



Preventing Youth-Onset Type 2 Diabetes by Building Healthier Communities

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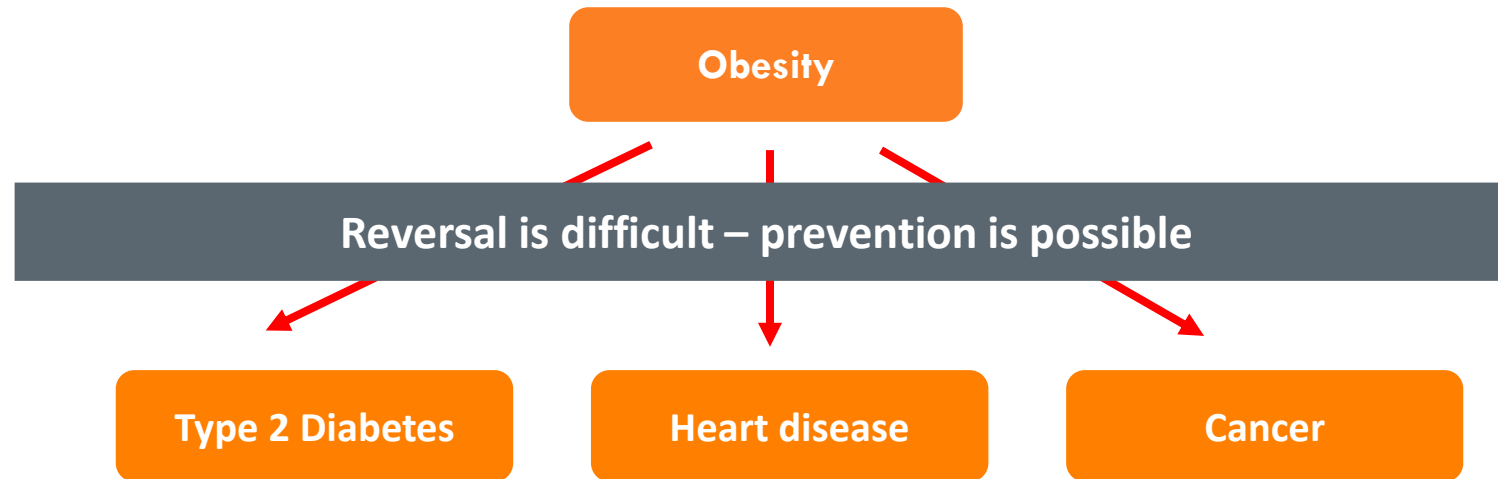
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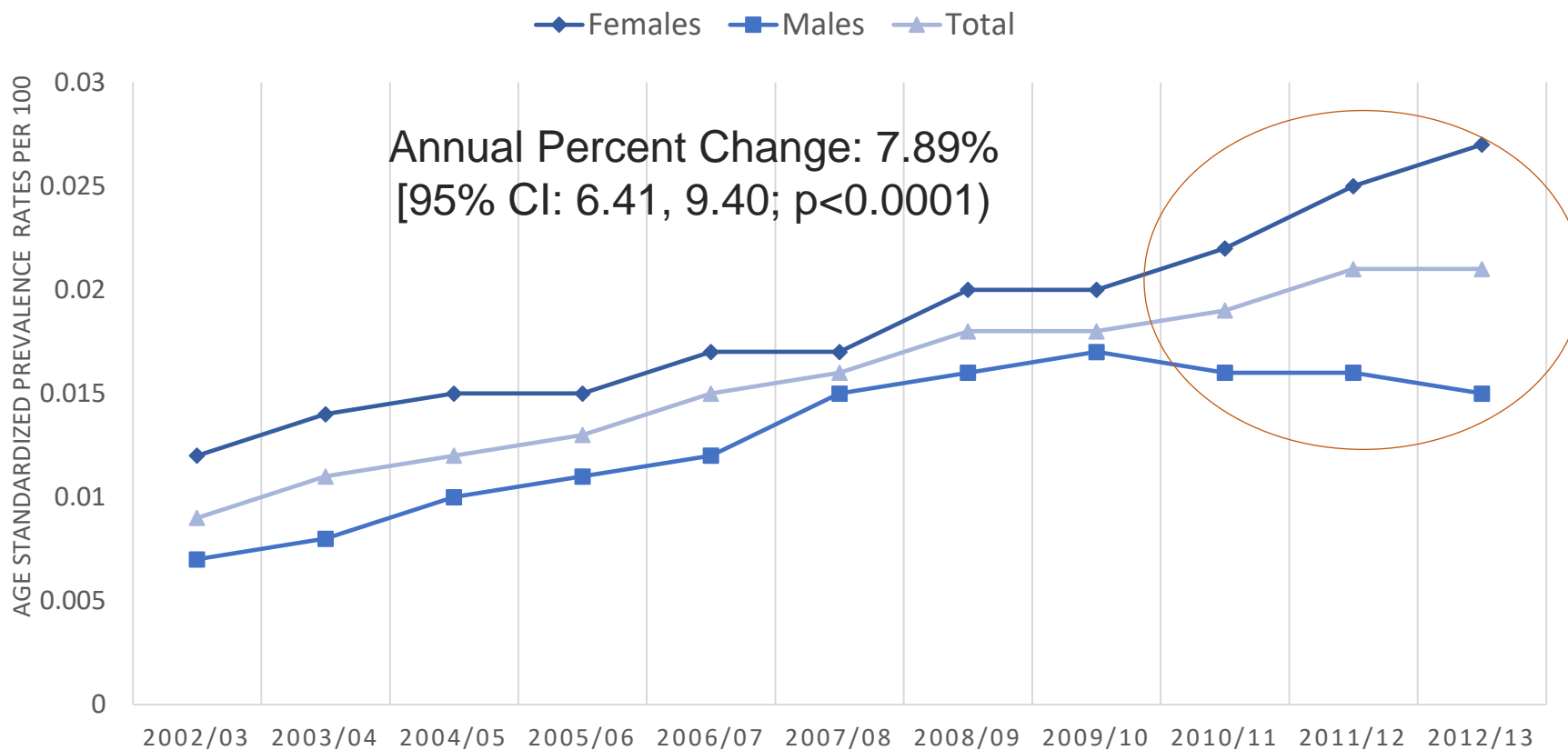
The Problem

- **30%** of Canadian children are overweight or obese
- **80%** of obese youth (ages 12-17) in BC will become obese adults
- Concern is NOT about body size, shape or weight
- Childhood obesity increases the risk of serious chronic disease



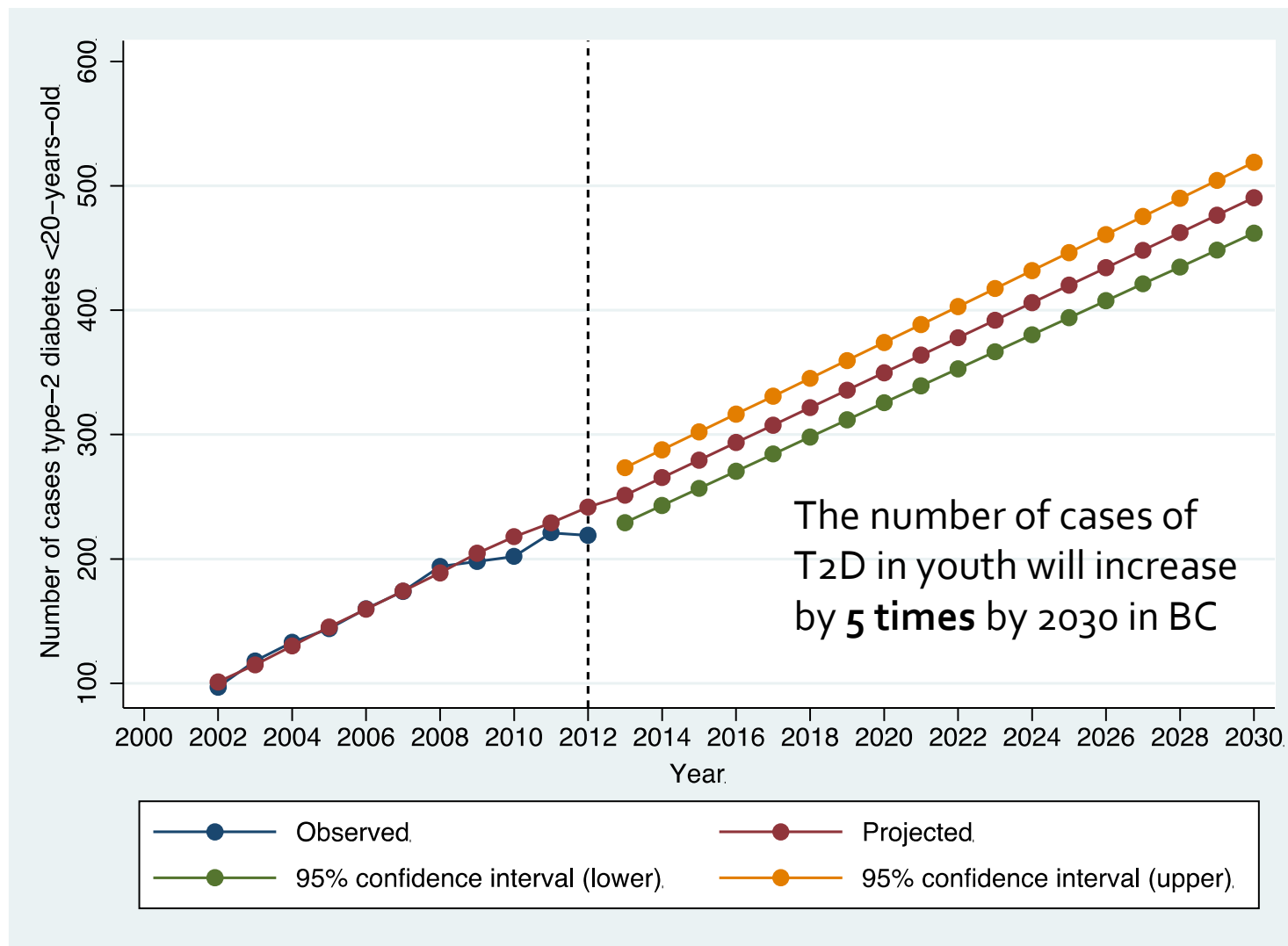
Type 2 Diabetes (T2D): *'An Adult's Disease in Children'*

AGE STANDARDIZED PREVALENCE RATES PER 100 YOUTH <20 YEARS OF AGE LIVING IN BC BY SEX AND YEAR



Type 2 Diabetes (T2D):

'An Adult's Disease in Children'



Type 2 Diabetes (T2): *'An Adult's Disease in Children'*



95% are obese

Unhealthy weights are the single most important risk factor for Type 2 Diabetes in youth

Type 2 Diabetes (T2): *'An Adult's Disease in Children'*



**38% also had at least
one complication**

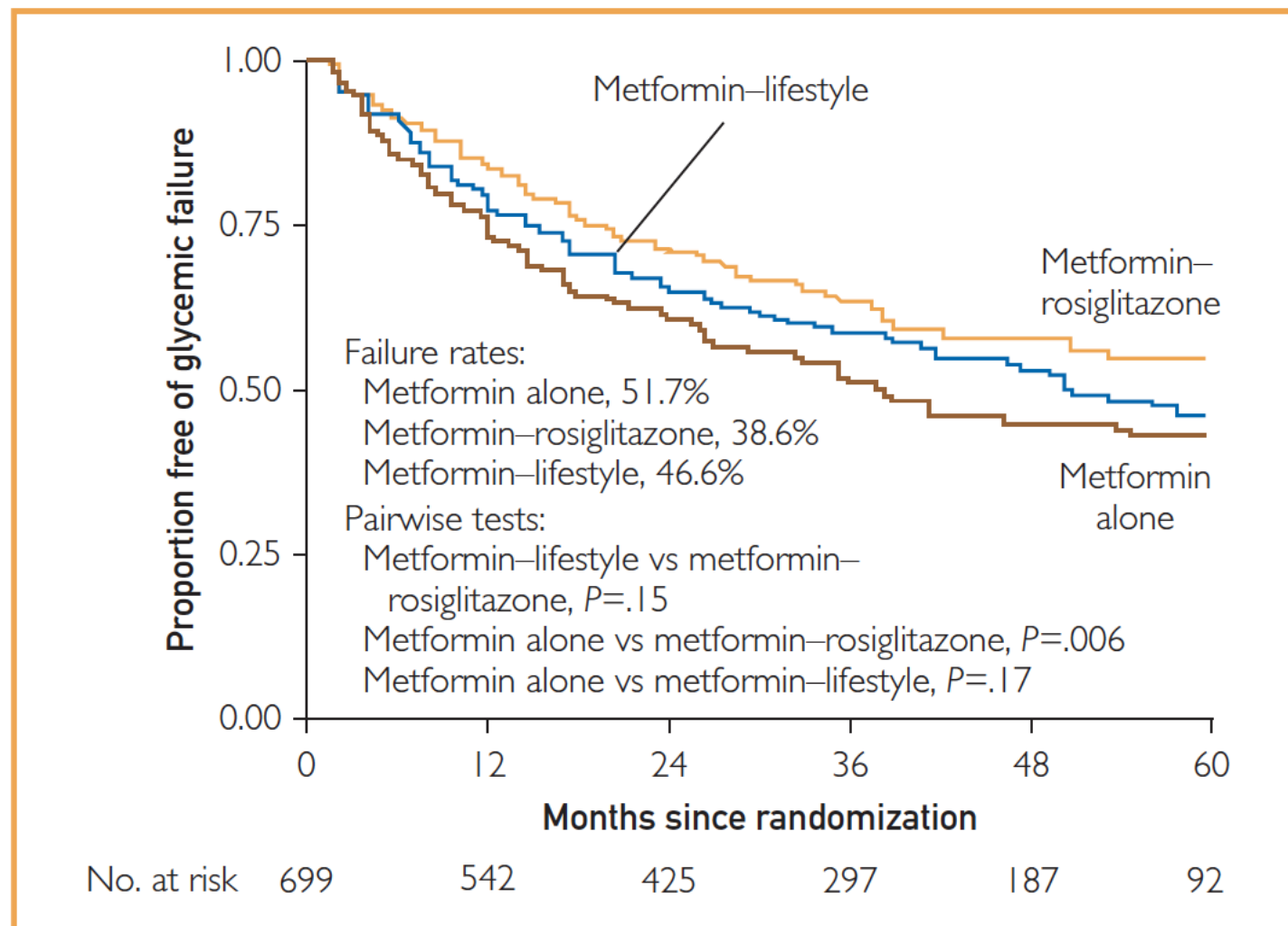
At an average age of only 13.5 years

- High blood pressure
- High cholesterol
- Kidney disease

HIGHLIGHTS: The TODAY Trial

RISK FACTORS FOR YOUTH-ONSET T2D

- Overweight/Obese
- Family history of diabetes
- High risk ethnic background
- Insulin resistance (acanthosis nigricans, hypertension, dyslipidemia, PCOS, SGA)
- Maternal history of diabetes or GDM during pregnancy



Characteristics of Type 2 Diabetes in Youth versus Adults

Characteristic	Youth in the TODAY Study	Adults
Obesity	Common Poor response to lifestyle program	Common Lifestyle programs are more effective
Pancreatic Beta Cell Function	20%-35% decline per year	7%-11% decline per year
Microalbuminuria	6.3% at baseline 16.6% by 4 years	38% of UKPDS participants after 15 y 20%-40% of adults with T2D
Hypertension	11.6% at baseline 33.8% over 3.9 y	Common (~67% of adults with T2D)
Retinopathy	13.7% at 2.8 y of diabetes duration	12.6% in adults 3 y after T2D dx
Depressive Symptoms	15%	17.6%

Poll Question 1

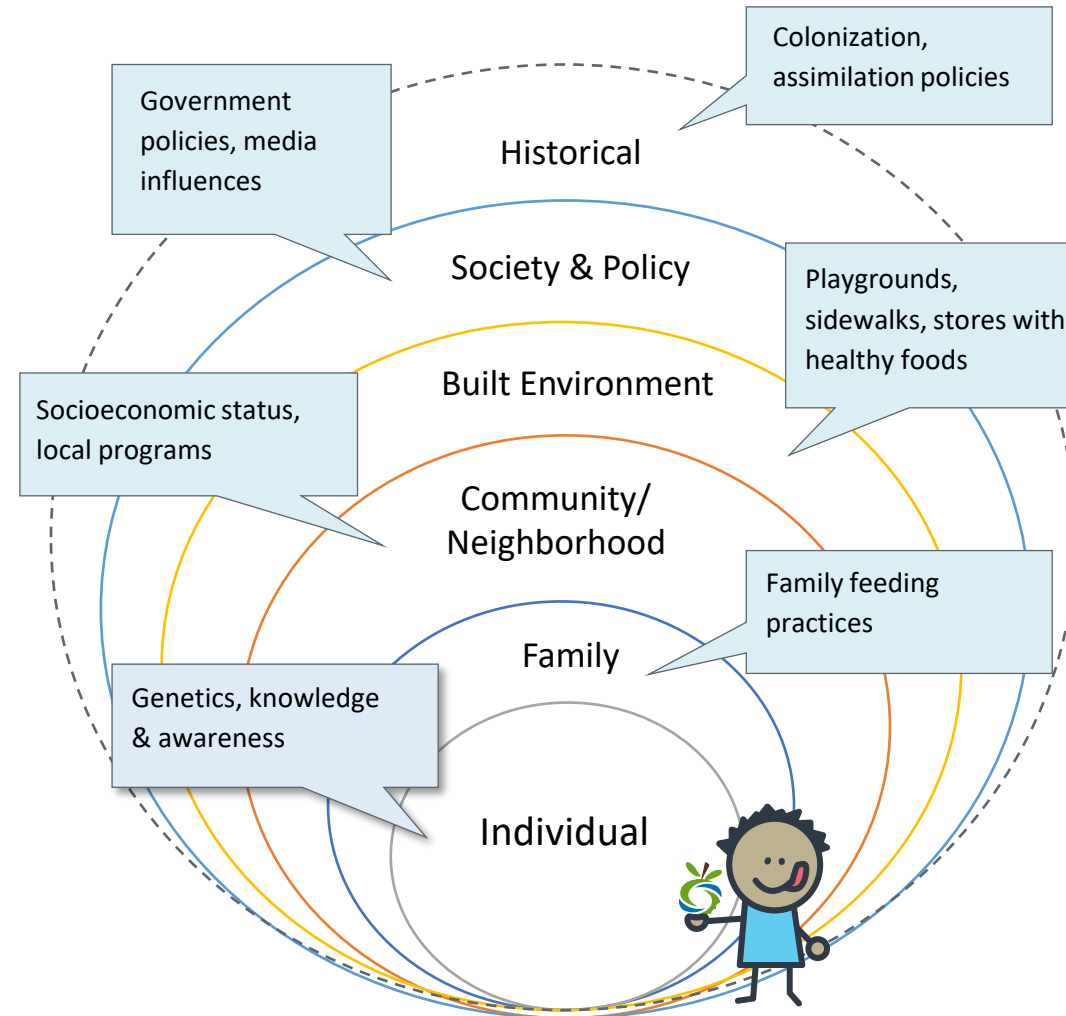
- Compared to adults with type 2 diabetes, youth with type 2 diabetes have:
 - A. faster decline in beta cell function
 - B. the same response to lifestyle intervention
 - C. very low rates of diabetes related complications
 - D. lower rates of depression

Community-based, multi-sector, systems science

Behaviours are individual, but...

- Affected by many 'layers' of influence
- Together, these influences are what drive individual choices and behaviours
- One layer or community sector cannot solve the problem alone

*It is **all** of our responsibility to support kids in making healthy choices*



The Live 5-2-1-0 Initiative

Collective & Coordinated Action to Achieve Systems Change



A long-term commitment by **community champions** from **different sectors** to a **common agenda and approach** for solving a complex problem.

The Live 5-2-1-0 Message



Enjoy-

FIVE or more vegetables & fruits every day

Power down-

no more than TWO hours of screen time a day



Play actively-

at least ONE hour each day



Choose healthy-

ZERO sugary drinks



- **Evidence-based** for kids 5-12 years old
- **Simple, clear, and easy** to remember.
- Provides a **shared, consistent message** that families see everywhere they go.
- Provides **clear goals** for kids and families, and a framework for local leaders.
- A **common, over-arching message** that ties local efforts together.

Poll Question 2

- Have you heard of Live 5-2-1-0?
 - A. Yes
 - B. No
 - C. Unsure



It's not just a message, it's about creating change!

SHARING

A simple, easy to remember message to help kids and families adopt healthy habits



Share the message:

Posters, fact sheets, resources, social media



Practice Change:

What policies and practices could be changed to make the healthy choice easier?



SUPPORTING

Creating environments that support children to make healthy choices every day

Environmental change:

Ask – is it easy for kids/families to make healthy choices here?





Live 5-2-1-0 Playboxes



Live 5-2-1-0 Resource Hub

NUDGES INTRODUCED



PHASE 1 saw the introduction of cart dividers that divided grocery carts in half to encourage shoppers to fill half of their cart with fruits and vegetables.



PHASE 2 saw the introduction of cart plaques that displayed how many fruits and vegetables the average shopper buys at the store.

Community Initiatives

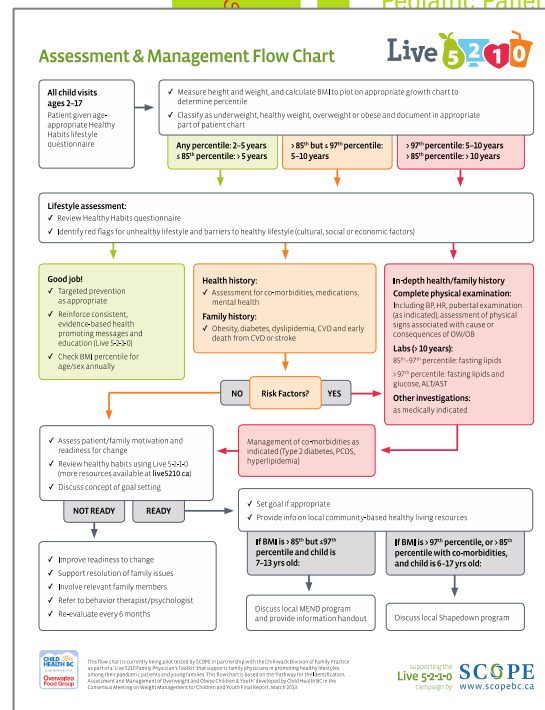
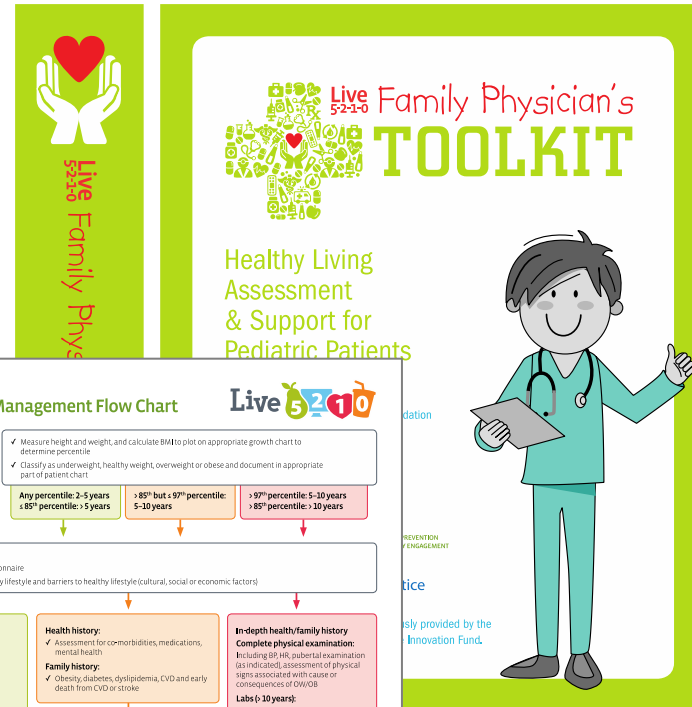


Live 5-2-1-0 in Healthcare



Supporting primary care physicians in assessment, discussion and management of healthy behaviours and weights with pediatric patients and their families

Live 5-2-1-0 Family Physician Toolkit



Chilliwack
Division of Family Practice
A GPSC initiative

East Kootenay
Division of Family Practice
A GPSC initiative



The Live 5-2-1-0 Toolkit for Family Physicians

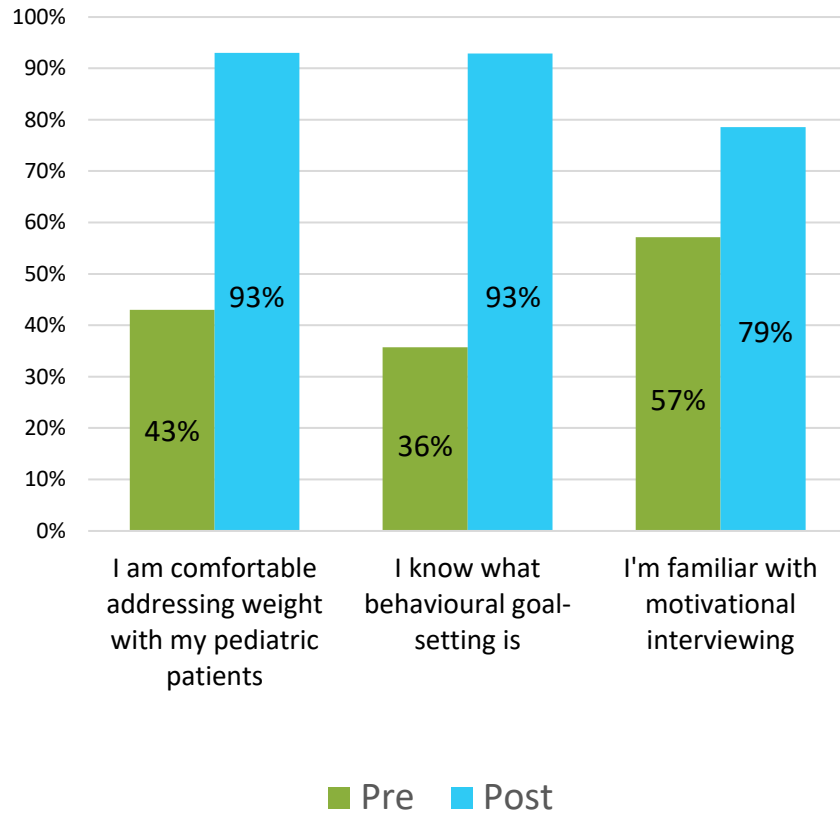


Key components:

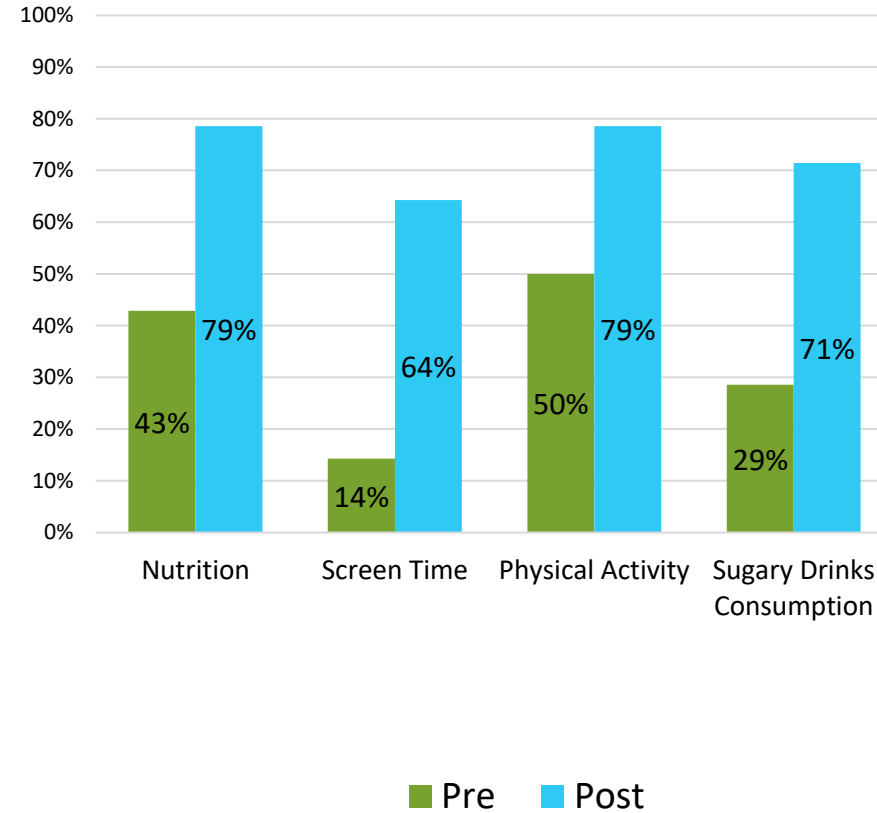
1. **Growth monitoring/BMI tracking**
2. **Training:**
 - Motivational Interviewing
 - Respectfully discussing weight with patients
 - Use of Live 5-2-1-0 Toolkit resource elements
3. **Tools & Resources:**
 - Healthy Habits Questionnaire & Answer Key
 - Supporting Patient Resources

Family Physician Toolkit Pilot

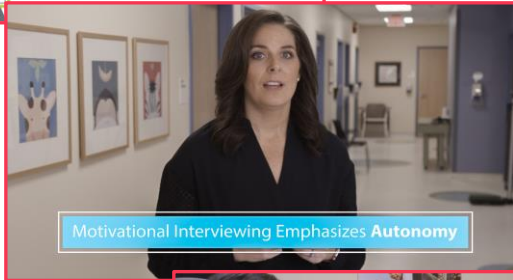
% of FPs who strongly agree/agree with the following statements (5-point Likert scale)



% of FPs who routinely address the following with pediatric patients/families



Motivational Interviewing Course for Healthcare Providers



Importance Ruler

On a scale of 0 to 10, how **IMPORTANT** is it right now for you to change?

0 1 2 3 4 5 6 7 8 9 10

NOT AT ALL IMPORTANT EXTREMELY IMPORTANT

Confidence Ruler

On a scale of 0 to 10, how **CONFIDENT** are you that you could make this change?

0 1 2 3 4 5 6 7 8 9 10

NOT AT ALL CONFIDENT EXTREMELY CONFIDENT

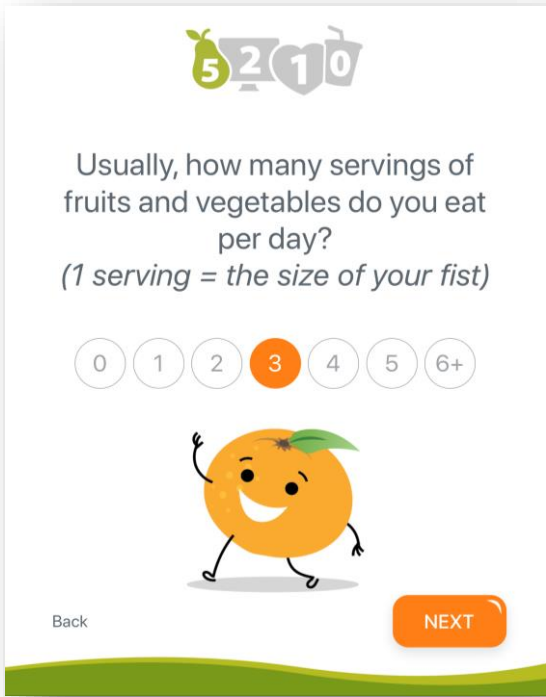
Explore Ambivalence

- Enabling scale-up of healthcare provider toolkit training
- Introduction to the key elements of Motivational Interviewing – videos, exercises, and role-playing activities
- Four modules – two hours total, CME accreditation
- Developed in partnership with UBC CPD
- **Available at: www.ubccpd.ca**

Poll Question 3

- Motivational Interviewing is:
 - A. a communication style
 - B. a set of skills
 - C. a philosophy
 - D. all of the above


Live 5-2-1-0 App



5 2 1 0

Usually, how many servings of fruits and vegetables do you eat per day?
(1 serving = the size of your fist)

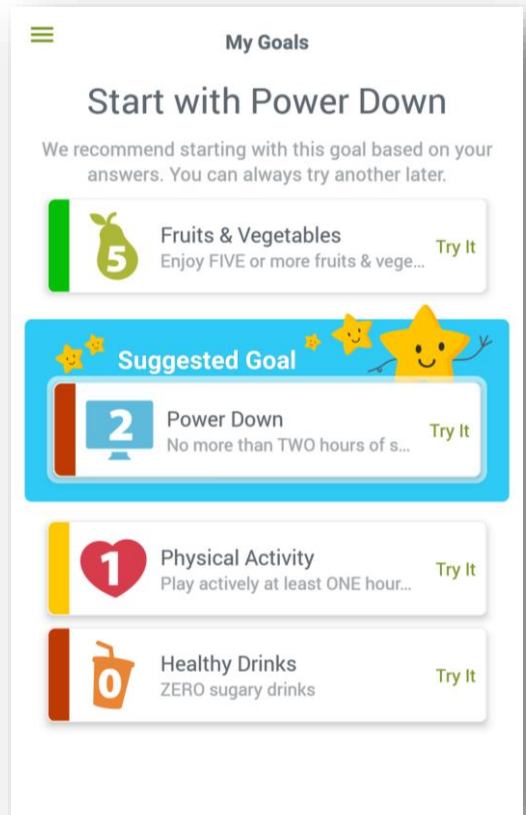
0 1 2 3 4 5 6+



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Assessment

Goal Setting



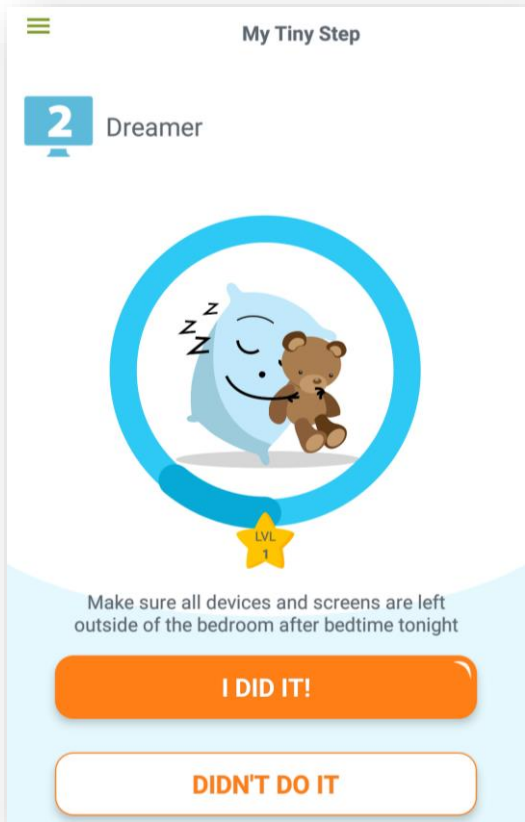
My Goals

Start with Power Down

We recommend starting with this goal based on your answers. You can always try another later.


- 5** Fruits & Vegetables
Enjoy FIVE or more fruits & vege... Try It
- 2** Power Down
No more than TWO hours of s... Try It
- 1** Physical Activity
Play actively at least ONE hour... Try It
- 0** Healthy Drinks
ZERO sugary drinks Try It

Suggested Goal



My Tiny Step

2 Dreamer



LVL 1

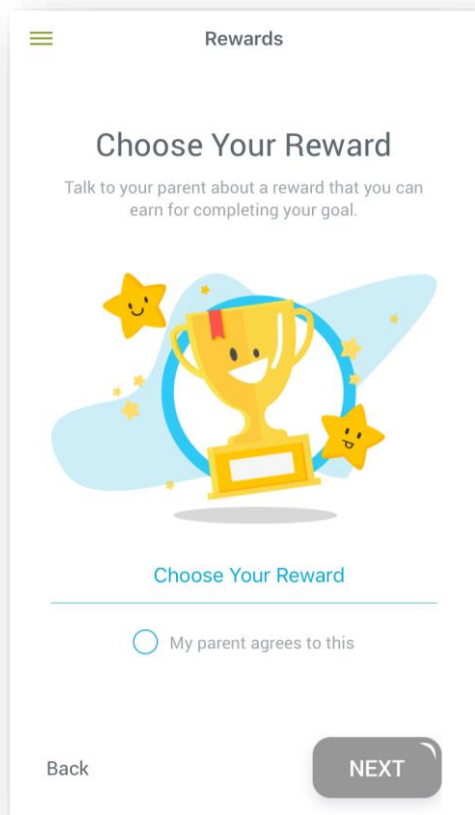
Make sure all devices and screens are left outside of the bedroom after bedtime tonight

I DID IT!

DIDN'T DO IT

Activities


Rewards



Rewards

Choose Your Reward

Talk to your parent about a reward that you can earn for completing your goal.



Choose Your Reward

My parent agrees to this

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Live 5-2-1-0 Online Resource Hub



About ▾

Resources

Communities ▾

Our Impact ▾



RESOURCES

Engaging and empowering decision makers to share and support Live 5-2-1-0 within all community sectors means children will see a consistent message wherever they go. It also means that the community can work together to find ways to make it easier for children and families to live these behaviours every day.

www.Live5210.ca

Stay Connected!

Live 5-2-1-0 e-Newsletter | @Live5210 | www.Live5210.ca



Acknowledgements

Partner Communities:

This work would not be possible without the dedication, commitment and support of our community partners & champions

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