

BACKGROUND

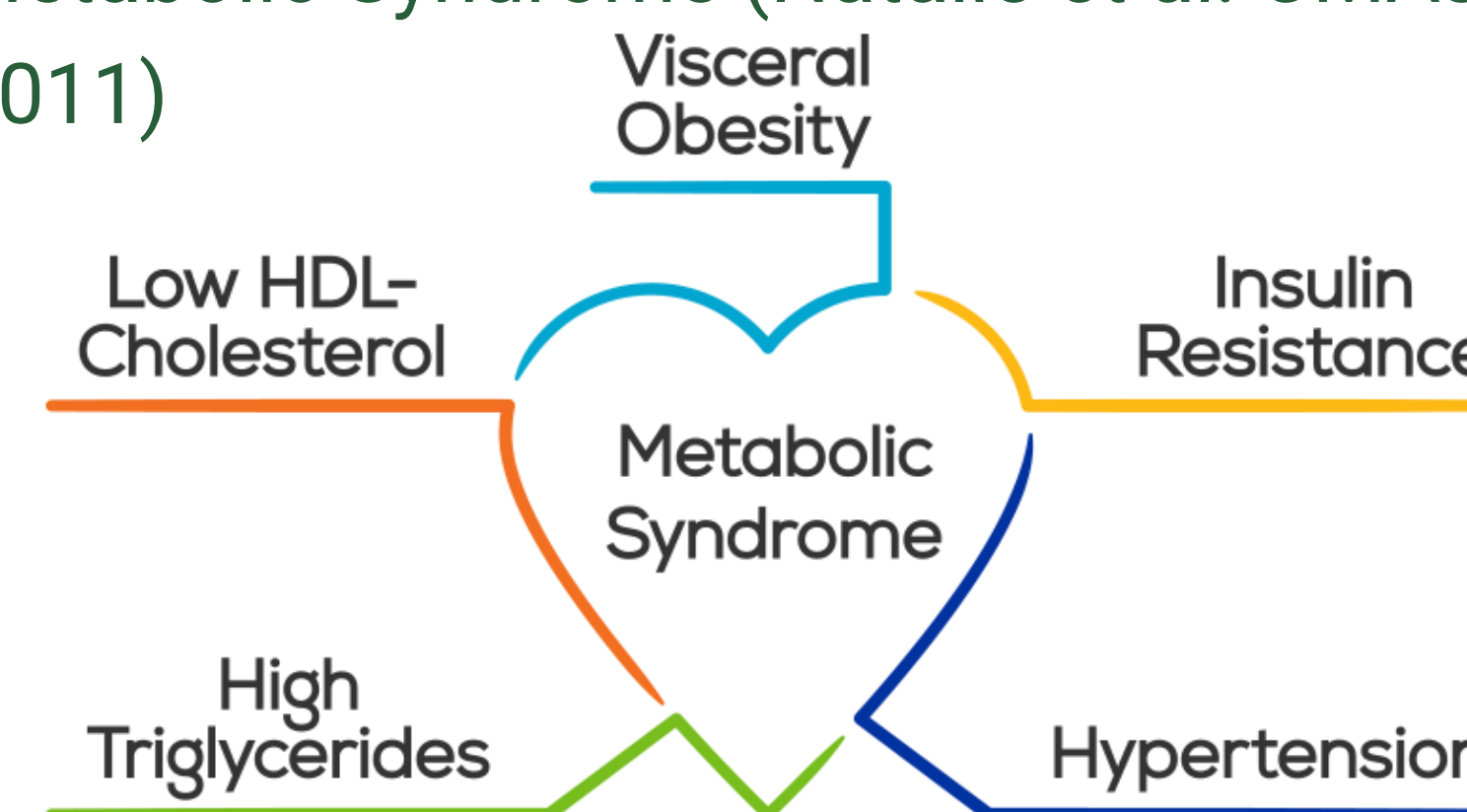
What is Metabolic Syndrome?

Metabolic Syndrome (MetS) is present when:

1. High blood pressure ($\geq 130/85$ mm Hg, or receiving medication)
2. High blood glucose levels (≥ 5.6 mmol/L, or receiving medication)
3. High triglycerides (≥ 1.7 mmol/L, or receiving medication)
4. Low HDL-Cholesterol (< 1.0 mmol/L in men or < 1.3 mmol/L in women)
5. Large waist circumference (≥ 102 cm in men, ≥ 88 cm in women; ranges vary according to ethnicity)

MetS is a health crisis hiding in plain sight

- According to a 2014 study published in Chronic Diseases and Injuries in Canada (Rao et al, 2014), 19.1% of all Canadian adults – nearly 1 in 5 people – have Metabolic Syndrome (Natalie et al. CMAJ, 2011)

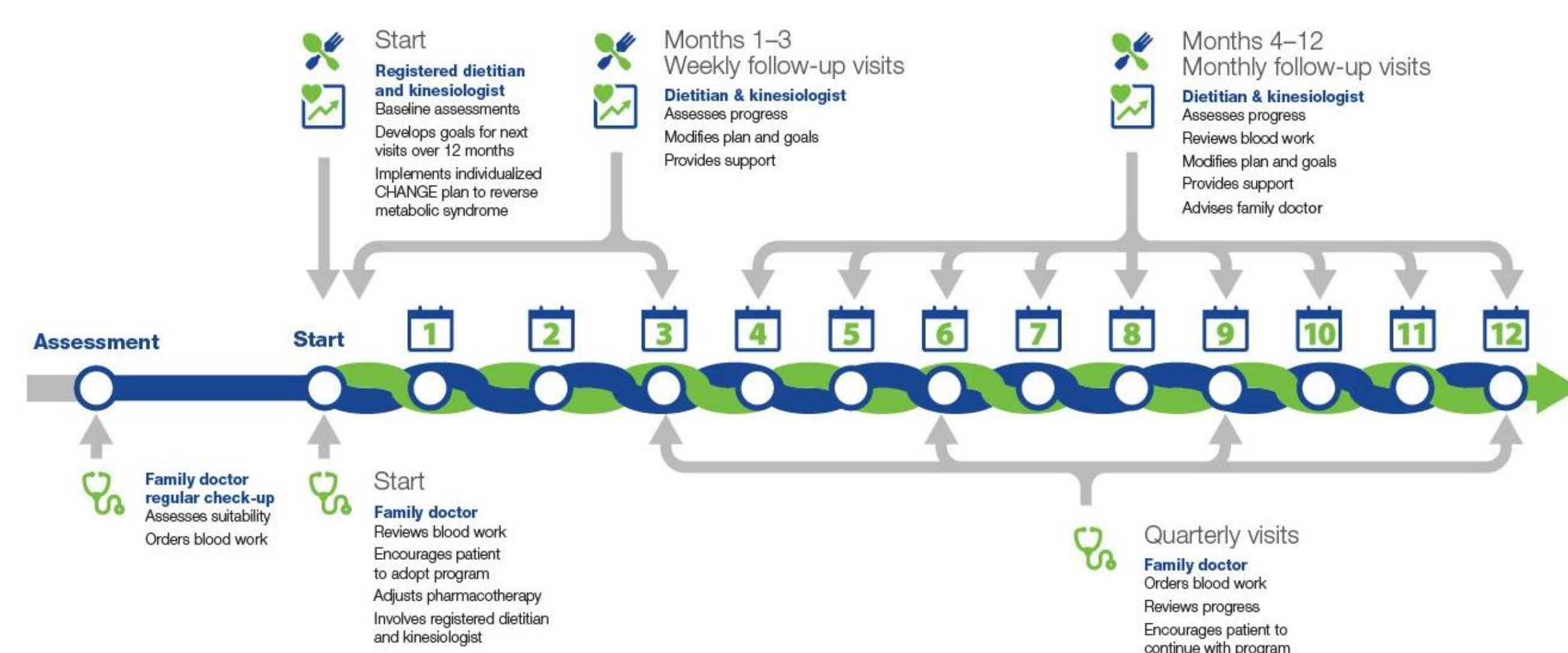


Canadian Health Advanced by Nutrition and Graded Exercise (CHANGE)

- Unique evidence-based lifestyle, year long intervention developed using medical research
- Team approach draws on the expertise of family doctors (FD), Dietitians and Exercise specialists
- Makes efficient use of each professional's time.
- FD plays a central role in identifying patients and encouraging participation
- Dietitian and Exercise Specialist actively guide the lifestyle intervention with frequent one-on-one or group sessions.



Program Overview



CURRENT TRIAL

DESIGN

- Cluster RCT in 16 PCNs across Alberta
 - > 40 Clinics involved
 - > 150 Family Physicians involved
 - 750 patients screened
- Data collection of MetS Variables, Diet, Exercise, CVD Risk (PROCAM), SF-12, EQ-5D-5L, and others
- Cost Effectiveness Evaluation

RESEARCH QUESTIONS

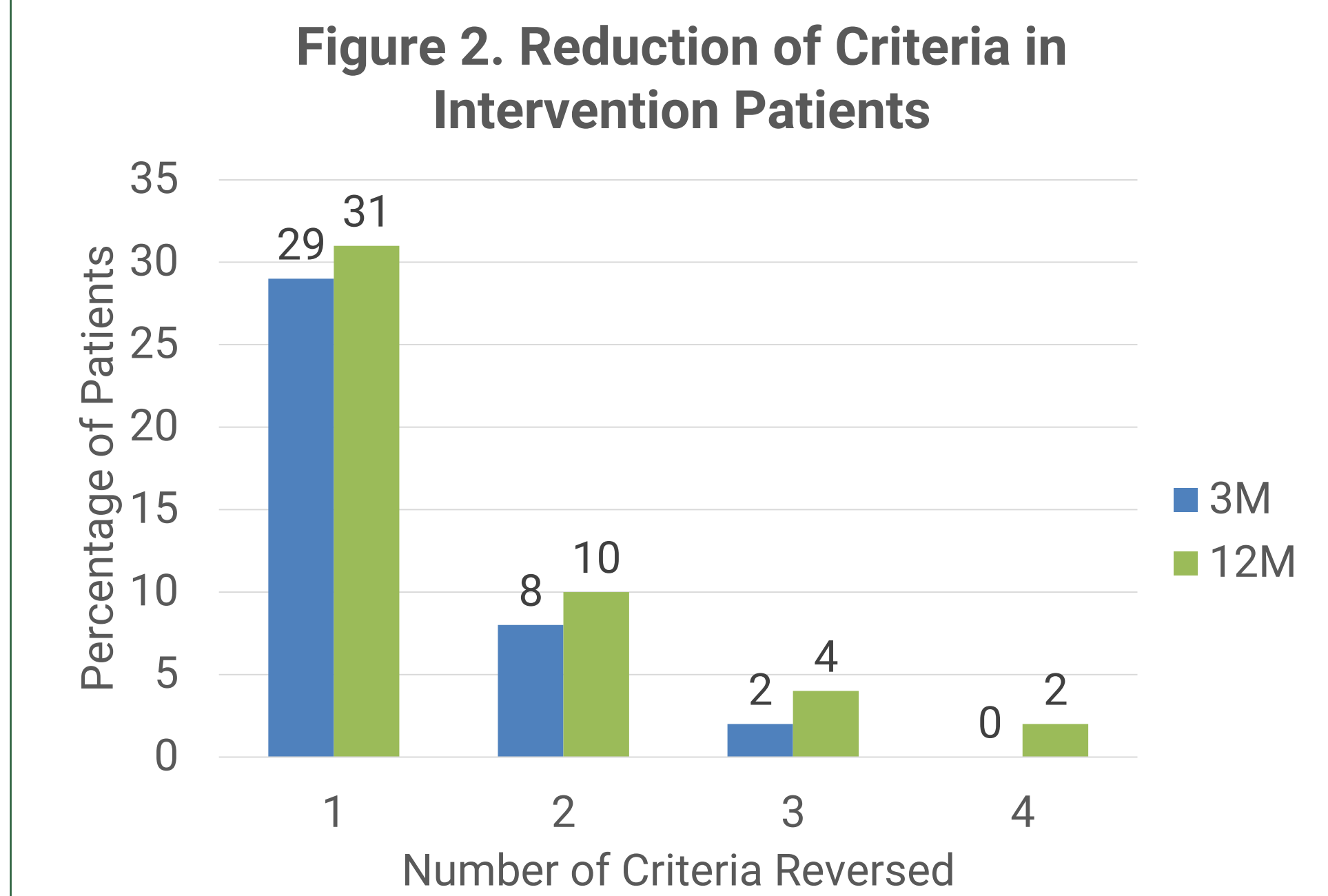
- Can patients with MetS who participate in the CHANGE intervention achieve greater reversal of MetS (no longer meeting 3 of 5 diagnostic criteria) at 12 months compared to patients who receive usual care?
- What is the cost-effectiveness of the CHANGE intervention compared with usual care?
- What are health professional and patient experiences of the intervention?

HYPOTHESIS

- Metabolic Rehab will be effective and cost-effective at 12 months in reversing MetS when implemented in a variety of community PCNs in Alberta, but the treatment effect may vary depending on patient and PCN characteristics

FINDINGS

QUANTITATIVE



QUALITATIVE

- Team approach of CHANGE facilitates collaborative work among health professionals, allowing them to work together in meaningful ways to support patients
- Health professionals noticed improved health in many patients, as well as increased confidence and knowledge about both physical activity and nutrition

COST EFFECTIVENESS

- Economic evaluation underway with the Institute for Health Economics → will take time to complete

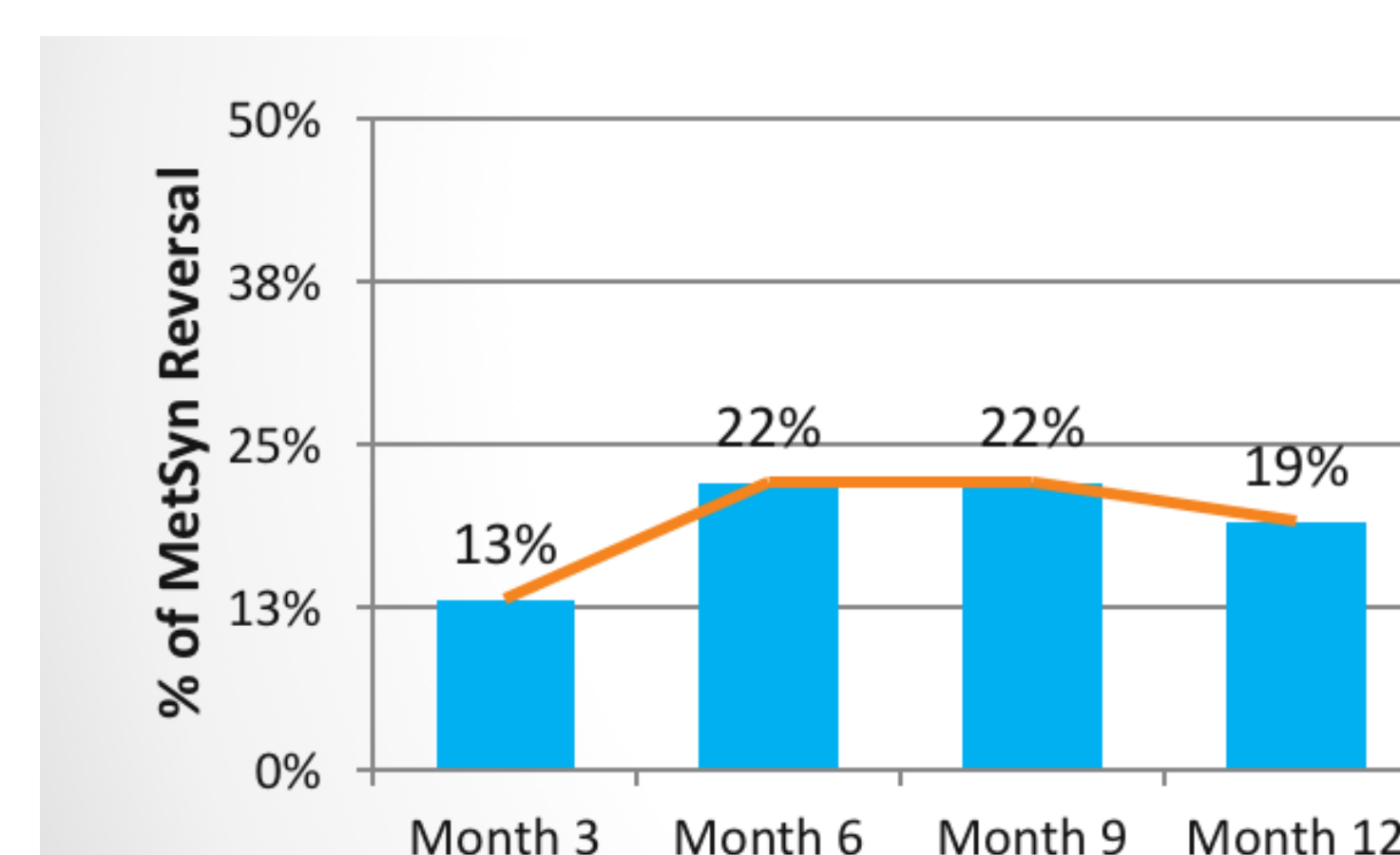
CHANGE DEMONSTRATION PROJECT

- Ran December 2012-2014
- n =300 patients
- 3 Primary Care clinics across Canada
- Data collection on MetS variables, diet and exercise
- Genetic analyses

RESULTS

- 19% reversal of MetS in 12 months
- Reduced components of MetS in 42% of patients by month 12
- Patients felt that the activity and diet changes they made were sustainable

Figure 1. Reversal Rate of MetS



DISCUSSION

- Were able to continue Metabolic Rehab in spite of the Pandemic
 - Pivoted to online delivery
- Quantitative Analysis is ongoing to clarify findings and treatment effects
- Relationships are vital in any project with connections with patients and between professionals particularly important for CHANGE
- Patience is always important in research as you allow evidence to build for concepts and program
- Communication is key, especially in the fast-paced primary care world, where health professionals often wear more than one hat and may move around.
- Flexibility and adaptability are also key for patients and for health professionals

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