The Cognitive Kitchen: Evaluation Report

University of Saskatchewan

August 2024

University of Regina | Go far, together.

Dementia Supports in Rural Saskatchewan

Funded in part by the Government of Canada's New Horizons for Seniors Program | Canada

The Dementia Supports in Rural Saskatchewan project team is made up of the Backbone Management Group, the Advisory Committee & Collaborating Organizations.

(from left) Dr. Bonnie Jeffery, Dr. Tom McIntosh, and Dr. Nuelle Novik, researchers with SPHERU, received $3 million in federal funding for their dementia-focused research projects. (Photo by Trevor Hopkin)

Backbone Management Group

Dr. Bonnie Jeffery, PhD, Project Lead
Faculty of Social Work & SPHERU, University of Regina - Saskatoon Campus

Dr. Nuelle Novik, PhD
Faculty of Social Work & SPHERU, University of Regina

Dr. Tom McIntosh, PhD
Faculty of Arts Associate Dean (Research & Graduate Studies), Politics and International Studies & SPHERU, University of Regina

Dr. Akram Mahani, PhD
Johnson Shoyama Graduate School of Public Policy & SPHERU, University of Regina

Evaluation Coordinator

Dr. Nancy Akwen, PhD
SPHERU, University of Regina

Project Coordinator

Sue McGee, BHS & MHA candidate
SPHERU, University of Regina

Research Assistant: John Belay

Acknowledgments

The Saskatchewan Population Health and Evaluation Research Unit (SPHERU) supported the Cognitive Kitchen project through the Dementia Supports in Rural Saskatchewan (DSRS) initiative. The DSRS is a 5-year Collective Impact initiative (2019-2024) funded in part by the Government of Canada's New Horizons for Seniors Program. This evaluation report would not have been possible without the contributions of Dr. Alison Cammer, Julie Beitel of the University of Saskatchewan, and the community members who participated in this project. We would like to acknowledge the Backbone Management Group of the DSRS at the Saskatchewan Population Health and Evaluation Research Unit, University of Regina. This evaluation would not have been possible without their valuable input. We also acknowledge the contributions of SPHERU research assistant John Belay to the data tracking process. Special thanks go to Susan McGee, who formatted and designed the final report.

How to cite this report:
Akwen, N., Jeffery, B., Beitel, J., Cammer, A., Mahani, A., Novik, N., & McIntosh, T. (2024). *The Cognitive Kitchen: Evaluation Report.* Regina, SK: Saskatchewan Population Health and Evaluation Research Unit.

Table of Contents

Glossary

Term	Definition
Collaborating Organizations	Collaborating organizations are diverse stakeholders from different sectors and organizations who come together in a structured and coordinated way to collectively address complex social issues, pooling their resources and expertise to achieve common goals and create lasting positive change for their community.
Collective Impact	Collective impact is a structured approach to collaboration involving different stakeholders working together to address complex social issues.
Dementia	Dementia is a progressive and degenerative neurocognitive health issue characterized by a decline in cognitive functions including memory, language, reasoning, and the ability to perform daily activities.

List of Acronyms

Term	Definition
DSRS	Dementia Supports in Rural Saskatchewan
PLWD	Person(s) Living with Dementia
SCOA	Saskatoon Council on Aging
SPHERU	Saskatchewan Population Health and Evaluation Research Unit

Executive Summary

Background

This report provides an assessment of the Cognitive Kitchen, a project supported by the Dementia Supports in Rural Saskatchewan (DSRS) initiative. DSRS is a five-year (2019-2024) Collective Impact initiative undertaken by the Saskatchewan Population Health and Evaluation Research Unit (SPHERU), University of Regina, and funded in part by the Government of Canada's New Horizons for Seniors Program. The Dementia Supports in Rural Saskatchewan project seeks to improve public awareness of the stigma and social isolation experienced by people living with dementia (PLWD) and their care partners. Through DSRS, SPHERU supported eight collaborating organizations' projects, including the Cognitive Kitchen, led by the project lead at the University of Saskatchewan. The purpose of the project is to provide a supportive social environment for participants living with dementia to learn practical strategies to enhance nutritional and cognitive well-being.

The Cognitive Kitchen engaged older adults (55 years of age and above), and care partners interested in enhancing food literacy skills and learning about dementia and nutrition risk reduction strategies for prevention. A registered dietitian managed and delivered the project supported by Dr. Allison Cammer in the College of Pharmacy and Nutrition at the University of Saskatchewan. The project team implemented 13 offerings of the program consisting of in-person and virtual sessions delivered weekly in different communities. The project commenced with recruitment and pre-screening activities to identify current food literacy levels, health conditions, and living contexts of participants to tailor the program delivery to the specific needs of participant groups. The program components combined evidence-based dietary patterns of risk reduction of dementia and social engagement to improve food literacy skills, healthy eating strategies and social connection.

Evaluation

The research team at SPHERU conducted an outcome evaluation of the Cognitive Kitchen project to assess progress on objectives and outcomes. The evaluation process involved analysis of data collected through document reviews including summaries of participants' digital journal entries, summary of 36 interviews with participants, meeting records, bi-annual and program completion outcome reports.

Findings

The main objective of the program was to provide a supportive social environment for older adults and care partners of persons living with dementia to learn practical strategies to enhance nutritional and cognitive well-being.

The Cognitive Kitchen delivered 13 offerings of the program consisting of 80 sessions with approximately 100 older adults and care partners of people living with dementia in Yorkton and 20 rural communities during the project period from June 2023 to July 2024. Throughout these delivered sessions, a registered dietitian introduced simple, cost-effective strategies to add nutrition to participants' eating routines. The project also provided workbooks with summary information related to each session and multiple corresponding recipes to the participants from the various communities involved. These participants explored practical ways to facilitate simple and nutritious meal preparations, including effective use of frozen vegetables and storage of ingredients. Interest exceeded program capacity in some communities, and participants expressed a desire for the facilitators to organize other sessions to permit more exploration of the recipes and to support further engagement with peers.

We evaluated the impact of the Cognitive Kitchen project by assessing the key performance indicators for short-term, intermediate, and long-term outcomes. Regarding short-term outcomes, we examined the target population's access to the project's services and their level of interaction with the intervention. Over 72% of the participants who expressed interest during the recruitment process were able to participate in the 80 sessions that were organized. There was strong engagement with the programs because participants were enthusiastic about enhancing their food skills and connecting with others. Several participants reported that the

Cognitive Kitchen session was one of their only weekly activities and were often curious about the recipes that the dietitian had planned for each session. Others were so enthusiastic about the program that they still joined the virtual sessions when they travelled out of the province. Though there was a higher demand for in-person programs, the virtual program participants enjoyed the comfort of being able to use their own kitchens and observed that the virtual sessions were equally productive.

With regard to intermediate outcomes, participants' feedback indicates that the Cognitive Kitchen program contributed to improved awareness through nutrition education, reduced stigma via engagement in the group sessions and meal preparations, and increased nutrition-related supports for care partners and persons living with dementia. The educational content of the program focused on several themes that inspired recipe selections and provoked discussions among participants about food-related subjects, including label reading, non-sugar sweeteners, food processing, and the use of probiotics. Participants observed that the food literacy content of the programs created an environment that enhanced their awareness, and the skills needed to be proactive about their cognitive well-being. They incorporated risk reduction strategies learned during the programs and demonstrated awareness of brain health dietary patterns by setting goals to integrate more high-fibre foods and plant-based proteins into their meals. Some groups demonstrated the importance of eating with others, and both in-person and virtual program participants opted to share the meals prepared during sessions with their in-person peers or via Zoom. It was apparent that socializing with peers is essential for reducing the stigma against cognitive aging and dementia. Participants interacted with persons living with dementia and care partners were delighted to see their loved ones relating with other group members.

The Cognitive Kitchen team developed resources to ensure the sustained application of its concepts regarding nutrition and cognitive well-being. Firstly, existing funding from other sources will cover some additional virtual programming for the remainder of 2024 while the project team explores other funding avenues for future programming. Secondly, three handouts were developed for care partners to explore program concepts and recipes without the aid of a facilitator. Throughout the project period, the team liaised with other local organizations,

including other Dementia Supports in Rural Saskatchewan Project collaborating organizations, which generated interest in the Cognitive Kitchen program approach. Healthcare stakeholders, including home care and long-term care staff, recognized the relevance of applying program concepts to dementia care and expressed interest in participating in initiatives to broaden the future Cognitive Kitchen program (e.g., tailor for use with homecare staff supporting clients living with dementia, adapt for LTC settings).

The key challenge that emerged during the implementation and delivery of the Cognitive Kitchen was low participant numbers at the initial stages of the project. While this did not significantly affect the program outcomes, it highlights lessons about the most effective advertising method for similar initiatives. In-person community events and word of mouth appeared to be the most effective advertising method for the program.

Overall, participants demonstrated satisfaction and commitment to the programs delivered by this project. Project facilitators tailored the programs to augment the eating patterns of older adults, care partners and people living with dementia by expanding nutritious options that could be added to daily meals. This strategy resonated with participants who felt that the program promoted cooking as a health activity versus a task to be completed and enhanced their well-being without constraining food preferences and eliminating treats. There was a general consensus that the program strengthened participants' food literacy knowledge and skills and promoted cooking as a meaningful daily activity that improves well-being. Beyond empowering older adults and care partners to incorporate healthy eating strategies that support nutrition and cognitive well-being, the project fostered socialization by providing space for participants to share other life experiences. This strategy created an atmosphere for participants to establish connections with other community members that continued beyond the program. Lessons learned from the project highlight the importance of maximizing social interaction during in-person or virtual delivery. Moreover, developing Cognitive Kitchen initiatives requires skillfulness to create and manage content that embeds diverse cultural and rural preferences.

Introduction

Saskatchewan has approximately 1.2 million residents, with about 33% living in rural areas. In 2020, the province also had approximately 17,500 individuals living with dementia with this projected to increase to 42,300 by 2050 (Alzheimer Society of Canada, 2022). It is projected that 62% of Canadians with dementia will be living in their own homes (Alzheimer Society of Canada, 2010).

Older adults residing in small cities and rural areas often face unique barriers to accessing dementia care and services, including accessible facilities. The absence of sufficient services supporting persons living with dementia (PLWD) in rural Saskatchewan may decrease social inclusion and affect the well-being of older adults with dementia and their care partners. The Dementia Supports in Rural Saskatchewan (DSRS) is a five-year collective impact initiative undertaken by the Saskatchewan Population Health Evaluation and Research Unit (SPHERU) and funded in part by the Government of Canada's New Horizons for Seniors Program. The project focuses on improving the public's awareness of the stigma and social isolation experienced by persons living with dementia and their care partners. SPHERU collaborates with provincial and local organizations to design and implement individual, community, and organizational level interventions that enhance the social inclusion of older adults with dementia living in small towns and rural communities in Saskatchewan.

The project aims to achieve the following objectives:

1. To improve the feeling of social inclusion of older adults with dementia and their care partners residing in Yorkton and surrounding rural areas (individual programs)
2. To improve public awareness about dementia (community programs)
3. To reduce the level of public stigma about dementia (community programs)
4. To improve support for customers, clients, and employees who are living with dementia or their care partners residing in Yorkton and surrounding areas (organizational programs)

The DSRS has funded eight collaborating organizations' (COs) programs to address these objectives. The Cognitive Kitchen is one of the projects supported by the DSRS collective impact initiative.

The main objective of the Cognitive Kitchen project is to deliver a high-quality, evidence-based nutrition program to empower community-dwelling older adults and care partners of persons with dementia to:

- Learn about and adopt nutrition-related risk reduction strategies to prevent or delay the progression of cognitive impairment and enhance health and well-being
- Develop or enhance food literacy knowledge and skills to promote health and/or aid in caregiving activities (increased ability to procure, plan, and prepare foods that are nourishing, appropriate, and pleasurable)
- Engage in socialization and peer support
- Reduce stigma against cognitive aging and dementia

Project Activities

The Cognitive Kitchen engages older adults (55 years of age and above), and care partners interested in enhancing food literacy skills and learning about dementia and nutrition risk reduction strategies for prevention. The program combined evidence-based dietary patterns of risk reduction of dementia and social engagement to improve food literacy skills, healthy eating strategies and social connection. A registered dietitian managed and delivered the program supported by the project lead in the College of Pharmacy and Nutrition at the University of Saskatchewan. The project team developed 13 offerings of the program comprised of both in-person and virtual sessions delivered weekly in Yorkton and surrounding rural communities. The project commenced with recruitment and pre-screening activities to identify current food literacy levels, health conditions, and the living context of participants to tailor the program to the specific needs of participant groups. Sites for in-person delivery were determined and booked based on participants' interests. The registered dietitian organized in-person and virtual sessions with mixed groups of older adults and care partners for persons living with dementia. The virtual

meetings included pre-sessions to coordinate technology set-up to enhance virtual delivery. All program sessions included educational, food preparation, and socialization components. Participants received a program workbook with dietary strategies, affordable recipes, and suggestions adapted to suit local food preferences.

Evaluation

The SPHERU team is conducting two distinct types of evaluation during the collective impact initiative. The **process** evaluation examines the socio-cultural, organizational, and external factors that have shaped and influenced the design and implementation of the DSRS collective impact project in Yorkton and surrounding rural areas. The **outcome** evaluation examines the short-term, intermediate, and long-term impact of single CO projects. This report presents the findings of the outcome evaluation for the Cognitive Kitchen Project.

Methods

The outcome evaluation, conducted between March and June 2024, assessed the short-term, intermediate, and long-term outcomes of the project. We collected data through document reviews. The documents reviewed include summaries of participants' digital journal entries, 36 interviews,[1] meeting records, bi-annual and program completion outcome reports. We examined the key performance indicators that reflected the achievement of short-term, intermediate, and long-term outcomes. The subsequent sections present key findings from the evaluation related to progress made in achieving the project's objectives and outcomes.

Findings

Project Objectives

The main objective of the program was to provide a supportive social environment for older adults and care partners of persons living with dementia to learn practical strategies to enhance

[1] These interviews were conducted throughout the project by a trained research staff member who was not involved in Cognitive Kitchen program delivery. The findings, digital journal entries, and field notes were compiled as part of the evaluation data.

nutritional and cognitive well-being. Activities were tailored to meet specific objectives throughout the project period. The information analyzed indicates that the Cognitive Kitchen program achieved its primary objectives.

The project delivered 13 offerings of the program consisting of 80 sessions (39 in-person and 41 virtual) from June 2023 to July 2024. One hundred older adults and care partners of people living with dementia from Yorkton and 20 rural communities participated in these sessions. Throughout these programs, the registered dietitian introduced simple, cost-effective strategies to add nutrition to participants' usual eating patterns. Workbooks with summary information related to each session and multiple corresponding additional recipes were also distributed to participants either at the initial session (in-person programs) or via mail (virtual programs). They explored new ways to prepare simple, nutritious meals to support their health and well-being. It was observed that while participants generally appreciated new recipes that required readily available ingredients, they were also inspired to explore new areas of grocery stores to purchase and use new ingredients. The project team reported that several Cognitive Kitchen participants eventually prepared many of the additional recipes in their workbooks. Hence, participants gained practical ways to facilitate meal preparations, including effective use of frozen vegetables and storage of ingredients.

Participants shared during post-program interviews that the sessions provided learning and social opportunities for them. The sessions provided opportunities to learn from the creative abilities of their peers. They also valued the social cooking environment, which enabled them to connect with other families. The project team intended to deliver separate in-person programs for adults 55+ and care partners of people living with dementia. However, during the initial offerings, a caregiver requested to participate in the adults 55+ group, which prompted the team to reflect and reconsider the reasons for the distinct grouping. Also, there were fewer caregivers in some communities, which led the team to organize combined programs for adults aged 55 and up, caregivers and people living with dementia. It was observed that this setup enhanced greater social inclusion of people living with dementia. Participants often arrived earlier prior to the session start and engaged with each group member. Care partners and participants living with

dementia expressed that they looked forward to the weekly sessions because they enjoyed having regular activities in their schedules. Four sets of participants drove over 45 minutes weekly to attend the sessions, while others indicated their willingness to pay to be part of such programs.

Table 1: Population Size by Number of Communities (virtual and in-person delivery)

Population Size	Number of Communities
Less than 1,000	10*
1,000 - 5,000	8**
Over 5,000	3***

*Amsterdam, Buchanan, Craven, Danbury, Dunleath, Eatonia, Manitou Beach, Stewart Valley, Stockholm, Sturgis

**Canora, Carlyle, Esterhazy, Foam Lake, Kelvington, Langham, Preeceville, Saltcoats

***North Battleford, Prince Albert, Yorkton

Project Outcomes

Short-Term Outcomes: Reach and Engagement

In the context of this project, reach and engagement relate to the target population that accessed the project's services and their level of interaction with the intervention.

Primarily, the project team envisioned recruiting groups of older adults (55+), caregivers, and people living with dementia to participate consistently in the in-person and virtual sessions planned for Yorkton and surrounding communities. The program was advertised via pamphlets and distributed at farmers' markets, local organizations, social media, radio interviews, and other DSRS projects, including the SaskAbilities Dementia Friendly Life Enrichment program and the Alzheimer Society of Saskatchewan. The Cognitive Kitchen team collaborated with the Alzheimer Society of Saskatchewan to host a community conversation and presentation on nutrition and dementia risk reduction in addition to virtual advertisements and descriptions of the

program/recruitment materials in their virtual newsletters and social media updates. The Saskatoon Council on Aging (SCOA) promoted Cognitive Kitchen programs via social media and e-news blasts. RaDAR also promoted the Cognitive Kitchen through an article and recruitment materials shared in virtual newsletters and distributed via their social media channels. Over 72% of the participants who expressed interest during the intake survey and in-person engagements were able to participate in the 80 sessions that were organized. Interest exceeded program capacity in some communities, and participants expressed a desire for the facilitators to organize other sessions to permit more exploration of the recipes and engagement with peers. Though there was a higher demand for the in-person programs, the older adults or care partners who engaged in the virtual programs enjoyed the comfort of being able to use their own kitchens and were often surprised that the virtual setting was equally productive.

There was strong engagement with the programs because participants were enthusiastic about enhancing their food skills and connecting with others. Several participants mentioned that the cooking program was one of their only weekly activities, and they were often curious about the recipes that the dietitian had planned for each session.

Others were so keen about the program that they joined the virtual sessions even when they travelled out of the province, while some virtual program participants declined reimbursement for meal expenses that were covered by the Cognitive Kitchen program. Facilitators reported that some participants stayed after the in-person classes to converse with their colleagues and help facilitators with clean up. Overall, participants demonstrated satisfaction and commitment to the programs delivered by the Cognitive Kitchen.

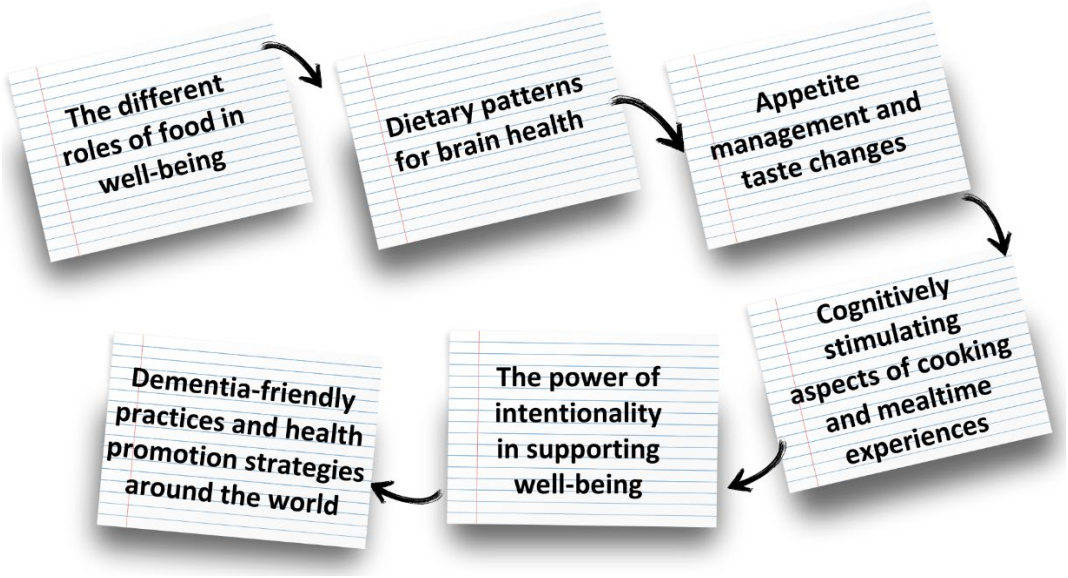
Intermediate Outcomes: Effectiveness

In the context of this project, effectiveness as an outcome highlights the impact of the 13 offerings of the program on enhancing public awareness through nutrition education, reducing stigma via engagement in meal preparations, and improving nutrition-related supports for care partners and persons living with dementia.

Food Literacy Knowledge and Cognitive Wellbeing

The educational content of the programs focused on several themes that were the basis for recipe selection and that provoked discussions amongst participants. They were keen to obtain more details on food-related subjects, including label-reading, non-sugar sweeteners, food processing and the use of probiotics. The older adult participants shared that the programs created an environment that enhanced their awareness and the skills needed to be proactive about their health.

Figure 2: Educational Content Themes for Cognitive Kitchen



Incorporation of risk reduction practices

Feedback from journal entries and interviews indicated that participants incorporated the risk-reduction strategies they had learned during the programs. They demonstrated awareness of brain health dietary patterns by setting goals to incorporate more high-fibre foods and plant-based proteins in their meals. Others reiterated the importance of eating with others; some program participants opted to dine together with their group members during on-site and virtual sessions. Participants appeared to embrace the Cognitive Kitchen approach that promoted cooking as a health activity versus a task to be completed. This inspired many participants to devise strategies including cooking with others to continually enjoy their meal preparation experience.

Trying new recipes

The project team usually started in-person and virtual classes with 'check-in' activities, which allowed group members to provide feedback on their application of food literacy skills. Facilitators noted that at least 1-2 participants in each group tried new recipes from the workbook between weekly sessions. Participants also shared adjustments and new ideas they had explored during meal preparations. A Cognitive Kitchen team member concurred, remarking that "*even lifelong cooks have shared they learn something new and exciting each week*." Some of the new changes included buying new spices introduced in the classes and testing lentils and other pulse-based dishes.

Increase in reported food agency skills

Participants reported increased confidence in their food skills and knowledge because they were more convinced about preparing food in different ways and experiencing different tastes and textures of new foods. Others were more comfortable using new and easier or safer chopping methods for vegetables and fruits.

Reducing stigma and improving social inclusion

It was noted that socializing with peers is essential for reducing stigma against cognitive aging and dementia. The weekly check-ins at the beginning of each session inspired participants to share other life experiences, including events that took place in between the weekly sessions. It was observed that participants generally engaged with persons living with dementia, while care partners were delighted to see their loved ones interacting with other group members. Some care partners used this time to discuss their caregiving experiences. A community member observed that they appreciated seeing one of the participants back in the community following their dementia diagnosis. During one of the programs, a person living with dementia appreciated the facilitators for the opportunity to be part of the program.

Long-Term Outcomes: Sustainability and Transferability

The key factors examined under sustainability and transferability relate to strategies adopted to preserve nutrition-related risk reduction practices, health-promoting practices, and the

indicators that demonstrate the capacity for Cognitive Kitchen programs to be implemented in another context.

By the end of the SPHERU-supported Dementia Supports in Rural Saskatchewan phase of the program project (July 2024), there were indications that participants planned to continue implementing program ideas on a smaller scale. Participants' journal entries and interview feedback showed that they planned to continue the program using the workbook. Some participants also made inquiries about purchasing additional copies of the workbook to share with friends and other groups in their communities. A group of former participants continually met on Zoom to plan and cook together, simulating the cognitive kitchen structure. Existing funding from other sources will cover some virtual programming for the remainder of 2024 while the project team explores other funding for future programming.

Concerning transferability, the project team developed resources that highlight program structure and application of concepts. Three handouts were developed for care partners with details that would enable care partners to explore program concepts without the aid of a facilitator. Throughout the project period, the team liaised with other local organizations, including other Dementia Supports in Rural Saskatchewan Project collaborating organizations, which generated interest in the Cognitive Kitchen program approach. Healthcare stakeholders, including home care and long-term care staff, recognized the relevance of applying program concepts to dementia care and expressed interest in participating in initiatives to broaden the future Cognitive Kitchen program (e.g., tailor for use with homecare staff supporting clients living with dementia, adapt for LTC settings).

Challenges

The key challenge that emerged during the implementation and delivery of the Cognitive Kitchen was low participant numbers at the initial stages of the project. While this did not significantly affect the program outcomes, it highlights lessons learned that would be relevant for similar projects.

The project team observed that it was challenging to connect and generate interest among the caregiver community for the in-person and virtual sessions. The in-person cooking sessions required several preparatory steps, including setting up and taking down equipment. Hence, it was not practical to have separate programs as planned because the caregiver and PLWD groups in some communities did not meet the minimum (6) in-person program capacity. Nonetheless, the number of participants increased as the project team liaised with other Dementia Supports in Rural Saskatchewan Project collaborating organizations to advertise the program in communities.

Lessons Learned

- In-person community events and liaising with other stakeholders appeared to be the most effective advertising method. While some participants reported that they were informed about the program through Facebook, only one participant recalled having heard about the Cognitive Kitchen on radio even though there were 100 30-second radio advertisements and 2 radio interviews.
- Caregivers were keen about social inclusion. The Cognitive Kitchen programs were originally designed to have separate sessions with older adults (55+) and caregivers and people living with dementia. However, caregivers reported that the combined sessions provided a space to connect with their peers on the same journey.
- It is vital to allocate time for conversations about other aspects of life beyond meal preparation. The weekly check-in introduced by the project team encouraged participants to share other events that took place in between the cooking sessions. Caregivers used this time to discuss their caregiving experiences.

In-person programs

- Introducing new recipes requires skillfulness in seasoning food to cater to varied participants' preferences. Within the in-person sessions, the dietitian had to create the right balance and level of seasoning for the group (e.g., attending to individuals who preferred less seasoning or individuals who consumed less salt while maximizing flavors for recipes with ingredients participants were not accustomed to). Participants were

encouraged to adjust recipes according to their preferences during meal preparation at home.

- It was more feasible to facilitate in-person sessions to maximize social interaction among participants during food preparation. However, this is balanced with considerations of affordability and accessibility as virtual programs did not accrue the cost of rental space with commercial kitchen standards, nor be subject to the scheduling constraints of rental facilities.
- In-person host sites equipped with a commercial dishwasher enable easier tidying up and improve food safety. Not all host sites were equipped with these, so items had to be transported elsewhere for cleaning.

Virtual programs

- Though participant numbers for virtual delivery sessions tended to be smaller (4-6), this was beneficial for this context because participants could remain unmuted without affecting the flow of conversations.

Conclusion

Overall, participants demonstrated satisfaction and commitment to the programs delivered by the Cognitive Kitchen program. The 13 program offerings were tailored to augment the eating patterns of older adults, care partners and people living with dementia by expanding nutritious options that could be added to daily meals. This strategy resonated with participants who felt that the sessions promoted cooking as a health activity versus a task to be completed and enhanced their well-being without constraining food preferences or eliminating treats. The 13 program offerings strengthened participants' food literacy knowledge and skills and boosted their enthusiasm for cooking. This was evident in participants' incorporation of risk reduction practices in their routines, sharing recipes and skills with others and provision of feedback, which led to an improved version of the program workbook. Beyond empowering older adults and caregivers to incorporate healthy eating strategies that support nutrition and cognitive well-being, the Cognitive Kitchen sessions fostered socialization by providing space for participants to share both nutrition-related experiences and other life experiences. This approach created an

atmosphere for participants to establish connections with other community members, which continued beyond the project. Lessons learned from the project highlight the importance of maximizing social interaction during in-person or virtual delivery. Moreover, developing Cognitive Kitchen initiatives requires skillfulness to create and manage content that embeds diverse cultural and rural preferences.

References

Alzheimer Society of Canada (2022). *Navigating the path forward for Canada: The landmark study.* Toronto, Ontario.

Alzheimer Society of Canada (2010). *Rising tide: The impact of dementia on Canadian Society.* Toronto, Ontario.

Appendix A: Overview of Key Performance Indicators & Data Collection Methods

Measurement	Key Performance Indicators/Evaluation Questions	Data Collection Method
Reach: Number from target population who participate in the program	**1) # of participants interested in each stream (i.e., CK-OA, CK-CP)**	Intake survey data, emails, sign-up sheets from in-person engagement sessions (all recorded in "recruitment tracking" tab)
	2) # of participants registered in each offering (i.e., CK-OA, CK-CP)	Recording in CK program administration spreadsheet
	Communities reached	Intake survey data
	Distance travelled to deliver programs	Fieldnotes
Engagement: Participation, acceptability, uptake	**1) % of registered participants in attendance at each of the 6 sessions**	Fieldnotes (total in attendance and total expected)
	2) % of participants who have discontinued the program by the end of 6 sessions	Fieldnotes
	3) % of participants who attend 3+ sessions	Fieldnotes/individual attendance tracking
	4) Do participants seem engaged throughout the program?	Fieldnotes, digital journal entries, post-program interviews
Effectiveness: Impact of the program on knowledge (e.g., enhancing public awareness, nutrition education), behaviour	**1) Do participants demonstrate that they are incorporating risk reduction practices learned in the program? (e.g., choosing ingredients based on the "MIND" dietary pattern, gathering with others to cook and eat)**	Digital journal entries, fieldnotes (e.g., discussion points)

(e.g., reducing stigma, engaging in meal preparation), and practice (e.g., improving nutrition-related supports for care partners and PLWD)	**2) Do participants report trying new recipes in the weeks between sessions?**	Digital journal entries, fieldnotes (e.g., discussion points)
	3) Is the content suitable for the knowledge needs of the target audience? (e.g., what kinds of questions are frequently coming up?)	Digital journal entries, fieldnotes
	4) Is there an increase in reported food agency skills among participants resulting from their participation in the program?	Post-program interviews
	5) Do participants report increased confidence in their food skills and knowledge after participating in the program?	Post-program interviews
	6) Do participants report decreased loneliness following participation in the program?	Post-program interviews
Sustainability: Degree to which the program is continuously used, normalized, and incorporated into public behaviour	**1) # of participants who register in another offering of the program**	Tracking
	2) # of participants who contact the RD for support after the program	Tracking
	3) Do participants express plans to continue using the program workbook?	Post-program interviews
	4) Do participants share goals related to continued engagement in health-promoting practices?	Digital journal entries, post-program interviews
Transferability: Extent to which the intervention/program could be effectively implemented in another setting/context	**1) Can materials be developed for use without a Cognitive Kitchen facilitator?**	Trial materials developed for care partners who are unable to attend the program.
	2) Is the program suitable for people living with dementia to attend?	Fieldnotes from sessions attended by PLWD

Appendix B: Semi-Structured Interview Guide – CK-OA (Virtual)

Introductory Question: I'd like to start off with your overall impressions of the program. How would you describe your experience in the Cognitive Kitchen?

1) Could you share some aspects of the program you enjoyed? What did you not enjoy, or what would you change?
2) Thinking back to before the program, how did the Cognitive Kitchen turn out to be similar or different from what you expected?
3) How did you feel about the time commitment to the program?
4) If an in-person program was available in your area, which format do you think you would select and why?
5) How did you find the experience of gathering your ingredients and supplies for the virtual program?
6) Next, I want to talk about what you learned in the program. What were your biggest takeaway messages?
7) Did you have any health or nutrition-related goals in mind going into the program?
    a. Have you made any goals resulting from anything you learned?
8) Going into the program, how would you have described your relationship with cooking?
    a. What do you enjoy about cooking? OR
    b. What do you not enjoy?
9) Could you tell me about your experience with the community kitchen aspect of the program – cooking alongside others?
    a. What did you like?
    b. What could be changed?
10) How did you feel about the social experience overall?
    a. Did any discussions with other participants stand out to you? Did anyone share anything particularly memorable to you?
    b. Did you feel you were able to contribute what you wanted to discussions?
    c. What helped or prevented you from participating in discussions?
    d. What do you think could be done differently to enhance interactions in the virtual setting?
11) Were there any topics you wished you would have talked about as a group?
12) Did you encounter any technical challenges during the virtual class?
    a. If so, how did that affect the experience for you?
    b. If not, what do you think helped the experience to run smoothly?
    c. Could you describe how you set up your environment for the virtual sessions? For example, what device or devices did you use to connect your audio and video and how did you set them up while cooking along?
13) Have you participated in similar groups to the Cognitive Kitchen before, either in-person or online?

a. If so, how were these groups similar or different?
b. Are there any features of these groups that could be applied to the Cognitive Kitchen?

14) Wrapping up, is there anything you else you wanted to *learn* about in the program, but didn't? Are there any kinds of recipes or ingredients you would be interested in preparing with others?

Final Questions

15) Do you have any additions, changes, or comments to add to your previous responses?
16) Is there anything else you would like me to know about your experience?

Appendix C: Semi-Structured Interview Guide – CK-OA/CK-CP-OA (In person)

Introductory Question: I'd like to start off with your overall impressions of the program. How would you describe your experience in the Cognitive Kitchen?

1) What aspects of the program did you enjoy? What did you not enjoy, or what would you change?
2) How did you feel about the time commitment to the program? e.g., two-hour sessions
3) Thinking back to before the program, how did the Cognitive Kitchen turn out to be similar or different from what you expected?
    a. How did you feel about the quantities of food prepared in class?
4) Next, I want to talk about what you learned in the program. What were your biggest takeaway messages?
5) Did you have any nutrition-related goals in mind going into the program?
    a. Have you made any goals resulting from anything you learned?
6) Going into the program, remind me, how would you have described your relationship with cooking? What do you enjoy about cooking? What do you not enjoy?
7) Could you tell me more about your experience with the community kitchen aspect of the program? What did you like? What could be changed?
    a. Would you prefer more divided stations, or walking through the steps of each recipe mostly together?
    b. Did you prefer more hands-on or more demonstration style?
8) How do you feel about cooking now, after the program?
9) Have you participated in similar groups to the Cognitive Kitchen before, either in-person or online?
    a. If so, how were these groups similar or different?
    b. Are there any features of these groups that could be applied to the Cognitive Kitchen?
10) How did you feel about the group setting overall? Did you feel connected to other participants?
11) Did any discussions with other participants stand out to you? Did anyone share anything particularly memorable to you?
12) Did you feel you were able to contribute what you wanted to discussions? What helped or prevented you from participating in discussions?
13) Were there any topics you wished we would have talked about as a group?
14) Is there anything you else you wanted to learn about in the program, but didn't? Are there any kinds of recipes or ingredients you would be interested in preparing with others?

Final Questions

15) Do you have any additions, changes, or comments to add to your previous responses?
16) Is there anything else you would like me to know about your experience?

Appendix D: Semi-Structured Interview Guide – CK-CP (Care partners)– revise questions accordingly when PLWD wishes to participate in the interview as well, and for virtual delivery

Introductory Question: I'd like to start off with your overall impressions of the program. How would you describe your experience in the Cognitive Kitchen program?

1) What aspects of the program did you enjoy? What did you not enjoy or what would you change?
    a. How did you feel about the time commitment to the program? e.g., two-hour sessions
2) Thinking back to before the program, how did the program turn out to be similar or different from what you expected?
3) Next, I want to talk about what you learned in the program. What were your biggest takeaway messages?
4) Did you have any health or nutrition-related goals in mind going into the program? Have you made any goals resulting from anything you have learned?
5) Going into the program, how would you describe your relationship with cooking? What do you enjoy about cooking? What do you not enjoy?
6) Could you tell me more about your experience with the community kitchen aspect of the program? What did you like? What could be changed?
7) How do you feel about cooking now, after the program?
8) Have you participated in similar groups to the Cognitive Kitchen before, either in-person or online? If so, how were these groups similar or different?
9) Did you enjoy participating and learning in the group setting? Was the group helpful to you? Did you feel connected to other participants?
10) Which discussions with others were most valuable to you? Did you feel you were able to contribute what you wanted to discussions? What helped or prevented you from participating in discussions?
11) What other topics would you like to learn about related to your experiences with dementia?
12) For future offerings of the Cognitive Kitchen program, is there anything you would suggest to make it more helpful?

Final Questions

17) Do you have any additions, changes, or comments to add to your previous responses?
18) Is there anything else you would like me to know about your experience?