

Alka Patel GISP

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Expertise

My research interests are in the following areas:
Health Services Research; Spatial Analysis; Geographic Information Systems/Science;
Geographic Access; Medical Geography; Environmental Health, Spatial Statistics

Academic Background

Doctor of Philosophy in Health Services Research 2007-2012
Department of Community Health Sciences
University of Calgary, Alberta

Thesis: Evaluating Geographic Access to Cardiac Catheterization Facilities to Inform Regionalized Models of Care for Acute Myocardial Infarction
Supervised by: Dr. William Ghali, Department of Community Health Sciences and Medicine, Faculty of Medicine, University of Calgary

Masters of Geographic Information Systems 2004-2006
Department of Geography
University of Calgary, Alberta

Thesis: Determining Areas Accessible to Cardiac Catheterization Facilities Using Geographic Information Systems
Co-Supervised by: Dr. Nigel Waters, Department of Geography, Faculty of Social Sciences, University of Calgary and Dr. William Ghali, Department of Community Health Sciences and Medicine, Faculty of Medicine, University of Calgary

Bachelor of Science with Distinction in Geography 2003-2004
Department of Geography
University of Calgary, Alberta

Computer Science Courses 1999-2002
University of Calgary, Alberta
University of Athabasca, Alberta

Bachelor of Science in Zoology 1991-1996
Department of Biological Sciences
University of Calgary, Alberta

Recognition / Awards

The University of Calgary 2013
Chancellor's Graduate Medal

Employment

Alberta Health Services Director – Health Services Research and Innovation Applied Research and Evaluation - Primary Health Care	2013-present
Alberta Health Services Scientist – Public Health Innovation and Decision Support	2012-2013
University of Calgary – Department of Community Health Sciences Research Associate - Geographic / GIS Consultant	2007- 2012
TERA Environmental Consultants Geographic Information Systems Specialist	2005-2012
Institute of Clinical and Evaluative Sciences - Toronto, Ontario Contract Research/GIS Consultant	2010
Alberta Bone and Joint Institute Contract Research/GIS Consultant	2009
Calgary Health Region – Rural Health Contract Research/GIS Consultant	2008
University of Calgary – Department of Community Health Sciences Contract Geographic Consultant	2005
University of Calgary – Department of Geography Research Assistant	2004
Commonwealth Edison – Chicago, Illinois, USA On-site GIS Consultant for QC Data Ltd	1999-2000
QC Data Ltd. GIS Technician	1997-2003
The City of Calgary - Transportation Planning Data Collector (May-Aug.)	1991-1996

Thesis Committees

Community Health Sciences - (Jessalyn Holodinsky) PhD Thesis Committee Member	2015-present
Community Health Sciences - (Kamala Adhikari Dahal) PhD Thesis Committee Member	2015-present
Faculty of Nursing - (Morgan Yates) Master's Thesis Committee Member	2013-2015

Teaching

University of Calgary – Co-evaluator MDSC 507- Special Problems in Medical Science	2015
University of Calgary – Institute of Public Health Workshop Introduction to Geographic Information Systems	2014
University of Calgary: Department of Community Health Sciences Teaching Assistant: Administrative Data Analysis	2010, 2012
University of Calgary: Health Research Methods Workshop Series Co-instructed: <i>Geographic Information Systems Applications in Health Research</i>	2009
University of Calgary: Health Research Methods Workshop Series Co-instructed: <i>Mapping Health: Getting the Message Right</i>	2008
University of Calgary: Department of Geography Teaching Assistant: Environmental Decision Support Systems	2006, 2007
Teaching Assistant: Visual Basic Programming for GIS	2006
Teaching Assistant: Research and Methods in GIS	2005
University of Calgary: Department of Geography Software Training for Incoming Students	2005

Invited Lectures

University of Calgary: Health and Society 311 Health Services and Health Systems: Bachelor of Health Sciences Course - <i>An Introduction to Using Geographic Information Systems for Health Research</i>	2013, 2010
University of Calgary: Western Regional Training Centre - <i>An Introduction to Using Geographic Information Systems for Health Research</i>	2013
George Mason University. Fairfax, Virginia: Geography 540 Medical Geography: Graduate Geography Course - <i>Using Geographic Information Systems to Evaluate Access to Emergency Cardiac Care in Canada</i>	2010

Teaching Training

University of Calgary – Teaching and Learning Centre University Teaching Certificate – Certificate Received	2012
Instructional Skills Workshop – Certificate Received	2009

Professional Activities

Journal Review International Journal of Health Geographics, 4 reviews Open Medicine, 2 reviews Cartographica, 1 review Circulation, 1 review	2009-present
Summer Student Day Organizing Committee Canadian Cardiovascular Outcomes Research Team	2009
Award Selection Committee Canadian Cardiovascular Outcomes Research Team Summer Student Awards	2008-2010
Conference Volunteer GeoAlberta: Calgary, Alberta	2005

University Committees

University of Calgary: Institute for Public Health Geography of Health and GIS Analysis - Subgroup Co-lead	2013-present
University of Calgary: Institute for Public Health Research Methods for Public Health - Subgroup Member	2011-present
University of Calgary: Community Health Sciences Student Executive Student Seminar Coordinator Course Representative	2007-2010
University of Calgary: Masters of GIS Industry Day Committee Member	2007
University of Calgary: Geography Department Conference Committee Graduate Student Representative	2006
University of Calgary: Masters of GIS Steering Committee Graduate Student Representative	2005-2006
University of Calgary: GIS Day Student Volunteer	2004, 2005

Membership in Professional Associations

Geographic Information Systems Professional Designation received	2011- present
Canadian Associations of Geographers	2010-present
American Associations of Geographers	2009- present

Grants

Granting Agency	Grant Type	Amount	Duration	Investigator
University of Calgary Cumming School of Medicine Clinical Research Grant Fund	Operating	\$50,000	2011	Co-Applicant
Canadian Institute for Health Research (CIHR)	Operating	\$266,583	2014-2016	Co-Applicant

Scholarships/Awards

Granting Agency	Award	Amount	Duration	Local / Provincial / National
University of Calgary	Graduate Studies Travel Award	\$1,000	2011	Local
Alberta Innovates Health Solutions	Studentship	\$21,500	2011-2012	Provincial
Alberta Heritage Foundation for Medical Research	Incentive Award	\$23,400	2008-2011	Provincial
Canadian Institute for Health Research (CIHR)	Studentship	\$66,000	2008-2011	National
CIHR IHSPR-IPPH	Accepted to Summer Institute in 'Space, Place and Health'	Travel and Training (~\$3000)	2009	National
Canadian Cardiovascular Outcomes Research Team (CIHR)	Travel Award	\$3,000	2008-2009	National
University of Calgary	Dean's Research Excellence Award	\$3,000	2008	Local
Canadian Cardiovascular Outcomes Research Team (CIHR)	Studentship	\$21,000	2007-2008	National
University of Calgary	Dean's Research Excellence Award	\$3,000	2007	Local
Government of Alberta	Graduate Student Scholarship	\$2,000	2005	Provincial
University of Calgary	Dean's Honor List	n/a	2004	Local
University of Calgary	International studentship Grant	\$500	2004	Local

Peer Reviewed Publications

10. **Patel AB**, Quan H, Welsh RC, Deckert-Sookram J, Tymchak W, Sookram S, Surdhar I, Kaul P. (2015). Validity and utility of ICD-10 administrative health data for identifying ST- and non ST-elevation Myocardial Infarction based on physician chart review. *CMAJ Open*. 3(4): E413-418.
 9. Butalia S, **Patel AB**, Johnson JA, Ghali WA, Rabi DM. (2014). Association Between Diabetic Ketoacidosis Hospitalizations and Driving Distance to Outpatient Diabetes Centres in Adults With Type 1 Diabetes Mellitus. *Canadian Journal of Diabetes*. 38(6): 451-455.
 8. Frolkis AD, Kaplan GG, **Patel AB**, Faris P, Quan H, Jette N, deBruyn J. (2014). Postoperative Complications and Emergent Readmission in Children and Adults with Inflammatory Bowel Disease Who Undergo Intestinal Resection: A Population-based Study. *Inflammatory Bowel Diseases*. 20(8):1316-1323.
 7. Southern DA, Poole J, **Patel AB**, Waters NM, Pilote L, Hull RD, Ghali WA. (2014). Health system capacity and infrastructure for adopting innovations to care for patients with venous thromboembolic disease. *Open Medicine*. 8(2)
 6. Kania A, **Patel AB**, Yelland G, Roy A, Nguyen D, Verhoef M. Capturing the complexity of evaluations of health promotion interventions – a scoping review. *Canadian Journal of Program Evaluation* 2012. 27:1.
 5. **Patel AB**, Waters NM, Blanchard IE, Doig CJ, Ghali, WA: A validation of ground ambulance pre-hospital times modeled using geographic information systems. *International Journal of Health Geographics* 2012, 11:42.
 4. **Patel AB**, Quan H, Faris P, Knudtson M, Traboulsi M, Li B, Ghali WA. Temporal associations of early patient transfers and mortality with the implementation of a regional myocardial infarction care model. *Canadian Journal of Cardiology* 2011, 12(6): 731-38.
 3. **Patel AB**, Tu JV, Waters NM, Ko DT, Eisenberg MJ, Huynh T, Rinfret S, Knudtson ML, Ghali WA. Access to primary percutaneous coronary intervention of ST-segment elevation myocardial infarction in Canada: a geographic analysis. *Open Medicine* 2010; 1(1):13-21.
- Press Coverage (Print, Television, Radio): Globe and Mail, Calgary Herald, Calgary Sun, Canadian Press, CTV, CBC, Global Television
2. Potestio ML, **Patel AB**, Powell CD, McNeil DA, Jacobson RD, McLaren L. Is there an association between spatial access to parks/green space and childhood overweight / obesity in Calgary, Canada? *International Journal of Behavioral Nutrition and Physical Activity* 2009, 6:77.
 1. **Patel AB**, Waters NM, Ghali, WA: Determining geographic areas and populations with timely access to cardiac catheterization facilities for acute myocardial infarction care in Alberta, Canada. *International Journal of Health Geographics* 2007, 6:47.

Book Chapter

1. **Patel AB**, Waters NM. 2012. Using Geographic Information Systems for Health Research, Application of Geographic Information Systems, Bhuiyan Monwar Alam (Ed.), ISBN: 978-953-51-0824-5, InTech, Available from: <http://www.intechopen.com/books/application-of-geographic-information-systems/using-geographic-information-systems-for-health-research>

Published Abstracts

3. Frolkis AD, Kaplan GG, **Patel AB**, Faris P, Quan H, deBruyn J. Postoperative complications in Crohn's disease and ulcerative colitis patients– A province-wide cohort study. *Am J Gastroenterol* 2012 Oct:S663. - Presidential Poster Recipient

2. **Patel AB**, Quan H, Farris P, Ghali WA. Evaluation of a regional myocardial infarction care model: Effects on acute patient transfers and mortality. *Journal of General Internal Medicine* 2010. 25(Supplement 3):

1. **Patel AB**, Tu JV, Waters NM, Ko D, Eisenberg M, Huynh T, Rinfret S, Knudtson ML, Ghali WA. Access to Primary Percutaneous Coronary Intervention for ST-Segment Elevation Myocardial Infarction: A geographic analysis. *Journal of General Internal Medicine* 2009. 24(Supplement 1): 12-12

Conference Oral Presentations

Patel AB, Waters NM, Blanchard I, Ghali WA. Validation of ground emergency transport times modeled using GIS. American Association of Geographers, New York, New York, February 24-28, 2012.

Patel AB, Gentili M, Waters NM, Ghali WA. Optimizing Cardiac Catheterization Facility Placement with GIS and Operations Research. ESRI Health GIS Conference, Arlington, Virginia, September 7-9, 2011.

Patel AB, Tu JV, Waters NM, Ko D, Eisenberg M, Huynh T, Rinfret S, Knudtson ML, Ghali WA. Access to Primary Percutaneous Coronary Intervention for ST-Segment Elevation Myocardial Infarction: A geographic analysis. American Association of Geographers, Washington DC, April 14-18, 2010.

Patel AB, Quan H, Farris P, Ghali WA. Evaluation of a regional myocardial infarction care model: Effects on acute patient transfers and mortality. Society for General Internal Medicine, Minneapolis, Minnesota, April 28-May 1, 2010

Patel AB, Tu JV, Waters NM, Ko D, Eisenberg M, Huynh T, Rinfret S, Knudtson ML, Ghali WA. Evaluating geographic access to cardiac catheterization in Canada. ESRI International User Conference (Conference on GIS software), San Diego, California, USA, July 11 - 17, 2010.

Invited Oral Presentations

Patel AB. Using Geographic Information Systems for CCORT Research. Canadian Cardiovascular Research Team (CCORT) National Meeting, Toronto, ON, June 1-2, 2009.

Patel AB, Tu JV, Waters NM, Ko D, Eisenberg M, Huynh T, Rinfret S, Knudtson ML, Ghali WA. Evaluating Geographic and Population Access to PCI Facilities in Canada. APPROACH National Meeting, June 22-23, 2009, Calgary, Alberta.

Patel AB. Access to Cardiac Catheterization using Geographic Information Systems. GIS Day for Alberta Health Services, Calgary, AB, November 15, 2008.

Patel AB, Tu JV, Waters NM, Ko D, Eisenberg M, Huynh T, Rinfret S, Knudtson ML, Ghali WA. Evaluating Geographic and Population Access to PCI Facilities in Canada. CCORT National Meeting, Toronto, ON, May 27, 2008.

Patel AB, Quan H, Farris P, Ghali WA. Changes over time in AMI patient transfers. APPROACH National Meeting, Calgary, AB, June 23, 2008.

Patel AB. Determining areas accessible to cardiac catheterization facilities using geographic information systems. Canadian Cardiovascular Outcomes Research Team (CCORT) Student Day. Montreal, Quebec: July 2007.

Patel AB. Careers in GIS: Discussion Panel. GeoTech Conference, Calgary, Alberta: May 2007.

Patel AB. Existing and Future uses of Geospatial Technologies: Discussion Panel. MGIS Industry Day, University of Calgary, Calgary, Alberta: March 2007.

Patel AB. Applications of GIS to Rural Health Research. Presentation to Calgary Health Region Rural Research Group, Calgary Health Region, Calgary, Alberta: March 2007.

Patel AB. Applications of GIS to Health Research. Presentation to visiting professors from Japan, University of Calgary, Calgary, Alberta: September 2006.

Patel AB. Determining areas accessible to cardiac catheterization facilities using geographic information systems. Presentation to Emergency Link Centre Staff. Alberta Shock Trauma Air Rescue Society (STARS), Calgary, Alberta: August 2006.

Patel AB, Waters NM, Ghali WA. Determining areas accessible to cardiac catheterization facilities using geographic information systems. Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease (APPROACH) National Conference, Calgary, Alberta: May 2006.

Poster Presentations

Yelland G, Kania A, Roy A, **Patel AB,** Nguyen D, Verhoef M. Capturing the complexity of health promotion program evaluations. North American Primary Care Research Group Annual Meeting, Banff (AB), November 12-16, 2011.

Patel AB, Quan H, Deckert-Sookram J, Tymchak W, Sookram S, Surdhar I, Brass N, Welsh RC, Kaul P. Validity of ICD-10 codes for classifying AMI sub-types. Meeting of the World Health Organization Collaborating Centres for the Family of International Classifications, Capetown, South Africa, October 28-November 4, 2011.

Yelland G, **Patel AB**, Roy A, Kania A, Nguyen D, Verhoef M. Looking for a “complexity” perspective – the case of health promotion evaluation design. Accelerating Primary Care Conference, Edmonton (AB), October 2-4, 2011.

Yelland G, Kania A, Roy A, **Patel AB**, Nguyen D, Verhoef M. Looking for a "complexity" perspective in health promotion evaluations. Alberta Graduate Conference, Calgary (AB), May 4-6, 2011.

Metcalf A, Tough S, **Patel AB**, Johnson J. Characteristics of women undergoing early prenatal screening for fetal aneuploidy in a Canadian Centre. Society for Pediatric and Perinatal Epidemiologic Research (SPER), Seattle, Washington, June 22 -23, 2010.

Patel AB, Tu JV, Waters NM, Ko D, Eisenberg M, Huynh T, Rinfret S, Knudtson ML, Ghali WA. Access to Primary Percutaneous Coronary Intervention for ST-Segment Elevation Myocardial Infarction: A geographic analysis. Society for General Internal Medicine, Miami, Florida, May 13 -16, 2009.

Patel AB, Tu JV, Waters NM, Ghali WA. Access to Percutaneous Coronary Intervention: Implications for Regionalization of Care. ESRI Health GIS Conference, Washington DC, USA, September 28 – October 1, 2008.

Potestio M, **Patel AB**, Powell C, McNeil D, Jacobson D, McLaren L. Is park/green space associated with childhood obesity in Calgary, Canada? Canadian Obesity Network Student and New Professionals Conference, Calgary, Alberta, March 20, 2008.

Potestio M, **Patel AB**, Powell C, McNeil D, Jacobson D, McLaren L. Understanding the association between park/green space and childhood obesity in Calgary, Canada? Canadian Obesity Network National Student Meeting, Quebec City, Quebec, June 4-6, 2008.

Metcalf A, Blakley P, **Patel AB**, Muhajarine N. Disparities in Children’s Use of Health Care Services in a Regionalized Setting with Universal Health Insurance. Academy Health Research Meeting, Washington DC, USA, June 8-10, 2008.