

SMALL STEPS FOR **BIG** CHANGES

Healthy Diet Healthy Lives

May 13, 2025
Mary Jung

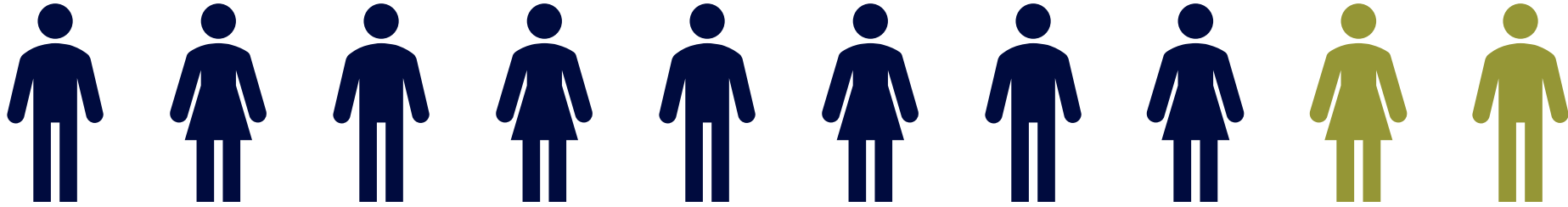






1 in 5

Canadians have prediabetes



More than **80%** of
people with prediabetes **don't know they have it**



Without weight loss and moderate physical activity, **70%** of people with
prediabetes will develop type 2 diabetes (T2D) within their lifetime.

SMALL STEPS FOR **BIG** CHANGES





Counselling program that helps people at high risk of developing type 2 diabetes make lasting dietary and exercise changes

- Personalized, evidence-based counselling
- Brief and sustainable to deliver
- Encourages maintenance

SMALL STEPS
FOR **BIG CHANGES**

An Overview of SSBC



**6 one-on-one
sessions**



**MI
counselling**



**Supervised
exercise**



Follow ups



Motivational Interviewing Counselling Style

- Patient driven
- Autonomy supportive
- Less testing
- More listening

Intervention Components

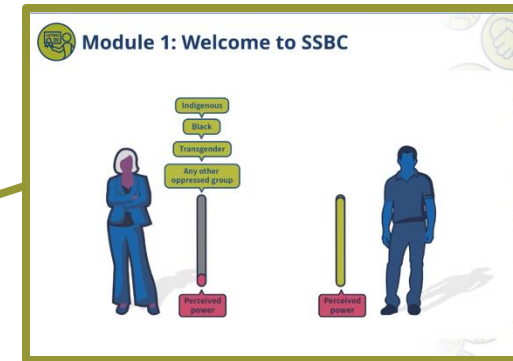
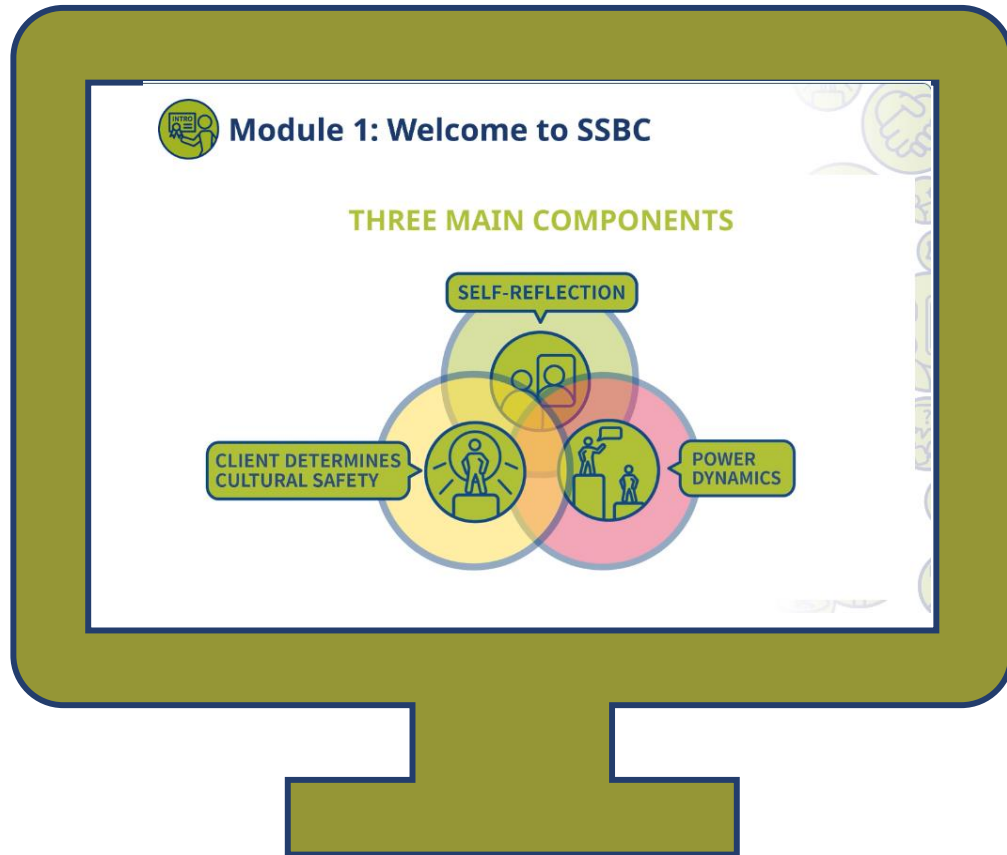
- Self-monitoring
- Goal setting
- Relapse prevention planning
- Diet and exercise education
- Independent and supervised exercise
- Reflection of behaviour change

**“Never a prescription
always a
conversation”**



- Motivational Interviewing
Style
- Components
- Self-monitoring
 - Goal setting
 - Relapse prevention planning
 - Diet and exercise education
 - Independent and supervised exercise
 - Reflection of behaviour change

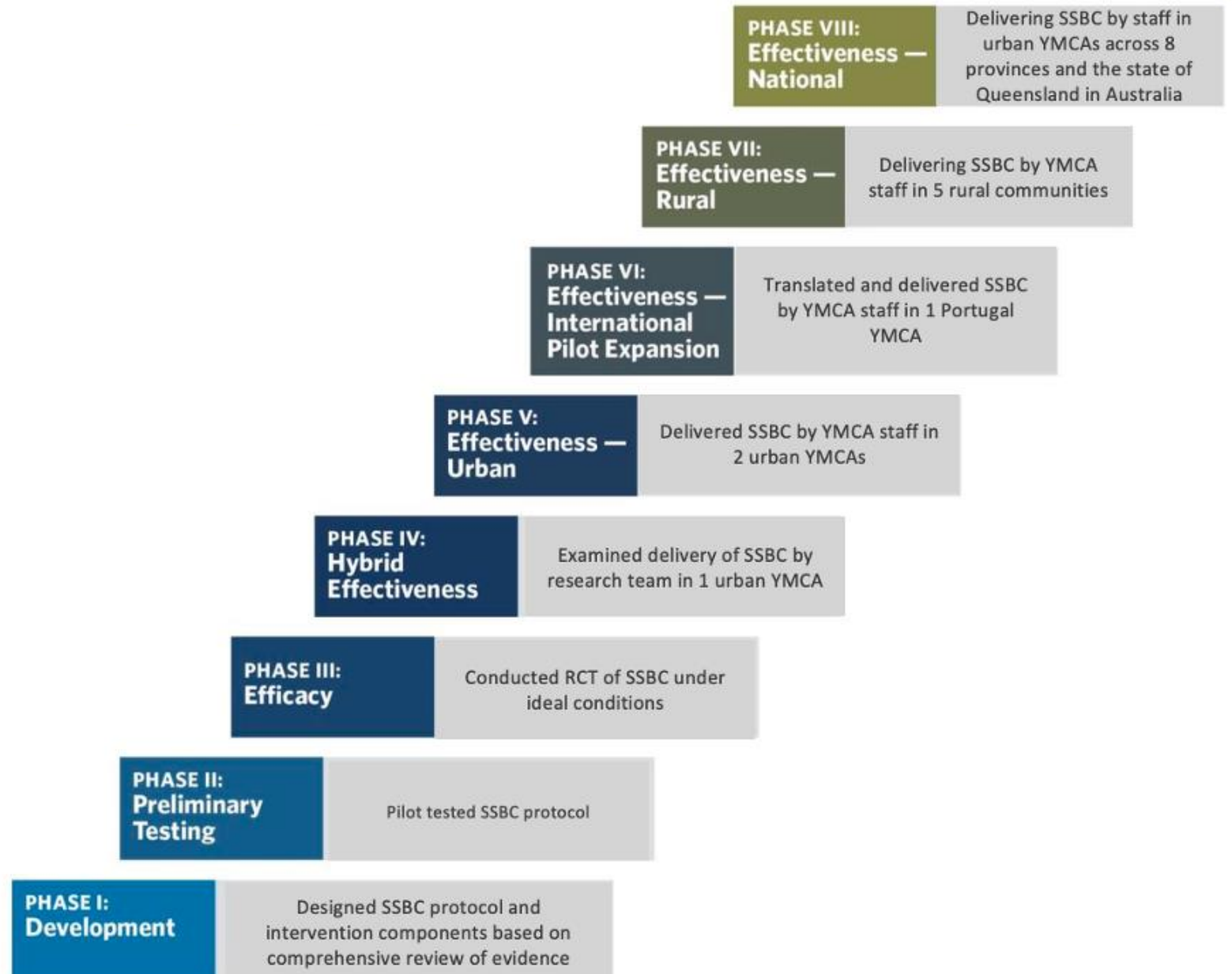
SSBC Coach Training



Program Equity



SCALE-UP CONTINUUM



SCALE-UP CONTINUUM



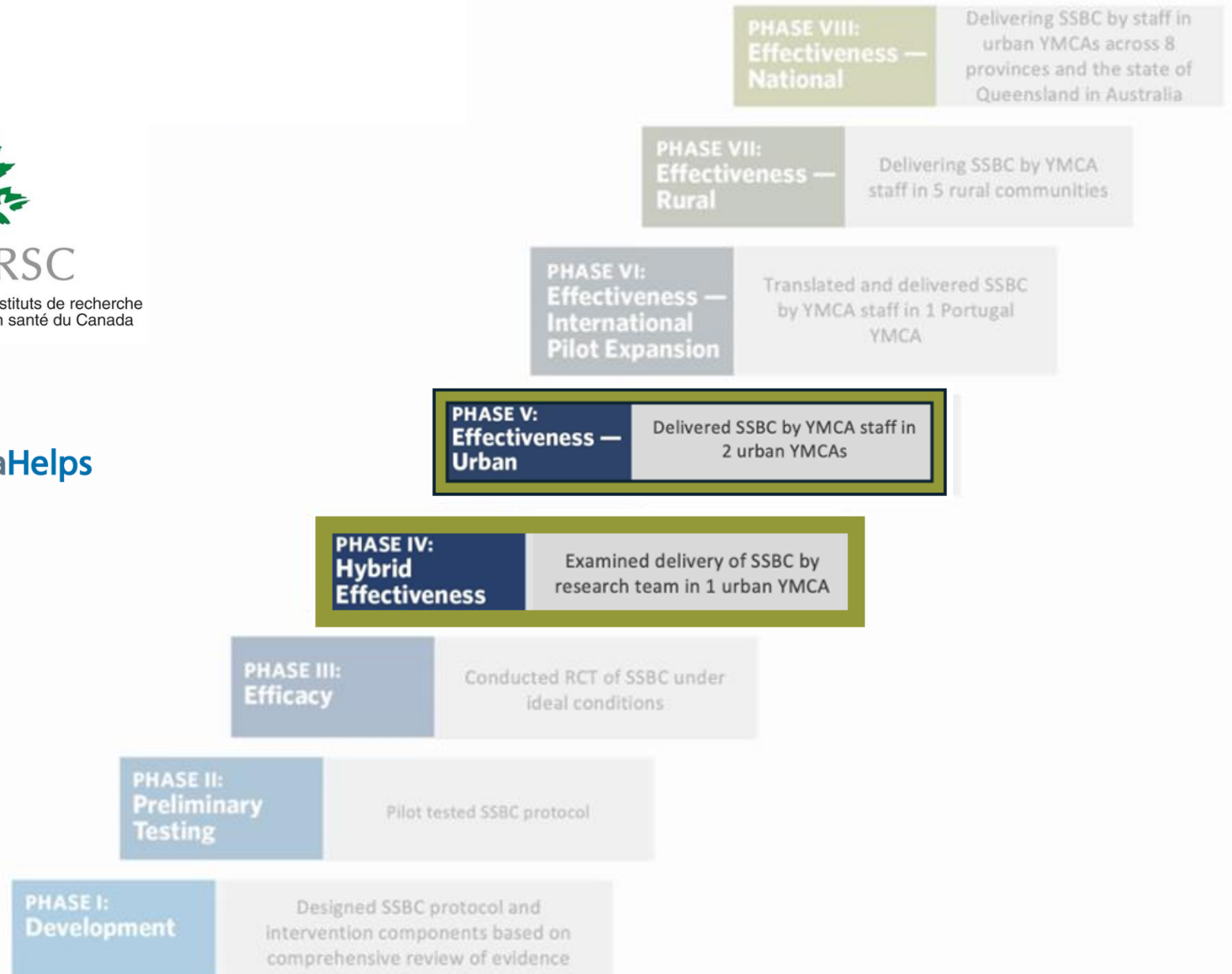
CIHR IRSC



Canadian Institutes of Health Research
Instituts de recherche en santé du Canada



CanadaHelps



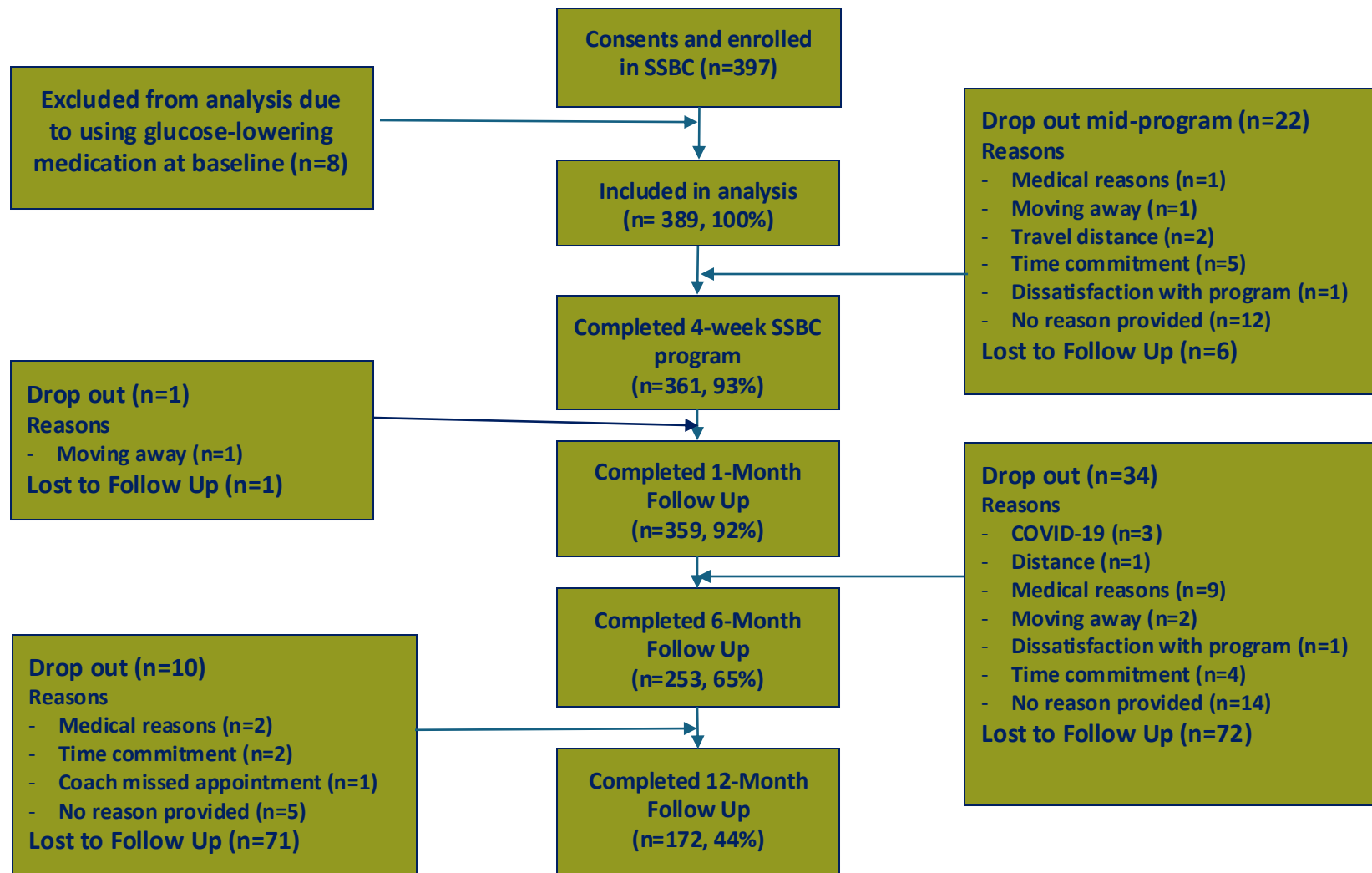


Figure 1. Flow of participants

(under review)

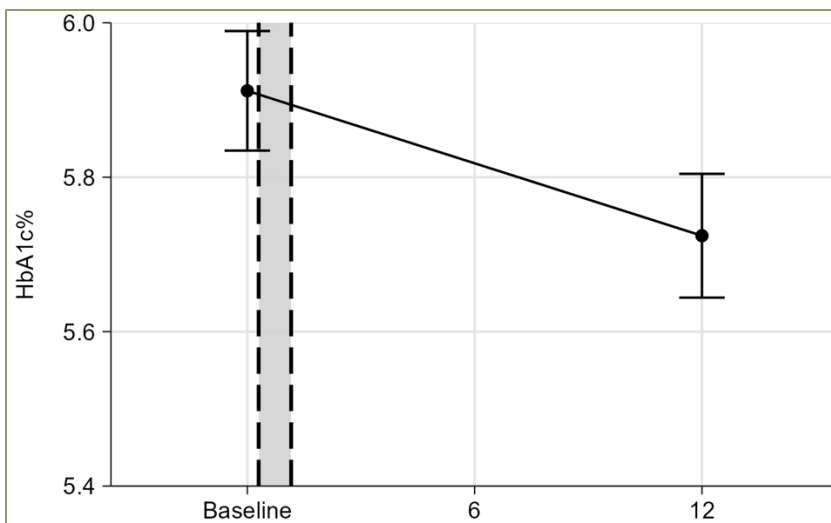


Figure 2a

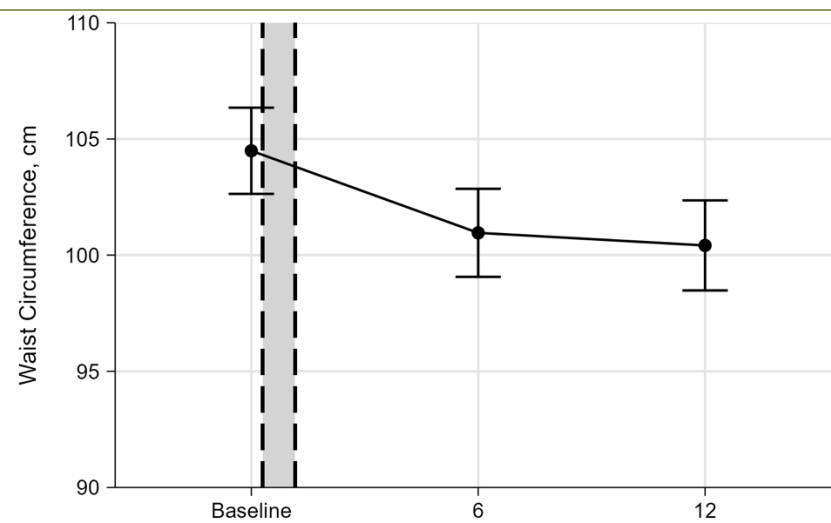


Figure 2b

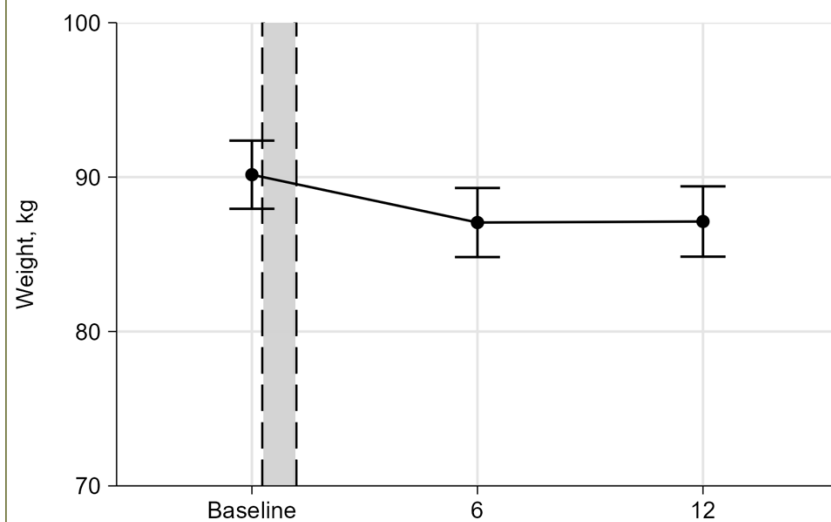


Figure 2c

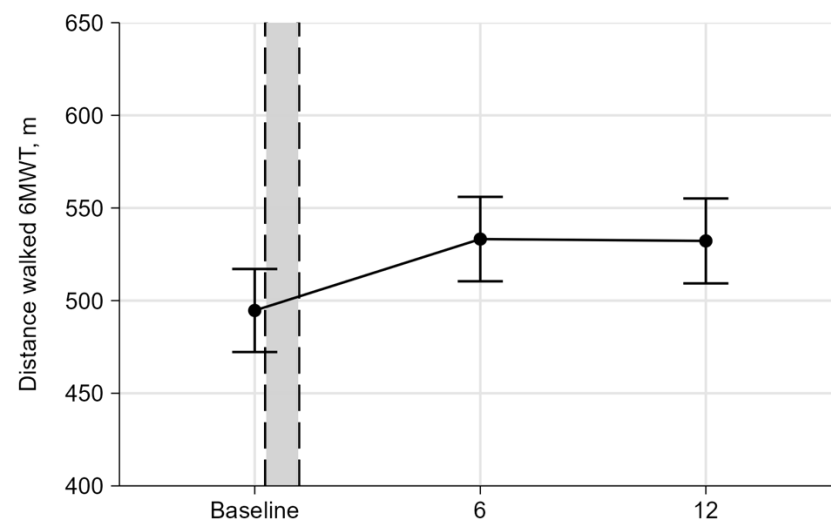


Figure 2d

Time (months from end of SSBC)

Figure 2. Changes in clinical outcomes over time. Values presented as estimated marginal mean $\pm$ standard error for each timepoint. Dashed lines with grey fill represent the SSBC program

(under review)

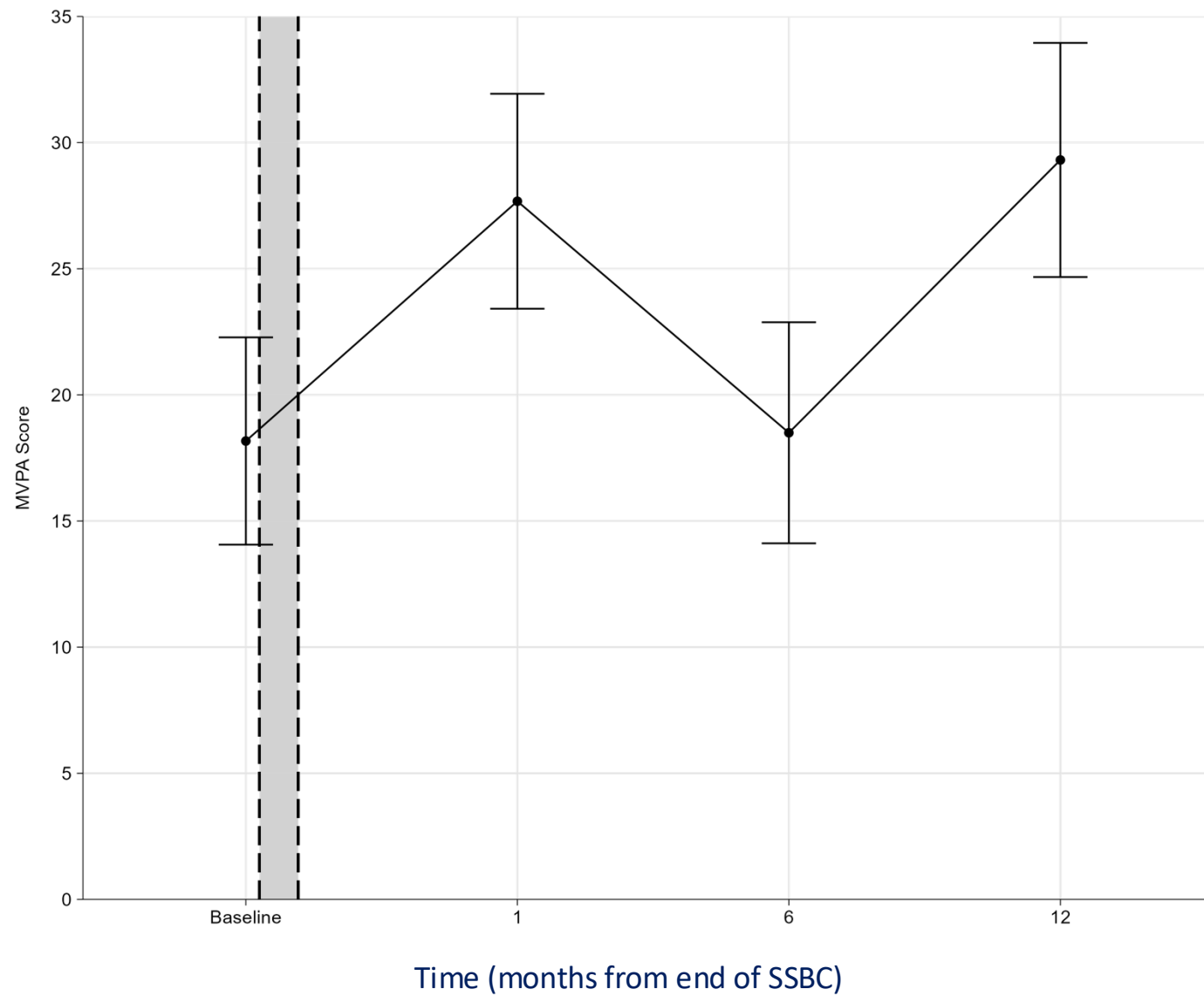


Figure 3. Changes in Moderate to Vigorous Physical Activity scores over time. Values presented as mean $\pm$ standard error for each timepoint. Dashed lines with grey fill represent the SSBC program (under review)

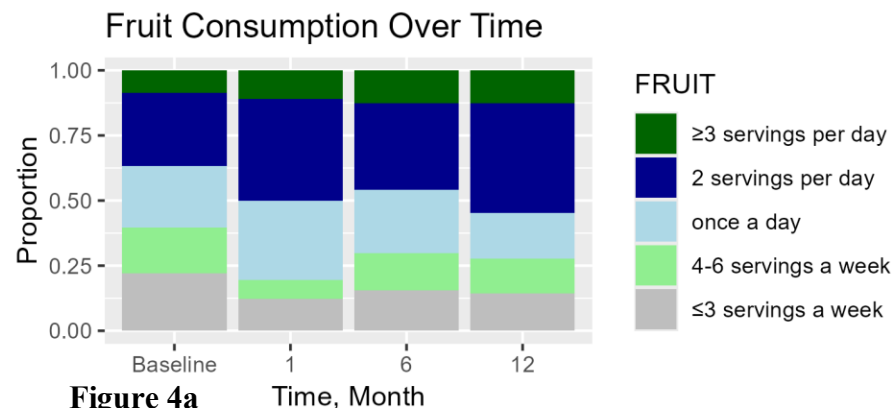


Figure 4a

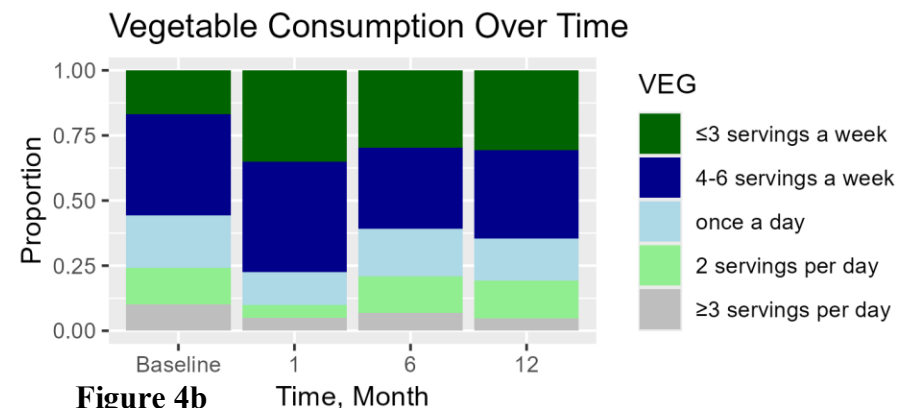


Figure 4b

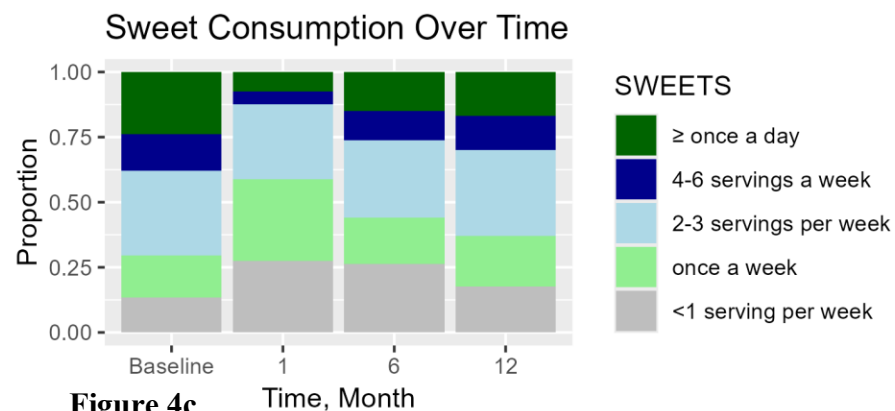


Figure 4c

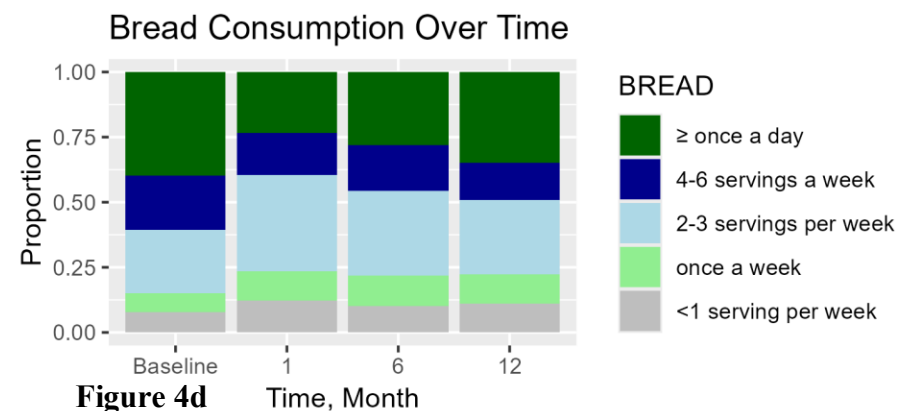


Figure 4d

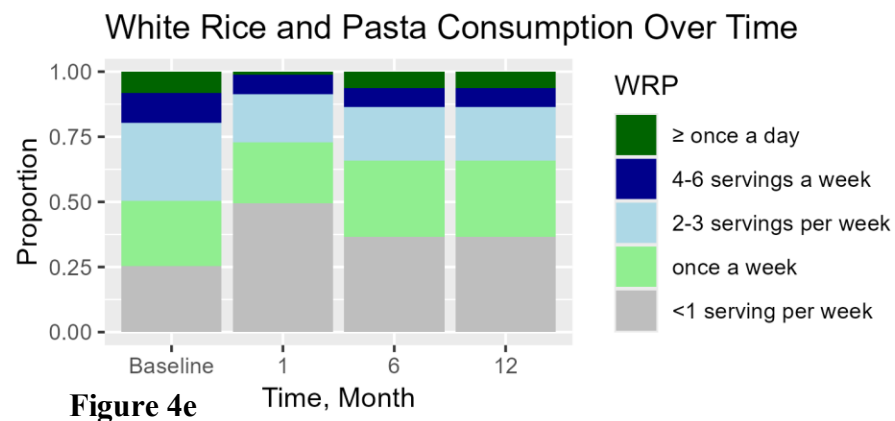
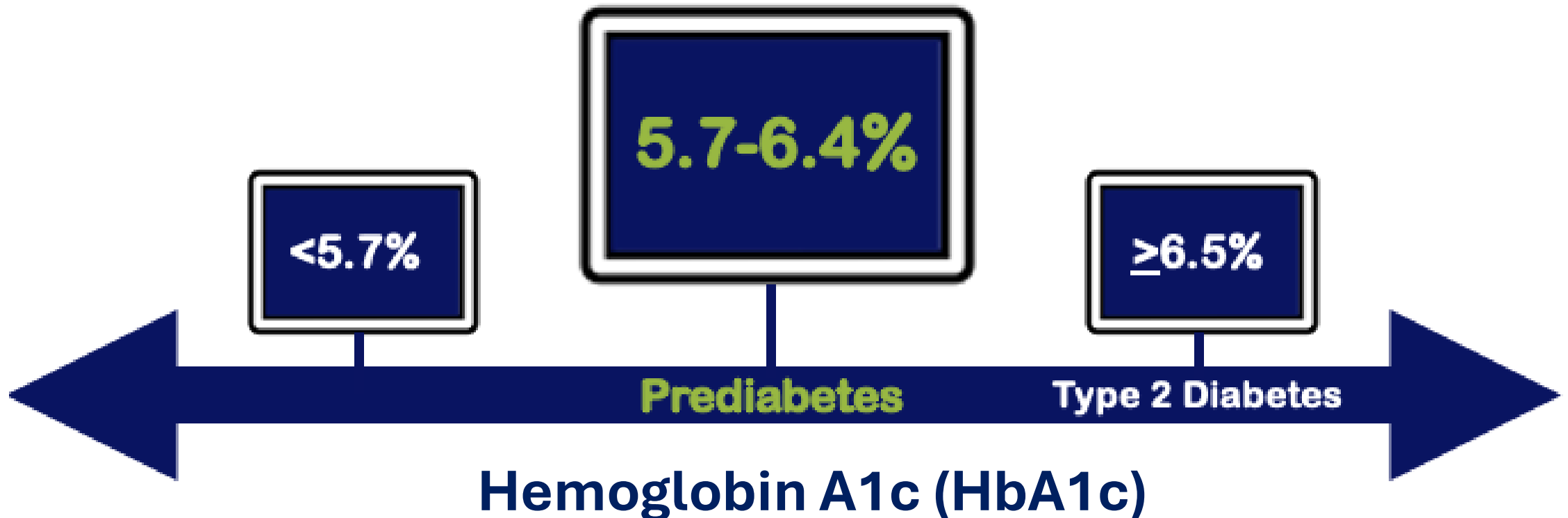


Figure 4e

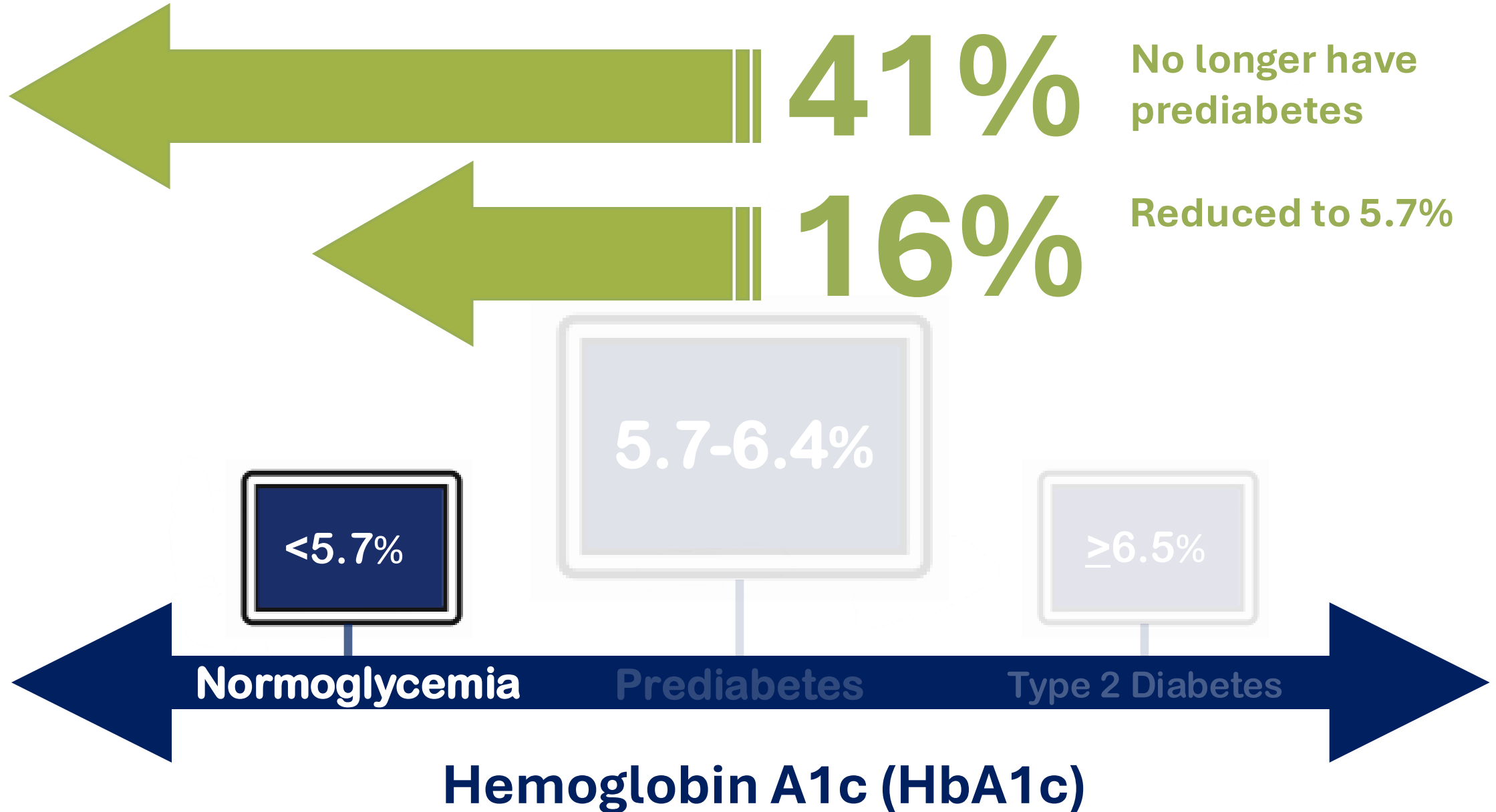
Figure 4. Changes in dietary intake category over time as a proportion of the total responses, NAs excluded.

(under review)

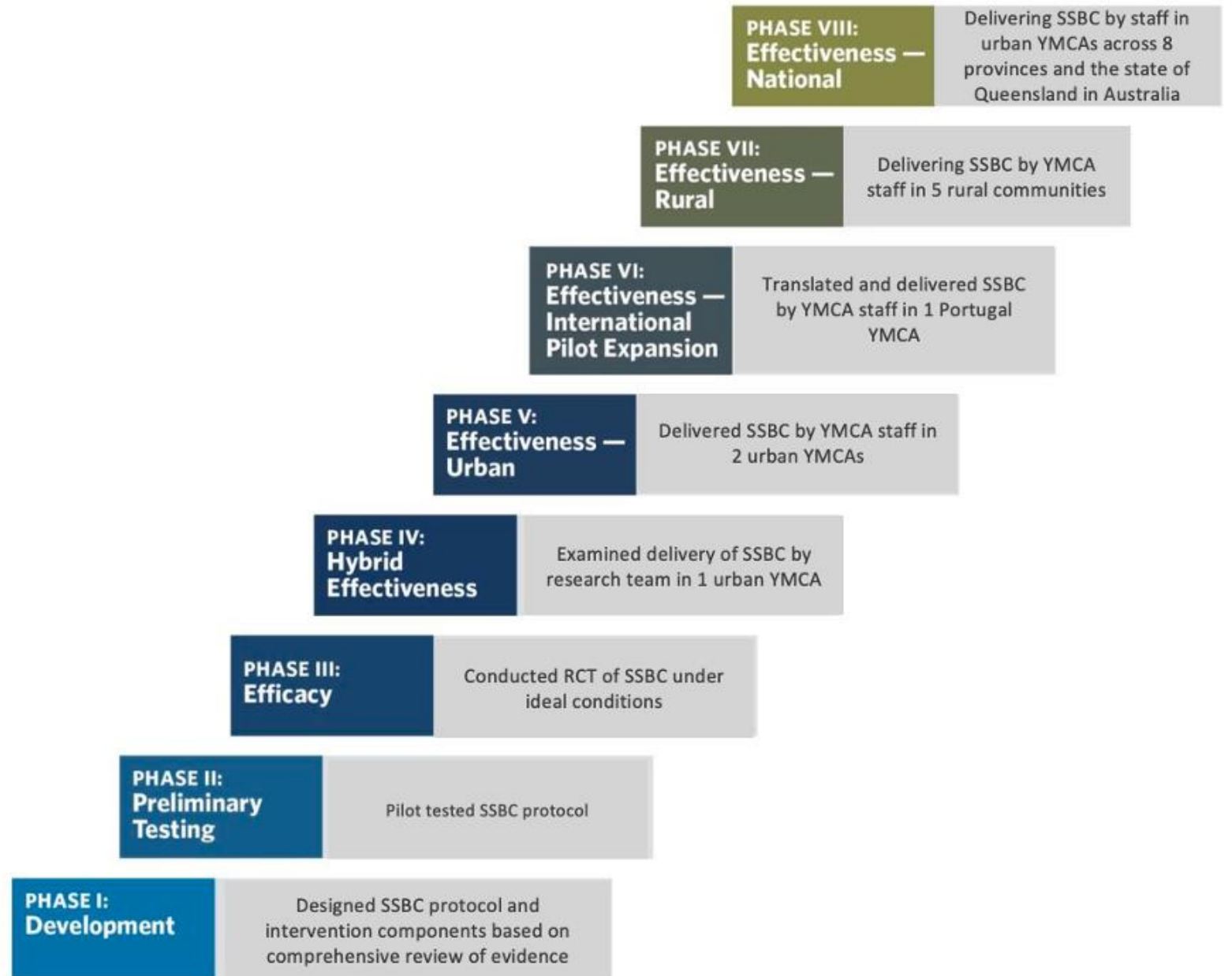
1 year after completing the program:



1 year after completing the program:



SCALE-UP CONTINUUM



SCALE-UP CONTINUUM



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Australian Government
National Health and
Medical Research Council



Public Health
Agency of Canada

Agence de la santé
publique du Canada

Scale-up of
Programs or Big Changes

PHASE I:
Development

Designed SSBC protocol and intervention components based on comprehensive review of evidence

PHASE II:
Preliminary
Testing

Pilot tested SSBC protocol ($n = 32$)

PHASE III:
Efficacy

Conducted RCT of SSBC under ideal conditions ($n = 99$)

PHASE IV:
Hybrid
Effectiveness

Examined delivery of SSBC by research team in 1 urban YMCA ($n = 350$)

PHASE V:
Effectiveness —
Urban

Delivered SSBC by YMCA staff in 2 urban YMCAs ($n = 38$)

PHASE VI:
Effectiveness —
International
Pilot Expansion

Translated and delivered SSBC by YMCA staff in 1 Portugal YMCA ($n = 100$)

PHASE VII:
Effectiveness —
Rural

Delivering SSBC by YMCA staff in 5 rural communities ($n = 300$)

PHASE VIII:
Effectiveness —
National

Delivering SSBC by staff in urban YMCAs across 8 provinces and the state of Queensland in Australia

A circular icon with a green border and a blue background, featuring a white target symbol with an arrow hitting the bullseye.

AIM: This project aims to evaluate the implementation and effectiveness of Small Steps for Big Changes across diverse urban communities

A circular icon with a green border and a blue background, featuring a white line drawing of a notepad with a pencil.

DESIGN: Hybrid type 2 effectiveness - implementation trial



11 Initial Sites
33 Expansion
Sites



5 Sites

Canada



Clients

400/Initial site
100/Expansion site



Coaches

10/Initial site
5/Expansion site

Queensland



Clients

120/each site



Coaches

10/each site

Implementation



What strategies are used to reach targeted audiences and what municipal factors influence these?

What program components are sustained or adapted over time, and what influence does any such adaptation have on sustainability?



What program and implementation strategy adaptations are needed for SSBC to meet the needs of diverse sex, gender municipal, and ethnocultural contexts?

What organizational, programmatic, and co contextual factors optimize SSBC implementation and sustainability?



What implementation determinants influence implementation outcomes, in what ways, and under what circumstances?

How does ethnocultural identity, sex, and gender and (mis)matches of these between patients and coaches intersect with program delivery, satisfaction, engagement, and effectiveness outcomes?



Effectiveness



How does implementation impact clinical and cost-effectiveness of SSBC across distinct settings?

What is the cost-effectiveness of Small Steps for Big Changes?



What is the impact of SSBC 12- and 24- months post-program on T2D status (self-report and HbA1c), physical activity, diet, weight, and cardio-respiratory fitness?

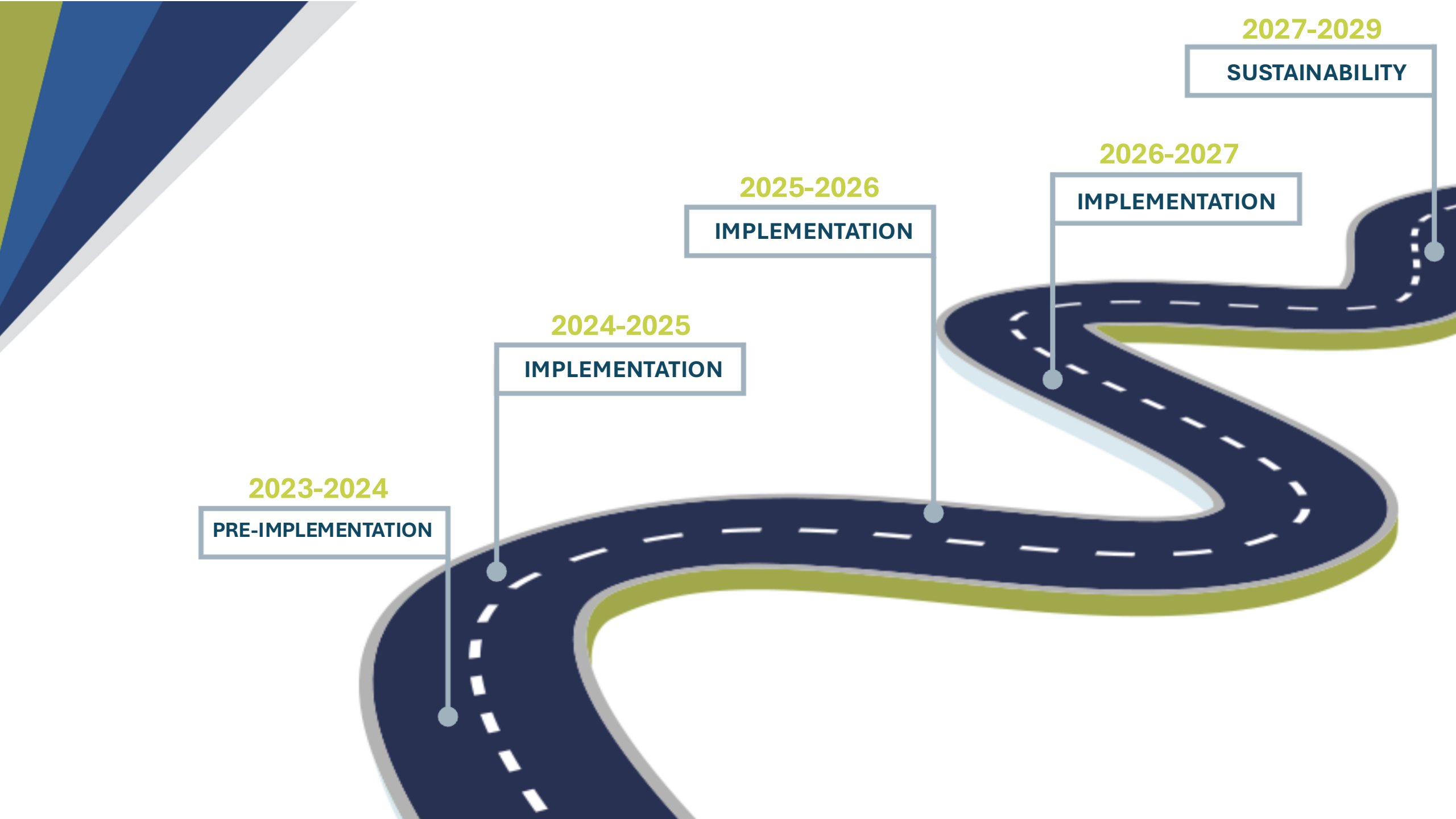
Effectiveness Evaluation



Sub sample **n=1285**

HbA1c: followed across **24 months**

Oversample for **equity-owed groups**



The diagram features a dark blue winding road with white dashed lines, set against a light green background. The road starts at the bottom left and curves upwards and to the right, ending at the top right. Five points are marked along the road with grey dots, each connected by a vertical line to a rectangular box. The boxes contain text indicating time periods and stages. The text is in a bold, sans-serif font. The time periods are in a yellow-green color, while the stage names are in dark blue. The overall design is clean and modern.

2023-2024
PRE-IMPLEMENTATION

2024-2025
IMPLEMENTATION

2025-2026
IMPLEMENTATION

2026-2027
IMPLEMENTATION

2027-2029
SUSTAINABILITY



13

PROGRAM REACH

Registrations: **390**

Completed program: **130**

Coaches Trained: **48**

HbA1C SUB-STUDY

Currently enrolled: **70**

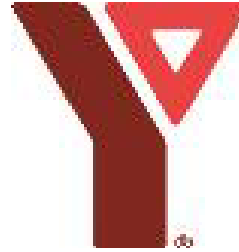
Baseline results: **37**

20% identified as a visible minority

87% identified as a woman



Sustainability



SMALL STEPS
FOR **BIG CHANGES**



Thank you! Questions?

- Community Collaborators
- YMCA Partners
- SSBC Participants



Diabetes Prevention **SMALL STEPS**
Research Group FOR **BIG CHANGES**

