Background and Opportunity:
The Edmonton Zone Virtual Hospital (EZVH) is a person-centered, technology-enabled, integrated “whole of system” care model for individuals living with chronic/complex health conditions. Informed by University of Alberta internal quality improvement projects, the target population was initially identified as High Cost Users (HCU); individuals living with chronic and complex illnesses and conditions who were admitted to an acute center or visited an emergency department three or more times in a period of one year.

Aim: The evolving model will focus on supporting whole system improvements in care, with system partnerships at the heart of care integration. The EZVH is expected to improve clinical outcomes and experiences for patients; specifically those that have experienced a high number of acute care admissions and those with high risk of re-admission (LACE score > 10).

Outcomes: Reduced acute care length of stay (LoS), reduced acute care readmissions, reduced emergency department visits, resulting in a reduction of system costs with improvements in patient and provider experience.

Intervention time Frame: Using a series of Plan, Do, Study, Act (PDSA) cycles; three major components required for the EZVH model have been identified:
1. New Operational Model will operationalize the delivery of specialized transitional care and enhanced care in the home for patients with complex needs. Key components of this model include access to hospital based specialist care, and case management that includes an integrated complex care team made up of nurses and a pharmacist who will facilitate linkages across the care continuum. 2. An Innovation Lab approach to provide an environment for testing interventions to enhance virtual care, defined as a semi-autonomous establishment that engages diverse participants, on a long-term basis, in open collaboration for the purpose of creating, elaborating, and prototyping radical solutions to pre-identified systemic challenges. 3. An Evaluation Framework grounded in Quadruple Aim principles: developed (inclusive of economic evaluation) using data generated in the 2017 quality improvement reviews, the EZVH Evaluation Framework will offer a systematic way to improve and account for delivery of health care service enabled by the Virtual Hospital model.

Sustaining the learnings and the gains for our patient population is part of a plan to scale and spread to the Edmonton Zone from our learning site at the University of Alberta Hospital. As the spread process clarifies, the VH Complex Care team will continue to lead the co-design and development of the scale of the model Beyond the HCU and will use technology as informed by the Innovation Lab, to further facilitate the delivery of care in the home and community.

Patients and Family Members Voices:
• "This is really helping me feel secure"
• "I can’t express the invaluable difference you have made in the process of moving from hospital to home"
• "I would stress that your program is very valuable in helping my mom get back to normal life"
• "It has been such a relief to me, if I was ever in doubt I know someone can give me an answer" • "I look forward to hearing from you and checking my weight and blood pressure."

Why this QI matters to Patients
Improving quality is about health, not just health care. Fostering relationships between patients, caregivers, and providers to understand the patient journey allows the development of person-centred models of care.

Why this QI matters to Albertans
Quality improvement efforts help us turn good intentions into reality by building on a vision for quality and innovative, tangible, and pragmatic solutions that meet the needs of Albertans.

Why this QI matters to Health System
Quality improvement fosters system-wide alignment of services which improves population health, delivers high-value health care and enhances both patient and provider experience.