

CHANGE CANCER ALBERTA PROJECT CONFIRMS MORE PEOPLE EAT PULSES WHEN THEY LEARN HOW TO MAKE THEM DELICIOUS

Learning the benefits of pulses and how to prepare them in delicious ways were key strategies to increase pulse consumption by adults with Metabolic Syndrome and at a high risk of cancer in the CHANGE Cancer Alberta project.

“When asked what would facilitate pulse consumption, participants overwhelmingly reported that they would like to have more recipes that tasted great and that could be easily incorporated into their daily life,” explained Dr. Doug Klein of the University of Alberta’s Department of Family Medicine. “This makes sense when considering the comments that participants made regarding barriers to consuming more pulses.”

After reviewing the preliminary report, Debra McLennan, Food and Nutrition Coordinator for Alberta Pulse Growers (APG) and a registered dietitian, was encouraged by the results.

“This study provides a number of pathways forward for APG to connect consumers and health professionals with information and resources to help them overcome these barriers,” McLennan noted.

Barriers to pulse consumption mentioned by participants included bland taste, the cost and availability of pulses, a lack of recipes, and feelings of being bloated after

eating. Participants also shared in conversation that they did not enjoy the taste of pulses, that they felt they needed to modify recipes to incorporate pulses beyond what was available, and that they did not tolerate pulses well, citing having gastrointestinal reactions.

CHANGE (Canadian Health Advanced by Nutrition and Graded Exercise) is an evidence based multi-disciplinary intervention that integrates lifestyle modifications into primary care settings. CHANGE Canada is an intervention to improve lifestyle behaviours associated with Metabolic Syndrome, which can put people at a high risk for heart attack, stroke, and diabetes. The desired behaviours include increased physical activity and dietary changes to reflect a dietary pattern consistent with Canada’s Food Guide and a Mediterranean diet. CHANGE Cancer Alberta is an intervention to improve lifestyle behaviours associated with cancer prevention and the project is an adaptation of the CHANGE Canada project to focus on behaviours identified to decrease cancer risk within an Albertan versus national context.

The primary outcome of CHANGE Cancer Alberta is an improvement in physical activity levels and eating behaviours after 12 months of the intervention and ultimately create

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Alberta-based evidence for a sustainable intervention that supports cancer prevention and screening in primary care. The CHANGE Intervention Protocol is a personalized approach to nutrition and exercise modification supported by an interdisciplinary team with the family physician, registered dietitian and exercise specialist.



Pulse crops provide a colourful and nutritious made-in-Alberta advantage for addressing a variety of health needs.

PRELIMINARY FINDINGS

It is early to assess the effectiveness of the CHANGE Cancer Alberta intervention as analysis is not complete. However, preliminary analysis is optimistic that with the intervention protocol:

- For participants with Metabolic Syndrome (with 3 out of 5 criteria) who have completed 3 and 12 months of the intervention:
 - o 17.5% and 32.5% respectively no longer have Metabolic Syndrome.
 - o Of those who still have Metabolic Syndrome, 37.8% and 45.8% respectively have decreased the number of criteria they meet.
 - o Metabolic Syndrome refers to a combination of factors (dyslipidemia, elevated glucose and triglycerides, high blood pressure, and high abdominal fat distribution) that increase the risk for these diseases and is linked to an increased risk of developing both cardiovascular disease and diabetes mellitus.
- Health professionals spoke of noticing improved health in many patients, as well as increased

confidence and knowledge about both physical activity and nutrition.

- The specific objectives related to pulses were achieved. This included increased awareness, and consumption of pulses plus greater awareness of how to cook pulses and where to find information about pulses. Participants were also more aware of the benefits of increased pulse consumption after participating in the Intervention and overwhelmingly voiced a desire for more tasty and diverse recipes that they could use.

RESULTS SPECIFIC TO PULSES

Patient Pulse Knowledge and Experiences

- From baseline to 12 months:
 - o Knowledge of what pulses were increased by 45% in the intervention group compared to 12% in the control group.
 - o Intake of any type of pulse three or more times per week remained a consistent 9% in the control group but increased 23% in the intervention group (from 9% to 32%).

- o In the intervention group, knowledge of where to find pulses in the grocery store increased by 18% from 74% to 92% and usage of either Alberta or other Canadian pulse grower websites to find resources or recipes for pulses increased from 3% to 34%.
- o Identifying three health benefits to pulse consumption steadily improved in the intervention group from 32% to 61% of participants. The three most cited health benefits to pulse consumption were high fibre, high protein/plant protein, and presence of important vitamins and minerals (for example, iron).
- Using a stepped approach of slowly incorporating pulses into meals helped ease participants into getting used to and becoming more familiar with pulses as it was noted that they struggled to add pulses into their diets, sometimes because they did not like the way pulses tasted or they had little knowledge of pulses.
- It was also reported by participants and health professionals that gastrointestinal reactions to pulses limited how often participants ate pulses even if they enjoyed them.

Project

Increasing pulse intake in primary care patients: The CHANGE Cancer Alberta interventions increase pulse module

Industry Funder

Alberta Pulse Growers

Cost

\$211,300

Project Completion Date

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