

# Improving Pulmonary Pressure Estimation by Echocardiogram at LHSC



Ping Yu Xiong, Zachary Singer, Dimitar Saveski, Neville Suskin Centre for Quality, Innovation, and Safety, Schulich School of Medicine & Dentistry, Western University, London, ON, Canada

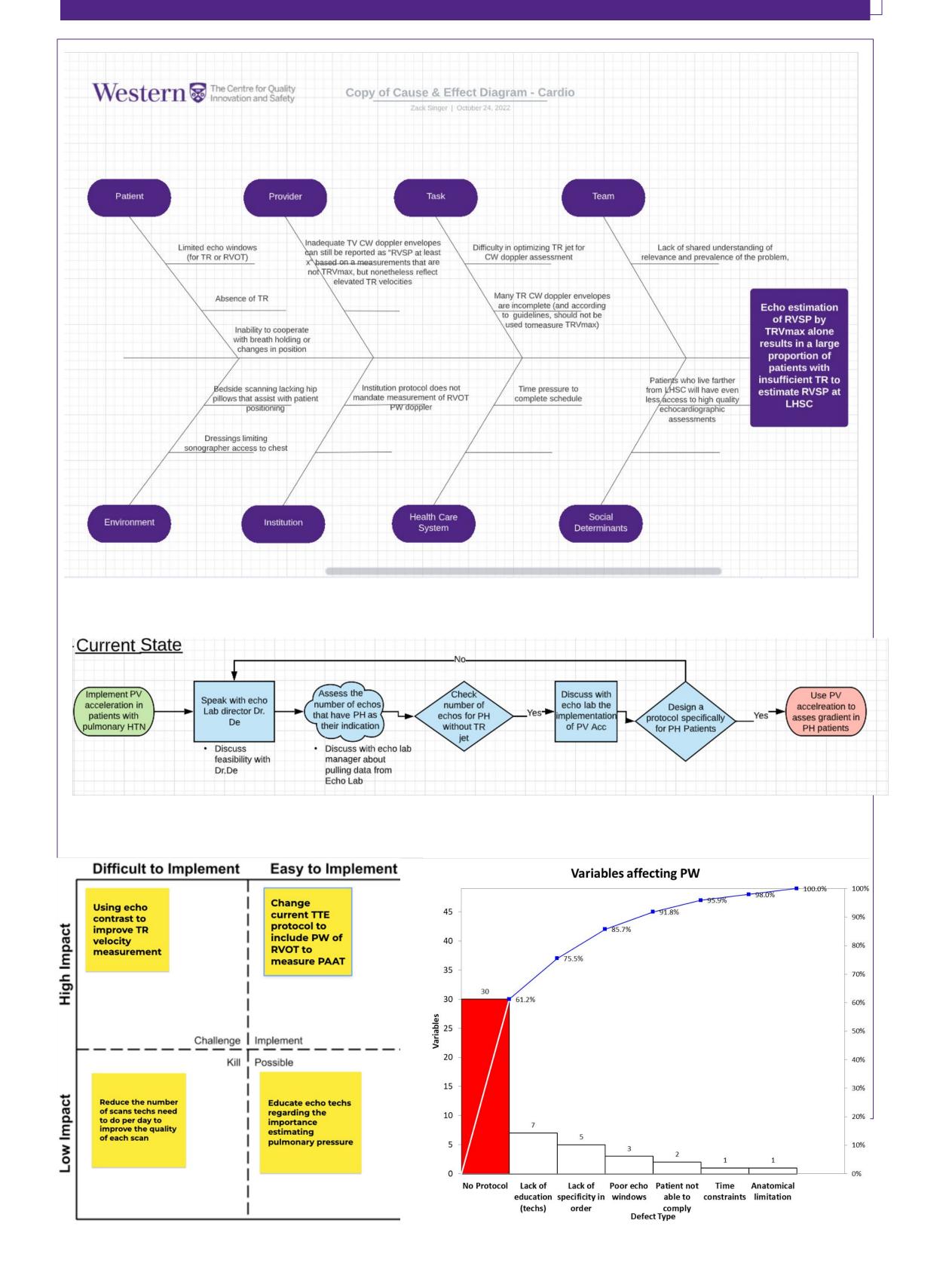
AIM Statement: We aim to improve the echographic estimation of pulmonary arterial pressure for all patients receiving an echocardiogram, especially for patients having a referral question asking to screen for pulmonary hypertension and patients with cardiac transplant.

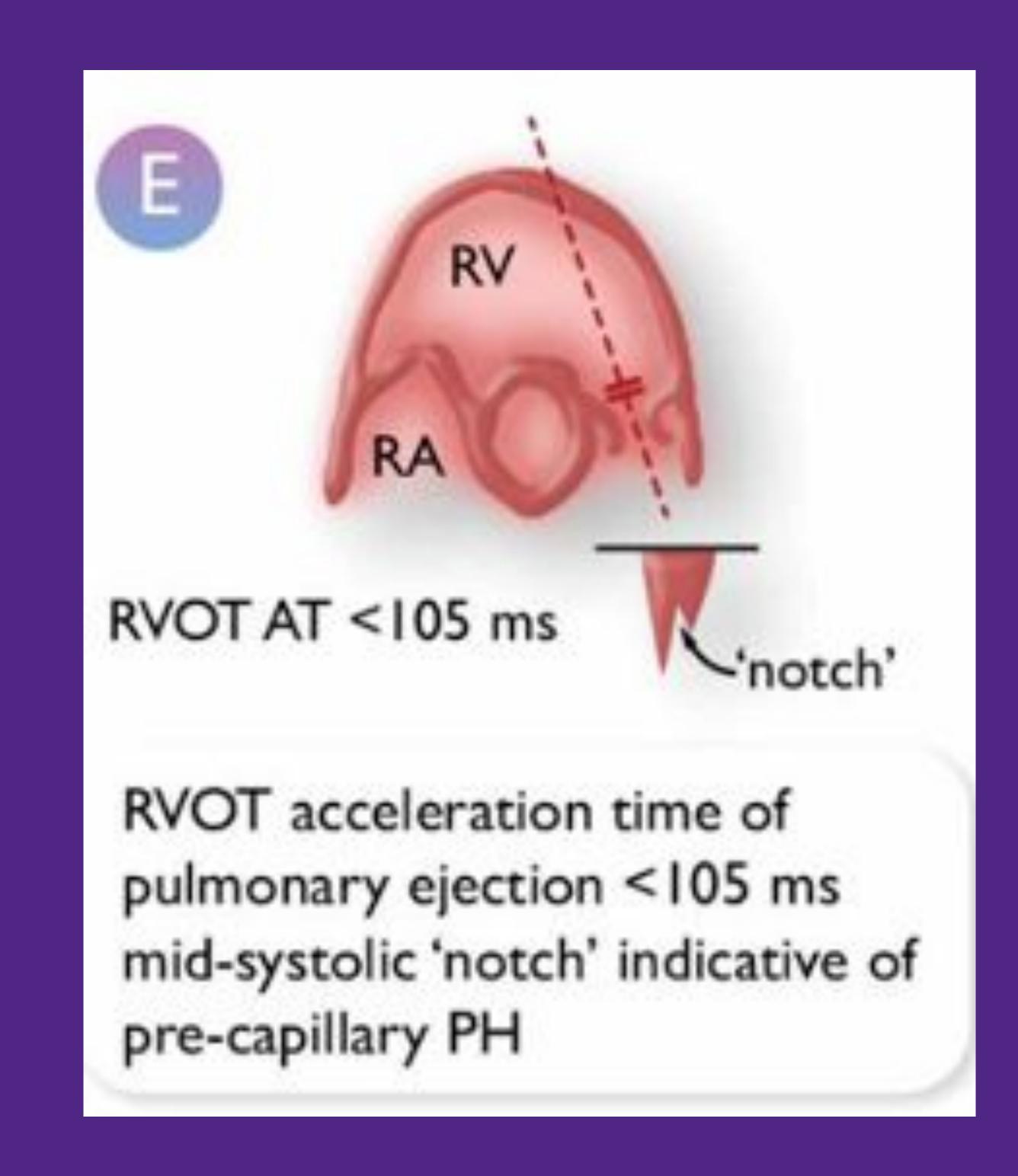
## PROBLEM DEFINITION

•Echocardiography is a commonly used non-invasive method that clinicians use to screen for pulmonary hypertension. Pulmonary pressures, however, cannot always be estimated.

How can we improve pulmonary pressure estimation using echocardiography at LHSC?

# ROOT CAUSE ANALYSIS





We were able to increase the number of echocardiographic scan with pulse-wave (PW) Doppler of the right ventricular outflow tract (RVOT) from 0% to 28% after 2 PDSA cycles.

## IMPLEMENTATION

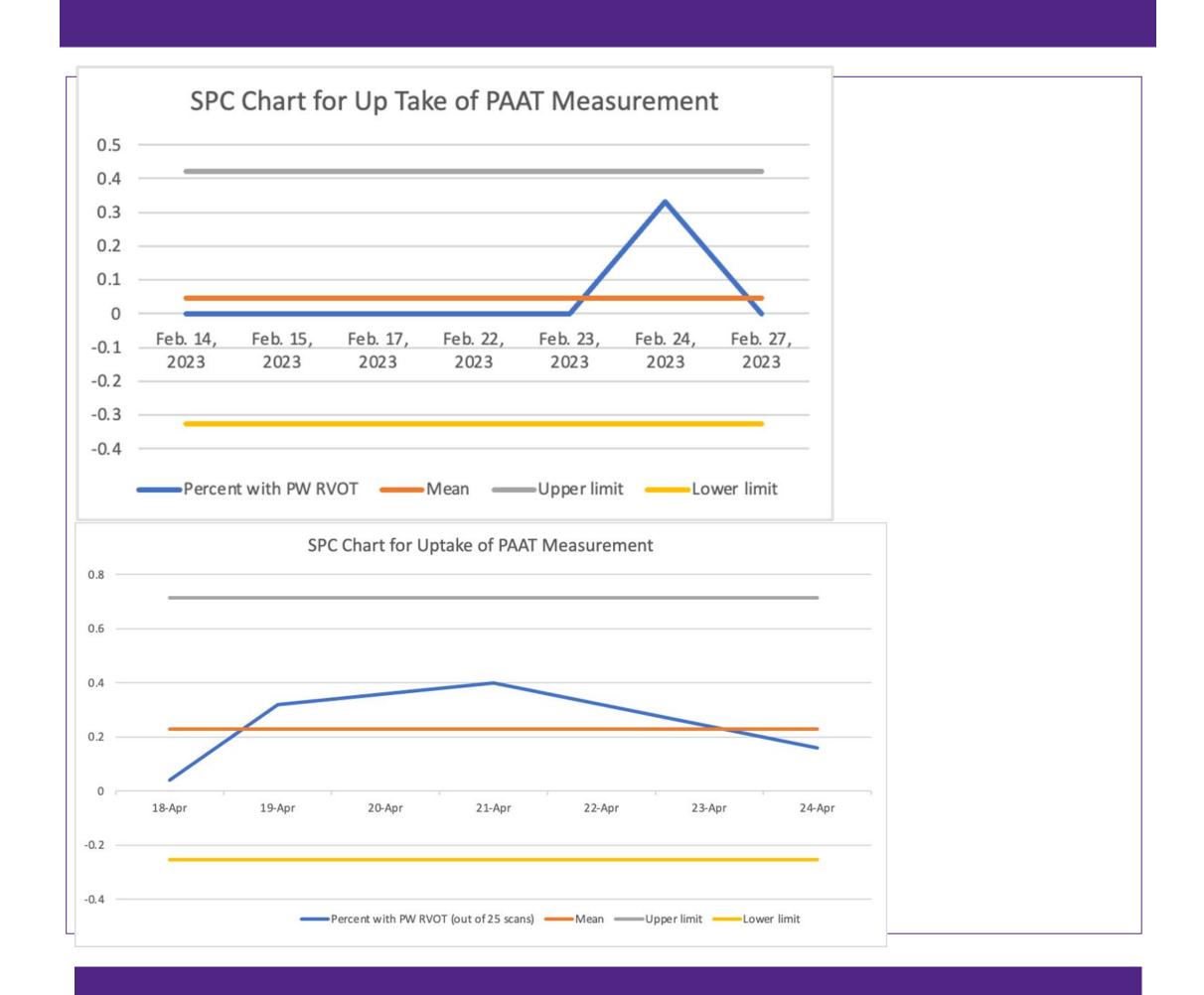
## PDSA Cycle 1

•Deliver echo rounds entitled "Echocardiographic Assessment of Right Heart in Pulmonary Hypertension" on Feb. 23<sup>rd</sup>, 2023. PDSA Cycle 2

•Deliver echo rounds entitled "Echocardiographic Assessment of Right Heart in Pulmonary Hypertension" on April 20<sup>th</sup>, 2023

•Conduct formal survey to find out barriers for recording PW of the RVOT.

## MEASUREMENT & RESULTS



### SUSTAINABILITY

- •Add formal coded label for pulmonary artery acceleration time (PAAT) in ISCV.
- •Optimize and refine the quality of the recorded PW of the RVOT.
- Finding ways to maintain the new standard operating procedure.