

A laptop is centered in the frame, displaying the title 'THE COGNITIVE KITCHEN' in large, bold, blue capital letters on a white background. The laptop is surrounded by fresh vegetables, including red and yellow bell peppers, tomatoes, and avocados, which are arranged on a light-colored surface. The background is a blurred indoor setting, possibly a kitchen or dining area, with a white table and a potted plant visible.

THE COGNITIVE KITCHEN

The Cognitive Kitchen: A Culinary Health Intervention for
Dementia Risk Reduction and Living Well with Dementia

Allison Cammer, PhD, RD

March 6, 2024



The Cognitive Kitchen – what's on the menu today?

- Introduction
- Codesign process
- Sources of evidence
- Overview of the Program
- Initial Research Findings
- Next Steps



Developing the Cognitive Kitchen

- **Patient-oriented research meetings:** 2018 patient-oriented research(POR) engagement session, fall rural Dementia Summit, additional POR teams
- Poignant stories
- Identified **challenges:**
 - Skills related to food procurement and preparation
 - Knowledge of reputable sources of nutrition information
 - Gap in moving knowledge to action
 - Accessing supportive services while managing care, particularly food and eating
 - Isolation
 - Stigma
- Ideas started to germinate – how could we support persons living with dementia and their care partners in navigating the complex world of nutrition and nutrition (mis)information?

Developing the Cognitive Kitchen

- **Codesign:** researchers/clinicians/persons with lived experience/students
- Strong interest in **nutrition risk reduction** and/or **living well with dementia**, supporting dyad of caregiver-person living with dementia
- Broad Aim: combine evidence-based **dietary patterns**, evidence-based **strategies** (e.g., culinary health interventions, collective kitchens), and other sources of evidence about nutrition and dementia
- Goal: leverage our skills to **develop a program** and resources to support the program

Developing the Cognitive Kitchen

- Development: iterative process
- Considerations: conceptual/evidence-based and practical
 - Diverse needs
 - Varying abilities/foods skills
 - Access/affordability
 - Rural context
 - Who?
- Pandemic



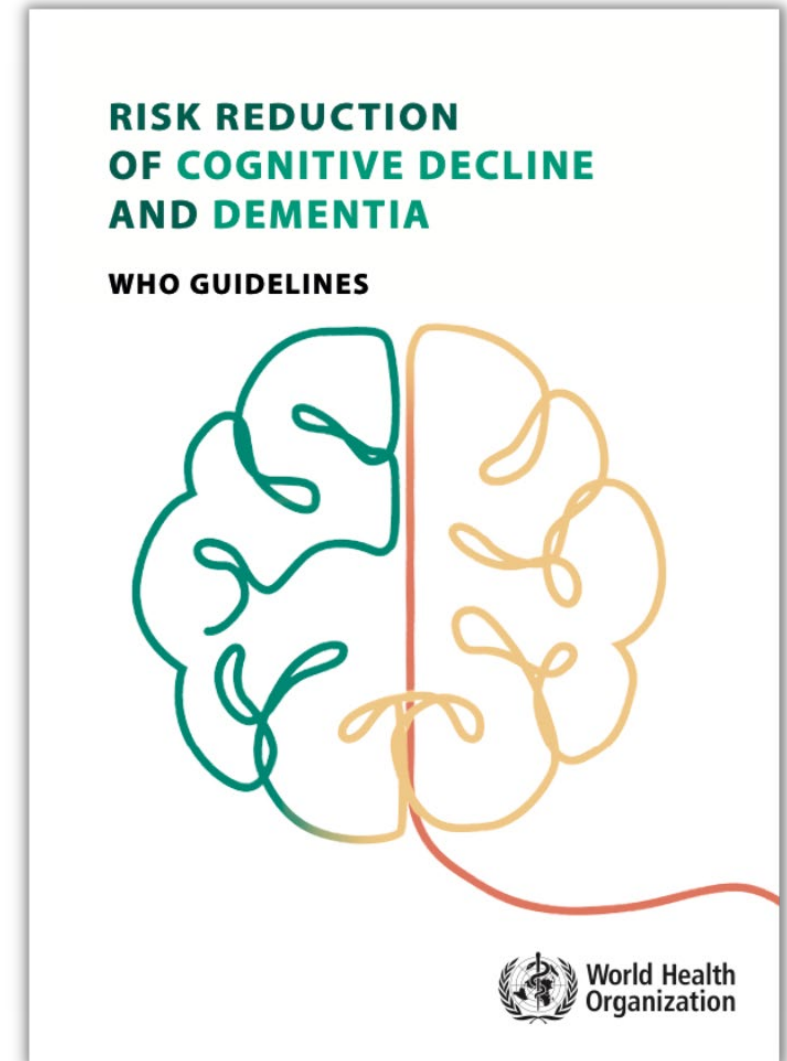
Developing the Cognitive Kitchen

- 4 areas of evidence
 1. Risk Reduction/Living Well
 2. Dietary Patterns
 3. Culinary Health Interventions
 4. Relevant Concepts
 - Food Literacy/Food Agency
 - PERMA model



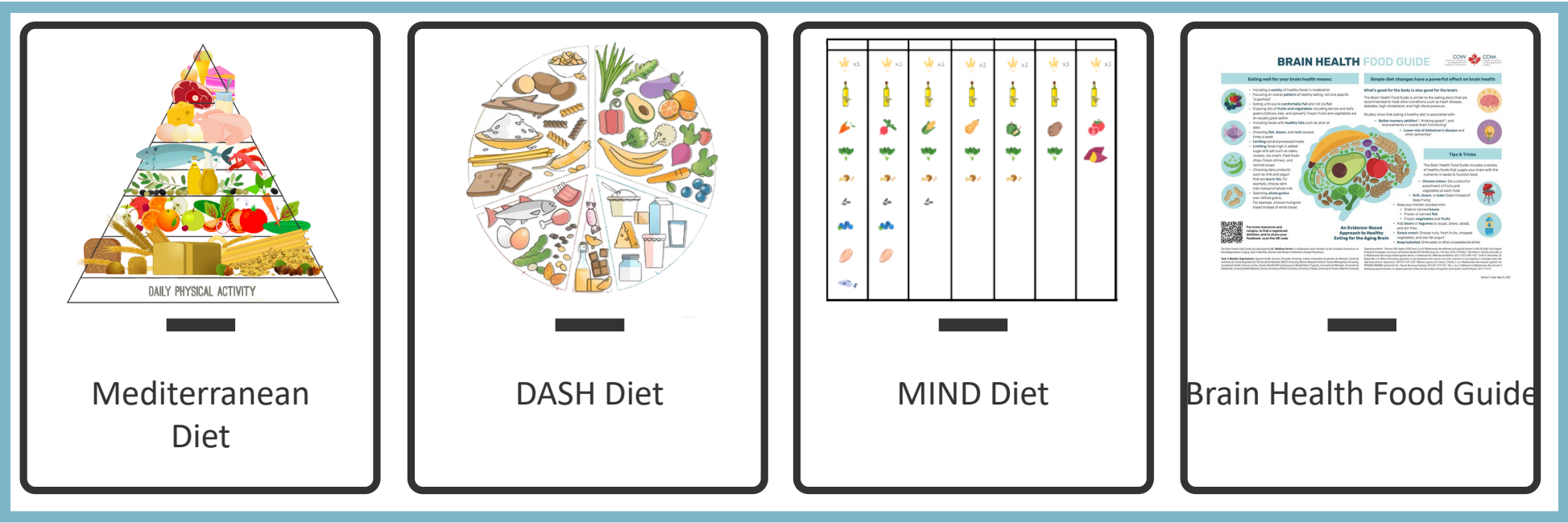
WHO Risk Reduction

- Physical activity
- Tobacco cessation
- Nutritional interventions
- Interventions for alcohol use disorders
- Cognitive interventions
- Social activity
- Weight management
- Management of hypertension
- Management of diabetes
- Management of dyslipidemia
- Management of depression
- Management of hearing loss



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Modifiable risk factors and living well?



Traumatic brain injury

Hearing impairment

Less education

Depression

*Diabetes

Low social contact

*Obesity

Physical inactivity

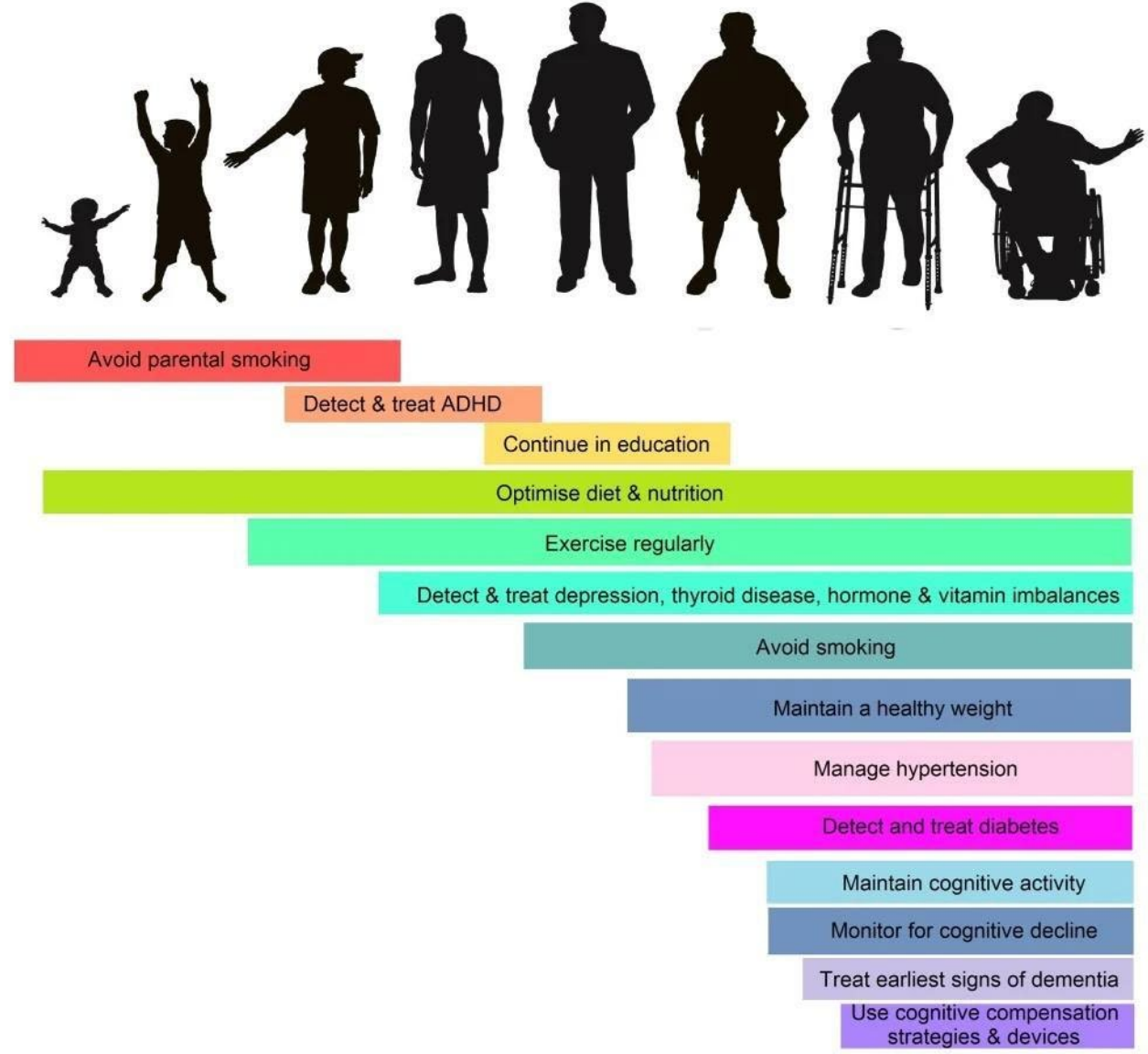
Smoking

Air pollution

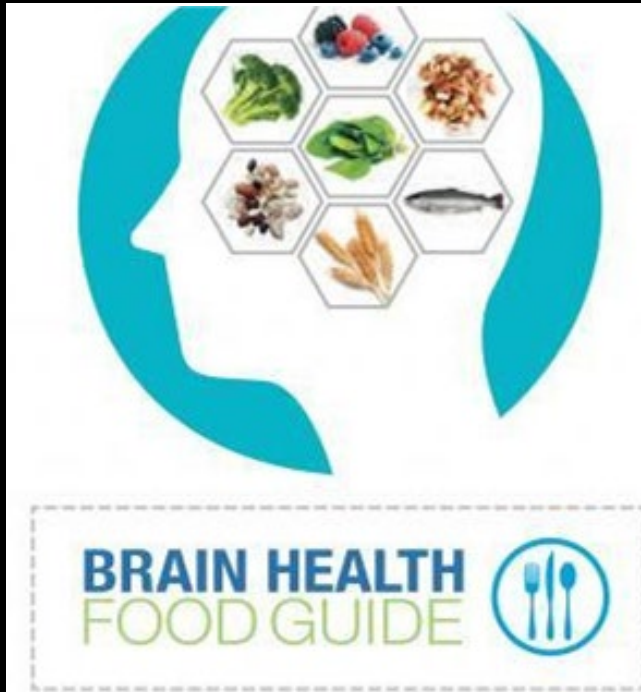
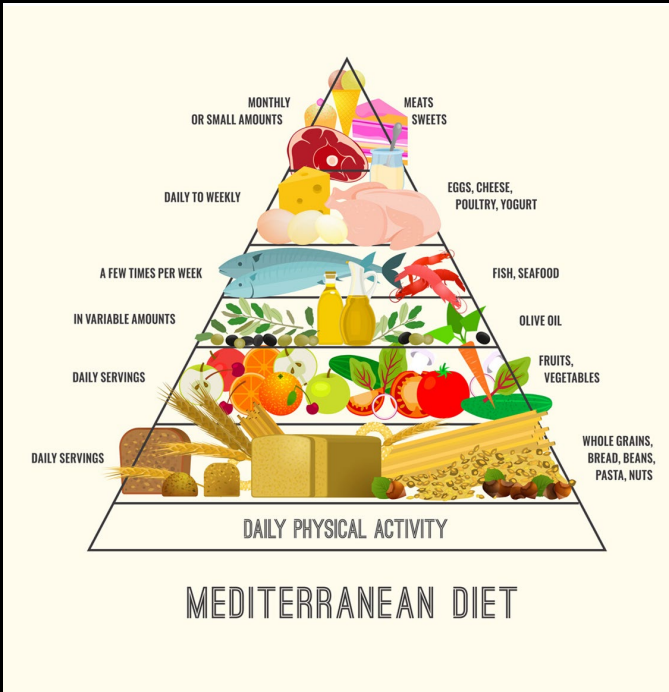
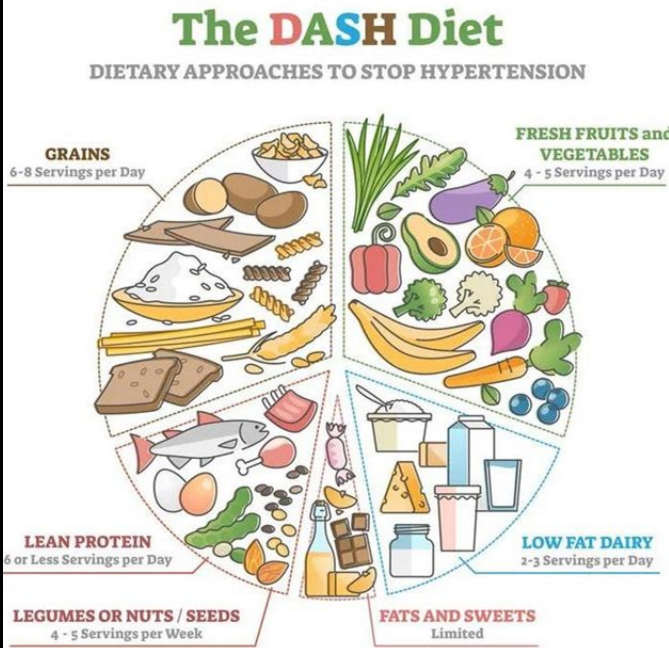
*Hypertension

Excessive alcohol consumption

A Lifespan Perspective



Evidence-based dietary patterns



COMMONALITIES

- Whole grains
- Beans, peas, legumes
- Fruits and vegetables
- Fats from olive oil, nuts, and fish

**Balance and variety*

PROPOSED MECHANISMS (Jennings et al., 2020)

- Gut-brain axis
- Antioxidant effects
- Cardiometabolic factors

3 CULINARY HEALTH INTERVENTIONS



TYPICAL FORMAT

- In-person
- Nutrition education component
- Practical demonstration or group preparation of recipes

Exploring

VIRTUAL DELIVERY

- Potential to reach rural and remote communities
- Interested in motivators and barriers to engagement, and feasibility of the program to meet program objectives

Exploring

PSYCHOSOCIAL BENEFITS OF COOKING

- Previously demonstrated: improved attitude, self-efficacy (Reicks et al., 2014), and socialization (Engler-Stringer & Berenbaum, 2007)
- Socialization → valuable role in dementia prevention/QoL; recommendations in CFGHE



Food literacy is the knowledge, skills, and attitudes necessary to make decisions about food and its impact on personal health.



Food agency describes the ability of people to navigate their unique context and food environments.



Healthy eating involves organizational and cognitive skills to successfully navigate sociocultural and physical food environments.

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RELEVANT CONCEPTS

a) Food Literacy/Agency



(Wolfson et al., 2017;
Wolfson et al., 2020)

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b) PERMA Model

POSITIVE EMOTION

What are motivators for those who view cooking and mealtimes as an **activity for well-being** vs a chore?

ENGAGEMENT

Strategies to get into a state of "flow" while cooking

RELATIONSHIP

Fostering social connections through food

MEANING

Making food-related experiences meaningful

ACHIEVEMENT

Empowering people to apply information to their unique environment

All together now: **The Cognitive Kitchen**

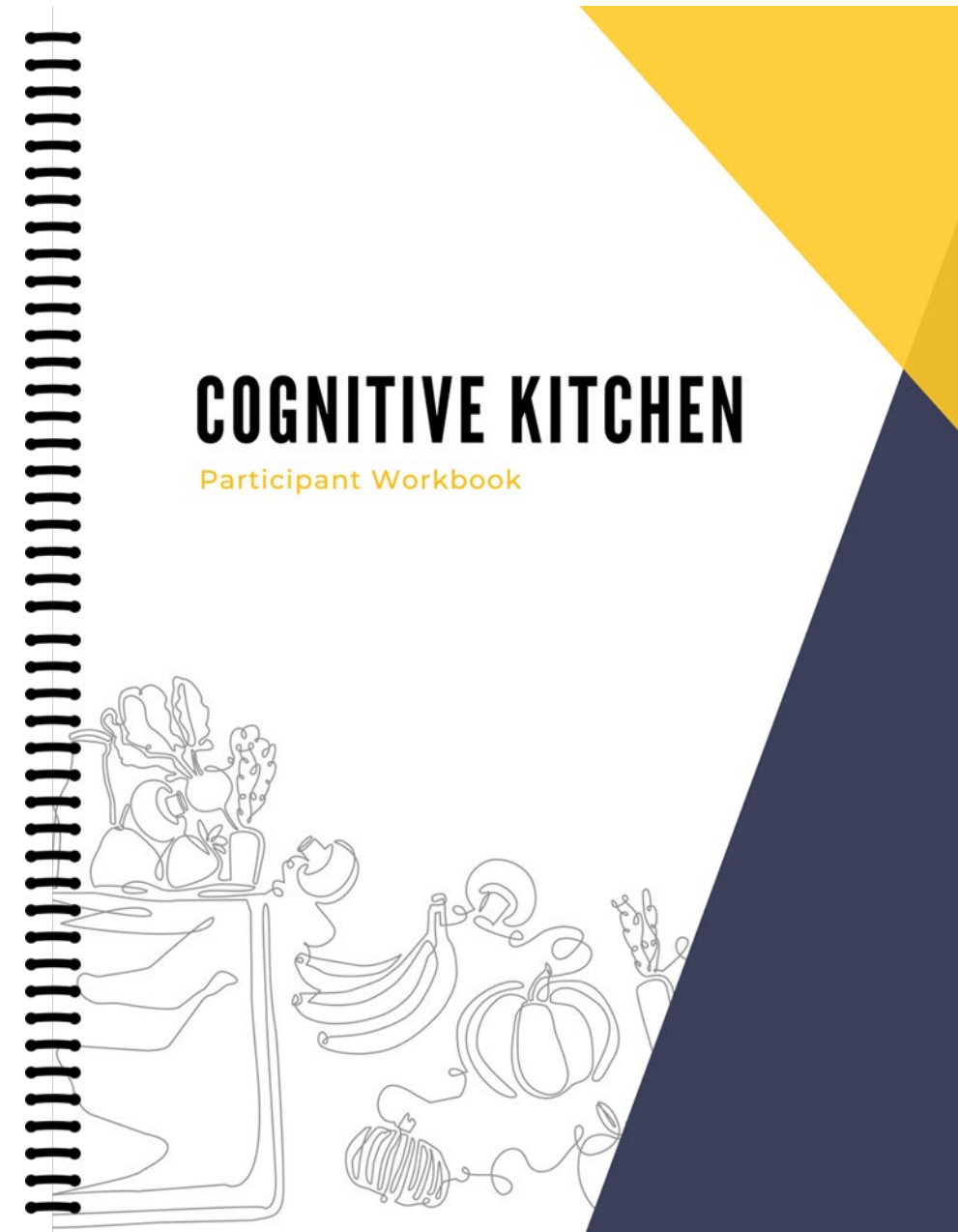
- Risk Reduction/Living well
- Evidence-based dietary patterns and nutrition strategies
- Food Agency/PERMA
- Virtual vs In-person group format

- Plus...
 - Access/Affordability/Ability → overlaid with rural location, dementia
 - Dietary Needs/Preferences/Medical Nutrition Therapies



The Cognitive Kitchen

- 6-week program facilitated by a Registered Dietitian
- Once weekly session ~2 hours
- Each session has a 'theme'
- Each session includes:
 - Overt educational component - delivered
 - Culinary demonstration/participation in cooking (2+ items per week)
 - Covert educational component - modeled
 - Socialization
- Cognitive Kitchen program book; additional resources as needed



The Cognitive Kitchen

- Week 1: Nutritious, Delicious, Connection
- Week 2: Bringing Science to the Table
- Week 3: To Taste
- Week 4: To Share
- Week 5: Minute-Meals and Kitchen Tips
- Week 6: Around the World



Overt Educational Components

- Content corresponding to the week's theme
- Myth-busting
- Food Safety
- Kitchen Safety
- 'Cook Once, Eat Twice'



Culinary Demonstration and Participation

- Two recipes prepared each session
- Culinary Skills
- Adaptation



Socialization

- Icebreaker
- Question of the week
- Prompts and encouragement for participant engagement
- Cooking and eating together



Covert Educational Components

- Cultivating a spirit of adventure with food
- Engagement through cooking and eating
- Good is better than perfect
- Self-compassion
- Health at Every Size approach
- Tailoring to personal preference and context



The Cognitive Kitchen: Program

- Pilot funding through CCNA Team 15



- Program funding through Saskatchewan Population Health Research Unit's Collective Impact study, 'Dementia Supports in Rural SK', funded by PHAC New Horizons in Seniors Health



**Dementia Supports
in Rural Saskatchewan**

The Cognitive Kitchen: Research

- Determine feasibility and acceptability; compare virtual and in-person modes of delivery
- Examine participant experiences and outcomes of participation (knowledge, skill, ability; social connection)
 - Participants complete an intake survey
 - Observational fieldnotes from sessions in each program (RD and RA)
 - Participants invited to complete a weekly virtual 'journal'
 - Participants complete an exit survey
 - Participants invited to participate in a post-program interview



Innovation Grant
2022-23 Recipient

Allison Cammer
University of Saskatchewan



**The Cognitive Kitchen:
An Evidence-Based Nutrition
and Socialization Program for
Rural Caregiver Support**



VIRTUAL CARE
Focus Area

#SHRFsolutions
Total investment: \$49,509

Cognitive Kitchen Programs to date

- Two virtual programs initially piloted; adaptations made to program design and materials
- Four in-person programs completed in rural SK communities
- One virtual program completed
- Two virtual programs currently nearing completion
- Plans for future programs



Initial Findings – Social Engagement in the Virtual Setting

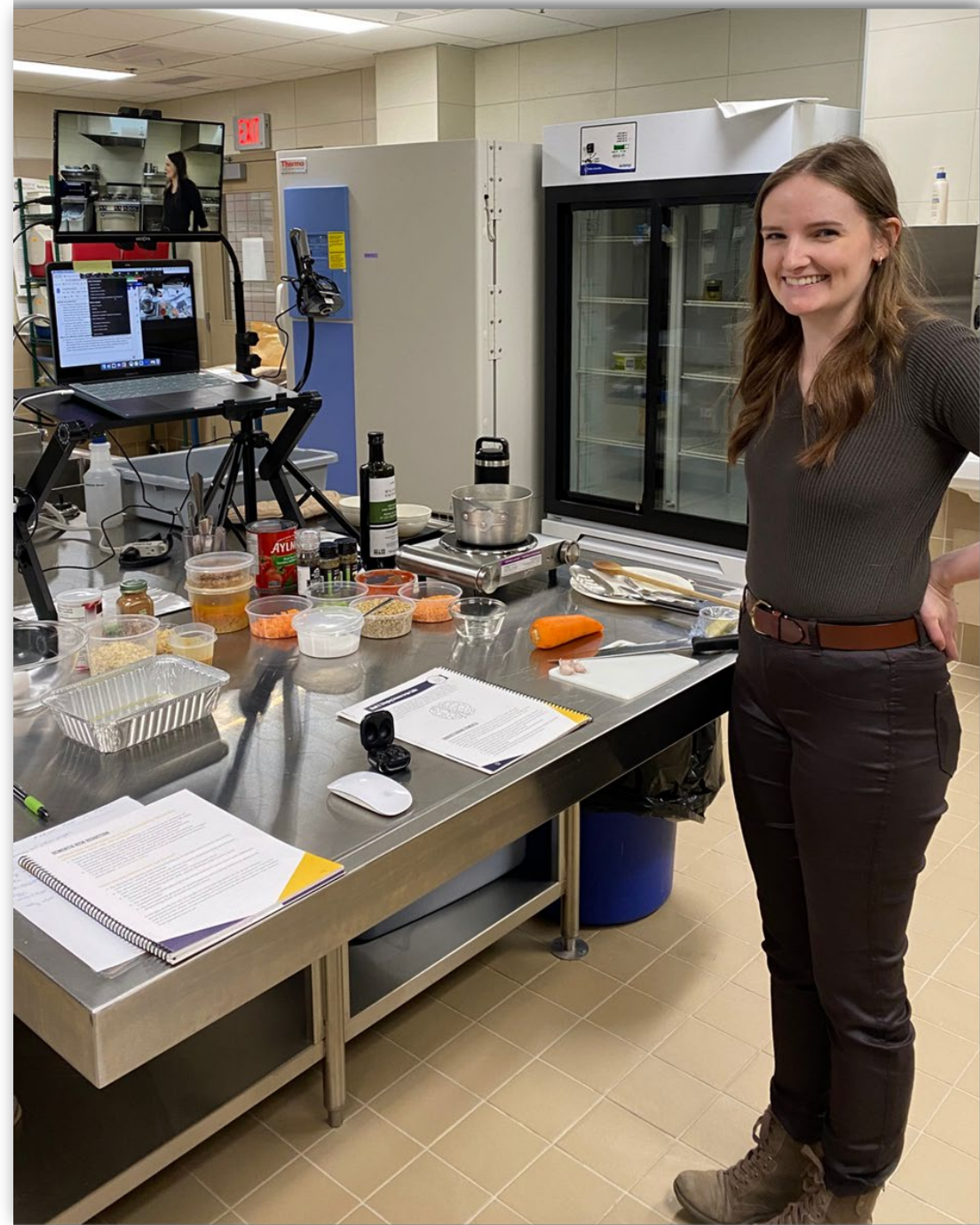
- Interpretive Description
- Data: Observational fieldnotes, virtual journals, interviews
- 21 participants in 2 virtual programs
- 4 themes:
 - Supporting Learning
 - Encouraging Application
 - Trade-Offs – Advantages and Missed Connections
 - Ingredients for Engagement



Lessons learned so far...

And more questions

- Attendance and participation
- Virtual program is feasible but must attend to additional requirements
- Pre-program orientation session to familiarize participants with Zoom and virtual sessions is helpful
- Participants enjoy learning combined with practical application
- Group discussion beneficial - support and learning
- Carepartner and person with dementia
- Virtual program equivalent to in-person?



The Cognitive Kitchen Team

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For more information or to register (Saskatchewan residents only), contact the Cognitive Kitchen

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**Dementia Supports
in Rural Saskatchewan**



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