ICES North: An opportunity for research in the north

LEG Lead & Administrators Meeting
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Disclosure

- Faculty: David Savage
- Relationships with commercial interests:
 - Grants/Research Support: Mitacs, CIHR,
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 - Consulting Fees: None
 - Other: Interim Site Director, ICES North,
 Medical Director, NorthStream Rapid
 Labs

Learning Objectives

1. Describe the purpose and objectives of ICES North to NOSM U Faculty and LEG members.

2. Utilize ICES North to develop/conduct research activities

What is ICES?

- A group of scientists and professionals working in core areas important to our healthcare system
 - Cancer
 - Cardiovascular
 - Chronic Disease and Pharmacotherapy
 - Life Stage
 - Kidney, Dialysis, and Transplantation
 - Mental Health and Addictions
 - Populations and Public Health
 - Primary Care & Health Systems

 ICES Scientists lead cutting edge research related to healthcare delivery and population outcomes







Queen's Opened in 2007







ICES CORE Data Repository: Coded and Linkable



Provider/ Facilities

Physicians
Hospitals
Complex care
Long-term
care homes
Home care



Real-time

Health
Outcomes for
Better
Information
Care (nursing
home)
Implantable
Cardiac

Defibrillators



Health Service

Encounters

Physician claims

Hospital discharge abstracts

Emergency visits

Ontario Drug Benefit claims

> Narcotics Monitoring System

> Home care

Rehab

Long-term care



People & Geography

People in Ontario eligible for health care since 1985

Unique
individual
ICES Key
Number (IKN)
used for linking
across all data
sets

Demographics

Deaths

Census



Special Collections*

Disease registries (ex. cancer, stroke, cardiac, perinatal)

HIV clinics

Immigration

First Nation

Métis

Social Assistance

Disabilities

Early
Development
Instrument



Derived Chronic Conditions

Using routine ICES data
Diabetes

Respiratory problems (ex. Asthma, chronic obstructive pulmonary disease)

Cardiac problems (ex. heart attacks, hypertension)

Schizophrenia

Many others



Project Specific Research Data

* Special governance

Linked data set

2020/2



Research Capacity

scientists and staff (5% INCREASE FROM 2019/20)

277 scientists (5% INCREASE FROM 2019/20)

295 staff (5% INCREASE FROM 2019/20)

43%

of scientists work from sites other than ICES Central

38%

of research staff work from sites other than ICES Central

697

graduate, medical and post-graduate trainees mentored by ICES scientists

274

graduate students accessing ICES data

sites across Ontario 8 research programs

108

data holdings

298

new data sharing agreements and amendments

11

primary data collection studies involving 15 hospitals

37%

overall grant success rate on 252 grant submissions

44%

of grant submissions were on COVID-19-related topics

What kinds of studies can you do?

Descriptive

Temporal trends in the utilization of echocardiography in Ontario, 2001 to 2009

Saul Blecker ¹, R Sacha Bhatia, John J You, Douglas S Lee, David A Alter, Julie T Wang, Hannah J Wong, Jack V Tu

Costing

Comparative Effectiveness of Generic Atorvastatin and Lipitor[®] in Patients Hospitalized with an Acute Coronary Syndrome

Cynthia A. Jackevicius, BScPhm, PharmD, MSc, 21, 2, 3, 4, 6 Jack V. Tu, MD, PhD, 2, 4, 5 Harlan M. Krumholz, MD, SM, 7, 8, 9, 10 Peter C. Austin, PhD, 2, 4 Joseph S. Ross, MD, MHS, 8, 11 Therese A. Stukel, PhD, 2, 4 Maria Koh, MSc, 2 Alice Chong, MSc, 2 and Dennis T. Ko, MD, MSc, 2, 4, 5

Associations

Comparing the ambulatory care and outcomes for rural and urban patients with chronic ischemic heart disease: a population-based cohort study

Efficacy

Christopher Tran ¹, Harindra C Wijeysundera ¹, Feng Qui ¹, Jack V Tu ¹, R Sacha Bhatia ²

Validation

The CANHEART health index: a tool for monitoring the cardiovascular health of the Canadian population

Laura C. Maclagan, Jungwee Park, Claudia Sanmartin, Karan R. Mathur, Doug Roth, Douglas G. Manuel, Andrea Gershon, Gillian L. Booth, Sacha Bhatia, Clare L. Atzema and Jack V. Tu

CMAJ February 18, 2014 186 (3) 180-187; DOI: https://doi.org/10.1503/cmaj.131358

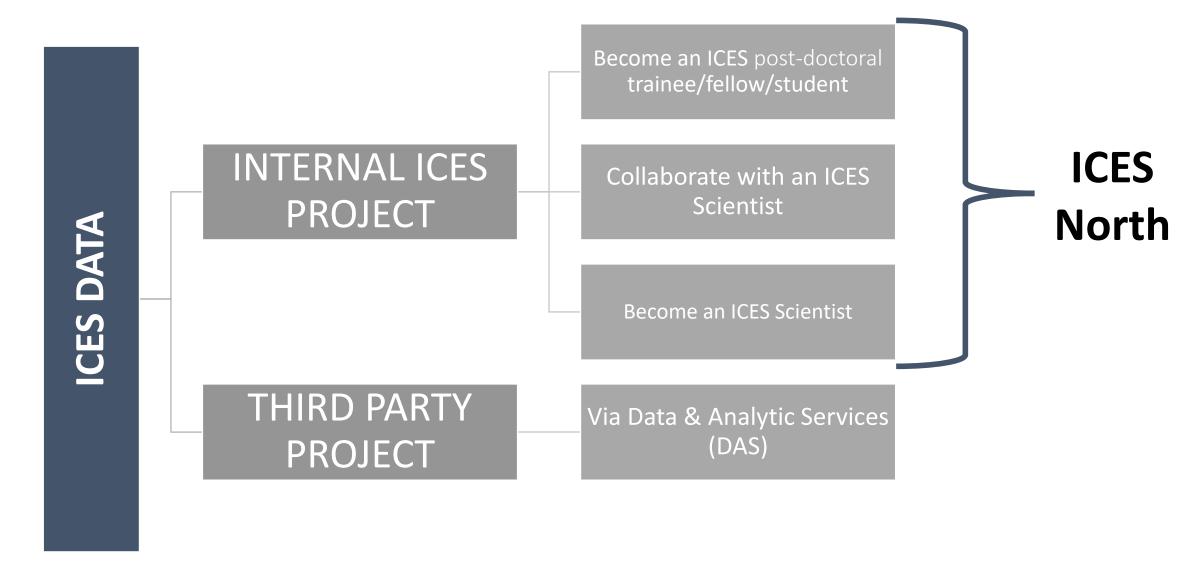
Policy

Cardiovascular Outcomes after a Change in Prescription Policy for Clopidogrel

Predictors and clinical outcomes of inpatient versus ambulatory management after an emergency department visit for atrial fibrillation: A populationbased study

Christopher Tran ¹, Maria C Bennell ², Feng Qiu ³, Dennis T Ko ⁴, Sheldon M Singh ², Paul Dorian ⁵, Clare L Atzema ⁶, R Sacha Bhatia ⁷, Harindra C Wijeysundera ⁸

How can I use ICES Data for my research?



How much does it cost?

INTERNAL ICES PROJECT

- **A) Project Cost:** \$33,000 average (\$15,000–\$150,000)
- B) Analysis: Pay ICES analytic staff
 - Standard hourly Epidemiologist/Analyst rate: ~\$114-\$125/hour
 - Highly trained staff working 1-on-1 with scientists
 - Support with: planning, dataset creation, statistical methods/interpretation, and deliverable preparation

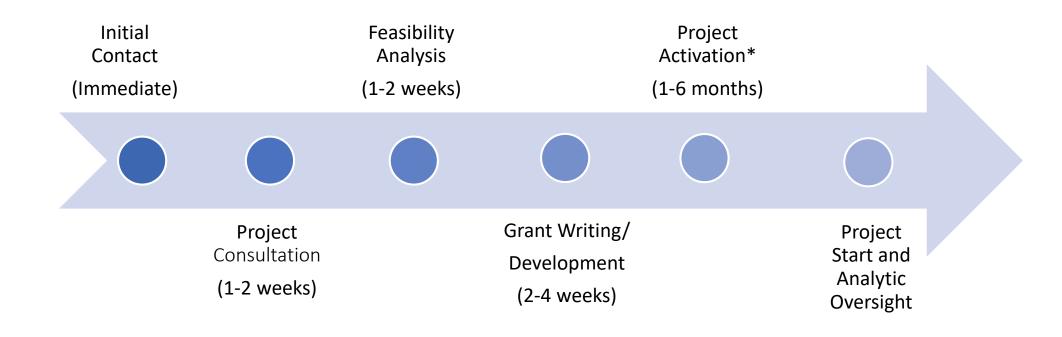
THIRD PARTY PROJECT

- **A)** Project Cost: \$5,000 \$20,000
- B) Analysis: Do it yourself via IDAVE (VPN)
 - Researcher covers cost of data cut and remote access usage fees
 - Analysis done by investigator team (can include graduate students)

Why is ICES North a great opportunity?

- Develop research *experience* in a *team environment*
- Access to provincial level datasets
- Access to scientists, analysts, methodologists, and epidemiologists
- Linked population level research that can influence healthcare policy, decision making and clinical practice
 - Provincial level data is comparable to a multicentre trial
- Develop the healthcare context for our northern, rural, and remote population

How to start the process?



What are your next steps?

If you are interested in working with us:

- Develop a research question
- Explore
 - Review prior publications in your field:
 - https://www.ices.on.ca/Publications/Journal-Articles
 - Understand our data dictionary:
 - https://datadictionary.ices.on.ca/Applications/DataDictionary/Default.aspx
- General inquires
 - Contact us directly
- We can provide letters of support for grant applications and help with methodology

Frequently Asked Questions (FAQs)

- 1) Who can access individual-level ICES data?
- 2) Do I need to tell you about my grant application?
- 3) How will my funding be used?
- 4) How do I become an ICES scientist?
- 5) How does the third-party (DAS) route differ?

Thanks

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