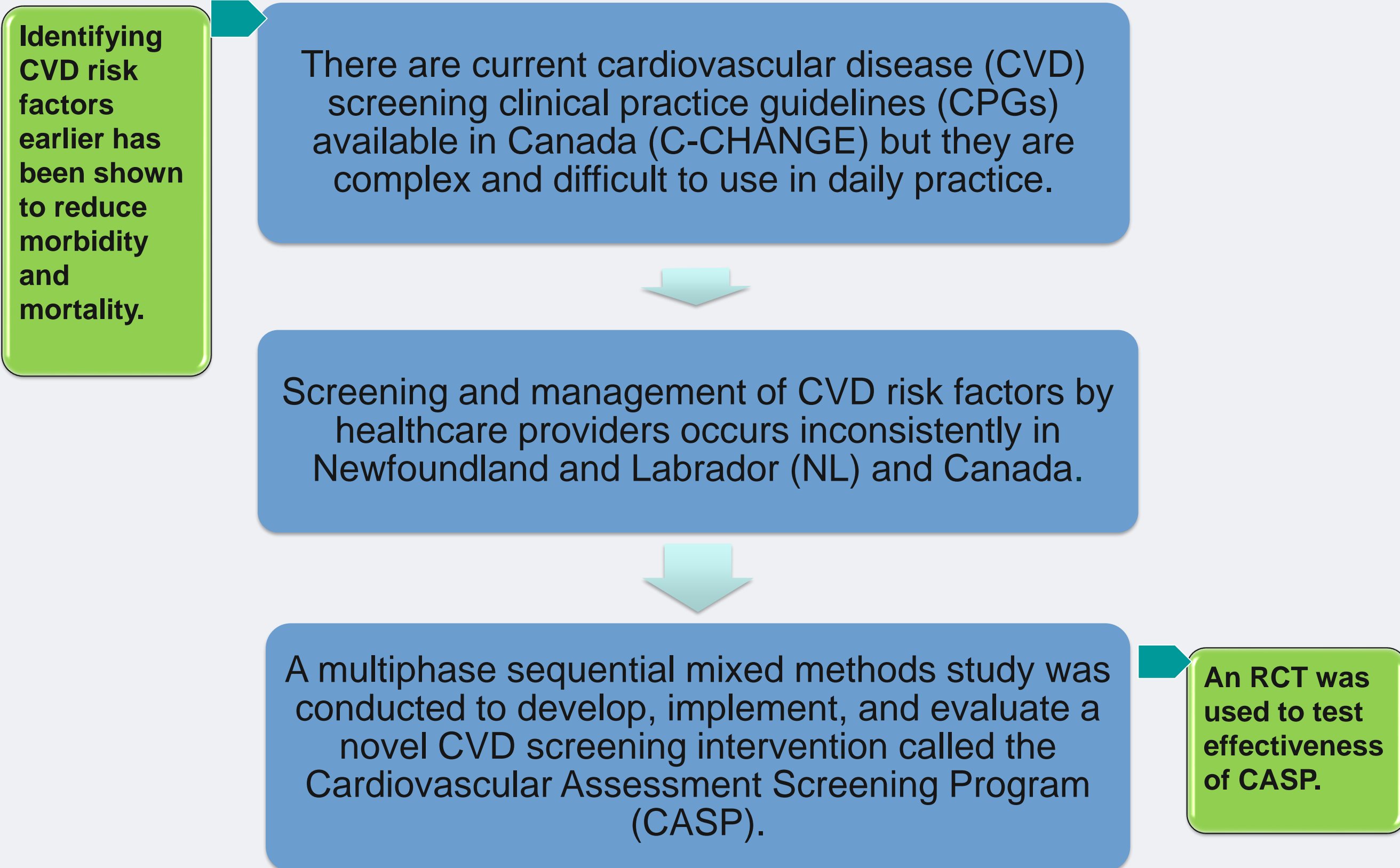


Introduction

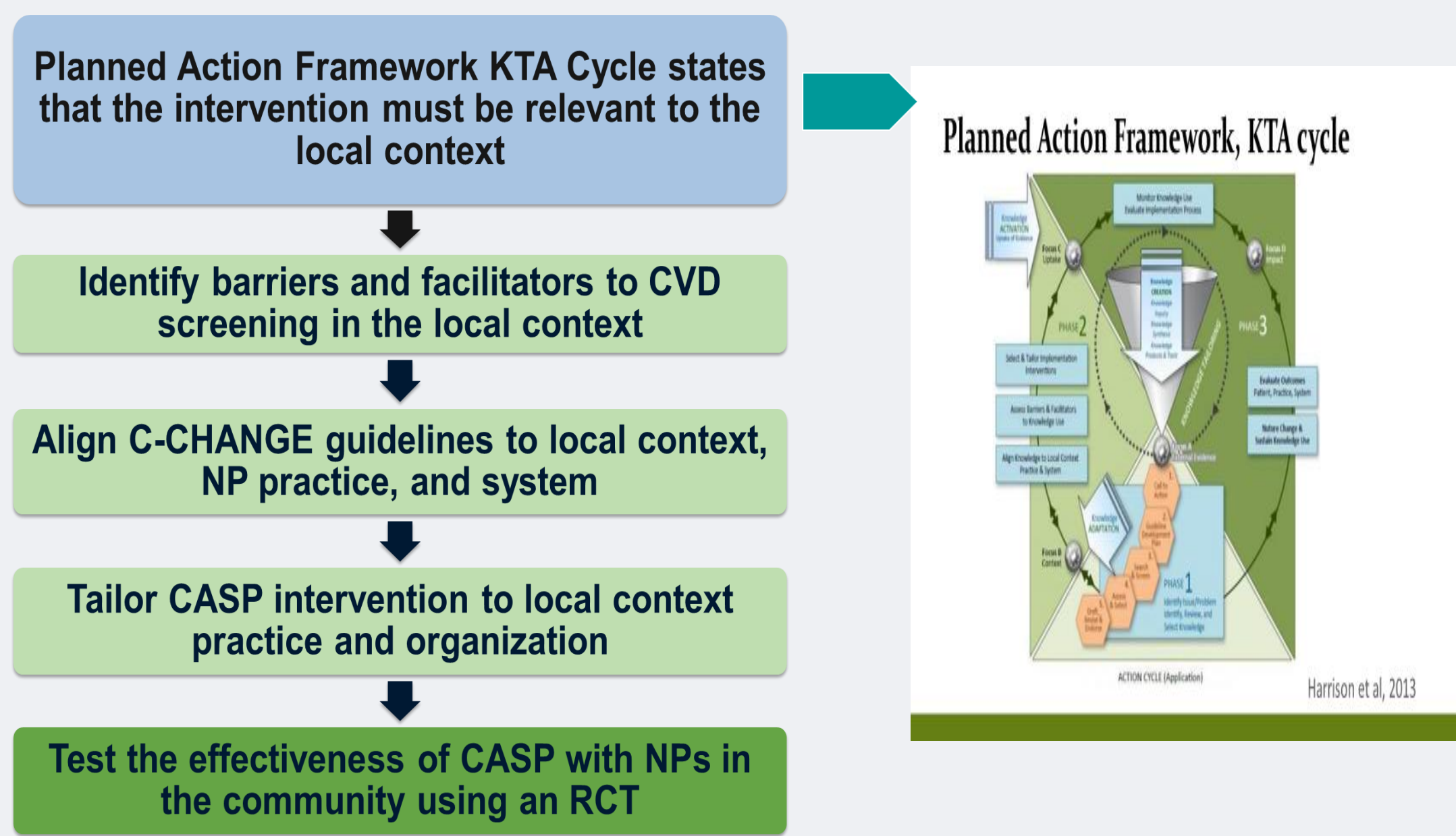


- CVD is the leading cause of death and accounts for 31% of all deaths globally (WHO, 2017).
- CVD results in lost years of life, reduced productivity, and decreased quality of life (Heart Research Institute, 2019).
- NL has social, economic, and environmental conditions which require unique approaches to prevention & primary health care.

BUT
having clinical practice guidelines available... is not enough!

CVD screening and management is complex in daily practice and needs to be contextually and culturally relevant

Why mixed methods research to develop, implement, and test the CASP intervention?



From phase 1 of a mixed methods study, the barriers, facilitators, and strategies for CVD screening emerged as themes and were used to inform the development of the contextually relevant CASP intervention. In phase 2, CASP was implemented and tested with nurse practitioners (NPs) and patients.

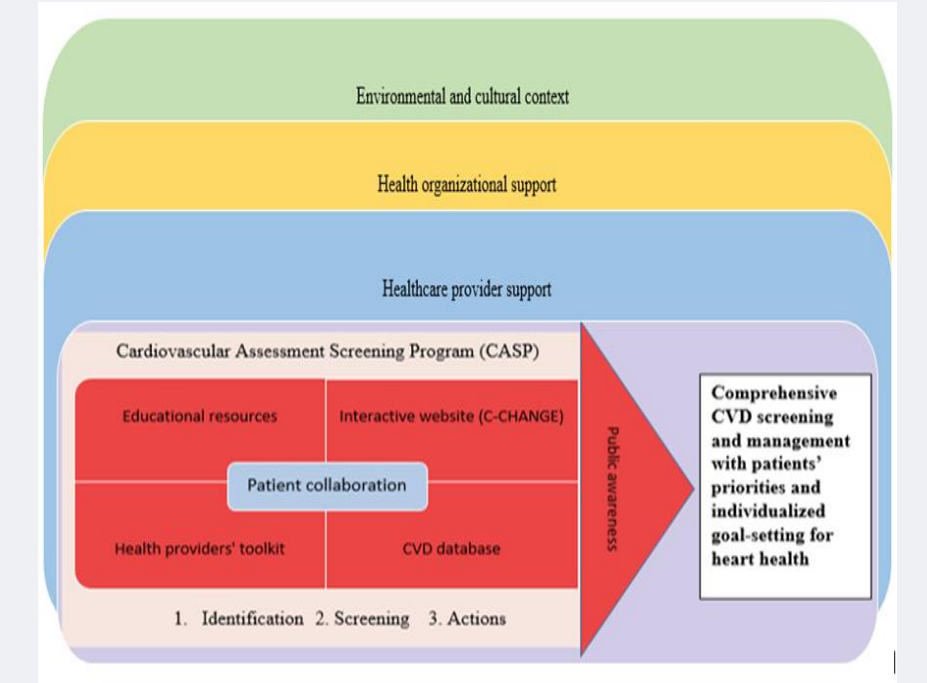
Research Questions for RCT

1. What is the effect of implementing CASP on comprehensiveness of screening by NPs in NL, Canada?
2. What is the effect of implementing CASP on the identification of multiple risk factors for individuals and determining patients' level of CVD risk?
3. What is the effect of implementing CASP on the identification of NPs' and patients' priorities for heart health in NL?
4. What are the NPs' and patients' perspectives about the CASP intervention?

Methods

- Eight (n=8) NPs were recruited and randomly assigned to the intervention group and control group.
- Each NP recruited patients aged 40-74 years without previously diagnosed cardiovascular or vascular disease.
- NPs screened intervention group patients (n=68) using CASP while patients in the control group (n=99) received usual care.
- Data were obtained from a CASP database or from chart reviews of control group patients.

Logic Model for CASP



Results

- Comprehensiveness of CVD screening increased.
 - 90% of NPs using CASP assessed 9 or 10 risk components compared to 2% of control NPs (RR 14.4; CI 7.1-29.4, p<0.0001).

Degree of Comprehensive CVD Screening	Intervention	Control
Comprehensive CVD screening (9-10 components)	90% (61)	2% (2)
Moderate CVD screening (6-8 components)	10.3% (7)	1% (1)
Limited CVD screening (3-5 components)	0% (0)	54% (53)
Minimal CVD screening (1-2 components)	0% (0)	42% (42)

- Over 70% of patients had four or more risk factors for CVD.
 - At high or moderate risk for having a CV event: 65% of patients in the intervention group but unknown for 96% of control group patients.

Number of risk factors	Patients	Sex	Age range (years)	Mean age (years)
7-10	18% (12)	Female 14% (7) Male 27% (5)	40-74 47-58	55 53
4-6	53% (36)	Female 56% (28) Male 44% (8)	44-74 52-66	55 59
2-3	23% (16)	Female 28% (14) Male 11% (2)	41-72 42-58	58 50
0-1	3% (2)	Female 2% (1) Male 5% (1)	54 60	54 60
Unknown	3% (2)	Female 0% (0) Male 11% (2)	- 43-49	- 46

Framingham Risk Score categories	Intervention	Male	Female
High Risk (>20%)	28% (19)	55% (10)	18% (9)
Moderate risk (10-20%)	37% (25)	22% (4)	43% (21)
Low risk (<10%)	27% (18)	5% (1)	34% (17)
Unknown risk	8% (6)	16.6% (3)	6% (3)

- Priorities for risk factor management were identified.
 - 60% of NPs in the intervention group identified 3 to 4 priorities.
 - 80% of intervention patients identified two or more priorities.
 - 94% of the priorities identified by NPs and patients were the same.
 - 75% of patients developed personalised goals using My Heart Healthy Plan.
- Motivational interviewing was used by 75% of intervention group NPs vs. 33% of control group NPs.
- 72% of patients in the intervention group used the CASP website and all patients who completed feedback forms recommended that family and friends participate in CASP in the future.

Key Messages

- CASP was effective for increasing comprehensive CVD screening by NPs with their patients in one province in Canada.
- CASP helped to engage patients in priority setting and personalised goal-setting which can lead to behaviour change and potential improvements in heart health in the future.
- CASP, if implemented with appropriate structures and supports, can lead to increased screening so that more risk factors can be identified and managed early, potentially leading to improved health outcomes for many people.