



Annual Report

2016/17

Institute for Clinical Evaluative Sciences



Data
Discovery
Better Health



About the Institute for Clinical Evaluative Sciences

Population-based health research that makes a difference

The Institute for Clinical Evaluative Sciences (ICES) leads cutting-edge studies that evaluate health care delivery and population outcomes. ICES researchers access a vast and secure array of Ontario's demographic and health-related data, including population-based health surveys, anonymous patient records, as well as clinical and administrative databases. ICES is recognized as an international leader in maintaining the privacy and security of personal health information.

World-class research teams

ICES is a community of research, data and clinical experts. Many ICES scientists are internationally recognized, and a number are practicing clinicians who understand the everyday challenges of health care delivery. They lead multidisciplinary teams that include expert statisticians and epidemiologists, as well as specialists in knowledge translation, information security and information technology. The diversity within these teams and their expertise at using ICES' outstanding array of linked data sets is the foundation of the innovative approach to research at ICES.

Our impact

ICES research results in an evidence base that is published as atlases, investigative reports and peer-reviewed papers, and is used to guide decision-making and inform changes in health care policy and delivery. Many ICES reports are undertaken to answer specific questions (known as Applied Health Research Questions) posed by health system stakeholders and policy makers. ICES research influences the design, implementation and evaluation of health policy and the delivery of health care. ICES atlases and reports are highly regarded in Canada and abroad.

Independence

As an independent not-for-profit corporation, ICES takes pride in its international reputation as a trusted, impartial and credible source of high-quality health and health services research and evidence. ICES receives core funding from the Ontario Ministry of Health and Long-Term Care. ICES scientists and staff have highly successful track records competing for peer-reviewed grants from federal agencies, such as the Canadian Institutes of Health Research, and from provincial and international funding bodies.

A growing network across Ontario

ICES Central is located on the campus of Sunnybrook Health Sciences Centre in Toronto. It has physical satellite sites at Queen's University in Kingston (ICES Queen's), the University of Ottawa (ICES uOttawa), the University of Toronto (ICES UofT), Western University in London (ICES Western) and McMaster University in Hamilton (ICES McMaster). An additional satellite site (ICES North) is in development at the Health Sciences North Research Institute in Sudbury in partnership with Laurentian University and the Northern Ontario School of Medicine.

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Letter from the President and CEO

This year ICES achieved an important milestone — our 25th anniversary — and our momentum keeps building. We've leveraged our many achievements in research excellence, analytic services and data acquisition into the foundations of our **strategic plan for 2017/18 to 2019/20**, and are already making substantial progress against that road map's ambitious goals.

Our 2016/2017 Year in Numbers provides an overview of our momentum: increases in awards, grants, data sharing agreements, projects, publications, media coverage and social media presence. The numbers reflect the dedication and effort of ICES scientists and staff, but the real showcase of ICES' value is the impact of our research. This year we've included a collection of narrative stories that highlight this impact, including how we've informed Canada's response to the opioid crisis, driven new heart health policies, advanced mental health system planning, and collaborated provincially, nationally and internationally to foster novel research, discovery and methodological innovation.





This year we celebrated our past 25 years, but we are not resting on our laurels. A steady stream of news and information about ICES is available on our website and social media channels, including details on the following achievements in 2016/17:

- We produced a three-minute animated video that explains how ICES harnesses the power of data to improve health — an example of our knowledge translation and public engagement in action.
- We launched a satellite site at McMaster University in June 2016, and work continues on our sixth and final site, ICES North, which will open in Sudbury in the months ahead.
- We prepared a report on data science in the context of health services and policy research, marking the first stage in our efforts to develop data science as a priority at ICES.
- ICES gained access to several key new data sets, including those from the Ontario Laboratories Information System and the province's Narcotics Monitoring System. We also acquired data from Ontario Works, the Ontario Disability Support Program, the Ontario Health Study and the Early Development Instrument.
- We continued our work with the High-Performance Computing for Health facility at the Hospital for Sick Children to launch a pilot for a data safe haven — a secure, high-performance computing environment where research teams can store and link data.
- ICES entered into a data governance and partnership agreement with the Métis Nation of Ontario that confirms our shared commitment to identify

and address gaps in Métis-specific data, which is crucial for evidence-based policy development and effective resource allocation.

- ICES and the University of Calgary's O'Brien Institute for Public Health assumed co-directorship of the International Population Data Linkage Network for 2017–2018 and have been planning the network's biannual conference in Banff, Alberta in 2018.
- The ICES Faculty Scholars Program, started at ICES Western in 2013, was expanded province-wide to offer training to university-based scientists with an interest in population health research and a desire to access ICES data and analytic support.
- ICES, Health Quality Ontario, the Institute of Health Policy, Management and Evaluation, and faculties of medicine across Ontario were co-recipients of the 2016 Ted Freeman Award for Innovation in Education in recognition of their ongoing contributions to IDEAS, a made-in-Ontario course in quality improvement and change management for health care professionals.

A key to our success is our strong partnerships and productive collaborations with many stakeholders, including the Ministry of Health and Long-Term Care whose longstanding support we gratefully acknowledge. I want to take this opportunity to thank our scientists and staff whose competence and hard work drive our many achievements, and acknowledge the expertise and commitment of our board of directors and its chair, Dr. Catherine Zahn.

ICES' core values of excellence, integrity, relevance, collaboration and respect will continue to guide us as we advance our mission and increase our impact and relevance for Ontario and the world in the coming years.



Dr. Michael Schull
President and CEO

Board of Directors

April 1, 2016 to March 31, 2017

Chair

Dr. Catherine Zahn

President and CEO, CAMH

Directors

Mr. Matthew Anderson

President and CEO, Lakeridge Health

Ms. Anne C. Corbett

Partner, Borden Ladner Gervais LLP

Dr. Colleen M. Flood

Director, Centre for Health Law, Policy and Ethics,
and Canada Research Chair in Health Law and Policy,
University of Ottawa

Ms. Laura Formusa

Former President and CEO, Hydro One Inc.

Mr. Murray R. Glendining

President and CEO, London Health Sciences Centre

Dr. Harriet MacMillan

Chedoke Health Chair in Child Psychiatry and
Professor, Department of Psychiatry and Behavioural
Neurosciences and Department of Pediatrics,
McMaster University

Mr. Geoffrey Rowan

Independent communication consultant

Ms. Kathy Watts

Former VP Finance and CFO, Hamilton Health Sciences

2016/17 Year in Numbers

Our People



469 scientists
and staff
(0.4% decrease from 2015/16)



229 scientists
(10% increase from 2015/16)



240 staff
(7% decrease from 2015/16)

45%

of ICES scientists work
from satellite sites

495

graduate students and
post-graduate trainees
supervised by ICES
scientists

71

new awards, including
salary support and
scientific achievement,
received by ICES scientists



29%

overall grant success rate
on 192 grant submissions

Research Capacity



6

sites across
Ontario



7

research
programs



86

data
holdings

187

new data sharing agreements
and amendments executed

7

primary data collection
studies involving 73
hospitals

622,893

electronic medical
records (EMRs) collected

402

participating
EMR physicians

43

participating
EMR clinics



Knowledge Generation



326 new projects initiated

↑ 831 ongoing projects
(3% increase from 2016)

↑ 437 peer-reviewed publications
(6% increase from 2015/16)

55% have at least one ICES staff member as a co-author

4 ICES atlases and reports



59 new Applied Health Research Question (AHRQ)* requests from 42 unique knowledge users — exceeds annual target of 25 set by the MOHLTC

77 completed AHRQ requests



98 requests to ICES Data & Analytic Services (DAS) — more than double the annual target of 40 set by the OSSU

Knowledge Translation



↑ 5.6% increase in visits to the ICES website
(15% of visitors from outside of Canada)

64 news releases
92% media uptake

309 media hits per month on average
(3,712 total)



58% of media coverage was international



↑ 7,667 Twitter followers
(18% increase from 2015/16)



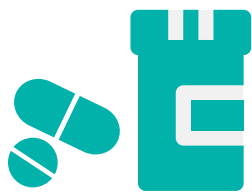
638 presentations by ICES scientists and trainees
(40% international)



*An AHRQ is a question posed by a health system policymaker or provider — a knowledge user — to obtain research evidence that informs planning, policy or program development that will benefit the entire Ontario health system.

Research with Impact

A selection of recent projects that illustrate the combination of clinical insight and scientific rigour that drives ICES research.



Helping to inform
Canada's opioid response



Supporting Patients First
by mapping access to
primary care



Contributing to policy
changes for the prevention
of concussions



Driving the development
of new cardiovascular
risk prediction models
with big data



Advancing Ontario's
mental health strategy
with system-wide
benchmarking and
analysis

Helping to inform Canada's opioid response

Tara Gomes



David Juurlink



The inappropriate use of prescription opioids has emerged as a significant public health and safety issue in Ontario and across Canada. Work conducted at ICES contributed to the speed with which Ontario has modelled for other provinces the collection of timely and robust data and analysis for an evidence-informed response to the opioid crisis.

ICES scientist **Tara Gomes** is principal investigator of the Ontario Drug Policy Research Network (ODPRN), in which ICES is a partner. A 2016 *CMAJ paper* co-authored by Gomes demonstrated that national vital statistics can be used to analyze prescription opioid-related mortality with considerable accuracy in the absence of more sophisticated surveillance systems, to accelerate national surveillance and monitoring strategies. Gomes's methodology used ICES linked data for validation and is now being replicated in other provinces. The paper was awarded the 2017 Article of the Year by the CIHR's Institute of Health Services and Policy Research.

At the local level, ongoing data collection and analysis contributed by ICES and ODPRN about patterns of opioid use for each of the province's public health units and Local Health Integration Networks has been helping to inform rapid regional responses to the opioid crisis.

ICES research also helped to inform the Canadian Medical Association's 2015 policy statement on harms associated with opioids and other psychoactive prescription drugs, which recommended the launch of a comprehensive national strategy. ICES senior scientist **David Juurlink** presented at the House of Commons Standing Committee on Health during the strategy formulation in October 2016, and delivered a keynote address at Canada's national Opioid Conference the following month.

Also informed by ICES/ODPRN research, Ontario's Strategy to Prevent Opioid Addiction and Overdose is now being implemented. In January 2017, based on an ODPRN analysis, Ontario delisted high-strength formulations of long-acting opioids from the Ontario Drug Benefit Formulary to help prevent addiction and support appropriate prescribing. ICES and ODPRN have been conducting ongoing rapid analysis of opioid utilization patterns, including an analysis of palliative care patients to determine the policy's potential impact on this patient population.



The work of ICES and ODPRN has helped to drive **rapid, targeted regional responses** to the opioid crisis.



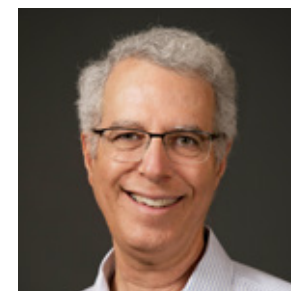
ICES research helped to inform **Ontario's Strategy to Prevent Opioid Addiction and Overdose**, now being implemented, including the delisting of high-strength formulations of long-acting opioids from the Ontario Drug Benefit Formulary.



ICES research helped to inform the **CMA's 2015 policy statement** on harms associated with opioids and other psychoactive prescription drugs, which recommended the launch of a **comprehensive national strategy**.

Supporting Patients First by mapping access to primary care

Rick Glazier



With the passage of Ontario's *Patients First Act* in 2016, the province's 14 Local Health Integration Networks assumed responsibility for planning and performance improvement for the primary health care system. The Act requires that this planning take place at smaller regional levels to better address the unique health care needs of the province's diverse urban, rural and remote communities.

Some of the groundwork for this more localized planning has been undertaken by the Ontario Community Health Profiles Partnership (OCHPP), using data held at ICES. Guiding the project is **Rick Glazier**, a senior scientist at ICES and lead of its primary care and population health research program. Dr. Glazier is also a scientist at the Centre for Urban Health Solutions at St. Michael's Hospital.

Glazier and his team were approached by the Toronto Central LHIN to create neighbourhood-level maps for prioritizing resource allocation. By linking primary care records with geographic and demographic data, the team identified areas where residents were less likely to be attached to a primary care physician and where continuity of care was low.

"Low attachment and low continuity mean disordered care," explains Glazier. "Where people don't have regular access to a family doctor, we see chaotic patterns of health system use, with more use of emergency services and less use of preventative measures like cancer screening and diabetes care. That's where you'll see higher health costs."

The neighbourhood mapping process is gradually being applied across Ontario, with planners at other LHINs requesting similar data.

To support local capacity building, the OCHPP maintains an open-access **web data portal**. The tool enables health policy planners and local agencies to interact with the data for planning purposes. For example, the Toronto Central LHIN, a partner in the OCHPP, has been using the tool to plan local access to interprofessional care, including Family Health Teams and Community Health Centres.

"By bringing together the issues of primary care and population health, we can see how they overlap and influence each other," says Glazier. "Looking at these interactions in the context of equity and geography, we can map, neighbourhood by neighbourhood and region by region, where health investment is most needed in Ontario."



Working in partnership with the **Toronto Central LHIN**, ICES researchers have used administrative and other data held at ICES to create **neighbourhood-level maps** that pinpoint areas where patients have low access to primary care.



The neighbourhood mapping process is gradually being applied across **Ontario**, with planners at other LHINs requesting similar data.



The **Ontario Community Health Profiles Partnership** uses linked data from ICES to maintain a **web portal** that allows health policy planners and local agencies such as Community Health Centres to interact with the data for planning purposes.

Contributing to policy changes for the prevention of concussions

Donald Redelmeier



Alison Macpherson



Inspired by his work caring for patients diagnosed with acute concussion in the Sunnybrook emergency department, ICES senior scientist **Donald Redelmeier** set out to investigate media anecdotes on the link between concussions and suicide. This curiosity-driven investigation revealed that a patient's history of concussion could triple the subsequent risk of suicide. Redelmeier's 2016 [paper](#) received coverage from major news outlets in Canada, the United States and Europe and contributed to evolving discussions about the prevention and treatment of head injuries in professional athletes, including those in the NFL, CFL and NHL. The work has also led to increased attention to preventing concussions among adults engaged in everyday activities.

Also concerned about rising concussion rates in children and youth, ICES senior adjunct scientist **Alison Macpherson**, a professor at York University, and ICES chief science officer **Astrid Guttman**, a physician at the Hospital for Sick Children, examined the treatment of pediatric concussion cases in emergency departments and primary care centres across Ontario. Their [study](#) determined that rates of pediatric concussion had risen sharply in 10 years, nearly doubling for boys and more than doubling for girls. Hockey and ice skating were the leading causes. These findings have informed Ontario legislation

to address child and youth concussion. The Rowan's Law Advisory Committee, named in honour of a young woman who died following a rugby injury, was established by an act of the Ontario legislature in 2016 with a mandate to create new guidelines around concussion in children and youth in sport. The Manitoba government subsequently announced plans for similar legislation. Former NHL player Eric Lindros cited ICES in his championing of Rowan's Law, adding that the Ontario legislation "should be the gold standard across Canada that we all support."



International news coverage of Donald Redelmeier's work on concussion and suicide has informed ongoing discussions of **risk in professional sports**, including the NFL, CFL and NHL.



Work by Macpherson and Guttman on **child and youth concussions** has informed **Rowan's Law**, proposed legislation that will lead to province-wide practice guidelines for youth sport.

Driving the development of new cardiovascular risk prediction models with big data

Jack Tu



The Cardiovascular Health in Ambulatory Care Research Team (CANHEART) big data project was launched in 2012. Under the direction of **Jack Tu**, a senior scientist at ICES and lead of its cardiovascular research program, the multi-year project uses encoded personal identifiers to link multiple population-based databases held at ICES, enabling the project team to analyze population-wide cardiovascular clinical measures and outcomes while taking into account patient sociodemographic characteristics, behavioural and traditional cardiac risk factors, comorbidities, and health services and prescription drug use.

The scale of the data is large, encompassing the entire Ontario adult population of 10 million people dating back to 2008. A 2015 editorial in the journal *Circulation* on CANHEART's work described the size and integration of the data as "impressive."

From this big data, the CANHEART team has developed a Canadian definition of ideal cardiovascular health for adults and youth. Created in 2014 in partnership with the Heart and Stroke Foundation, the CANHEART Health Index measures and monitors the heart health of Canadians against an ideal based on six health behaviours or factors associated with better cardiovascular health.

In the clinical setting, family doctors can use the index when counselling patients about their heart risk. In policy environments, the index provides a baseline

for goal setting. For example, the Heart and Stroke Foundation used the index to inform its ambitious 2020 Mission Impact Goals, with an aim of reducing the risk factors for heart disease and stroke by 10% and the death rate from heart disease and stroke by 25% by 2020.

The CANHEART team is working to develop cardiovascular risk prediction models that consider the impact of ethnicity on cardiovascular health, using the robustness of an enhanced CANHEART big data cohort with contributions from the Electronic Medical Record Administrative Data Linked Database (EMRALD) and the Ontario Laboratories Information System (OLIS).

According to Tu, the CANHEART project demonstrates some of the many ways big data will be used in the future to improve cardiovascular risk prediction models that will more accurately identify all patients at risk.

"Our work so far has shown that despite progress in cardiovascular health and health care, there are significant disparities in our understanding of heart health among ethnic populations," explains Tu. "Through our big data multifactorial analyses, we're showing that cardiovascular risk is not a one-size-fits-all proposition. Our team is working to create better ethnic-specific rules to unravel the root causes of the disparities in heart health among Canada's ethnic groups."



Launched in 2012, the **CANHEART big data** initiative conducts multifactorial analyses of cardiovascular risk, outcomes and health system use for Ontario's adult population of **10 million people** dating back to 2008.



The **CANHEART Health Index** was used by the Heart and Stroke Foundation to inform its **2020 Mission Impact Goals**, and is being used by family doctors when counselling patients about their heart risk.



The CANHEART team is now working to develop new **risk prediction models** based on the influence of an individual's **ethnicity** on his or her cardiovascular health.

Advancing Ontario's mental health strategy with system-wide benchmarking and analysis

Astrid Guttmann



Paul Kurdyak



Canada's new Health Accord allocated an additional \$1.9 billion for Ontario in support of mental health initiatives. These funds come with a requirement that each province must develop performance indicators and mechanisms for annual reporting. This work is already well underway in Ontario due in part to the Mental Health and Addictions Scorecard and Evaluation Framework (MHASEF). An ICES initiative that released its **first scorecard** in 2015, the multi-year project releases scorecards every two years. The scorecards are broken into adult and child and youth sections, with the next child and youth scorecard to be published in June 2017. An adult scorecard is planned for 2018.

"The existence of MHASEF has helped to position Ontario as a national leader in mental health performance measurement," says **Paul Kurdyak**, who is lead scientist of the ICES mental health and addictions program and director of health systems research at the Centre for Addiction and Mental Health (CAMH). Kurdyak was recently named co-chair of the steering committee for Ontario's Mental Health and Addictions Data Strategy Project, which will oversee the creation of a data and performance measurements strategy for the province.

The MHASEF child and youth scorecards are also being used by the provincial government to track progress on its comprehensive strategy for child and youth mental health, an area highlighted for improvement in recent recommendations from Ontario's auditor general. Since the first scorecard was released in 2015, the team has been expanding its data holdings to reflect system-wide determinants of child and youth mental health with new acquisitions of interministerial data through partnerships with the ministries of Children and Youth Services, Education, and Community and Social Services.

"Our team brings a sophisticated knowledge of performance measurement and data, with deep experience around data linkage and validation," comments **Astrid Guttmann**, ICES' chief science officer and a clinician and researcher at Toronto's Hospital for Sick Children. "Not only do we play a leading role in housing and analyzing large data sets, but our team possesses the clinical expertise to ask and investigate highly relevant research questions that result in robust peer-reviewed evidence."



The **MHASEF scorecards** measure province-wide indicators for system performance and patient outcomes for children, youth and adults through geographic and equity lenses.



The child and youth scorecard is being used by the province to track progress on its **comprehensive strategy for child and youth mental health**, an area highlighted for improvement in recent recommendations from **Ontario's auditor general**.



Since its launch in 2015, the MHASEF project has expanded data holdings to include **interministerial data** through **partnerships** with the ministries of Children and Youth Services, Education, and Community and Social Services.

Global Profile and Knowledge Exchange

ICES and the International Population Data Linkage Network

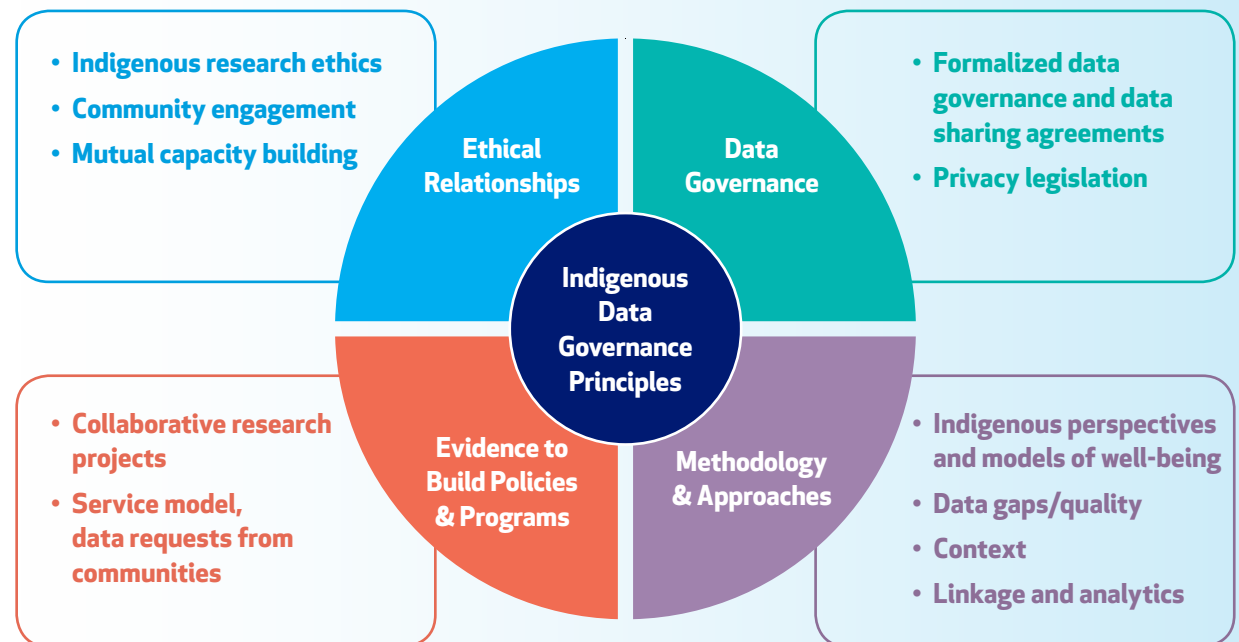
We're delivering on our strategic commitment to amplify our data leadership and the impact of our research by co-directing the International Population Data Linkage Network (IPDLN) for 2017-2018, in partnership with the O'Brien Institute for Public Health at the University of Calgary. IPDLN facilitates communication between centres that specialize in data linkage and users of the linked data. The network is committed to the systematic application of data linkage to produce community benefit in the population and health-related domains. In September 2018, the IPDLN Conference will be held at the Banff Centre, in Alberta, Canada. Researchers from around the world will join ICES scientists at the conference, fostering opportunities for cross-jurisdictional learning and future collaboration.

Community Partnership and Research Excellence

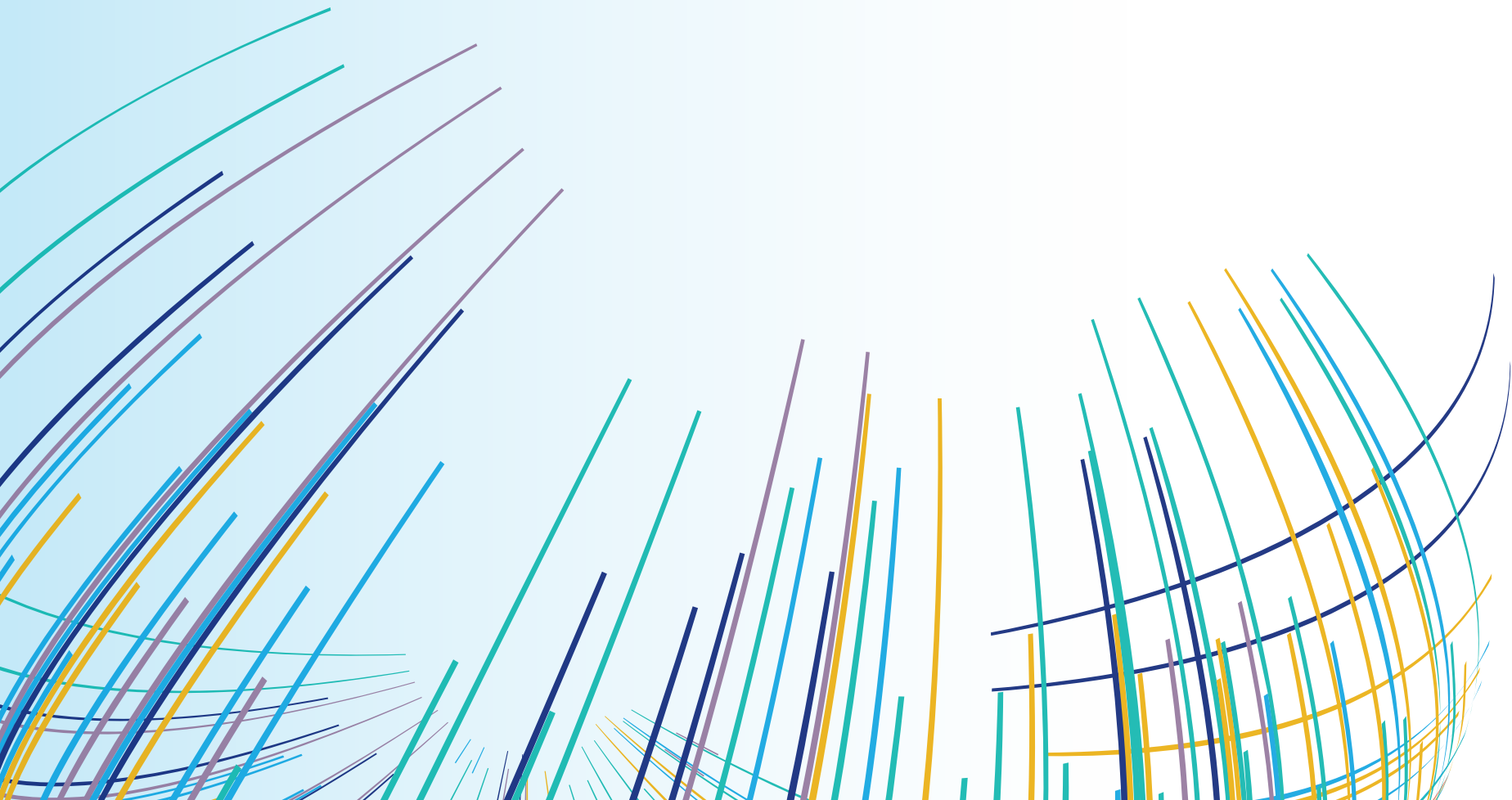
ICES Indigenous Portfolio

Formalizing our partnerships with Indigenous leadership organizations and communities is one of the most important ways we're increasing ICES' capacity to conduct novel research. ICES has been working closely with Indigenous (First Nations, Métis and Inuit) partners to develop unique data governance and data sharing agreements and to conduct Indigenous-led analyses

using ICES data. The value of such partnership cannot be overstated. We are invested in supporting Indigenous communities to use data to answer questions that are relevant to them and help promote well-being, healing and effective policy. Through ICES' Indigenous Portfolio, we respect the insights, experience and agency of the Indigenous communities involved.



Financial Report



Statement of Financial Position

As at March 31, 2017

(in thousands of dollars)

	GENERAL FUND		RESTRICTED FUND		TOTAL	
	2017	2016	2017	2016	2017	2016
	\$	\$	\$	\$	\$	\$
ASSETS						
Current assets						
Cash	3,962	2,252	6,103	8,069	10,065	10,321
Accounts receivable	2,680	2,227	1,017	243	3,697	2,470
Prepaid expenses	563	561	54	26	617	587
	7,205	5,040	7,174	8,338	14,379	13,378
Tangible capital assets						
	1,813	723	—	—	1,813	723
	9,018	5,763	7,174	8,338	16,192	14,101
LIABILITIES						
Current liabilities						
Accounts payable and accrued liabilities	3,316	2,466	9	393	3,325	2,859
Due to Ministry of Health and Long-Term Care	—	—	331	728	331	728
Deposit in trust	1,930	1,342	—	—	1,930	1,342
Due to Sunnybrook Health Sciences Centre	367	149	—	—	367	149
Deferred lease liability	239	—	—	—	239	—
	5,852	3,957	340	1,121	6,192	5,078
Post-employment benefits other than pensions						
	763	947	—	—	763	947
Deferred capital grant						
	1,813	723	—	—	1,813	723
Deferred operating grants						
	309	136	6,834	7,217	7,143	7,353
	8,737	5,763	7,174	8,338	15,911	14,101
NET ASSETS						
General fund						
	281	—	—	—	281	—
	9,018	5,763	7,174	8,338	16,192	14,101

Statement of Operations and Changes in Net Assets

For the year ended March 31, 2017

(in thousands of dollars)

	GENERAL FUND		RESTRICTED FUND		TOTAL	
	2017	2016	2017	2016	2017	2016
	\$	\$	\$	\$	\$	\$
REVENUE						
Grants — Ministry of Health and Long-Term Care	6,228	7,934	—	—	6,228	7,934
Interest income	71	48	—	—	71	48
Other revenue	7,884	7,127	—	—	7,884	7,127
Amortization of deferred capital grant	425	319	—	—	425	319
Amortization of deferred operating grants	1,270	339	7,629	8,313	8,899	8,652
	15,878	15,767	7,629	8,313	23,507	24,080
EXPENDITURES						
Employee costs	12,723	13,149	6,862	7,200	19,585	20,349
Contracted services	417	522	14	28	431	550
Information, technology and security	338	462	605	716	943	1,178
Office and general	618	709	78	108	696	817
Amortization of tangible capital assets	425	319	—	—	425	319
Professional fees	293	338	70	261	363	599
Premises	1,064	565	—	—	1,064	565
	15,878	16,064	7,629	8,313	23,507	24,377
EXCESS (DEFICIENCY) OF EXPENDITURES OVER REVENUES FOR THE YEAR	—	(297)	—	—	—	(297)
NET ASSETS — BEGINNING OF YEAR	—	265	—	—	—	265
REMEASUREMENTS OF DEFINED BENEFIT PLANS	281	32	—	—	281	32
NET ASSETS — END OF YEAR	281	—	—	—	281	—

Statement of Cash Flows

For the year ended March 31, 2017

(in thousands of dollars)

	GENERAL FUND		RESTRICTED FUND		TOTAL	
	2017	2016	2017	2016	2017	2016
	\$	\$	\$	\$	\$	\$
CASH PROVIDED BY (USED IN)						
OPERATING ACTIVITIES						
Excess (deficiency) of revenues over expenditures for the year	—	(297)	—	—	—	(297)
Items not affecting cash						
Post-employment benefits other than pensions	97	96	—	—	97	96
Amortization of deferred capital grant	(425)	(319)	—	—	(425)	(319)
Amortization of deferred operating grants	(1,270)	(339)	(7,629)	(8,313)	(8,899)	(8,652)
Transfer from deferred operating grant	1,443	347	49	(848)	1,492	(501)
Amortization of tangible capital assets	425	319	—	—	425	319
Changes in non-cash working capital	1,440	482	(1,583)	(144)	(143)	338
	1,710	289	(9,163)	(9,305)	(7,453)	(9,016)
INVESTING ACTIVITIES						
Transfer to deferred capital grant	1,515	279	—	—	1,515	279
Purchase of tangible capital assets	(1,515)	(279)	—	—	(1,515)	(279)
	—	—	—	—	—	—
FINANCING ACTIVITIES						
Deferred operating grants received plus interest and other income	—	—	7,609	9,459	7,609	9,459
Deferred operating grants to Ministry of Health and Long-Term Care	—	—	(412)	(709)	(412)	(709)
	—	—	7,197	8,750	7,197	8,750
INCREASE (DECREASE) IN CASH DURING THE YEAR	1,710	289	(1,966)	(555)	(256)	(266)
CASH — BEGINNING OF YEAR	2,252	1,963	8,069	8,624	10,321	10,587
CASH — END OF YEAR	3,962	2,252	6,103	8,069	10,065	10,321

Contact Us

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