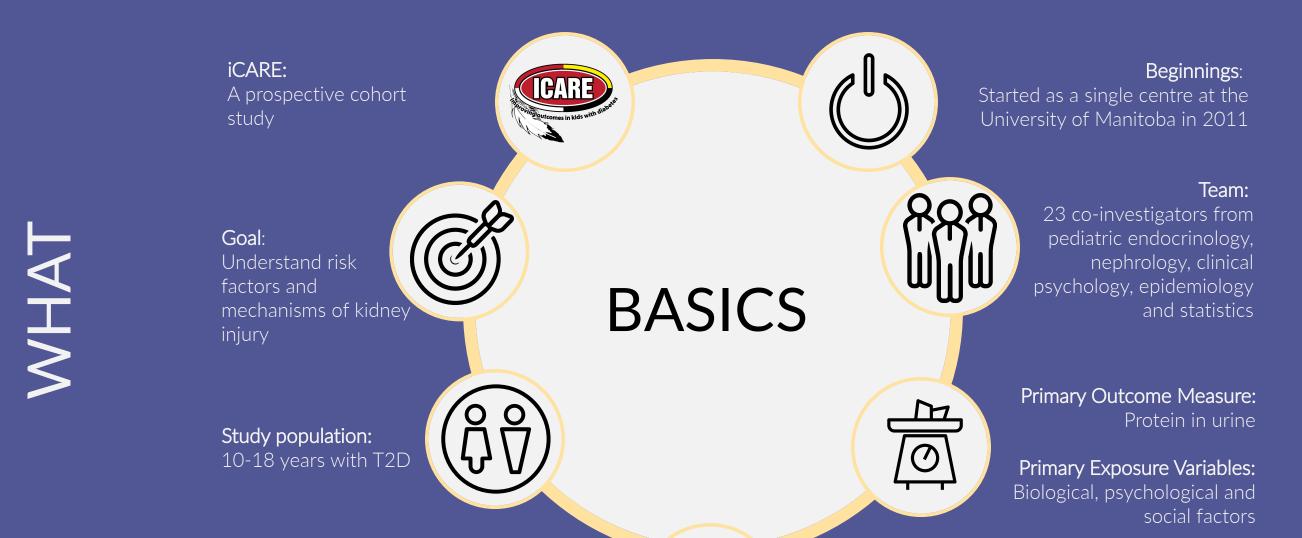
iCARE: Improving Renal Complications in Adolescents with Type 2 Diabetes through Research Cohort Study

Main Site PIs: Dr. Allison Dart and Dr. Brandy Wicklow

Structural Equation Modeling (SEM) Approach:





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iCARE Patient Advisory Group (PAG): Established in 2015, this group of youth with T2D, caregivers, and healthcare providers advise the iCARE research team all aspects of the study. 2015 2016 2017 2019 2018

- Focus groups PAG established Studying mental health and social supports added to study
- Youth advisor CanSOLVE Conference PAG creates a video about the

myths of T2D

- training Parent advisor attends CanSOLVE Conference PAG creates posters,
 - newsletters, recruitment advertisements
- PAG attends PAG creates a CIHR SPOR workbook for youth with T2D PAG successfully

advocates for an

Indigenous elder

and art therapy

to be added to

clinical care

- and blogs

Physical & mental health play important roles in kidney health.

FACT:

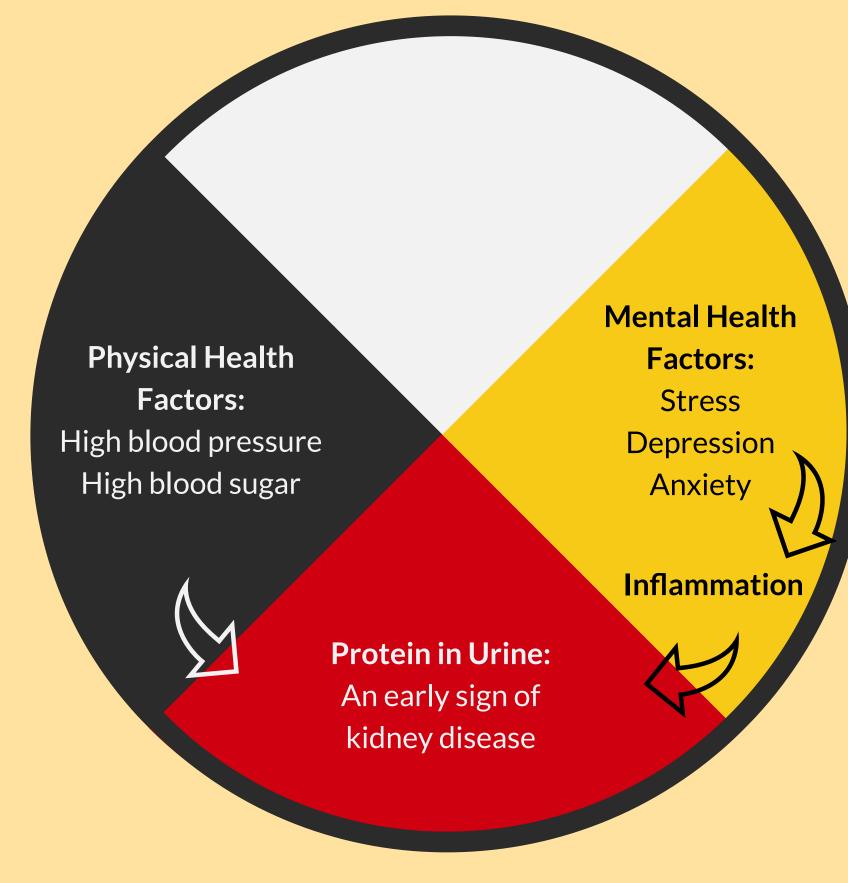
3 out of 10 youth living with T2D

show early signs of kidney

disease

iCARE is trying to understand the risk factors of youth on-set

diabetes.



What we know so far:

Teens living with T2D have high rates of kidney disease

hurts kidney health

iCARE has partnered with AdDIT, (a 1 Biological markers

CanSolve CKD T1D project) to better 2 Poverty understand the mechanisms of kidney

Inflammation function and injury by looking at biomarkers.

CURRENT STATE



iCARE uses a bio-psycho-social model:

.. Biological & psychological factors are independent and nearly equivalent predictors of renal complications

2. "A purely biomedical model is inadequate for the management of chronic illness". (Engel GL. The need for a new ical model: A challenge for biomedicine. Science.1977:196(4286):129-136.)

3. Resiliency and other positive psychological factors may be protective against renal complications.

4. These factors independently predicted renal

Poor blood sugar

High blood pressure

Stress

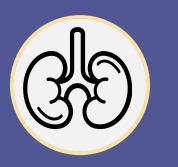
Mental distress

APPROACH TO CHANGE



50.7 * BSA0.816 * (Height (cm)/Creatinine)0.405 * 0.8994 if sex = female | 1 otherwise

iCARE Study Equation: New eGFR equation for youth with T2D





Transform low readiness into high readiness











PAG finishes up

revisions to

about focus

groups

journal article

PAG helps plan

feasts to share study results

Advisor travels

to First Nation

communities to

talk about PAG

community



Mental health may indirectly increase inflammation, which

Includes underlying unobservable phenomena like psychological health. Below: an adapted SEM summary by the iCARE PAG







How to use individual, family, and community strengths when treating youth with T2D



Understand better ways to help youth with T2D manage their blood sugar



Engage patient partners to develop an interventional trial to assess new ways of improving care for youth with T2D

FUTURE STATE





















