't really acted on the program, so during the booster session [they] made smart, specific goals to help [the centre] implement the program".* In this example, *"the booster session was very beneficial to help them define where to go with the information".* Another participant agreed in saying that *"the booster sessions help [her] to realize where the centre is at, what needs to be worked on and where support is needed,"* proving to be a learning experience for both the participants and the trainers.

Evaluation Question 3:

By whom was the message transferred using the KDE Strategy? Was the message delivered by sources deemed credible by those receiving the message?

Following Lavis et al. (2003) five elements of evaluating knowledge translation, research organizations should transfer messages via credible messengers (individuals, groups or organizations), to ensure that knowledge translation strategies are successful. To determine by whom the messages were transferred, and whether users deemed these individuals credible, we reviewed documents and databases which identified presenters and trainers (*See Appendix E for a list of presenters*). Presenters included individuals who vary in their involvement with the HSDS project. For example, presentations were completed by the HSDS project manager, and various members of the research team such as co-investigators from the University of Saskatchewan, Université de Moncton, and the Saskatchewan Population Health Research and Evaluation Unit. Individuals who provided training include HSDS project/committee members, 10 RSFS Staff and trainers, and 13 community trainers from communities such as, North Battleford, Saskatoon, Air Ronge, Balcarres, Yorkton, Spalding and Green Lake.

In terms of addressing the credibility of these trainers, we reviewed the Training Questionnaires provided to those who participate in HSDS training and booster sessions. Though participants weren't explicitly asked about the trainers' credibility, as mentioned, the majority of participants found training content to be concrete and useful and felt confident in using the newly acquired knowledge to increase physical activity and healthy eating with the children they serve. Given that participants claimed feeling confident using this knowledge in

their workplace environments, it is likely that the trainers were deemed credible sources. In addition, throughout years 1 and 2, the majority of participants (34.9%) stated that the 'delivery of the session' was what they liked most about HSDS training, and when asked about support to implement Healthy Start, participants often requested follow-up contact with HSDS staff *(See Table 3 for a Summary of Year 1, 2, and 3 Training Questionnaires).*

Tables 3: Summary of Year 1, 2, and 3 Training Questionnaires:

	Year 1	*Year 2*	*Year 3*
What are three things you liked most about today's training session?	Nutrition Info: 115 (25.8%) Physical Activity Info: 117 (26.2%) Resources Provided: 67 (15.0%) **Delivery of Session: 141 (31.6%)** Undefined: 6 (1.3%)	Nutrition Info: 77 (17.4%) Physical Activity Info: 136 (30.7%) Resources Provided: 52 (11.7%) **Delivery of Session: 169 (38.1%)** Undefined: 9 (2.0%)	Nutrition Info: 73 (18.4%) **Physical Activity Info: 137 (34.5%)** Resources Provided: 88 (22.2%) Delivery of Session: 32 (8.1%) Other: 21 (5.3%) Invalid: 47 (11.8%) Other: **All of the Above (15);** Recipes (1); Nutrition & Physical Activity Info (1); Group Interaction (1); Playing Activities (1): Suggestion (1)
What supports or follow-ups could best help you incorporate Healthy Start in your daily routine?	**Follow-up Contact: 31 (18.1%)** **Up to Date Info: 32 (18.7%)** **Resources: 66 (38.6%)** Staff & Centre Goals: 29 (17.0%) Undefined: 13 (7.6%)	**Follow-up Contact: 51 (35.9%)** **Up to Date Info: 30 (21.1%)** Resources: 8 (5.6%) **Staff & Centre Goals: 29 (20.4%)** Undefined: 24 (16.9%)	**Follow-up Contact: 61 (25.9%)** **Up to Date Info: 67 (27.5%)** Resources: 26 (10.7%) Menu/Recipes: 20 (8.2%) **Undefined: 70 (28.7%)** Undefined: None (16); Positive words/personal goals (43); non-specific/unclear (10)

The evaluation team also assessed credibility via the Adapted Web-Assisted Telephone Interviewing (WATI) survey and questions from key informant interviews. In particular, as mentioned, the majority of participants stated that their knowledge related to the importance of physical activity and healthy eating for children aged 0-5 had increased after the HSDS training. This increase in knowledge demonstrates that participants deemed trainers to be credible sources of information surrounding these topics. In addition, the majority of respondents agreed (55.1%) or strongly agreed (30.6%) that the HSDS training was successful in providing useful recommendations, demonstrating that HSDS trainers are providing appropriate suggestions, supported by a body of empirical research. Participants demonstrated further trust in HSDS trainers by agreeing (53.1%) that they have informed others of the content of the HSDS training session, and, by taking action on recommendations and implementing HSDS into the centre they work in, with 55.1% incorporating HSDS into their daily routines and many making changes in practices and policies *(See Appendix C for a full breakdown of adapted WATI survey responses).*

This question was also supplemented by key informant interviews which revealed that participants viewed trainers as *"excellent, knowledgeable, and engaging,"* providing examples of recipes, leading physical activities and games, and responding to the needs of the group.

Evaluation Question 4:

What were the knowledge transfer processes and the supporting communication infrastructure? Were the KDE tools introduced in an interactive manner?

As stated by Lavis et al. (2003) five elements of evaluating knowledge translation, research organizations should transfer messages using interactive strategies, as passive processes have been deemed ineffective by

empirical research, regardless of the target audience. Thus, the evaluator reviewed various KDE tools, reports/presentations, and training material to determine what the knowledge transfer processes included and whether they were introduced in an interactive manner.

As previously mentioned, HSDS employs many approaches to deliver messages under the KDE Strategy. For example, staff offer presentations, reports, training and booster sessions to transfer HSDS knowledge to early learning and childcare centres, as well as stakeholders and partners. In addition, HSDS provides directors, educators, cooks and parents with various resources such as program manuals, activity cards, active play equipment and recipes. To provide information more generally, HSDS relies on the Healthy Start Website, Mail Chimp and social media accounts (Facebook and Twitter) to reach a large target audience.

Thus, we analyzed various statistics collected by HSDS to determine whether knowledge transfer processes and supporting communication infrastructure were effective under the KDE Strategy. According to the statistics collected by HSDS, the Healthy Start website has been visited 21,392 times between June 24, 2014, and July 31, 2017. On average, 68.2% of these visitors were new to the website and spent approximately 1.59 minutes browsing per session. During these visits to the website, visitors typically viewed 2.24 pages per session, with an average bounce rate (percentage of single-page visits or web sessions) of 58.86%. When visiting the Healthy Start website, the browser language was frequently set to English, however, some visitors preferred to browse in French, Russian, or Portuguese, depending on the year. Website visitors were most often located in Canada, though the United States, Brazil, Russia, China, the United Kingdom and various other countries were also represented in the statistics. When narrowing down the location to address the cities in which visitors lived, Saskatoon represented the majority, with Regina following close behind. After analyzing the content of the website, we concluded that the Healthy Start Home Page was the most frequently visited, often followed by Our Team, Contact Us or pages outlining research projects or specific HSDS tools such as the implementation guide or recipes *(See Table 4 for a visual depiction of the Healthy Start Website metrics).*

Table 4: Healthy Start Website Metrics

	2014 (Jun 21-Dec 31)	**2015**	**2016**	**2017 (Jan 1-Jul 31)**
Number of Visits	2590 sessions (1432 users - 55.3% new)	8726 sessions (6416 users - 73.2% new)	7301 sessions (5380 users - 72.9% new)	3315 sessions (2436 users - 71.3% new)
Average Time/Session	2.38 minutes	1.30 minutes	1.21 minutes	1.45 minutes
Number of Pages Visited/Session	2.82 pages	2.04 pages	1.93 pages	2.18 pages
Bounce Rate	41.93%	61.99%	74.14%	56.65%
Language	English = 72.28% French = 11.66% Portuguese = 7.38% Other = 8.68%	English = 50.32% Not set = 37.81% French = 4.82% Portuguese = 2.31% Other = 4.74%	English = 57.65% Russian = 26.93% Not set = 7.86% Other = 7.56%	English = 84.31% Russian = 7.84% French = 2.65% Other = 5.20%
Country	Canada = 76.45% Brazil = 6.80% USA = 5.17% Other = 11.58%	Canada = 46.48% USA = 18.12% Not set = 10.46% Brazil = 2.93% China = 2.38% Other = 19.63%	Canada = 49.9% Russia = 25.34% USA = 7.27% UK = 4.92% Other = 12.57%	Canada = 71.36% USA = 13.09% Russia = 7.24% Other = 8.31%
City	Saskatoon = 47.20% Regina = 7.10% Moose Jaw = 2.32% Other = 43.38%	Saskatoon = 25.85% Not set = 17.14% Regina = 5.62% New York = 2.5%	Saskatoon = 19.74% Regina = 9.52% Not set = 7.55% St. Petersbourg = 3.68%	Saskatoon = 23.59% Regina = 16.65% Not set = 4.65% Calgary = 2.71%

		Other = 48.89%	Other = 59.51%	Toronto = 2.62% Fredericton = 2.05% Ottawa = 2.05% Other = 45.68%
Most Visited Pages	Home = 47.06% Our team = 4.09% Contact us = 3.35% Newsletters = 3.22% Implementation Guide = 2.29% About us = 2.15% Research Project = 2.12% Useful links = 2.12% News = 2.03%	Home = 47.53% Our team = 3.81% Research Project = 2.67% Contact us = 2.64% About us = 2.57%	Home = 47.33% Our team = 3.03% Bush pies (recipe) = 2.19% About us = 2.16% Error page (might have existed at the time) = 2.16% Contact us = 2%	Home = 34.15% Bush pies (recipe) = 6.14% HS Symposium (Save the date) = 4.09% Our team = 4.02% HS Symposium (post event page) = 4% About us = 2.60% Research project = 2.39% Contact us = 2.31% Recipes = 2.07%

Given that HSDS also uses social media websites to transfer messages about the program, its effectiveness, and related information, we also analyzed statistics pertaining to the Healthy Start Facebook and Twitter pages. Results indicated that the Healthy Start Facebook page was 'liked' by 408 individuals between June 18, 2013 and July 31, 2017. The number of likes increased each year by an average of 79.6 people. On the other hand, the Healthy Start French Twitter page was followed by 93 individuals between April 1, 2013, and July 31, 2017; whereas the corresponding English Twitter was followed by 138 people. Alike Facebook, the Healthy Start Twitter pages gained followers annually with an average of 18.6 people for the French page, and 27.6 people for the English Twitter *(See Table 5 for a visual depiction of the Facebook and Twitter metrics).*

Table 5: Healthy Start Facebook and Twitter Metrics:

	2013 (Apr-Dec)	**2014**	**2015**	**2016**	**2017 (Jan-Jul)**
Facebook	129 likes	252 likes (+123)	326 likes (+74)	373 likes (+47)	408 likes (+25)
Twitter FR	23 followers	52 followers (+29)	77 followers (+25)	85 followers (+8)	93 followers (+8)
Twitter EN	25 followers	63 followers (+38)	98 followers (+35)	129 followers (+31)	138 followers (+9)

Finally, we also analyzed the statistics regarding the HSDS Mail Chimp account to determine the extent of communication between staff and the program participants and stakeholders. Results demonstrated that, between June 24, 2014 and July 31, 2017, various forms of communication existed in both French and English. More specifically, HSDS sent out 36 marketing HSDS Sampler newsletters *(targeted for educators, teachers and parents)* in English and 35 in French. Of the 36 English campaigns, an average of 34.04% were opened. On the other hand, results showed that an average of 44.89% of 35 French campaigns were opened by recipients. Additionally, 8 English (42.63% opened) and 7 French (56.66% opened) newsletters were sent out via the MailChimp Connection *(targeted for directors, partners, and stakeholders; See Table 6 for a visual depiction of the HSDS Mailchimp metrics).*

Table 6: Healthy Start Mailchimp Metrics:

	2014 (Jun-Dec)	**2015**	**2016**	**2017 (Jan-Jul)**
HSDS Sampler				
Number of Campaigns	10	6	15	5
% open (average)	41.02%	33.13%	31.60%	30.42%
% click (average)	11.74%	6.40%	4.32%	5.48%

Les Découvertes DS				
Number of Campaigns	10	6	14	5
% open (average)	56.76%	46.87%	43.13%	32.80%
% click (average)	17.40%	9.60%	6.01%	6.42%
The Connection				
Number of Campaigns	1	1	5	1
% open (average)	52.50%	43.70%	36.70%	37.60%
% click (average)	26.00%	14.60%	10.38%	7.30%
Connexions				
Number of Campaigns	1	1	4	1
% open (average)	67.30%	42.90%	53.13%	63.30%
% click (average)	25.00%	11.40%	7.70%	8.20%

The evaluation team was also interested in participants' opinions regarding the delivery of HSDS information under the KDE strategy; thus, we analyzed Training Questionnaires to gain further insight. We found that, between 2013 and 2017, the majority of participants claimed they were satisfied (78.4%) with the HSDS training in terms of engagement and motivation, though many found the training to be 'too long' in the first two years (69.0%). Additionally, as previously mentioned, throughout years 1 and 2, the majority of participants (34.9%) stated that the 'delivery of the session' was what they liked most about HSDS training (*See Table 7 for a Summary of Year 1, 2, and 3 Training Questionnaires).*

Table 7: Summary of Year 1, 2, and 3 Training Questionnaires:

	Year 1	*Year 2*	*Year 3*
The training delivery was engaging and motivating	Not Satisfied: 1 (0.3%) Somewhat Satisfied: 10 (3.5%) **Satisfied 277 (95.8%)** Invalid: 1 (0.3%)	Not Satisfied: 1 (0.4%) Somewhat Satisfied: 98 (40.7%) **Satisfied: 139 (57.7%)** Invalid: 3 (1.2%)	Not Satisfied: 4 (1.0%) Somewhat Satisfied: 68 (17.1%) **Satisfied: 324 (81.6%)** Invalid: 2 (0.5%)
What supports or follow-ups could best help you incorporate Healthy Start in your daily routine?	**Follow-up Contact: 31 (18.1%)** **Up to Date Info: 32 (18.7%)** **Resources: 66 (38.6%)** Staff & Centre Goals: 29 (17.0%) Undefined: 13 (7.6%)	**Follow-up Contact: 51 (35.9%)** **Up to Date Info: 30 (21.1%)** Resources: 8 (5.6%) **Staff & Centre Goals: 29 (20.4%)** Undefined: 24 (16.9%)	**Follow-up Contact: 61 (25.9%)** **Up to Date Info: 67 (27.5%)** Resources: 26 (10.7%) Menu/Recipes: 20 (8.2%) **Undefined: 70 (28.7%)** Undefined: None (16); Positive words/personal goals (43); non-specific/unclear (10)

This information was also supplemented by key informant interviews which revealed that the HSDS training was *"excellent and engaging,"* with participants finding the sessions *"entertaining because it was active, and [they] got to practice the physical activities to apply the information [they] learned;"* however, some participants believed that *"more time could be devoted to involving teachers and outreach workers in the planning process of curriculums and meal planning".*

To further explore this question, we asked community trainers about their experiences delivering training and booster sessions. More specifically, we asked community trainers which teaching methods were most effective. All community trainers agreed that *"the hands-on approach"* as well as a *"more personal, colloquial approach"* when working with early learning and childcare centres. More specifically, community trainers claimed that *"movement and interaction seem to work best,"* as well as *"videos and open-ended, live discussions"*. In fact, though handouts are provided during sessions, many community trainers choose to leave

these for participants to read and focus more on the interactive activities due to time constraints. Unlike other training models, *"Healthy Start training involves a lot of interaction with the people [they] are presenting to,"* which, according to by Lavis et al. (2003), is the most effective way of presenting knowledge.

Though key informants deemed training to be interactive and enjoyable, all participants believed that training could be improved by increased engagement between the centres and the trainers after the session had concluded. For example, participants stated that *"more regular check-ins with the centres would be helpful, because if centres have not bought in to Healthy Start, they may need more support to implement to program and see its benefits".* In addition, *"follow-up, via phone, about a week after the training could generate more feedback, and identify issues to be addressed because although we receive feedback before the booster sessions, it seems that more information can be collected over the phone rather than through forms and emails".*

Evaluation Question 5:

How has the information transferred by the KDE Strategy been used?

In order to further assess the effectiveness of the KDE Strategy, the evaluation team was interested in determining how the information transferred by the KDE Strategy has been used in early learning and childcare centres. Thus, using the adapted WATI survey, we asked participants which activities, resources, and communication tools are used at the early learning and childcare centres they work in. Results indicated that the LEAP HOP Manual/Binder (67%), Active Play Equipment (61%), and LEAP Food Flair Manual/Binder (56%) were among the most popular resources. In addition, HSDS Newsletters (48%), Recipes (44%), LEAP Activity Cards (44%) and Ministry of Education Information Sheets (40%) were commonly used. This information was supported by key informant interviews which showed that participants most often used the LEAP HOP Manual/Binder, the LEAP Food Flair Manual/Binder, Active Play Equipment (APE) Kit, Newsletters and Facebook as resources and communication tools.

In addition, we also asked participants to indicate changes that had occurred in their workplace after participating in the HSDS training. The list of responses was created in collaboration with HSDS staff to include the most relevant options. The results demonstrated that the majority of centres/schools offered increased healthy eating options (54%), increased active play in classrooms(52%), additional activities around healthy eating themes (50%) and more educator-lead structured play time (48%). Centres/schools also appeared to implement increased outdoor play (43%), indoor space for physical activity (41%) and additional indoor play equipment (41%).

To capture more long-term effects of the KDE Strategy, we also asked participants to indicate any policy changes that have been made regarding health and wellness of early years children. Using a thematic analysis approach, we identified three main themes to describe participants' responses.

Most commonly, participants identified making policy changes regarding physical activity for children. This included policies included in parent and personnel policy handbooks, seasonal activity plans and center-wide physical activity challenges. For example, one participant maintained that they *"incorporated a 90 minute/day physical activity policy in [their] Parent Handbook and Personnel Policy Handbook after [the] Healthy Start Program Training."* Others stated that children are required to go outside at least once a day when weather permits, while others mentioned renting *"space in a gym throughout the fall and winter to implement the games and movement activities from LEAP."* Finally, other participants declared creating new activities and games to encourage physical activity. For example, one participant said *"Randomly, throughout the year, our management team will pick out a certain movement skill or LEAP Hop activity and challenge all of the Childcare rooms to implement and document the children's experiences."* This data was further supported by key informant interviews which revealed that centres and schools incorporated curriculums that focus on *"essential learning skills, fine and gross motor skills, and developmental skills".*

In addition to physical activity policies, many participants declared that changes have been made regarding centre menus and nutrition. For example, participants explained that foods such as whole wheat flour, whole wheat bread, and whole grain pastas and rice have been introduced into their centre menus to ensure that children are receiving the proper nutrition. In addition, one participant spoke to adjusting the menu to meet the specific needs of their clients by stating "*In order to meet the nutritional needs of the children in our center and considering the fact that most of our children eat Halal meat and chicken, we have implemented serving of halal meat to children, so all of them can have the protein part of the food that we serve."* Again, data from key informant interviews supplemented these results in that *"universal snack programs that include two main food groups"* have been implemented.

Finally, respondents also addressed policies regarding accountability and monitoring. More specifically, respondents spoke about monitoring daily physical activity, visible menus, distributing newsletters to all classrooms and prohibiting outside food from entering the centre. By implementing these rules, centre staff, cooks, and parents are held accountable for their role in the children's health and wellness, and the children's health and physical activity levels are easily monitored *(See Appendix C for a full breakdown of adapted WATI survey responses)*.

Evaluation Question 6:

To what extent have the target audience members adopted and implemented the HSDS program as a result of the KDE Strategy?

As guided by the RE-AIM Framework for Evaluating Evidence for Dissemination of Behavior Change Interventions, adoption refers to *"the percentage and representativeness of settings and intervention staff that are willing and able to adopt or try a healthy promotion program"* (Glasgow, Vogt & Boles, 1999, p.1323). Thus, to assess the effectiveness of the KDE Strategy, the evaluation team felt that this concept was important to measure. More specifically, in regards to this evaluation, a high level of adoption would be a result of an effective KDE Strategy, so we measured adoption in various ways. Firstly, we used the adapted WATI survey to determine whether participants believed the information to be accurate and useful, demonstrating an adoption of the HSDS program. As previously stated, the majority of respondents agreed (55.1%) or strongly agreed (30.6%) that the HSDS training was successful in providing useful recommendations for incorporating physical activity and healthy eating into the centre they work in. In addition, participants also claimed to experience an increase in knowledge about the importance of physical activity and healthy eating in children aged 0-5 years. To further address this concept, we asked participants whether they had made positive changes regarding their own health and physical activity in which 49% agreed. To supplement these findings, 61% of respondents agreed to have informed others who did not participate in the HSDS training of its content, demonstrating a high adoption of the HSDS program and its purpose. This data was supported by key informant interviews which revealed that participants forwarded HSDS information to their coworkers. In fact, community trainers often claimed to have become involved with HSDS with the goal of implementing Healthy Start in their workplaces. These individuals worked as dieticians, family support workers, or program coordinators when they became involved with HSDS and believed that the Healthy Start Initiative could, not only add to their work but was also important information for others working in early years settings.

To address the level of implementation (*how consistently various elements of a program are delivered as intended by different intervention delivery personnel and the time/cost requirements of intervention;* Glasgow, Vogt & Boles, 1999, p.1323) we used the adapted WATI survey to ask participants whether they had taken action on the recommendations that were generated at the HSDS training. In response to this question, the majority of respondents agreed (67.3%) or strongly agreed (16.3%). Finally, we asked participants whether the centre they work in had incorporated healthy eating and physical activity into their regular routine since

participating in the HSDS training, demonstrating implementation of the HSDS program. In response to this question, 55.1% of participants agreed, while 14.3% strongly agreed, and 20.9% remained neutral *(See Appendix C for a full breakdown of adapted WATI survey responses)*.

To further address the concept of implementation, we also asked participants to indicate which activities, resources and communication tools are used at the early learning and childcare centres they work in. As previously mentioned, results indicated that the LEAP HOP Manual/Binder (67%), Active Play Equipment (61%), and LEAP Food Flair Manual/Binder (56%) were among the most popular resources In addition, we also asked participants to indicate changes that had occurred in their workplace after participating in the HSDS training in which the majority of centres/schools offered increased healthy eating options (54%), increased active play in classrooms(52%), additional activities around healthy eating themes (50%) and more educator-lead structured play time (48%). As mentioned above, key informant interviews complemented this data by declaring that *"teachers most often use the Active Play Equipment (APE) kit, and the manual/binders,"* as well as newsletters, recipes, and Facebook.

Evaluation Question 7:

To what extent have the target audience members maintained the HSDS program as a result of the KDE Strategy?

Following the RE-AIM Framework for Evaluating Evidence for Dissemination of Behavior Change Interventions, maintenance refers to *"the extent to which participants maintained behavior change and the sustainability of a program or policy in the settings in which it was applied"* (Glasgow, Vogt & Boles, 1999, p.1323). Thus, the evaluation team measured maintenance of the HSDS program as a product of the KDE Strategy's effectiveness. To measure maintenance, we asked participants to indicate any policy changes that had occurred in their centre/school, to indicate long-term changes resulting from the HSDS program. As prior indicated, most participants identified making policy changes regarding physical activity including changes to the parent and personnel policy handbooks, seasonal activity plans and center-wide physical activity challenges. In addition, many participants declared that changes have been made regarding centre menus and nutrition such as using whole wheat flour and grains in their recipes. Finally, respondents also addressed policies regarding accountability and monitoring of daily physical activity and food intake to ensure that children are receiving the proper nutrition and exercising sufficiently. As previously mentioned, this data was supported by key informant interviews which demonstrated that participants have implemented universal snack programs, and curriculums that focus on *"essential learning experiences, gross and fine motor skills, assessing developmental skills, trying new and healthy foods, interactive meal-times and healthy decisions such as washing hands before meal-time"*.

Furthermore, 48% of respondents indicated being involved with HSDS for over 1 year (13+ months) and still claimed to use various HSDS tools and resources, as well as maintaining changes to physical activity and healthy eating. Amongst these respondents, the LEAP HOP Manual/Binder (89%), the LEAP Food Flair Manual/Binder (67%), the HSDS Newsletter (61%) and Active Play Equipment (56%) were the most commonly used. Participants also revealed using recipes (50%), LEAP activity cards (50%), and Ministry of Education Information Sheets (50%) frequently *(See Table 8 for a summary of resources used by long-term participants).*

Table 8: Summary of Resources Used by Long-Term Participants (13+ Months):

LEAP HOP Manual/Binder	16 (88.9%)
LEAP Food Flair Manual/Binder	12 (66.6%)
Newsletter	11 (61.1%)
Active Play Equipment	10 (55.6%)
Recipes	9 (50.0%)
LEAP Activity Cards	9 (50.0%)

Ministry of Education Information Sheets	9 (50.0%)
Website	6 (33.3%)
Facebook	5 (27.8%)
Implementation Guide	1 (5.6%)
Guidelines Poster	1 (5.6%)

These respondents indicated changes such as increased active play in classrooms (65%), increased healthy eating options (53%), additional activities around healthy eating themes (47%), indoor space for physical activity (47%) and additional outdoor play equipment (47%). Among common themes were also additional indoor play equipment 41%), more educator-lead structured play time (41.%) and increased outdoor play (35%; *See Table 10 for a summary of changes made by long-term participants).* Furthermore, Of the 15 respondents who provided long-term policy changes, eight had been involved with HSDS for over 18 months.

Table 9: Summary of Changes Made by Long-Term Participants (13+ Months):

Increased Active Play in Classrooms	11 (64.7%)
Increased Healthy Eating Options	9 (52.9%)
Indoor Space for Physical Activity	8 (47.1%)
Additional Activities Around Healthy Eating Themes	8 (47.1%)
Additional Outdoor Play Equipment	8 (47.1%)
Additional Indoor Play Equipment	7 (41.1%)
More Structured Play Time (Educator-lead)	7 (41.1%)
Increased Outdoor Play	6 (35.3%)
More Unstructured Play Time	3 (17.6%)

Evaluation Question 8:

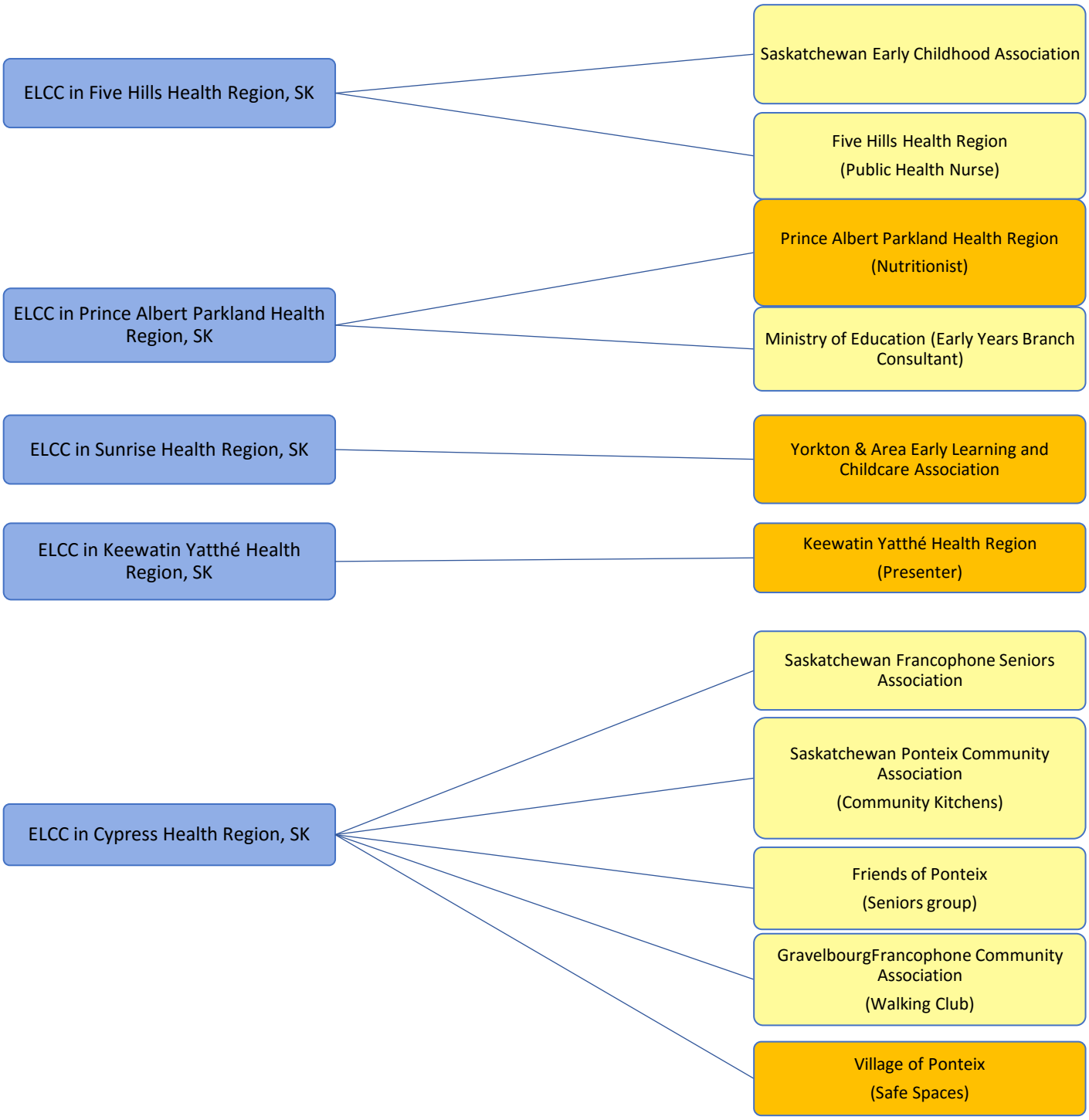
To what extent has a community of practice been developed as a result of the KDE Strategy?

To determine whether a community of practice has been developed using the KDE Strategy, the evaluation team used the Adapted WATI Survey to ask participants to identify organizations and individuals they have collaborated with since participating in the HSDS training. Results indicated that, of the 69 individuals who responded to the adapted WATI survey, only 7 provided answers to this question. This suggests that, though collaboration is an important part of the KDE Strategy, it is not often occurring. More specifically, the KDE Strategy intends to extend HSDS's reach from front-line early learning and childcare centers to integration or alignment with provincial priorities to sustain the HSDS program by creating a network of significant partnerships; however, it is only occurring in a limited fashion. This data was supplemented by key informant interviews in which all participants indicated that collaboration had not occurred outside of their workplace, though many believed that it would be helpful to sustain HSDS in Saskatchewan early learning and childcare settings.

Even still, results indicated that 10% of respondents had collaborated with 1 or more organization. 71% of these respondents were located in Saskatchewan, representing five provincial health regions (Five Hills Health Region, Prince Albert Parkland Health Region, Sunrise Health Region, Keewatin Yatthé Health Region, and Cypress Health Region). Respondents identified as executive directors, program coordinators, physical development coordinators, teachers, support workers and volunteers, and had been associated with the HSDS program for an average of 20 months. The organizations mentioned included corresponding health regions, The Saskatchewan Early Childhood Association (SECA), the Yorkton and Area Early Learning and Childcare Association, as well as local Family Resource Centres and coalitions. Individuals collaborated with nutritionists, public health nurses, early years consultants, family support workers, presenters, and colleagues. Of the 13 partnerships identified, 85% claimed to have mutually shared information, 38% were considered formal relationships (23% informal; 15% both formal and informal; 23% unclear), and 54% had a low level of impact

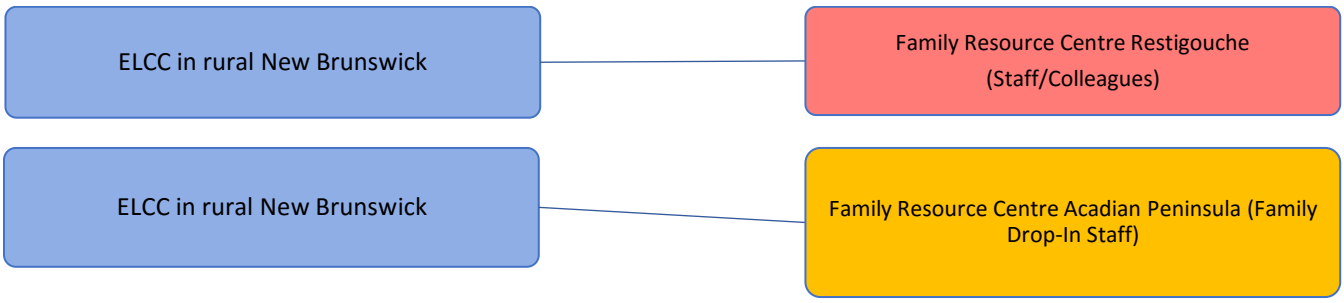
on the ELCC's approach to incorporating physical activity and healthy eating into the lives of early years children (38% medium; 8% high; *See Figure 3 and Figure 4 for a visual depiction of the community of practice formed in Saskatchewan and New Brunswick).*

Figure 3: Community of Practice Formed in Saskatchewan:



*** Yellow indicates a low level of impact on the approach to incorporating healthy eating and physical activity for children aged 0-5, while orange represents a medium level of impact, and red a high level of impact***

Figure 4: Community of Practice Formed in New Brunswick:



*** Yellow indicates a low level of impact on the approach to incorporating healthy eating and physical activity for children aged 0-5, while orange represents a medium level of impact, and red a high level of impact***

The interviewed participants did not report collaboration outside of their respective agencies; however, collaboration within the participating agencies was common to incorporate HSDS into normal practice. For example, one participant explained that HSDS was *"briefly mentioned at a 0-3 Task Force Meeting"* involving the corresponding school district and health region, though not much information was shared. Even still, this participant worked for a school division and had integrated HSDS into all of the corresponding schools via a specified curriculum that focuses on physical activity and healthy eating. More specifically, this curriculum includes *"a universal snack program,"* as well as topics like *"essential learning experiences, gross and fine motor skills, assessing developmental skills, trying new and healthy foods, interactive meal-times and healthy decisions such as washing hands before meal-time"*. Similarly, a community trainer claimed that she had *"delivered the HSDS program to [her] team"* at the local family resource centre, in which she worked. This participant also stated that she *"[uses] HSDS information with [the] groups of parents at the centre,"* as well as *"during programs for mothers and babies"*. In fact, since participating in the HSDS program, the resource centre *"allows parents to borrow LEAP kits that were put together by [a local agency*]," which provides clients an opportunity to use HSDS at home.

The results of this evaluation may be influenced by various external factors including a rapid time frame for data collection and analysis, collecting data during summer months when many individuals take holidays, restrictions regarding access to specific data, and a limited number of participants for key informant interviews.

Conclusions

Overall, the evaluation yielded a number of important findings that address the effectiveness of the Healthy Start/Departe Sante (HSDS) Knowledge Development and Exchange (KDE) Strategy.

Firstly, the HSDS KDE and communication tools appear to follow Lavis et al. (2003) five elements of evaluating knowledge translation, in that actionable messages are being transferred. More specifically, after reviewing all reports, presentations, training material and KDE tools, it was clear that HSDS is providing information that is easy to understand, and includes concrete steps to implement Healthy Start in various settings. Even though participants agreed that the Healthy Start training was successful in developing useful recommendations for incorporating physical activity and healthy eating into the centres they work in, key informant interviews indicated that initial training material may not be easy to apply in all settings. For example, key informants spoke about examples where, though the material was understood during training, early learning and childcare centres were unable to use the information to inform practice; however, HSDS

protects against this issue by offering booster sessions to address challenges and develop centre-specific strategies to implement the program.

By offering flexible, client-centered booster sessions, HSDS also successfully adheres to Lavis et al. (2003), the second element of evaluating knowledge translation which states that messages should be tailored to specific target audience groups. In addition, KDE tools such as the Healthy Start Website, HSDS Fact Sheets, the Ministry of Education Information Sheets and external links to the website are offered in various versions designed for directors, educators, cooks, parents and stakeholders/partners. HSDS also offers resources that are specifically developed for certain groups. For example, the Implementation Guide is designed for directors, while the LEAP HOP Manual/Binder targets educators by offering activities that can be implemented during class time. Finally, reports and presentations also exist with the audience in mind, in that HSDS annual reports provide valuable information for stakeholders and partners, conference presentations target researchers and academics, and training curriculums focus on information that can be applied in early learning and childcare settings. These conclusions were supported by key informant interviews and the adapted WATI survey results in that participants agreed that recommendations were useful, and claimed to use various HSDS tools in practice.

Following Lavis et al. (2003) five elements of evaluating knowledge translation, we also assessed whether the messages were delivered by sources deemed credible by those receiving the message. By reviewing Training Questionnaires and collecting survey data, we concluded that HSDS adheres to this element. More specifically, participants reported an increase in knowledge about the importance of physical activity and healthy eating for early years children, and claimed to act on recommendations, and pass on HSDS information to colleagues, demonstrating trust in HSDS staff, researchers, and trainers. In addition, when asked about training, key informants stated that HSDS trainers were "excellent, knowledgeable and engaging," further supporting the conclusion that HSDS messages are delivered by credible sources.

Next, we assessed whether HSDS information was presented in an interactive manner as, according to Lavis et al. (2003) five elements of evaluating knowledge translation, passive processes have been deemed ineffective by empirical research, regardless of the target audience. After reviewing HSDS metrics and training questionnaires, and collecting data via an adapted WATI survey and key informant interviews, we concluded that HSDS successfully adheres to this element. In particular, the HSDS website generates plenty of traffic, with visitors representing various locations across Canada and the world. In regards to Facebook and Twitter, these social media pages have gained more followers each year; however, results of the survey indicated that only 19% of respondents use Facebook, and 0% use Twitter. In addition, though 48% of survey respondents indicated using HSDS Newsletters, Mailchimp metrics demonstrate a relatively low rate of the newsletters being opened. Also worth noting, in 2015, only 6 HSDS Sampler newsletters were distributed to educators, cooks and parents, and only 1 newsletter was sent out to directors, stakeholders and partners. On the other hand, when assessing HSDS training, participants often recognized the 'delivery of session' as being their favorite part of HSDS training, and stated that it was *"excellent and engaging".* This data was complimented by key informant interviews with community trainers who explained that, in their experience, the hands-on approach that involves carrying-out activities and participating in live discussions, was the most effective form of training.

Finally, we assessed how HSDS information had been used, and the extent to which the program had been adopted, implemented and maintained as a result of the KDE strategy. We concluded that early learning and childcare centres are using various HSDS tools, with the LEAP HOP Manual/Binder, the LEAP Food Flair Manual/Binder, and Active Play Equipment (APE) kit being among the most popular. In addition, early learning and childcare setting have made various changes to their practice such as, increased active play in classrooms and increased healthy eating options. Though only 15 responses were received, we also collected data regarding long-term maintenance, such as policy changes which focused on increased physical activity, increased nutritional content in meals and snacks, and holding staff accountable for carrying out HSDS activities and

recommendations. Key informant interviews supported these conclusions by demonstrating that some early years settings have created a universal snack program, and curriculums that focus on *"essential learning experiences, gross and fine motor skills, assessing developmental skills, trying new and healthy foods, interactive meal-times and healthy decisions such as washing hands before meal-time"*.

Lastly, we assessed whether a community of practice had been formed as a result of the KDE Strategy. Though collaboration is a major part of the KDE strategy, we found that it may only be occurring in a limited capacity. More specifically, the KDE Strategy intends to extend HSDS's reach from front-line early learning and childcare centers to integration or alignment with provincial priorities to sustain the HSDS program by creating a network of significant partnerships; however, results indicated that many early learning and childcare centres have not collaborated with professionals outside of their workplace. Though HSDS staff have presented information to stakeholders and partners, the results of the adapted WATI survey indicated that only 10% of respondents have collaborated with individuals outside of their workplace. The organizations mentioned included corresponding health regions, The Saskatchewan Early Childhood Association (SECA), the Yorkton and Area Early Learning and Childcare Association, as well as local Family Resource Centres and coalitions, where individuals collaborated with nutritionists, public health nurses, early years consultants, family support workers, presenters, and colleagues. When asked about collaboration during key informant interviews, participants stated that it would be helpful to sustain HSDS in Saskatchewan early learning and childcare settings. More specifically, key informants suggested that improved awareness and promotion of the program, holding face-to-face meetings or retreats for trainers, organizing community events to hi-light the successes of Healthy Start and targeting early learning settings beyond licensed daycares (such as day homes, disability programs, civic centres and other child service delivery programs) may increase opportunities to collaborate and help to sustain HSDS for early years children.

Primary Recommendations

Based on the results of the evaluation, we conclude that the HSDS KDE Strategy is effective. This strategy appears to adhere to Lavis et al. (2003) five elements of knowledge translation, and has resulted in HSDS being adopted, implemented and maintained by many early learning and childcare centres in Saskatchewan and New Brunswick. Despite these successes, we suggest to consider opportunities for improvement in the following areas:

1. Promoting Newsletters and social media pages
2. Targeting a broader scope of early years settings
3. Providing more opportunities for parents to get involved
4. Increasing communication between trainers/program coordinators and ELCCs
5. Creating opportunities for networking to develop a strong community of practice
6. Developing an infrastructure to evaluate the KDE Strategy on a continuous basis

Note: these recommendations are consistent with the results of this evaluation, and have been discussed and developed through collaboration with HSDS staff

Promoting HSDS Newsletters, and Social Media Pages

As demonstrated by the data, though HSDS provides updates, new recipes and activities, and relevant information via Newsletters, Facebook and Twitter, it appears that ELCCs are not using these methods very often. Thus, promoting these communication tools at training sessions, presentations, and during other communication may increase the number of people who access these resources. As suggested by HSDS staff, this could be done by adding the facebook and twitter logo to the HSDS training slides, and asking participants to like or follow HSDS on social media sites at the beginning of the session. At this time, HSDS trainers may also mention the newsletters, and provide participants with information about the purpose and importance of

these communication tools. By increasing access, program updates, recipes and activities will reach more ELCCs to ease implementation of the program and improve the well-being of early years children.

Targeting a Broader Scope of Early Years Settings

As demonstrated by the results of the evaluation, participants suggested targeting a broader scope of early years settings in Phase III to sustain HSDS and improve the overall well-being of early years children. This may include day homes, schools, disability programs, and other child service delivery programs to increase the reach and awareness of HSDS. It may also be beneficial to gather data from these groups to inform practice and improve operations. As demonstrated by the results to evaluation question 8, collaboration occurred amongst ELCCs and various seniors groups, which allows relevant parts of the HSDS program to extend even beyond improving the lives of children.

Providing More Opportunities for Parents to get Involved

As seen through the results of this evaluation, many ELCCs face challenges when working with parents. Though HSDS resources offer information specific to this issue, creating more events and opportunities for parents to be directly involved in HSDS may dissolve this challenge. For example, HSDS information could be offered directly to parent groups at family resource centres, in hospital maternity wings, or events may be organized in various community locations to extend the reach of HSDS beyond the ELCCs. By providing information sessions or training to parents in the community, HSDS can also reach the parents of children who do not attend early years programs. To include parents whose children are already involved in the program, HSDS progam coordinators may suggest to ELCC directors to implement a parent sign-up sheet to recive newslettersm relevan articles, and useful tools directly from HSDS. This eliminates some responsibility for ELCC directors, and provides a direct link to HSDS staff, which may increase buy-in from the parents of early years children.

Increasing Communication Between Trainers/Program Coordinators and ELCCs

Throughout data collection and analysis, it was identified by participants that more frequent check-ins may be beneficial to maintain HSDS in early learning and childcare settings, and sustain the program long-term. Participants indicated that, though newsletters and social media updates exist, more direct contact may help to continue implementation of the program and troubleshoot specific problems. This could occur via telephone soon after the training and booster sessions (e.g., 1-2 weeks later) and every 3-4 months subsequently to ensure that ELCCs feel supported in their decision to implement changes in practice and policies.

After discussion with HSDS program coordinators, it was identified that contact is made with ELCCs, but these conversations usually involve the ELCC directors who generally state that no support is needed. Thus, requests for support and challenges faced by front-line staff, such as early learning educators, may not be heard if the information is not communicated with the director before the time of contact. To mitigate this issue, it may be beneficial to increase communication between trainers/program coordinators and front-line staff. For example, during training, ELCC contact groups could be formed to include educators, cooks, and other staff, so that HSDS information, newsletters, recipes, relevant articles and resources can be provided directly to front-line workers. At this time, HSDS trainers/program coordinators may encourage all staff to reach out directly to HSDS for support, if necessary. By increasing this communication, ELCCs may be more equipped to overcome challenges when implementing the program.

Creating opportunities for networking to develop a strong community of practice

As identified by the results of this evaluation, a limited amount of collaboration has occurred under the KDE Strategy. Though staff, researchers and program committee members have presented HSDS information to stakeholders and partners, it may be beneficial to increase collaboration among ELCCs and other agencies. As suggested by key informants, this could exist in the form of face-to-face meetings or retreats for trainers and community events organized to target early years settings beyond licensed child-care centres. Other ways to increase collaboration may be to organize a networking event during the annual HSDS Symposium, or offer more frequent regional training sessions, which include multiple ELCCs at one given time. For example, if 2 locations in Saskatoon are interested in implementing HSDS, training could be offered to both of these locations collectively, to increase communication amongst the centres. By maximizing regional training sessions among smaller centres in urban locations, connections are created between ELCCs who have similar values, practices and policies. This strategy may be most effective for urban locations because of shorter commutes, and a greater likelihood of parents/guardians to attend.

Finally, HSDS may benefit from creating a mentoring program among ELCCs involved in the program. This could include recruiting 'champion centres', who have implemented HSDS for at least 10 months, to provide support to those who are new to the program. This provides opportunities for ELCCs to collaborate, share ideas, and mitigate issues through a group effort.

In contrast, another suggestion may be to allocate resources to building a community of practice in Phase III of the project. This could include hiring a 'community activator' or 'network builder' whose role is specifically to organize opportunities for collaboration and facilitate communication between ELCCs and community stakeholders.

Developing an Infrastructure to Evaluate the KDE Strategy on a Continuous Basis

As evaluations can inform practice and improve current operations, monitoring and evaluating KDE data may be beneficial to HSDS in the future. This may include collecting data on a regular basis (e.g., conducting an adapted WATI survey as a pre-test and post-test to assess changes in knowledge, practice and policy), analyzing the collected data, and putting a mechanism in place for continuous improvement. This may be informed by continuous quality improvement models developed in healthcare services.

References:

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Canadian Evaluation Society (CES). (2010). *Competencies for Canadian evaluation practice.* Retrieved from: https://evaluationcanada.ca/txt/2_competencies_cdn_evaluation_practice.pdf

Glasgow R.E., Vogt T.M., & Boles S.M. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. Am J Public Health. 1999;89:1322–1327.

KDE Committee. (2014). *Knowledge Development & Exchange (KDE) Strategic Plan.* Saskatoon, SK: Healthy Start/Départe Santé

Lavis et al. (2003). How can research organizations more effectively transfer knowledge to decision-makers? *The Milbank Quarterly, 18*(2), 221-248.

Norman, C. & Huerta, T. (2006). Knowledge transfer and exchange through social networks: building foundations for a community of practice within tobacco control. *Implementation Science, 1*(20), doi: 10.1186/1748-5908-1-20

Appendix A: Interview Guides

HSDS Interview Guide (Community Trainers)

1. Can you tell me a bit about your role as a community trainer for the HSDS program?
    a. How long have you been involved with HSDS?
    b. What activities do you typically engage in as a community trainer?
    c. Approximately how many HSDS training sessions have you conducted since becoming a community trainer?
    d. What is your level of involvement with the early learning and childcare centres after the HSDS training? (e.g., other support, consultations, etc.)

2. In your opinion, how effective are the booster sessions?
    a. In what ways can these be improved?

3. What was it like to be part of the HSDS project?
    a. Which strategies/methods do you find most effective in providing HSDS training?
    b. What are some challenges you encountered?
    c. In what ways can training or your engagement with the ELCC be improved?

4. What type of support did you receive from HSDS staff after participating in the training to become a community trainer?
    a. In what ways can this be improved?

5. As a community trainer, who have you collaborated with, besides the ELCCs and HSDS staff, regarding the program and its practices?
    a. If not, how would this have been helpful?
    b. Which methods/strategies did you use to engage external stakeholders?
    c. What were some of the challenges you experienced?
    d. In what ways can opportunities to network with other stakeholders be improved?

6. In your opinion, what is needed to sustain HSDS in Early Learning and Childcare Centres?
    a. What types of supports should HSDS staff or community trainers provide to help sustain HSDS?

HSDS Interview Guide (ELCCs)

1. Can you tell me a bit about your role as [the director of, an educator at, a cook at] [ELCC name]?
    a. How long have you worked as [the director of, an educator at, a cook at] [ELCC name]?
    b. What activities do you typically engage in as [the director of, an educator at, a cook at] [ELCC name]?
    c. How long have you been involved with the HSDS program?

2. What was it like to be involved in the HSDS project?
    a. What type of HSDS training have you received?
    b. Which resources were you provided with?
    c. Which resources and communication tools are the most useful for you (and your staff)?
    d. What are some challenges you encountered?
    e. In what ways can the HSDS training and resources be improved?

f. (In your opinion, were the knowledge and recommendations you received from HSDS training and resources useful for incorporating healthy eating and physical activity at [ELCC name]?)
g. (What were the most relevant recommendations?)

3. What type of support did you receive from HSDS staff after participating in the HSDS training?
    a. In what ways can this be improved?

4. Can you tell me whether HSDS is used at [ELCC name]? And if yes, how?

5. In what ways have you collaborated with your colleagues to make HSDS part of the normal practice at [ELCC name] (in what ways?

6. Which other professionals, outside of your centre, have you contacted with regard to the HSDS program and its practices?
    a. How did you contact these individuals?
    b. If not, how would this collaboration have been helpful to implement the HSDS program?
    c. What were some of the challenges you experienced?
    d. In what ways can opportunities to network with other stakeholders be improved?

7. In your opinion, what is needed to sustain HSDS in Early Learning and Childcare Centres?
    a. What types of supports should HSDS staff or community trainers provide to help sustain HSDS?
    b. What were some of the barriers to implementing HSDS at [ELCC name]?
    c. What were some of the facilitators to implementing HSDS at [ELCC name]?
    d. How would having clear guidelines around physical activity at [ELCC name] contribute to maintaining HSDS?
    e. How can healthy eating guides be improved at [ELCC name]?

Appendix B: Adapted WATI Survey

Adapted Web-assisted Telephone Interviewing (WATI) Survey

To determine the reach and effectiveness of the Healthy Start/ Départe Santé (HSDS) program and its components, the Saskatchewan Population Health and Evaluation Research Unit (SPHERU) has designed the following survey. Therefore, we invite the directors, educators, cooks and other staff from your early learning and childcare centre to participate in this survey. The survey will take approximately 10-15 minutes to complete.

Please note that, though we appreciate your response, all participation is completely voluntary.
Thank you!
***All respondents will be entered in a draw to win one of four $25.00 gift cards of your choice from gift certificates.ca ***

The centre/school I work in is located in: [_] New Brunswick [_] Saskatchewan

If in Saskatchewan, please select the health region that the centre/school is located in:

[_] Athabasca Health Authority
[_] Cypress Health Region
[_] Five Hills Health Region
[_] Heartland Health Region
[_] Keewatin Yatthé Health Region
[_] Kelsey Trail Health Region
[_] Mamawetan Churchill River Health Region
[_] Prairie North Health Region
[_] Prince Albert Parkland Health Region
[_] Regina Qu'Appelle Health Region
[_] Saskatoon Health Region
[_] Sun Country Health Region
[_] Sunrise Health Region

The centre/school I work in is located in a _____ area: [_] Rural [_] Urban
How long have you been involved with the Healthy Start program? _____ months
What position do you hold at the centre/school you work in? _____

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
1. My knowledge related to the importance of physical activity for children aged 0-5 has increased.						
2. My knowledge related to the importance of healthy eating for children ages 0-5 has increased.						
3. I have made positive changes regarding my own healthy eating and physical activity since participating in the Healthy Start training.						
4. The Healthy Start training was successful in developing useful recommendations for incorporating physical activity and healthy eating in the centre I work in.						
5. I have informed others (who did not participate) about the content of the Healthy Start training.						
6. I have taken action on recommendations that were generated at the Healthy Start training.						
7. The centre/school I work in has incorporated healthy eating and physical activity into our regular routine since the Healthy Start training.						
8. I have started to collaborate about Healthy Start with at least one person or a team member with whom I attended the Healthy Start training.						

9. Please indicate which activities, resources, and communication tools your centre/school currently uses (Mark all that apply):

[_] Healthy Start website
[_] Newsletters
[_] Facebook
[_] Twitter
[_] Active Play Equipment (APE, Active Kids Tool Kit)
[_] Ministry of Education Information Sheets (Active Solutions, Mealtime Mentoring)
[_] LEAP HOP Manual/Binder
[_] LEAP Food Flair Manual/Binder

[_] Guidelines Poster
[_] Videos
[_] Recipes – Food Flair
[_] Other: _____

[_] Active Kids Manual/Binder (New Brunswick)
[_] Healthy Start Implementation Guide
[_] LEAP Activity Cards

10. Please indicate changes that have occurred in your centre/school since participating in the Healthy Start Program (Mark all that apply):

[_] Indoor space for physical activity
[_] Additional indoor play equipment
[_] Increased active play in classrooms
[_] More structured play time (educator lead)
[_] Additional activities around healthy eating themes (from Food Flair or other)
[_] Increased outdoor play
[_] Additional outdoor play equipment
[_] Increased healthy eating options
[_] More unstructured play time
[_] Other: _____

11. Please indicate any policies (guidelines/new healthy practices) that have been implemented regarding health and wellness at your centre/school since your involvement with the Healthy Start program:

12. If applicable, please list up to 10 organizations that you have collaborated with since participating in the Healthy Start workshop. The organizations and roles of individuals may include SECA (Saskatchewan Early Childhood Association), Health Region Professionals, Public Health Nutritionists, Early Years Branch (EYB) Consultants, other Healthy Start Early Learning Child Care Centres, Early Years Coalitions, and others.

***NOTE** formal relationships refer to working with individuals whom, as part of their job, offer support regarding healthy eating and physical activity (e.g., Public Health Nutritionists); informal relationships refer to working with individuals who are not required to offer information and support (e.g., Other Healthy Start Early Learning Child Care Centres).*

Organization Name:	Role (e.g. as noted above)	Shared Info? Mutual Exchange of Information?	Type of Relationship?	Level of Impact on your approach to incorporating healthy eating and physical activity for children ages 0-5.
1.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
2.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
3.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
4.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
5.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
6.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
7.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
8.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
9.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low
10.		[_] Yes [_] No	[_] Formal [_] Informal	[_] High [_] Medium [_] Low

Appendix C: Adapted WATI Survey Results

1. The Centre or School I work in is located in:

Response	Percentage	Count
New Brunswick	12.2%	6
Saskatchewan	87.8%	43
	Total Responses	**49**

2. If in Saskatchewan, please select the health region that the Centre or School is located in:

Response	Percentage	Count
Athabasca Health Authority	0%	0
Cypress Health Region	7%	3
Five Hills Health Region	7%	3
Heartland Health Region	5%	2
Keewatin Yatthé Health Region	2%	1
Kelsey Trail Health Region	7%	3
Mamawetan Churchill River Health Region	2%	1
Prairie North Health Region	5%	2
Prince Albert Parkland Health Region	7%	3
Regina Qu'Appelle Health Region	23%	10
Saskatoon Health Region	23%	10
Sun Country Health Region	2%	1
Sunrise Health Region	9%	4
	Total Responses	43

3. The centre/school I work in is located in a _____ area:

Response	Percentage	Count
Rural	53%	26
Urban	47%	23
	Total Responses	**49**

4. The Centre or School I work in has been involved with the Healthy Start program for _____ months:

Response	Percentage	Count
0-6 months	12%	5
7-12 months	40%	17
13-18 months	5%	2
19-24 months	24%	10
31-36 months	7%	3
43-48 months	5%	2
49+ months	7%	3
	42	

5. What position do you hold at the centre or school you work in?

Response	Percentage	Count
Director	44%	21
Educator	23%	11
Manager/Supervisor	8%	4
Coordinator	8%	4
Support Worker	4%	2
Parent	4%	2
Cook	2%	1
Volunteer	2%	1
Office/Childcare Staff	2%	1
Physical Development Consultant	2%	1
	48	

6. My knowledge related to the importance of physical activity for children aged 0-5 has increased.

Response	Percentage	Count
Strongly Agree	29%	14
Agree	55%	27
Neutral	12%	6
Disagree	4%	2
Strongly Disagree	0%	0
N/A	0%	0
	Total Responses	49

7. My knowledge related to the importance of healthy eating for children ages 0-5 has increased.

Response	Percentage	Count
Strongly Agree	31%	15
Agree	51%	25
Neutral	14%	7
Disagree	4%	2
Strongly Disagree	0%	0
N/A	0%	0
	Total Responses	49

8. I have made positive changes regarding my own healthy eating and physical activity since participating in the HSDS training.

Response	Percentage	Count
Strongly Agree	14%	7
Agree	49%	24
Neutral	31%	15
Disagree	4%	2
Strongly Disagree	0%	0
N/A	2%	1
	Total Responses	49

9. The HSDS training was successful in developing useful recommendations for incorporating physical activity and healthy eating in the centre I work in.

Response	Percentage	Count
Strongly Agree	22%	11
Agree	63%	31
Neutral	10%	5
Disagree	4%	2
Strongly Disagree	0%	0
N/A	0%	0
	Total Responses	**49**

10. I have informed others (who did not participate) about the content of the HSDS training.

Response	Percentage	Count
Strongly Disagree	2%	1
Disagree	6%	3
Neutral	18%	9
Agree	61%	30
Strongly Agree	14%	7
N/A	6%	3
	Total Responses	**49**

11. I have taken action on recommendations that were generated at the HSDS training.

Response	Percentage	Count
Strongly Disagree	2%	1
Disagree	2%	1
Neutral	12%	6
Agree	67%	33
Strongly Agree	16%	8
N/A	0%	0
	Total Responses	**49**

12. The Centre or School I work in has incorporated healthy eating and physical activity into our regular routine since the HSDS training.

Response	Percentage	Count
Strongly Disagree	4%	2
Disagree	4%	2
Neutral	20%	10
Agree	55%	27
Strongly Agree	14%	7
N/A	2%	1
	Total Responses	**49**

13. I have started to collaborate about Healthy Start with at least one person or a team member with whom I attended the HSDS training.

Response	Percentage	Count
Strongly Disagree	4%	2
Disagree	8%	4
Neutral	39%	19
Agree	35%	17
Strongly Agree	4%	2
N/A	8%	4
	Total Responses	**49**

14. Please indicate which activities, resources, and communication tools your centre/school currently uses (Mark all that apply):

Response	Percentage	Count
Healthy Start website	35%	17
Newsletters	48%	23
Facebook	19%	9
Twitter	0%	0
Guidelines Poster	13%	6
Videos	4%	2
Recipes – Food Flair	44%	21
Active Play Equipment (APE, Active Kids Tool Kit)	61%	29
Ministry of Education Information Sheets (Active Solutions, Mealtime Mentoring)	40%	19
LEAP HOP Manual/Binder	67%	32
LEAP Food Flair Manual/Binder	56%	27
Active Kids Manual/Binder (New Brunswick)	13%	6
Healthy Start Implementation Guide	25%	12
LEAP Activity Cards	44%	21
Other, please specify...	13%	6
	48	

(Other, please specify...)

1	It's expected that each staff includes gross motor skills and healthy eating, every time they plan
2	Centre programming and resources
3	We have added new resources
4	Participation website; A Moving Child is a Learning Child - Connel & McCarthy; Toddler Curriculum - Free Spirit
5	Pinterest
6	Health Canada literature

15. Please indicate changes that have occurred in your centre/school since participating in the Healthy Start Program (Mark all that apply):

Response	Percentage	Count
Indoor space for physical activity	41%	19
Additional indoor play equipment	41%	19
Increased active play in classrooms	52%	24
More structured play time (Educator lead)	48%	22
Additional activities around healthy eating themes (from Food Flair or other)	50%	23
Increased outdoor play	43%	20
Additional outdoor play equipment	30%	14
Increased healthy eating options	54%	25
More unstructured play time	26%	12
Other, please specify...	7%	3
	Total Responses	**46**

(Other, please specify...)

1	Our centre made more physical activity changes; our menu did not need any changes. We had an excellent review of our menu by a nutritionist before beginning HSP training.
2	Having kids help prep some meals
3	We have always incorporated physical activity and the importance of it and healthy eating in the center and with families - we are more focused on physical activity indoors as out winters are so long and cold!

16. Please indicate any policies (guidelines/new healthy practices) that have been implemented regarding health and wellness at your centre/school since your involvement with the Healthy Start program:

1	Physical Activity policy
2	We have not implemented many new policies in regards to guidelines/new healthy practices. However, we have implemented no outside food allowed at the Centre. Our menu is very nutritious, and we were finding some parents were bringing in very unhealthy snacks in the morning.
3	We incorporated a 90 minute/day physical activity policy in our Parent Handbook and Personnel Policy Handbook after our Healthy Start Program Training. We put messages on white boards outside each of our rooms indicating what we ate for meals throughout the day and what activities the children participated in.
4	Plan for " rainy" days - this has to be a priority as where we live weather is unpredictable. This way when it's planned/ prepared for it's less chaotic and more successful
5	In order to meet the nutritional needs of the children in our center and considering the fact that most of our children eat Halal meat and chicken, We have implemented serving of halal meat to children so all of them can have the protein part of the food that we serve.
7	We added the information to our policy manual for staff
8	More physical activity time outside and visable menus
9	Physical activity policy, based on the policy examples provided. We only bake/cook with whole wheat flour All pasta's, rice and bread are at least whole wheat or whole grain Large muscle area is always available indoors
10	Randomly throughout the year, our management team will pick out a certain movement skill or Hop activity and challenge all of the Childcare rooms to implement and document the children's experiences. When a new monthly newsletter is emailed to us, it is distributed to each of our 5 rooms and often times, you'll see them trying out a new HOP activity or making the recipe that is included that month!
11	-Have to go outside at least once a day (free play, walks, etc.).
12	We try to ensure the children get outside at least once everyday (only real inclement weather stops us) usually twice.

	We revamped our menu entirely. We feed the children things like baked salmon and 3 bean quesadillas. We rent space in a gym throughout the fall and winter to implement the games and movement activities from LEAP and have inveted some of our own.
13	We follow Satter's Division of Responsibility, although it's not an official policy.
14	More Nutritious foods in my menus and more physical activity
15	I integrated the program in order to include it in my "Senior Friends' Community" and I shared it with the Summer Seniors (6) and winter (12).

17. If applicable, please list up to 10 organizations that you have collaborated with since participating in the HSDS training.

See social network analysis for results to this question

Appendix D: HSDS Steering Committee, Stakeholders & Partners

Steering Committee:

- SK Ministry of Health, Health Promotion
- SK Ministry of Education, Early Years Branch
- NB Department of Social Development, Wellness Branch
- NB Early Years Program – Active Kids/Jeunes actifs
- University of Saskatchewan (Community Health and Epidemiology, Pharmacy and Nutrition, Kinesiology, Economics, SPHERU)
- Le centre de formation médicale du Nouveau Brunswick - Université de Sherbrooke Université of Moncton
- Association des parents fransaskois – Fransaskois Parent Association
- NB Family Resource Centres
- Community Initiatives Fund (CIF) Fund, Saskatchewan provincial funder

Stakeholders:

- Saskatchewan Polytech – ECE curriculum
- NB Community Colleges / Collèges communautaires
- Collège Mathieu – French ECE curriculum
- Saskatchewan Prevention Institute
- Saskatchewan Early Childhood Association (SECA - represents childcare centres)
- Northern Early Years Partnership
- *KidsFirst* Yorkton, Regina, and Saskatoon
- *Regina Qu'Appelle, Saskatoon, North East, Sunrise* Health Regions
- Réseau Santé Vitalité, Mouvement Acadien des Communautés en santé; NB

Sustained Partnerships Over Three years +

- U of S Partnership (multidisciplinary team, representation from 4 faculties)
- Government of Saskatchewan – Ministry of Education and Health
- Centre de formation médicale du N-B
- Members of Steering Committee, SECA, Francophone parent association, MEND SK
- Active Kids Jeunes actifs
- SK in motion, Saskatoon Health Region

Other partnerships

- NB Family Resource Centres
- NB Ministry of Education
- NB Wellness Branch
- Early years coalitions
- Eat Well Play Well – early years' committee, Kelsey Trail Health Region
- Other SK Health regions

Appendix E: Presentations/Publications and Presenter(s)/Co-Authors

List of HSDS Team Presentations and Publications **Presenter(s)/Coauthors**	**Presentation Title**	**Was the abstract published**	**Presentation Format**	**Presented at (name of the conference), place, dates**
1. Leis A, Roger G.	Départ Santé/Healthy Start, à l'intersection de la science, de la pratique et des politiques.	No	Présentation orale.	Des résultats de recherche pour l'Action sur le terrain. Conférence organisée par le CNFS. Université Laurentienne, Sudbury, On, June 26-28, 2012.
2. Froehlich-Chow A, Leis A, Humbert L, Muhajarine N.	Healthy Start: The implementation and evaluation of a multimodal physical activity and healthy eating intervention for rural early years care centres	Proceedings of the conference	Poster presentation	2012 CPHA Conference, Edmonton AB, June 12-14, 2012
3. Froehlich Chow, A, Leis, A	Physical activity and Healthy Eating to Support the Development of Rural Early Years Children in Care Centres: A Pilot Intervention Study.	No	Poster presentation	2012 CCHSA/PHARE conference in Levis Quebec, October 25th-28th 2012.
4. Leis A, Humbert L, Froehlich-Chow A, Gauthier R.	Healthy Start/Départ Santé: a Population health intervention at the intersection of science, practice, and policy	Proceedings of the conference	Oral presentation, concurrent session	2013 CPHA Conference, Ottawa ON, June 12, 2013
5. Froehlich Chow A, Leis A	Healthy Start: An Intervention to Support Healthy Development and Prevent Disease Among Early Years Children in Childcare	No	Panel session	Early Years Conference 2014: Shaping Childhood, factors that matter, Vancouver BC, February 1, 2014
6. Gabrielle Lepage-Lavoie	Introducing: Healthy Start/Départ Santé	No	Oral presentation	Working Together, Moving Forward Forum, Saskatoon SK, June 20, 2014
7. Gabrielle Lepage-Lavoie and Holly Hallikainen	Healthy Start/Départ Santé- a population health approach to improving healthy eating and physical activity in children attending childcare centres		Oral presentation	Public Health Nutrition Symposium, Saskatoon SK October 17, 2014
8. Gabrielle Lepage-Lavoie	Creating Our Future: Nurturing Minds & Bodies in the Early Years	No	Oral presentation	National Early Years Conference, Moose Jaw SK, May 8, 2015
9. Ward S, Bélanger M, Donovan D, Carrier N, Leis A	Liens entre les comportements des éducateurs dans les milieux de garde et les comportements alimentaires, l'activité		Poster presentation	43e journée scientifique de la Faculté de

	physique et l'indice de masse corporelle des enfants d'âge préscolaire			Médecine et des sciences de la Santé, Université de Sherbrooke, Sherbrooke QC, February 13, 2014
10. Ward S,Bélanger M, Leis A,Vatanparast H, Humbert L,Muhajarine N,Reading S	Teaching preschoolers how to eat well and stay active in early learning centres: the Healthy Start intervention		Poster presentation	5e congrès annuel sur la recherche en santé du Nouveau-Brunswick, Moncton, NB, Nov 14, 2013
11. Hassan Vatanparast	Obesity Prevention, Let's start early		Oral presentation	Mashhad University of Medical Science, Iran, August 15, 2015
12. Christina Wist	The Healthy Start Program, Saskatchewan Data Analyses and Resource Development		Oral presentation	Child Health Trainee Research Day-University of Saskatchewan, April 16, 2015.
13. Christina Wist, Hassan Vatanparast, Anne Leis, Mathieu Bélanger, Amanda Froehlich Chow, Rachel Engler-Stringer, Amin Tavassolian, Nathaniel Osgood	The Impact of Healthy Start/Depart Santé intervention on improving dietary intake of 3-5-year-old children attending childcare centres in Saskatchewan and New Brunswick.	Proceedings of the Conference.	Oral Presentation	Annual Pediatric Trainee Conference, U of S, April 15, 2015.
14. Ward S, Bélanger M, Donovan D, Vatanparast H, Muhajarine N, Leis A, Carrier N.	Association between childcare educators' practices and preschoolers' physical activity level and dietary intake	ISBNPA 2016 - Abstract Book www.isbnpa.org # SO.9.7 p. 373 BMJopen_2017	Oral presentation Published manuscript	International Society of Behavioral Nutrition and Physical Activity (ISBNPA) Conference, Cape Town, South Africa, June 11th, 2016; May 2017
15. Ward, S.	Départ Santé; Bouge- Mange bien.	No	Oral presentation	Université de Moncton, Feb 24th, 2016.
16. Ward S, Bélanger M, Donovan D, Muhajarine N, Leis A, Carrier N.	Influence des pairs sur l'activité physique des enfants d'âge préscolaire en milieux de garde	No	Oral presentation	Journée interdisciplinaire en recherche de la santé. Université de Moncton, March 18th, 2016
17. Holly Hallikainen, Janine LaForte (MB initiative) and Dr.	Emerging approaches in child care nutrition	No	Oral presentation	Dietitians of Canada- National Conference, June 10, 2016,

Misty Rossiter (U of PEI)				Winnipeg
18. Véronique Surette	Relation entre les comportements alimentaires des enfants fréquentant un milieu de garde et leur composition corporelle		Poster presentation	Sherbrooke QC, February 13, 2014
19. Véronique Surette	Relation entre la réticence alimentaire évaluée objectivement et l'indice de masse corporelle et le tour de taille des enfants d'âge préscolaire fréquentant un milieu de garde		Poster presentation	44e journee scientifique de la Faculté de Medecine et des sciences de la Santé, Université de Sherbrooke, May 20, 2015
20. Amanda Froehlich Chow, Anne Leis, Rachel Engler- Stringer, Louise Humbert, Nazeem Muhajarine, Hassan Vatanparast, Carly Phinney, Nikole Janzen	The Impact of Healthy Start/Départ Santé on increasing opportunities for healthy eating in childcare centres	No	Poster presentation	Food Environments in Canada Symposium, Saskatoon SK May 22, 2015
21. Ward S, Bélanger M, Carrier N, Vatanparast H, Leis A, Donovan D	A descriptive analysis of lunches served in New Brunswick and Saskatchewan childcare centres	Obesity Reviews Special Issue: Abstracts of the 13th International Congress on Obesity, 1-4 May 2016, Vancouver, Canada 25 April 2016, 17 (suppl) Pages 1–248	Poster presentation T5 S33:33 (p.146)	International Congress on Obesity, Vancouver, BC, May 1-2, 2016
22. Ward S, Bélanger M, Carrier N, Vatanparast H, Leis A, Donovan D.	What's for lunch? A descriptive analysis of lunches served in New Brunswick and Saskatchewan childcare centres	No	Oral presentation (Pecha Kucha competition)	International Congress on Obesity, May 3, 2016
23. Gabrielle Lepage- Lavoie	Départ Santé – introduction à la saine alimentation en petite enfance	No	Oral presentation / workshop (French)	Francophone workshop for provincial coordinators of parent and tot playgroups; October 2015
24. Gabrielle Lepage- Lavoie, Roger Gauthier and HSDS staff	Départ Santé – « Manger Santé c'est une affaire de famille ! »	No	Oral presentation / workshop (French)	Francophone Parent Symposium – healthy eating workshop incorporating Food Flair; October 2015
25. Gabrielle Lepage- Lavoie and Stephanie Ortynsky	Healthy Start Workshop	No	Workshop	Provincial CAPC Forum, Regina SK, October 29, 2014
26. Gabrielle Lepage- Lavoie, Stephanie Ortynsky	Healthy Start / Départ Santé Partnership Engagement Meeting	No	Oral presentation and	Saskatoon, June 23, 2015

and HSDS staff			consultation	
27. Gabrielle Lepage- Lavoie, Rhonda Teichreb, Louise Verklan, and Angie Stevenson	A Healthy Collaboration for Early Years Policy Adoption - Eat Well, Play Well and Healthy Start/Départ Santé	No	Oral presentation, concurrent session	Prevention Matters Conference 2015, Saskatoon SK, October 1, 2015
28. Bélanger, M., Kuhn, K.	Active Kids Toolkit and Healthy Start-Depart Santé	No	Oral presentation	New Brunswick Physical Literacy Summit. (Fredericton)(2014, October)
29. Gabrielle Lepage- Lavoie / Katie Pospiech	Mobilizing knowledge with educators: lessons learned in Healthy Start	No	Oral presentation, world café style consultation	KM in the AM (Saskatoon) January Event; Station 20 West; January 21, 2015
30. Gabrielle Lepage- Lavoie / Vanessa Morley, project coordinator with Healthy Beginnings BC	From a common evidence-based resource to engaging early year partners across Canada – introducing two early years population health interventions	Proceedings of CDPAC's Sixth Pan-Canadian Conference- http://www.cdpac.ca/media.php?mid=1555	Oral presentation, practice-based session-p. 20	Canadian Disease Prevention Alliance of Canada (CDPAC) Conference, Toronto, Feb 23-25, 2016
31. Leis A, Lepage-Lavoie G, Gauthier R, Bélanger Mathieu Belanger	Healthy Start- Départ Santé, a catalyst of change	Proceedings of CDPAC's Sixth Pan-Canadian Conference- http://www.cdpac.ca/media.php?mid=1555 Session B4- p. 28	Oral presentation	Canadian Disease Prevention Alliance of Canada (CDPAC) Conference, Toronto, Feb 23-25, 2016
32. Gabrielle Lepage- Lavoie	Partnerships and Collaborations – Healthy Start/Départ Santé	No	Oral presentation	Canadian Knowledge Mobilization Conference; May 18, 2017, Ottawa
33. Amanda Froehlich Chow (about postdoc project)	Promoting the health of rural early childhood educators and children in their care: An innovative educator-focused physical literacy and physical activity intervention		Oral abstract session	Public Health 2015 (CPHA Conference), Vancouver BC, May 27, 2015
34. Louise Humbert, Amanda Froehlich Chow, Anne Leis, Emily M Humbert, Jennifer Heuser	Developing and Assessing Fundamental Motor Skills In Early Years Children		Poster presentation	International Physical Literacy Conference, Vancouver BC, June 13-16, 2015
35. Froehlich Chow A, Humbert L, Leis A, Larsen A.	Healthy Start: The Effectiveness of a Physical Activity Intervention on Increasing Physical Activity Levels and Fundamental Motor Skills Among Early Years Children in Childcare.	Journal of Physical Activity and Health, 2014, 11(Supp 1), S126-S198. http://dx.doi.org/10.1123/jpah.2014-0173	Oral presentation	Human Kinetics Global Summit , Toronto: May 19-22, 2014.
36. Katapally T, Froehlich-Chow A, Leis A, Humbert L, Muhajarine N.	Validation of standardization methodology to minimize measurement bias due to systematic accelerometer wear-time variation in pre-schoolers, adolescents, and adults.	J Epidemiol Community Health-2013;67(10):A5	Abstract	

37. Gabrielle Lepage- Lavoie	Healthy Start 101 - Incorporating physical activity in the daily routine of early years children.	No abstract	Oral presentation; synopsis and handouts	Presented to the ECE Health Safety and Nutrition Class; SaskPolytech. January 15, 2015; 1 hour
38. Amanda Froehlich Chow & Louise Humbert	Competence and Confidence Matter: Increasing Early Childhood Educator Self-Efficacy to Provide Children with Opportunities to Improve their Physical Literacy and Increase Active Play.		Oral presentation	The Early Years Conference 2016: 20 Year Anniversary Sp'e'qum: Nurturing Developmental Wellbeing. Strengthening Children and Families. Vancouver B.C., January 28th – 30th 2016.
39. Sari N., N. Muhajarine, A. Froehlich Chow	An economic analysis of a physical activity intervention at childcare centers	No	Poster presentation	2016 European Health Economics Association Conference, July 13-16, 2016, Hamburg, Germany
40. Nazmi Sari, N. Muhajarine, A. Froehlich Chow	Implementation cost of a physical activity and healthy eating intervention at childcare setting: Lessons from Saskatchewan/New Brunswick Healthy Start/Depart Sante Intervention	no abstract publications	Oral presentation	Western Economic Association International Conference, Santiago, Chile, January 2017.
41. Vatanparast, H.	Healthy Start, a comprehensive model of public health intervention.		Oral presentation	Healthy Start/Depart Santé Symposium, January 2017
42. Abobakar, L., Vatanparast, H., Leis, A., Froelich-Chow, A., Bélanger, M., Engler-Stringer, R., & Ward, S.	How the menus in Saskatchewan child care centers comply with the provincial child care nutrition recommendations.		Poster presentation	Life & Health Sciences Research Exposition, May 2017.
43. Abobakar, L., Vatanparast, H., Leis, A., Froelich-Chow, A., Bélanger, M., Engler-Stringer, R., & Ward, S.	Evaluation of Menus Planned in Saskatchewan Childcare Centres.		Oral presentation	Child Health Research Trainee, March 2017
44. Abobakar, L., Vatanparast, H., Leis, A., Froelich-Chow, A., Bélanger, M., Engler-Stringer, R., & Ward, S.	Evaluation of the impact of Healthy Start/Départ Santé intervention on improving the menu planning practices in Saskatchewan childcare centres.		Poster Presentation	Prevention Matters 2017 Standing Together for Children's Health Conference. March 2017

Appendix F: HSDS Fact Sheet for Parents

Healthy Start for Parents

What is Healthy Start?

Healthy Start aims to increase healthy eating and physical activity opportunities in early learning settings, including childcare centres and prekindergarten programs. Healthy Start provides resources, training and tools for directors, school principals, educators, cooks and families.

Healthy Start for Families

As your child's first teacher, you play an important role in encouraging active play and healthy eating at home. You set the foundation for a lifetime of health for your child!

What are the benefits of Healthy Start?

- Ideas that encourage active play and healthy eating at home
- **LEAP**™ (**L**iteracy, **E**ducation, **A**ctivity, and **P**lay) ***Activity Cards*** for families so you can connect at-home habits to centre's teachings
- Advice for incorporating a variety of foods in your meals
- Tips for picky eaters
- **Healthy Start@Home**: information, newsletters and social media from our website to keep you connected
- A drop-in **"Family Fun Festival"** at the end of the project to see what your child can do!

Together let's make a *difference* in children's lives!

For more information, please contact the Healthy Start team!

306-653-7454 or 1-855-653-7454
info@healthystartkids.ca
www.healthystartkids.ca

Appendix G: HSDS Fact Sheet for Cooks

Healthy Start for Cooks

What is Healthy Start?

Healthy Start aims to increase healthy eating and physical activity opportunities in early learning settings, including childcare centres and prekindergarten programs. Healthy Start provides resources, training and tools for directors, school principals, educators, cooks and families.

What is your role in Healthy Start?

As a cook, you are an **integral** part of ensuring children in your centre have access and are offered a healthy variety of foods. With your help, young children can begin forming healthy habits that they will keep with them for the rest of their lives.

What are the benefits of Healthy Start for you?

- Healthy meal and snack ideas
- Kid-tested, dietician-approved recipes
- Tips for feeding picky eaters
- Tips for cooking with food allergies
- Tips for working within a budget
- Ideas for incorporating new foods (i.e. lentils)

Together let's make a *difference* in children's lives!

For more information, please contact the Healthy Start team.

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info@healthystartkids.ca
www.healthystartkids.ca