

Better health. Better health care.

The O'Brien Institute for Public Health at the University of Calgary supports excellence in population health and health services research, realizing the benefits of such research by informing community, policy and health-practice stakeholders.

As an Institute, we share a vision of "better health and health care," reflecting our two priority research areas of improved population health and enhanced health systems performance.

The institute's success in brokering broader external relationships, with provincial and national interest groups, policy makers, research agencies, the media, philanthropists, and community stakeholders, further extends the reach and impact of our members' significant research outputs.



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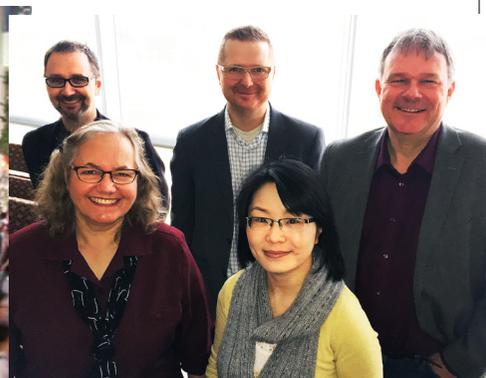
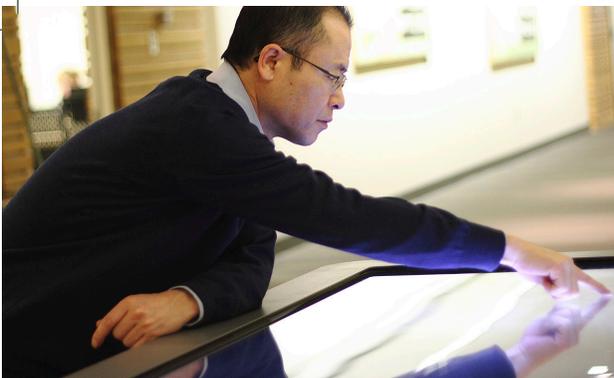
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O'Brien Institute for Public Health
Biostatistics Centre

Big data. Massive potential.

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There's lots of data. The aim is to find meaning in it.

Karen Kopciuk
University of Calgary
Biostatistics Centre

WHO WE ARE

The University of Calgary Biostatistics Centre (UCBC), is a multi-faculty initiative at the O'Brien Institute for Public Health. UCBC members are experts in the analysis of big health data, employing powerful data science approaches toward bioinformatics, genetics, infectious disease epidemiology, kinesiology, population ecology, and clinical trials.

WHAT WE DO

Biomedical research is becoming more complex with an ever-increasing volume of data, the need to link data from disparate sources, and the increasing complexity of research design. Biostatistics, and by extension biostatisticians, play

a key role within biomedical research as a field of academic study concerned with the development of the theory and methodology of data analysis and data science, and their sound application in medicine and health.

The continuing advancement of biomedical science is accompanied by the need to develop more sophisticated statistical methodology for managing, analyzing, and designing studies to collect the resulting data. This is illustrated by the explosion in so-called "big data" problems in areas such as genetics, genomics, neuroimaging, epidemiology, public health and others. These problems are addressed by applying sophisticated methodology to data from sources such as clinical data repositories,

genomic data sets or tissue data banks. Thus, the skills of graduate-level biostatisticians, trained in techniques and research methods on the cutting edge of these scientific advances are in high, and increasing, demand.

The UCBC is positioning the university as a leader in the development and application of biostatistical methodology, including traditional and contemporary methodologies on the cutting edge of biomedical research. The Rocky Mountain Data Science Training Centre, an initiative by the UCBC, aimed at developing training programs to lead the country in the field of big data education and research, was recently designated a Canadian Statistical Sciences Institute collaborating centre.