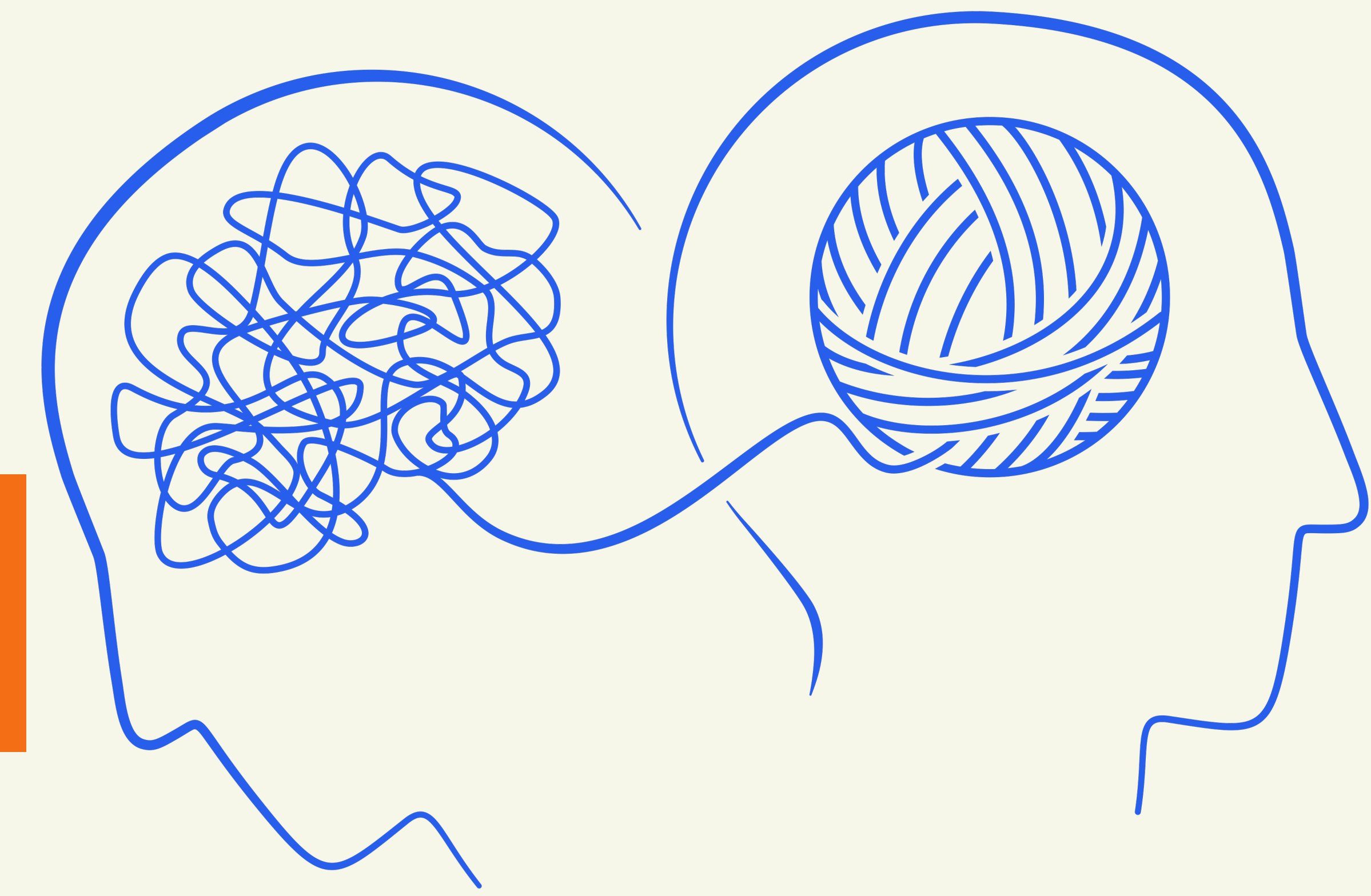




**SHRF**  
SASKATCHEWAN  
HEALTH RESEARCH  
FOUNDATION



# Co-developing, implementing, and evaluating a multidisciplinary delirium prevention pathway to reduce postoperative delirium in older adults with cognitive decline

Ava Bayat<sup>1</sup>, Dr. Jennifer O'Brien<sup>1</sup>, Heather Dyck<sup>2</sup>, Dr. Peter Hedlin<sup>1</sup>

<sup>1</sup>Department of Anesthesiology University of Saskatchewan, <sup>2</sup>Patient Partner

## Introduction

Post-operative delirium (POD) is the most prevalent complication among patients over 65 undergoing surgery<sup>1</sup>

- Older adults with cognitive challenges – including those with Alzheimer's' disease and related dementias – are at an increased risk of experiencing POD
- POD can have several other effects including extended hospital stays, increased frailty, and higher mortality rates<sup>2</sup>
- There is a strong need to develop a streamlined, accessible pathway for healthcare providers to help prevent POD effectively.

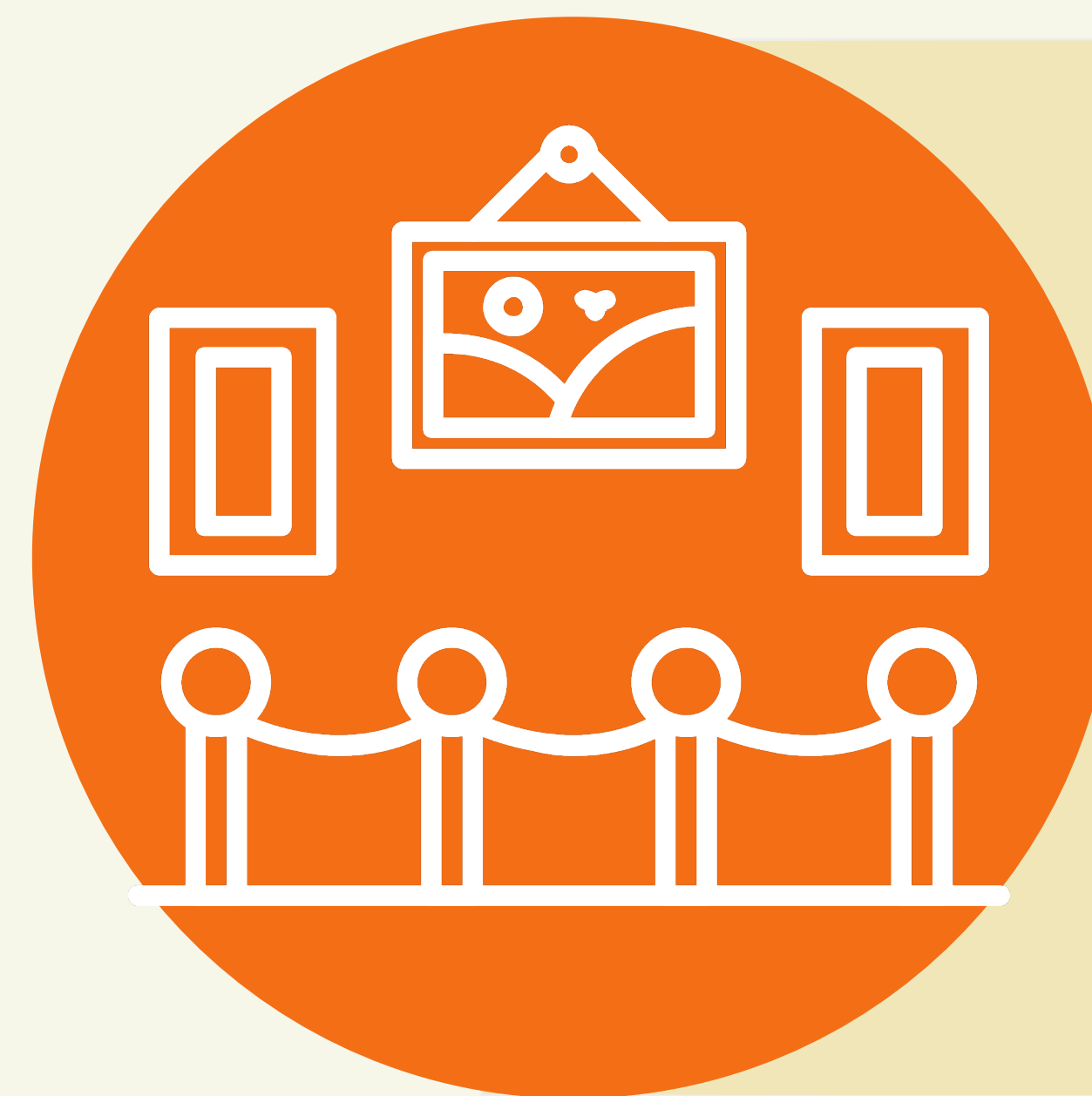
## Objectives

Create and test a pathway to prevent delirium after surgery in older adults

- Co-create a pathway with experts and patients to reduce the risk of delirium in older surgical patients.
- Develop a step-by-step timeline for putting this pathway into action.
- Test the pathway with 100 older patients having surgery in Saskatchewan hospitals.
- Evaluate the success and sustainability of the pathway by gathering feedback from patients, physicians and the healthcare system.

## Study Approach

- We will use a Participatory Design approach, which means working closely with people who are directly affected by the research.
- Our participants include patients, patients' family members, physicians, managers, nurses



We will set up a virtual Gallery Walk. This includes best-practice guidelines, educational videos, and quotes from people with lived experience.

We will host up to 10 workshops where we will gather ideas on:

- Screening patients before surgery to identify those at higher risk.
- Using specific anesthesia methods
- Involving family members
- Exploring non-medication strategies



## Pathway Creation

## Next Steps

1. Recruiting Participants: We are inviting patients and family members to join us in designing a care pathway to help reduce delirium after surgery.
2. Workshops and Gathering Ideas: We will hold a series of workshops where participants can share their insights and ideas. We will keep track of important themes and information to shape the POD pathway.
3. Creating the Pathway: Using the insights from our workshops, we will design a comprehensive pathway specifically aimed at reducing POD risk for older adults.
4. Implementing and Testing: After the pathway is ready, we will put it to the test in real healthcare settings. We will make adjustments along the way, using feedback and results to ensure it is effective and practical.

## References

1. Watt J, Tricco AC, Talbot-Hamon C, et al. Identifying Older Adults at Risk of Delirium Following Elective Surgery: A Systematic Review and Meta-Analysis. J Gen Intern Med. 2018
2. Hladkowitz E, Dorrance K, Bryson GL, et al. Identifying barriers and facilitators to routine preoperative frailty assessment: a qualitative interview study. Can J Anesth. 2022
3. Peden CJ, Miller TR, Deiner SG, Eckenhoff RG, Fleisher LA. Improving perioperative brain health: an expert consensus review of key actions for the perioperative care team. Br J Anaesth. 2021

# BACKGROUND



# OBJECTIVES

**What we know:** Older adults with cognitive challenges are more likely to experience post-operative delirium. While there are existing programs, like the Perioperative Brain Health Initiative and recovery guidelines<sup>3</sup>, there's still a need for a simple, patient-focused pathway to meet the specific needs of our patients.

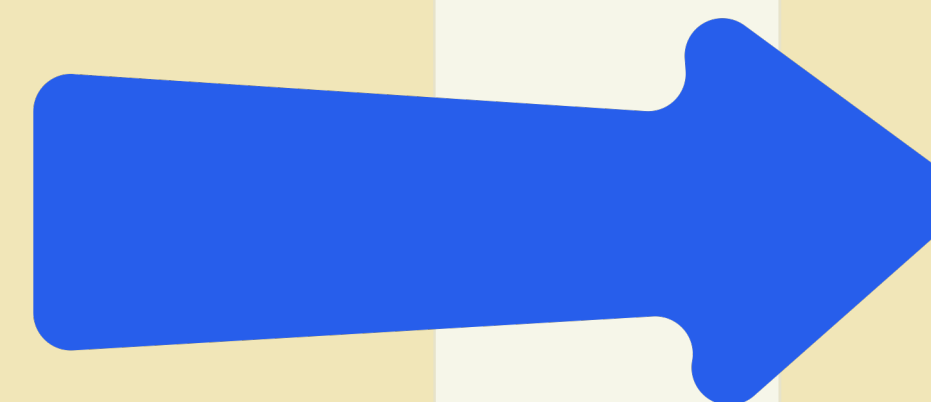
**Who is affected:** Patients, their caregivers, and healthcare workers all face challenges related to POD.

**What we've done before:**

1. We explored what POD feels like from the perspectives of patients, caregivers, and healthcare workers.
2. We worked with others to create an education campaign to raise awareness about POD.

**What we learned:** There's a big need to improve how older adults recover from surgery and make the experience better for everyone involved.

**What's next:** This project! We're tackling this issue head-on to create solutions that make a real difference.



## **Create and test a pathway to prevent delirium after surgery in older adults**

1. Co-create a pathway with experts and patients to reduce the risk of delirium in older surgical patients.
2. Develop a step-by-step timeline for putting this pathway into action.
3. Test the pathway with 100 older patients having surgery in Saskatchewan hospitals.
4. Evaluate the success and sustainability of the pathway by gathering feedback from patients, physicians and the healthcare system.

# STUDY APPROACH

- **Participatory Design** : Working closely with people who are directly affected by the research.
- Our participants include patients, patients' family members, physicians, managers, nurses



We will set up a virtual **Gallery Walk**. This includes best-practice guidelines, educational videos, and quotes from people with lived experience.



We will host up to 10 **workshops** where we will gather ideas on:

- Screening patients before surgery to identify those at higher risk.
- Using specific anesthesia methods
- Involving family members
- Exploring non-medication strategies

# NEXT STEPS

1. **Recruiting Participants**: We are inviting patients and family members to join us in designing a care pathway to help reduce delirium after surgery.
2. **Workshops and Gathering Ideas**: We will hold a series of workshops where participants can share their insights and ideas. We will keep track of important themes and information to shape the POD pathway.
3. **Creating the Pathway**: Using the insights from our workshops, we will design a comprehensive pathway specifically aimed at reducing POD risk for older adults.
4. **Implementing and Testing**: After the pathway is ready, we will put it to the test in real healthcare settings. We will make adjustments along the way, using feedback and results to ensure it is effective and practical.



## CO-DEVELOPING A PATHWAY TO REDUCE POSTOPERATIVE DELIRIUM IN OLDER PATIENTS

**Department of Anesthesiology  
University of Saskatchewan**

We are looking for volunteers to participate in a study to co-develop a multidisciplinary and patient-centered pathway for older patients at risk of postoperative delirium.

As a participant in this study, you would be asked to take part in a facilitated workshop lasting 2-3 hours.

Participation is voluntary. An honorarium will be provided for your time.

For more information about this study, or to volunteer for this study, please contact:

*Maria Cruz*  
*Department of Anesthesiology*  
at  
306-966-8305 or  
Email: [Maria.Cruz@usask.ca](mailto:Maria.Cruz@usask.ca)

**This study has been approved by the University of Saskatchewan Behavioural Research  
Ethics Board**