

# THE FANTASTIC FOUR PROJECT

Team Based Approach to Improving Care for  
Patients with Heart Failure in Northern BC



Pharmacist Appreciation Month  
Dr Daisy Dulay and Michael Matula RPh  
March 19th, 2025

# The Fantastic Four Project

## Improving Care for Patients with HF



We also acknowledge that the work we are doing is on the beautiful lands of the Nadleh Whut'en, Stellat'en, Ts'il Kaz Koh and Saik'uz First Nations communities.

# Disclaimer / Conflict of Interest



Halo Health (Dr. Dulay)

# Objectives



1

**Recognize** the need for expanding collaborative care models in healthcare

2

**Understand** the important role pharmacists play in optimizing HF management

3

**Identify** factors underlying needed collaborative care in HF management

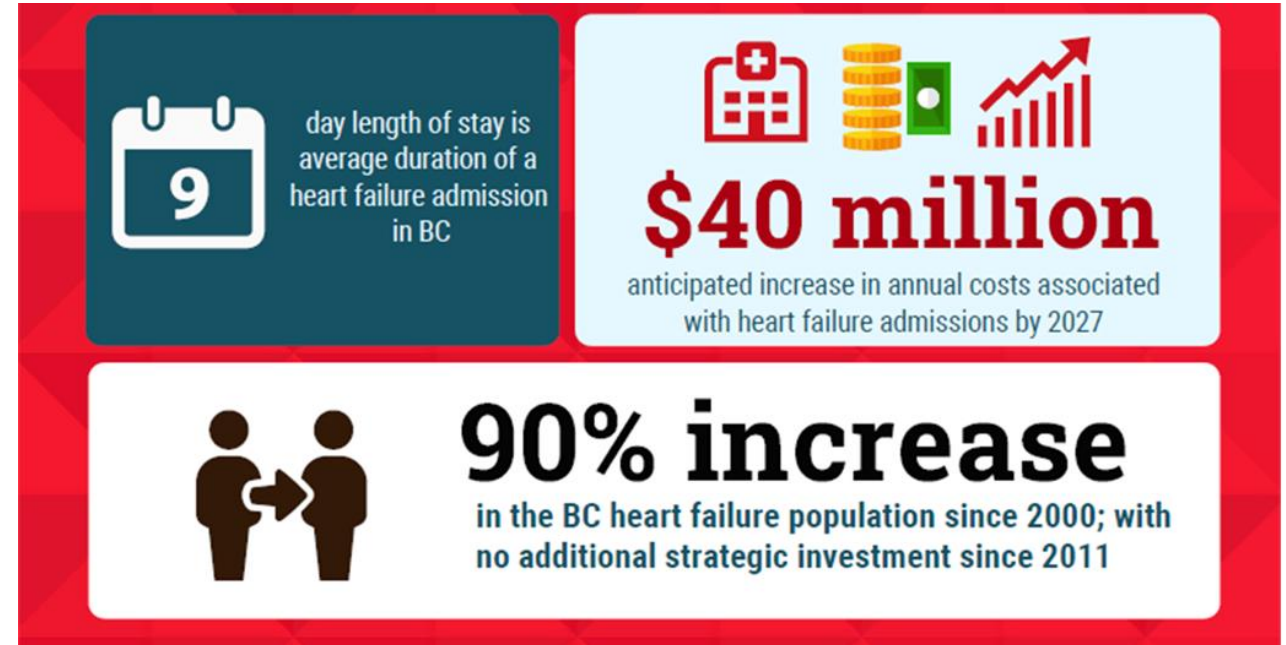
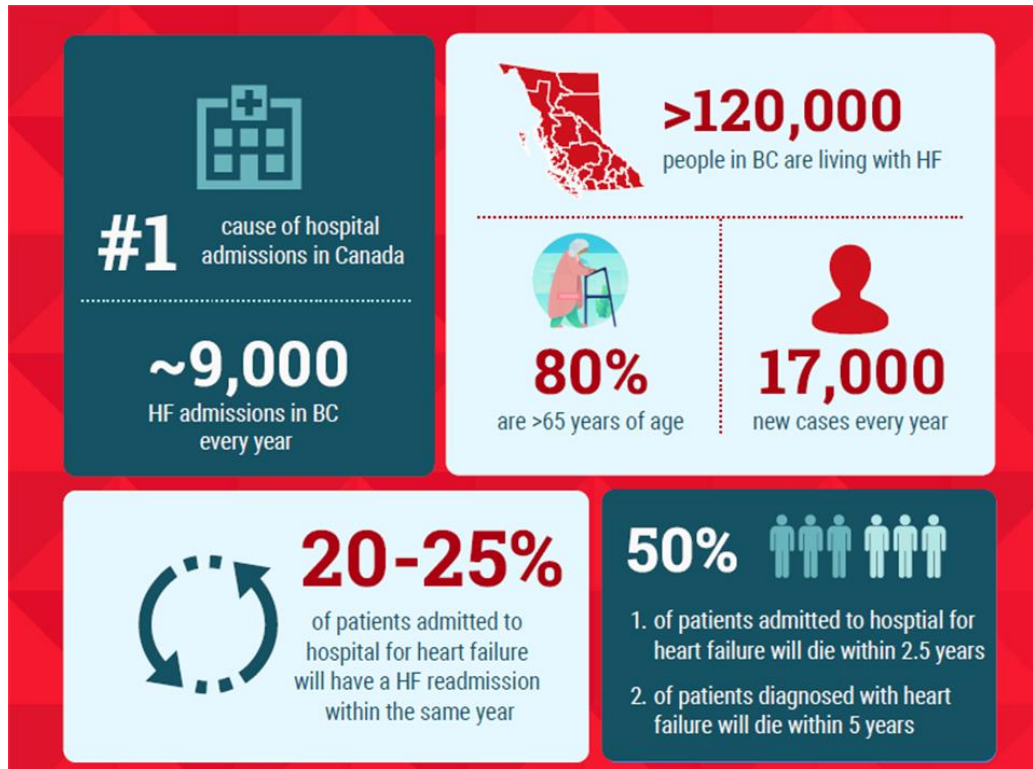


# Meet Fred



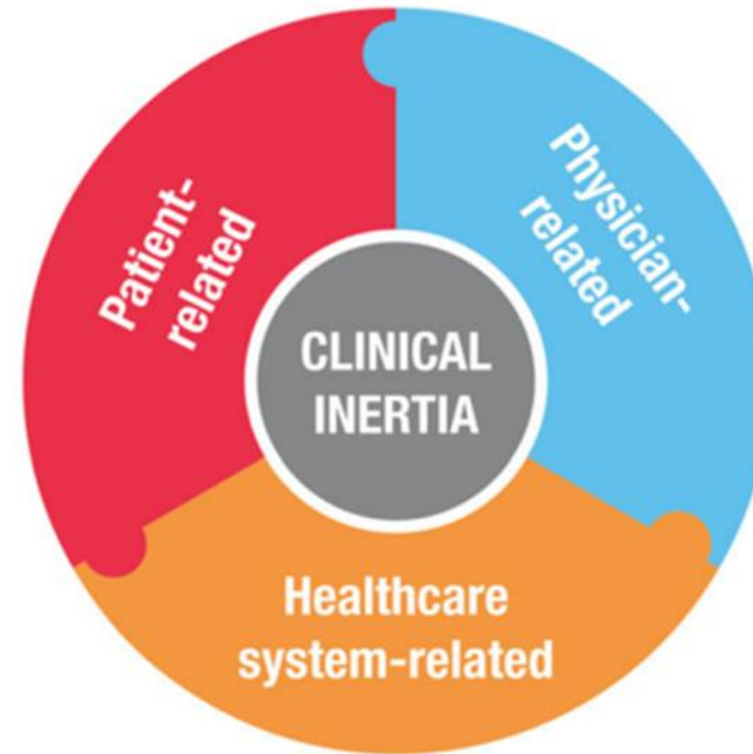
From Microsoft Stock Images

# Heart Failure is a growing problem



 **Cardiac Services BC**  
Provincial Health Services Authority

# Management and Clinical Inertia



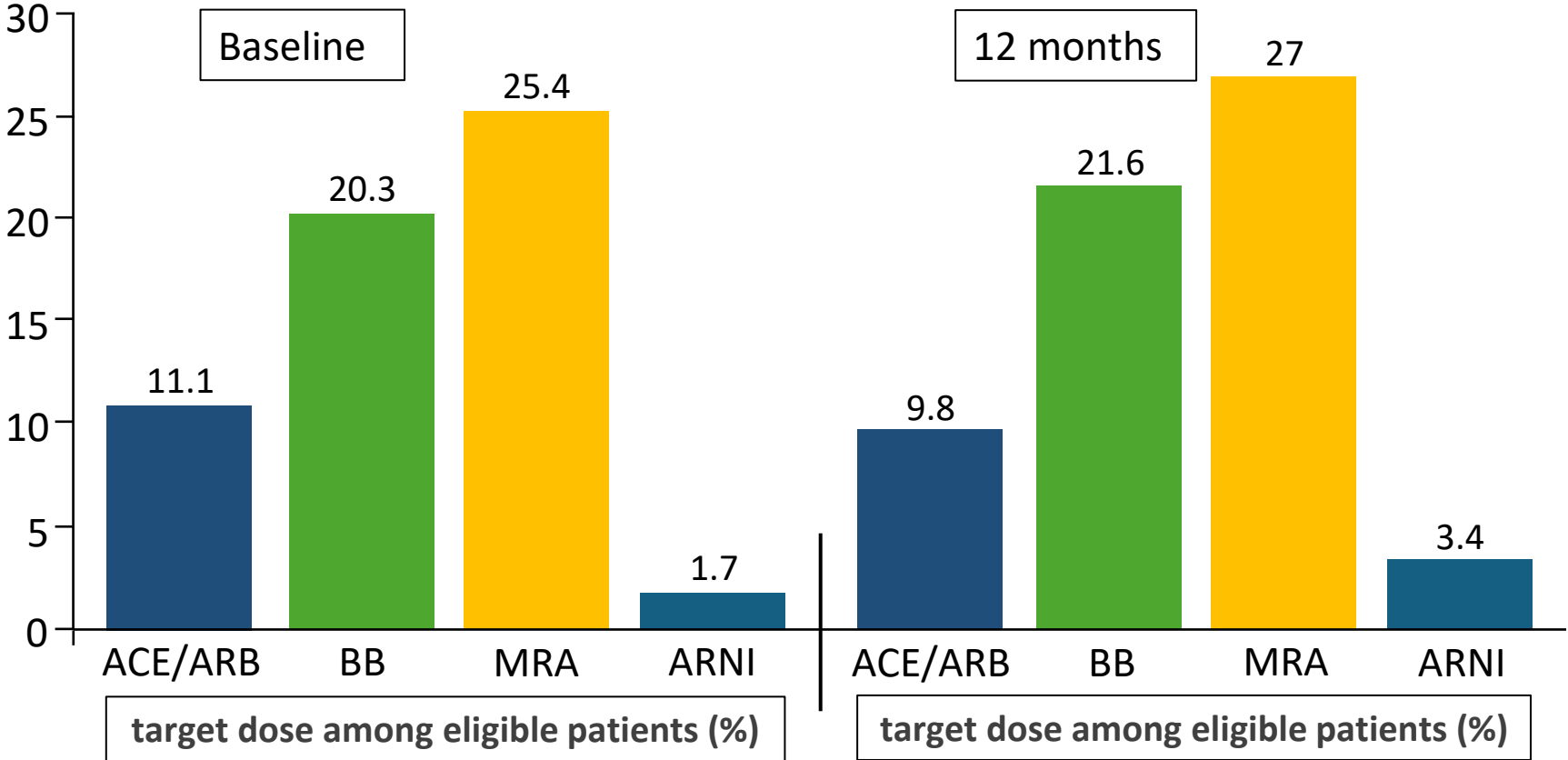
Recent US community based research study showed ~49% patients with HF experienced clinical inertia for at least one drug class

Swat et al. J Am Coll Cardiol HF. 2023 Nov, 11 (11) 1579–1591.  
<https://doi.org/10.1016/j.jchf.2023.06.022>

# Therapeutic inertia: Missed opportunity to optimize medical therapy



% of Patients on Target Dose at Baseline and 1 Year in CHAMP Registry



Bozkurt B. J Am Coll Cardiol 2019





# Evidence Based Role of Pharmacy-Led Titration of HF meds



## Impact of Pharmacist-Led Heart Failure Clinic on Optimization of Guideline-Directed Medical Therapy (PHARM-HF)

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The Joint Commission Journal on Quality and Patient Safety  
Volume 48, Issue 1, January 2022, Pages 25-32



## Harnessing the Potential of Primary Care Pharmacists to Improve Heart Failure Management

Justin Slade MD (is Cardiologist, Permanente Medical Group, San Francisco, and Physician Scholar in Quality Improvement and Patient Safety, US Department of Veterans Affairs Palo Alto Health Care System (VAPAHCS), Palo Alto, California.)

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Northern Interior Rural  
Division of Family Practice  
An FPSC initiative



RESEARCH ARTICLE

Originally Published 18 November 2024 |

Check for updates

## Pharmacist Medication Titration Program for Patients With Cardiac Sarcoidosis and Systolic Heart Failure: A Retrospective Cohort Study

Daniel Sykora, MD, MS , Nicole Olson, PharmD, Robert Churchill, BS, B. Michelle Kim, BS, Melanie Bratcher, APRN, CNP, MSN, Mohamed Elwazir, MBBCh , Kathleen Young, MD , ... [SHOW ALL ...](#), and Andrew Rosenbaum, MD | [AUTHOR INFO & AFFILIATIONS](#)

Journal of the American Heart Association • Volume 13, Number 24 • <https://doi.org/10.1161/JAHA.124.038965>

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## PHARMACIST-LED HEART FAILURE MEDICINES OPTIMISATION CLINICS IN PRIMARY CARE – A SERVICE EVALUATION

<sup>1</sup>Neil Sugden, <sup>2</sup>Sarah Bush, <sup>3</sup>Ian O'Connor, <sup>4</sup>Aaron Wong, <sup>5</sup>Claire Arthur, <sup>6</sup>Rhys Williams. <sup>1</sup>Riversdale Surgery, Pen-Y-Bont Health GP Federation; <sup>2</sup>Pencoed Medical Centre, Pen-Y-Bont Health GP Federation; <sup>3</sup>Oaktree Surgery, Pen-Y-Bont Health GP Federation; <sup>4</sup>Cwm Taf Morgannwg UHB; <sup>5</sup>Bridgend Group Practice, Pen-Y-Bont Health GP Federation; <sup>6</sup>Cwm Taf Morgannwg University Health Board

10.1136/heartjnl-2023-BCS.82

# Problem: Ongoing Healthcare Worker Shortages



**CARING FOR CANADIANS: CANADA'S FUTURE HEALTH WORKFORCE**  
The Canadian Health Workforce Education, Training and Distribution Study

**Table 3.** Base case workforce supply, supply-demand gap, and graduates, headcounts, by profession, Canada, 2022

Profession	LPN	RPN	RN	NP	OT	PT	PH	FP
Supply	117,710	5,611	269,200	7,523	16,074	25,774	30,850	46,145
Gap	13,976	473	27,608	2,646	1,866	2,543	1,614	22,823
Graduates	6,295	336	8,992	550	873	770	1,217	1,362

<https://www.canada.ca/content/dam/hc-sc/documents/services/health-care-system/health-human-resources/workforce-education-training-distribution-study/workforce-education-training-distribution-study.pdf>, Accessed February 5, 2025  
The report is based on the pan-Canadian Health Workforce Projections Model. Family physician projection gaps are based on the scenario that is inclusive of all services provided by family physicians in Canada, which generated the largest gaps across all service grouping scenarios. The number of graduates is based on the 2021-22 academic year.

PMN Business

**Pharmacist shortages and heavy workloads challenge drugstores heading into their busy season**

**AP** The Associated Press  
Tom Murphy

Published Oct 07, 2023 • 4 minute read

FEBRUARY 13, 2023

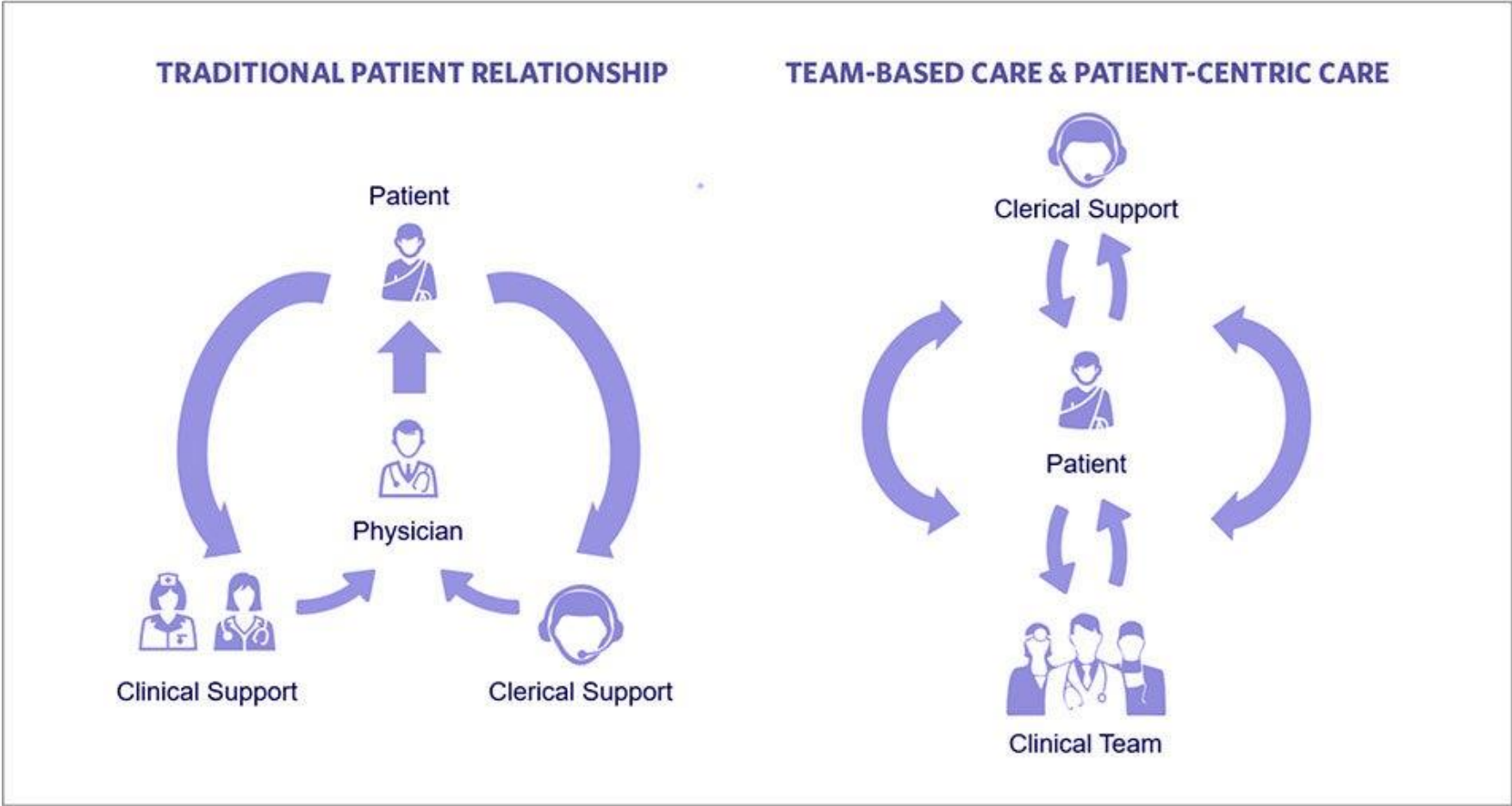
## Pharmacists: Canada's most accessible health-care professionals

Waterloo School of Pharmacy alum speaks to the benefits of the Minor Ailments Program

By Milana Madzarac  
School of Pharmacy



**FIGURE 2. PHYSICIAN-CENTRIC CARE AND TEAM-BASED CARE**



This helps with appropriate care by the most appropriate clinician and reduce burnout

Insight Article

**Advancing to team-based care in the ambulatory enterprise**

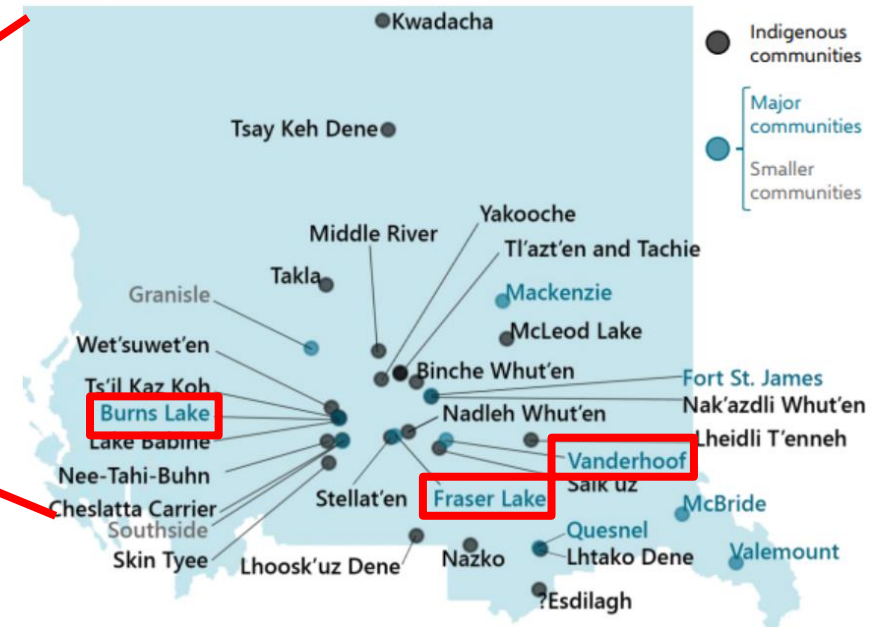
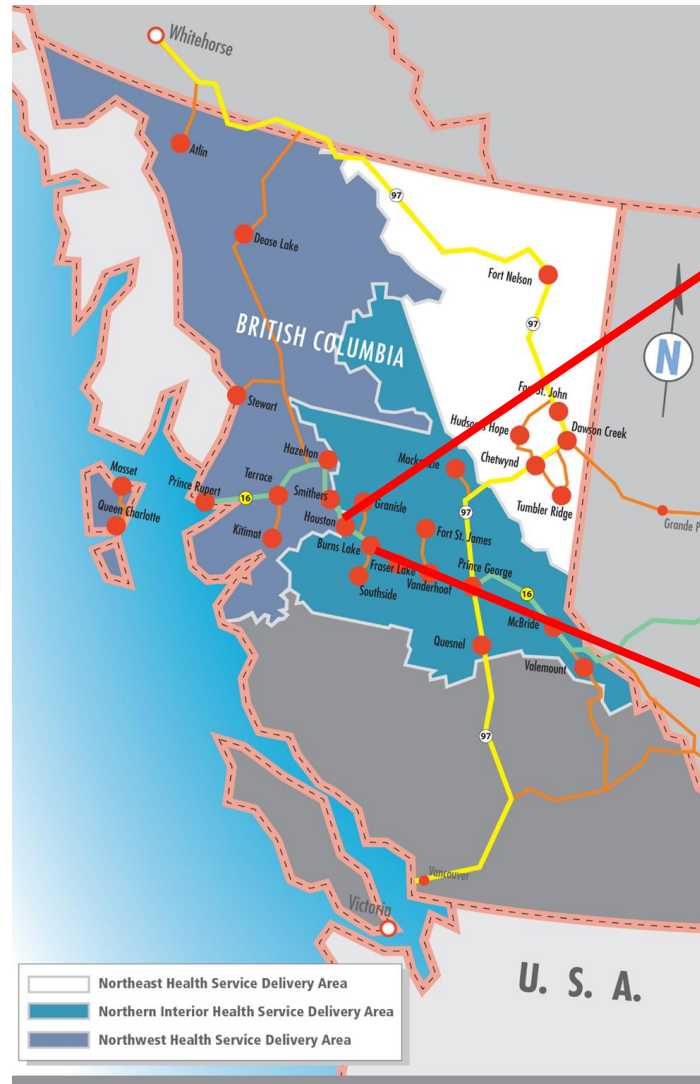


MEDICAL GROUP  
MANAGEMENT  
ASSOCIATION





# Collaborative QI Project





# Meeting Clinicians in the Area



Long wait time for referral to cardiologist and heart function clinic

Access to echo and other imaging is challenging

Patients don't want to go to Prince George; they want to be cared for locally

Difficult to get specialists follow up or consult if patient starts declining

Many HF patients have lots more going on, financial insecurities, trauma and social barriers

# Primary Care Pharmacist



Work closely with patients and their healthcare teams to optimize treatments through longitudinal care

## What They Provide:

- Comprehensive Medication Management
- Longitudinal care
- Resolve Drug Therapy Problems
- Wellness and preventive care

## Goals:

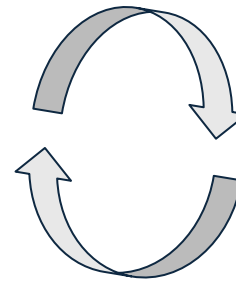
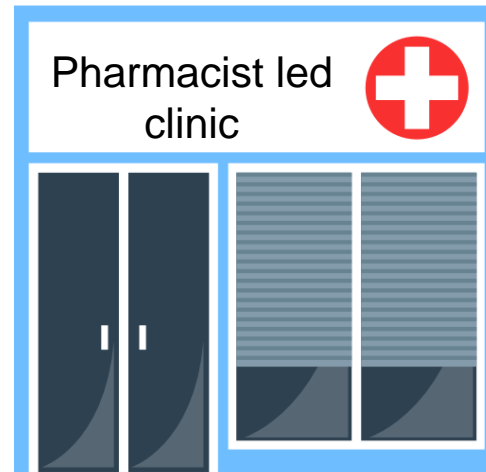
- Ensure safe, effective, and appropriate drug therapy
- Engagement in their own care
- Seamless care transitions
- Improve patient quality of life and outcomes

# NIRD PCN Pharmacist



	<h2>Primary Care Work</h2> <ul style="list-style-type: none"><li>● Co-locate at four clinics within NIRD (two in Quesnel, one in Vanderhoof and one in Nazko) providing primary care at six clinics in total</li><li>● Help manage unattached patients, collaborate with urgent primary care providers, and facilitate patient attachment to primary care providers</li></ul>
	<h2>Quality Improvement (QI) Projects</h2> <ul style="list-style-type: none"><li>● The Fantastic Four Project: Provide CHF optimization across the NIRD region</li><li>● Polypharmacy: Provide comprehensive medication management with a focus on deprescribing at Fort St. James Clinic</li></ul>

# Current Project Details



## GOALS

Help patients by providing safe care closer to home

De-burden primary care

Leverage the efficiency of team based care

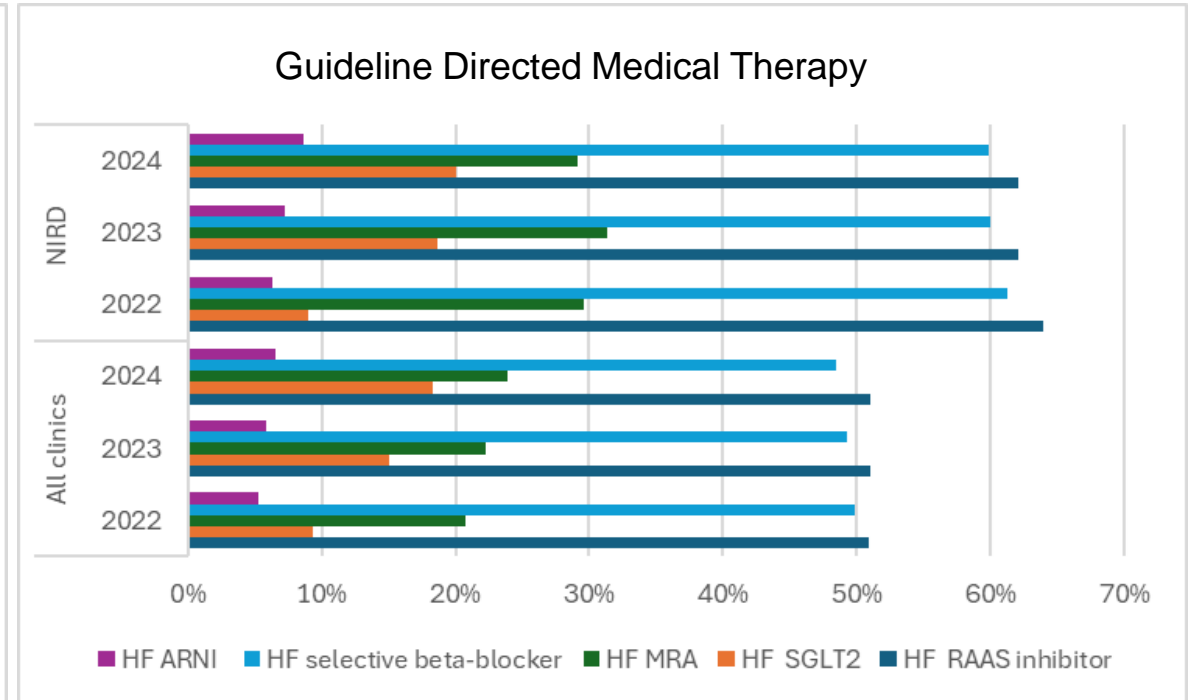
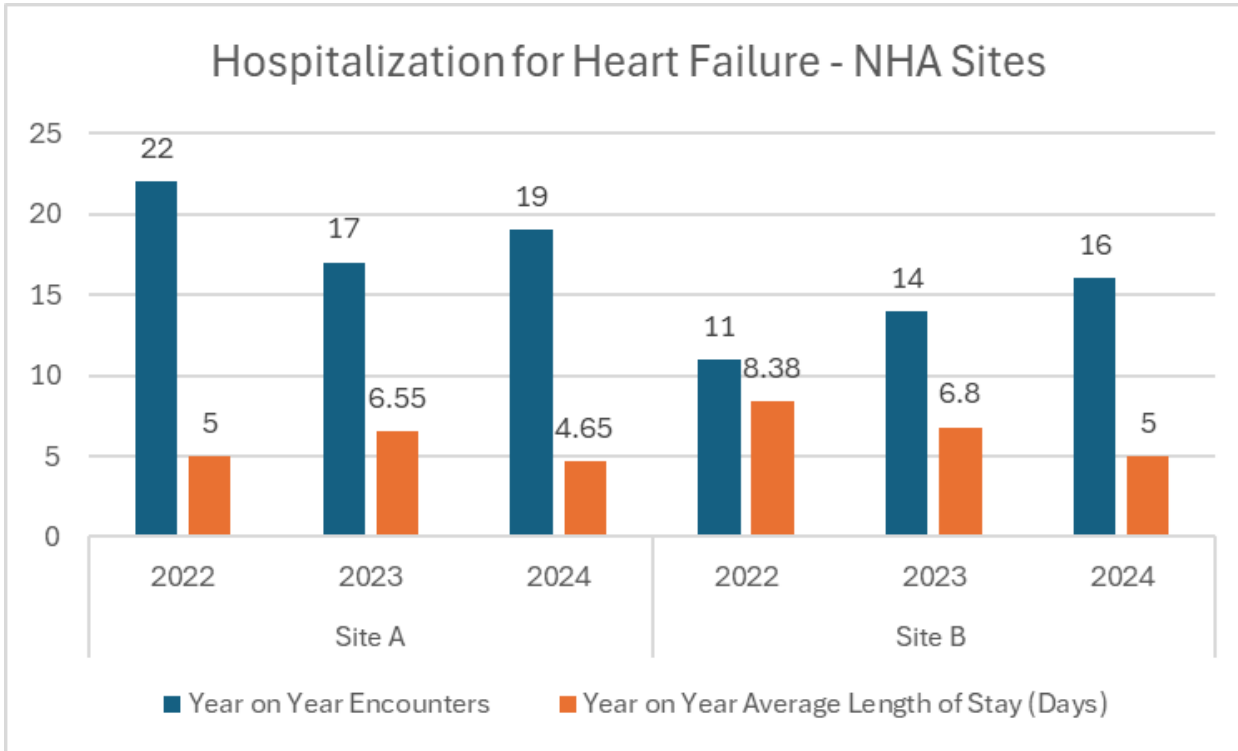
A referral comes for hybrid consultation with patient, family doc/NP and cardiologist. Opportunity for pharmacy to follow a titration plan.

After patient knows about and agrees to the pharmacist referral, a pharmacy led clinic virtual to discuss the options of titration and provide education about the medications

Pharmacist will send a suggestion note and wait to hear back if the family doctor or NP agrees with the med changes. Pharmacist continues to connect with patient until maximal tolerated titration achieved



# Preliminary Look at the Data



Sampling  
11/17 NIRD clinics

Sampling  
355/ 1200 BC Clinics

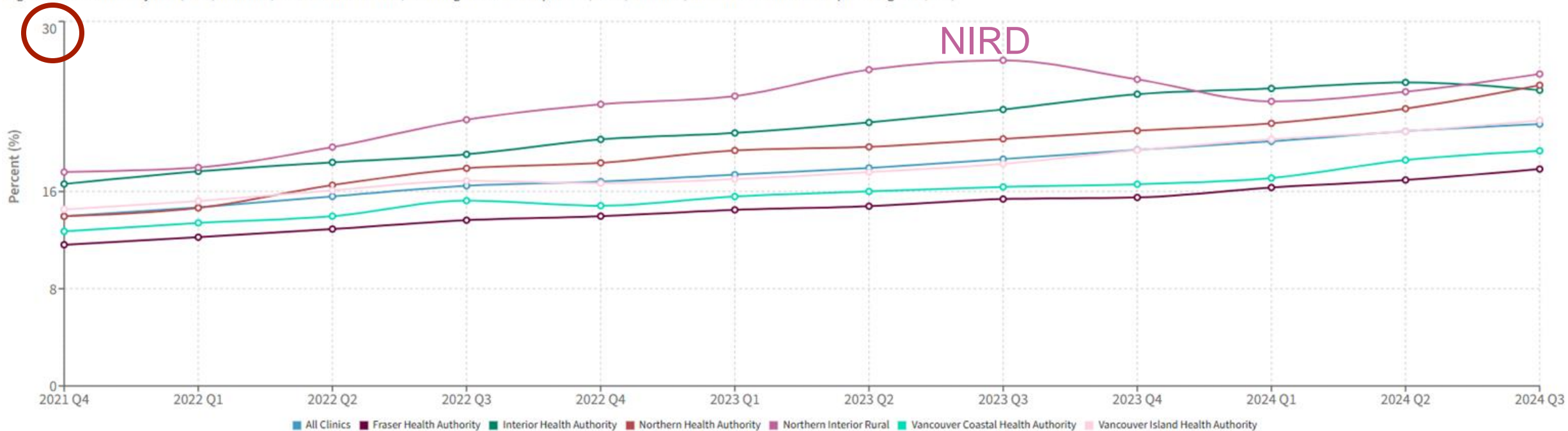


# Positive Change Over Time



## Heart failure patients prescribed three or more of the four foundational medication classes in the past year

The percentage of active patients with heart failure (HF) (based on the problem list) who have had coded prescriptions for three or more of the four foundational medication classes for heart failure recorded in the EMR in the past year. The four foundational medication classes include Renin-angiotensin-aldosterone system (RAAS) inhibitors, Selective beta blockers, Sodium-glucose co-transporter 2 (SGLT2) inhibitors, and Mineralocorticoid Receptor Antagonist (MRA).



# Outcomes so far...



5

Different Patient encounters (3 HFrEF and 2 HFpEF)

2

Transferred to HFC on GDMT requiring ongoing care

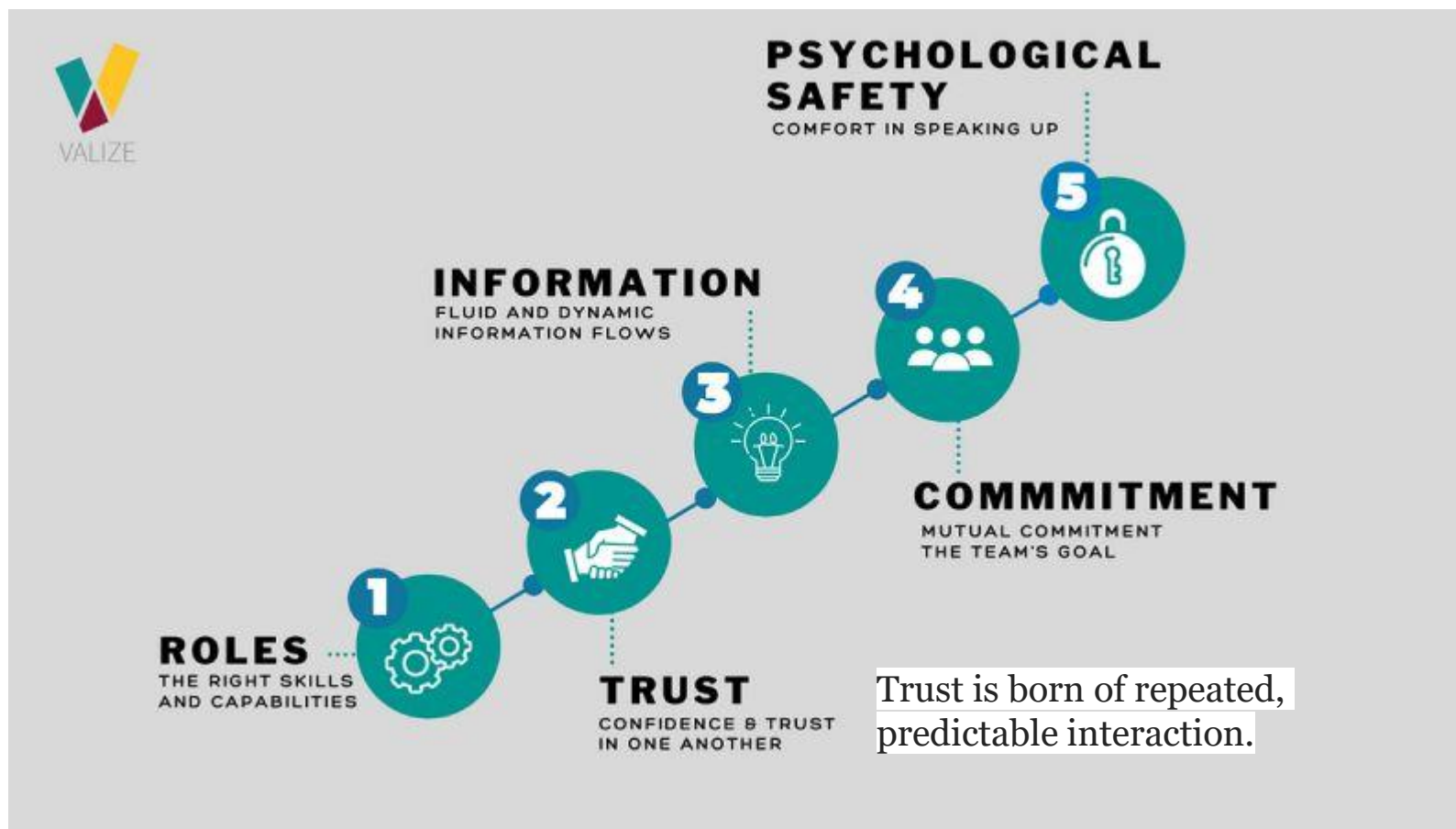
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Adverse events

2

Programs in partnership (Rural Coordination Centre of BC Consultation to Conversations) and BC Emergency Health Services Community Paramedic Home Health Monitoring Program

# What has made this work





# Meet Tom



Middle aged man with no primary care with months of dyspnea, works in remote areas for long periods of time

Oct 2024: ER presentation: AF dx No F/U

Nov 2024: Echo done. EF 17%

Dec 2024: Cardioverted and has since remained in NSR

- Goes to WIC with worsening symptoms. Next refer to us
- Started on GDMT and Acx
- Seen by both of us before transfer of care
- Coordinated care with PG cardiologist for cardioversion before Christmas
- Told Michael that he is not keen on taking “that many meds”
- Stopped taking meds after cardioversion because he was feeling great despite there was persistent LV dysfunction
- Has since been restarted on most of his GDMT
- Follow-up with Pharmacist for further optimization this week

# What's Next?



- Working within NH regions to facilitate GDMT optimization with other primary care pharmacists and their primary care clinic providers
- Ongoing engagement with providers in NIRD communities
- Plan for case finding within NIRD PCN clinics with established pharmacist presence



**THANK**  
**YOU**

Mandi Blewett - Patient Partner

Heather Stillwell - NIRD

Heather Goretzy - PSP

Angie Sackney - PSP

Cathy McGuinness - HDC

Heather Walker - NH

NIRD leadership

HDC leadership