



# ACHORD

Alliance for Canadian Health  
Outcomes Research in Diabetes

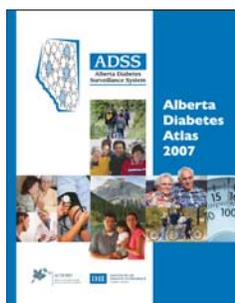
## Hot Off the Press: Alberta Diabetes Atlas 2007 is Here

---

### Inside this issue:

Report from the Chair	2
ACHORD Seen and Heard	1 - 4
Literature Review	3
Meet the Student	3
Events and Contacts	4

---



More than 130,000 adults are living with diabetes in Alberta and more than 12,000 new cases of diabetes are identified each year. We know this because, as of this past month, Albertans have at their fingertips the **Alberta Diabetes Atlas 2007**. This Atlas is a comprehensive picture of people living with diabetes in the province; a product of the Alberta Diabetes Surveillance System (ADSS), a partnership between the ACHORD Group and Alberta Health and Wellness (AHW).

The ADSS counts the number of people living with diabetes in Alberta, their related health conditions, and the health services they use. Cardiovascular disease, renal disease, eye disease and mental health disorders are all reported on in the ADSS as well as trends of diabetes among the First Nations people. This information is intended to help health care providers and policy makers better understand the scope of the disease and how to deal with it.

The ADSS also reports on different patterns of health care usage over time and across the health regions of Alberta. This is important because when the province or the regions implement strategies to prevent diabetes or to improve care, we will only know if they are effective by measuring changes in health care and health outcomes. The ADSS provides a systematic measurement tool to better evaluate the effect of those intervention strategies.

A website is also in the works that will provide more timely access to information about rates and patterns of hospitalizations, doctor visits and laboratory tests. It will have various levels accessible by the general public, health professionals and the regional health authorities. The plan is to have this web-based system in place by 2008. For more information on the ADSS and the Alberta Diabetes Atlas 2007, please visit the ACHORD website ([www.achord.ca](http://www.achord.ca)).

## ACHORD Seen and Heard

### Recent Publications

Institute of Health Economics. Consensus statement on self-monitoring in diabetes. *Int J Technology Assessment Health Care*. 2007;23:146-151.

Johnson JA. IHE Consensus Conference on Self-monitoring in Diabetes: An innovative approach to health policy development. *Can J Diabetes* 2007;31:18-19.

Shrive FM, Ghali WA, Johnson JA, Donaldson C, Manns BJ. Use of the US and UK scoring algorithm for the EuroQol-5D in an economic evaluation of cardiac care. *Med Care* 2007;45(3)269-273.

Koleba T, Pohar SL, Johnson JA. Addition of prescription drug data to the Canadian National Diabetes Surveillance System case definition. *Can J Diabetes* 2007;31:47-53.

Jeerakathil TJ, Johnson JA, Simpson SH, Majumdar SR. Short-term risk for stroke is doubled in persons with newly-treated type 2 diabetes compared to persons without diabetes: a population-based cohort study. *Stroke* 2007;38:1739-1743.

(Continued Page 2)

## Report from the Chair



Jeffrey A. Johnson

I hope you are all enjoying your summer. I am happy to take this opportunity to report on recent activities of the ACHORD Group. We held the annual ACHORD Retreat in Banff March 14-16, which was enjoyed by all that attended, and especially the group of us who enjoyed an afternoon of Nordic skiing in Canmore! The main focus of the retreat this year was data from the ADSS, but we also had a guest presentation from Peter Senior on the Diabetes Nephropathy Prevention Program he and Dr. Jindal have organized.

Many ACHORD members attended the CAPT Meeting in Halifax, May 27-30, while others attended the CSEB Meeting in Calgary, May 27-31. I recently attended the ADA Meeting in Chicago, June 22-25.

ACHORD trainees have also had a busy spring - Samantha Bowker completed her candidacy exam on May 9 and Dean Eurich successfully defended his PhD thesis on May 15. Congratulations Dr. Eurich! Dean was also awarded the Best Student Oral Presentation Award at the CAPT Meeting in Halifax. Way to go Dean! Congratulations goes to JM Gamble on his CIHR Canada Graduate Scholarship Master's Award. This is a new award to CIHR and we are very pleased that one of our trainees was among the

first people to receive it. As of June, Carolyn Green completed her PDF year with ACHORD, with plans to complete the papers on her ethnographic evaluation of the Vascular Intervention Project in primary care in the near future.

Our most recent big news was the release of the Alberta Diabetes Atlas 2007 on June 6. This report stirred up a lot of interest, as we fielded many calls from Diabetes Education Centres, libraries, government agencies and physicians requesting copies of the Atlas. I was interviewed by the Edmonton Journal (article in the Thursday, June 7, 2007 edition) and on the CITY TV's early morning Breakfast Television on Tuesday, June 12, 2007. The Atlas and each of its chapters can be downloaded from our website ([www.achord.ca](http://www.achord.ca)). Plans are now underway to visit each of the health regions in Alberta to disseminate information to health care providers and administrators.

In addition to the ongoing work of the Alberta Diabetes Surveillance System, we will be busy this year with preparations for many different grants. We will be submitting an application to the upcoming CIHR Team Grant competition from the Institute of Nutrition, Metabolism and Diabetes, to further establish and support the growth of the ACHORD research program.

## ACHORD Seen and Heard (cont)

### Recent Publications (cont)

Bowker SL, Johnson JA. Comment to Stattin P et al: Prospective Study of Hyperglycemia and Cancer Risk. [Letter to Editor]. *Diabetes Care* 2007;30(7):e77.

McAlister FA, Oreopoulos A, Norris CM, Graham MM, Tsuyuki RT, Knudson M, Ghali WA; Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease (APPROACH) Investigators. Exploring the treatment-risk paradox in coronary disease. *2007 Arch Intern Med* May 28;167(10):1019-25.

Ray JG, Norris CM, Udell JA, Tsuyuki RT, McAlister FA, Knudtson ML, Ghali WA. Lipid-lowering therapy and outcomes in heart failure. *2007 J Cardiovasc Pharmacol Ther* Mar;12(1):27-35.

Freedman RJ, Samson SL, Edwards AL, Schaefer JP, Southern DA, Quan H, Ghali WA. Glycemic control and use of the insulin sliding scale in hospitalized patients with diabetes. *2007 J Healthc Qual.* Mar-Apr;29(2):31-7.

Rabi DM, Edwards AL, Svenson LW, Sargious PM, Norton P, Larsen ET, Ghali WA. Clinical and medication profiles stratified by household income in patients referred for diabetes care. *2007 Cardiovasc Diabetol* Mar 30;6-11.

### Recent Presentations

Green CJ, Simpson SH, Nitschke D, Johnson JA. Explicating Pharmacists' Diabetes Care on a Primary Care Team. Accelerating Primary Care: Gaining Momentum. Edmonton, Alberta April 16-18, 2007.

Brown LC, Johnson JA. Development of Diabetes in Patients taking Atypical Antipsychotic Agents: A Systematic Review. 2<sup>nd</sup> Annual International Congress on "Prediabetes" and the Metabolic Syndrome. Barcelona, Spain April 25-28, 2007.

(Continued Page 4)

## Recent Literature: Nissen SE, Wolski K. Effect of rosiglitazone on the risk of myocardial infarction and death from cardiovascular causes. *N Engl J Med* 2007;356.

### What was the study about?

The aim of this study was to evaluate whether the use of rosiglitazone (Avandia® - GSK) was associated with an increased risk of heart attacks or death due to cardiovascular causes. The investigators conducted a meta-analysis using data available from published and unpublished clinical trials of rosiglitazone compared to placebo or other antidiabetic agents. Data were obtained from the published literature and websites of the US Food and Drug Administration and the manufacturer's clinical trials registry. A total of 42 studies were included, and rates of myocardial infarction and death from cardiovascular causes were calculated and compared.

### What were the results of the study?

The investigators found that, compared to the control group who used placebo or other antidiabetic drugs, people who used rosiglitazone has a 43% increased risk of myocardial infarction, with a 95% confidence interval of 3% to 98% increased risk. The risk of death due to cardiovascular causes was estimated to be 64% higher for rosiglitazone users compared to the control group.

### What are the implications of the study?

This study was published in *New England Journal of Medicine* and picked up by the popular press near the end of May, causing considerable commotion in the diabetes community, as rosiglitazone is commonly used by people with type 2 diabetes around the world. A flurry of letters and editorials followed this report, including the rapid publication, also in *New England Journal of Medicine*, of an unplanned, interim analysis of a large ongoing clinical trial (RECORD) aimed at determining the effect of rosiglitazone on cardiovascular outcomes. Rosiglitazone and other drugs in this class of PPAR agonists, have been known to cause fluid retention and heart failure. The available evidence seems to suggest an increased risk of heart attacks, but the final conclusions cannot be made just yet. Nissen and Wolski, the authors of the original report, appropriately call for greater attention to data relating to cardiovascular outcomes in the evaluation and approval of new antidiabetic medications. Regardless, the actual event rates and the absolute risk for heart attack with rosiglitazone, as reported by Nissen and Wolski, is quite small. Advice from a panel of experts at the recent American Diabetes Association annual meeting in Chicago suggested that patients who are well controlled on rosiglitazone could be kept on it, but they would be wary of starting any new patients on this product.

---

*New drug treatments for diabetes, including the glitazones, should be evaluated for their long-term effects on cardiovascular outcomes, not just glyce-mic control.*

---

## Meet the Student: Robin Lau

Robin Lau was born and raised in Edmonton and graduated from the University of Alberta in 2006 with a Bachelor of Science in biological sciences with a minor in business. Robin realized that he was interested in continuing with school and decided to pursue a Master's degree in health policy research under the supervision of Dr. Arto Ohinmaa. Robin has finished his first year of his master's program and is now in the process of researching and modeling the cost-effectiveness of diabetes prevention in Alberta.

The pursuit of a degree in health was an odd choice for Robin, coming from a family that is business oriented, with two brothers in the finance stream, and a father who has his MBA, Robin found an interest in the health field. Robin was inspired by his grandparents, who moved from China in the early 1970's for a fresh start in Canada. They told him stories of the hardships faced and instilled old world values of respect, altruism

and genuine caring for people. In maintaining true to what he has been taught, the health field was an attractive choice that aligns with his beliefs and values.

When not busy working on his master's thesis, Robin is also working at the Telus World of Science as a Gallery Interpreter, with his primary job of engaging parents and inspiring children into learning about the wonders of the body and the beauty of nature's design. In his spare time, Robin is currently learning how to play classical guitar, how to speak Mandarin, and hopes to learn to ballroom dance in the near future. He enjoys jogging, badminton, swimming, weight training and traveling. His travels have taken him to China, Hong Kong, United Arab Emirates, Bali and Singapore and have provided him with a richer understanding and appreciation for other cultures. He hopes to continue his travels after he graduates from his master's degree.



Robin Lau

## ACHORD Seen and Heard (cont from Page 2)

### ACHORD Chair

**Dr. Jeffrey Johnson**  
University of Alberta  
Institute of Health Economics

### Staff & Research Trainees

Ms. Samantha Bowker  
Ms. Lauren Brown  
Dr. Dean Eurich  
Mr. JM Gamble  
Mr. Greg Hugel  
Mr. Robin Lau  
Ms. Sherry Lydyniuk  
Ms. Maria Santana  
Ms. Stephanie Vermeulen



#### Address

#1200, 10405 Jasper Avenue  
Edmonton, Alberta  
Canada T5J 3N4

#### Phone

(780) 448-4881

#### Fax

(780) 448-0018

#### Websites

<http://www.achord.ca>  
<http://www.ihe.ca>

#### Recent Presentations (cont)

Bize R, Johnson JA, Plotnikoff R. The Association between Physical Activity Level and Health-Related Quality of Life in the General Adult Population: A Systematic Review. Society of General Internal Medicine 30<sup>th</sup> Annual Meeting, Toronto, ON April 25-28, 2007.

Green CJ, Simpson SH, Nitschke D, Johnson JA. Getting Pharmacy Knowledge Into Diabetes Primary Care Practice: An Institutional Ethnography. Strengthening the Bond – Collaborating for Optimal Patient Care. Banff, Alberta May 3-5, 2007.

Blackburn DE, Lamb DA, Eurich DT, Johnson JA, Wilson TW, Dobson RT, Blackburn JL. Atenolol as initial antihypertensive therapy: An observational study comparing first-line agents. American Society of Hypertension (ASH), Chicago, IL, USA. May 19-22, 2007.

Sundaram M, Miller LA, Johnson JA. Differences in EQ-5D scores for US and UK based preference scoring systems in people with type 2 diabetes mellitus. IPSOR 12<sup>th</sup> Annual International Meeting, Arlington, Virginia May 19-23, 2007.

Vermeulen S, Hugel G, Svenson L, Friesen D, Johnson JA. Alberta Diabetes Surveillance System: Documenting Regional Variation in Diabetes Epidemiology. Canadian Society for Epidemiology and Biostatistics (CSEB), Calgary, Alberta May 28-31, 2007.

Klarenbach S, Vermeulen S, Hugel G, Johnson JA. Trends in Kidney Disease in the Diabetes Population of Alberta, 1996-2005. Canadian Society for Epidemiology and Biostatistics (CSEB), Calgary, Alberta May 28-31, 2007.

Levy AR, Christensen TL, Bavinton H, Tabberer M, Johnson JA. Estimating health-related quality of life from hypoglycemia elicited from non-diabetic and diabetic respondents in Canada. IPSOR 12<sup>th</sup> Annual International Meeting, Arlington, Virginia May 19-23, 2007.

Vermeulen S, Hugel G, Svenson L, Friesen D, Johnson JA. Alberta Diabetes Surveillance System: Documenting Regional Variation in Diabetes Epidemiology. Canadian Therapeutics Congress, Halifax, NS May 27-30, 2007.

Klarenbach S, Vermeulen S, Hugel G, Johnson JA. Trends in Kidney Disease in the Diabetes Population of Alberta, 1996-2005. Canadian Therapeutics Congress, Halifax, NS May 27-30, 2007.

Eurich DT, Majumdar SR, McAlister FA, Tsuyuki RT, Yasui Y, Johnson JA. Does incorporating health-related quality of life into composite outcome analyses improve transparency? [Podium Presentation] Canadian Association for Population Therapeutics (CAPT) Annual Meeting, Halifax, NS May 27-30, 2007.

Gamble JM, Seubert J, Simpson S, Johnson JA. Sulfonylureas and impaired functional recovery following an ischemic event in people with diabetes: An exploratory analysis. Canadian Association for Population Therapeutics (CAPT) Annual Meeting, Halifax, NS May 27-30, 2007.

Levy AR, Christensen T, Bavinton H, Tabberer M, Johnson JA. Estimating health-related quality of life from hypoglycaemia elicited from non-diabetic and diabetic respondents in Canada and UK. American Diabetes Association Annual Meeting, Chicago, IL June 22-25, 2007.

### Why this Newsletter?

The purpose of the ACHORD Newsletter is to keep you updated on the activities of the ACHORD group and to provide reviews of recent, relevant diabetes literature. The newsletter is published three times a year.

If you have any questions about the newsletter, please call Jeffrey Johnson or any of the ACHORD staff at the Institute of Health Economics at (780) 448-4881.