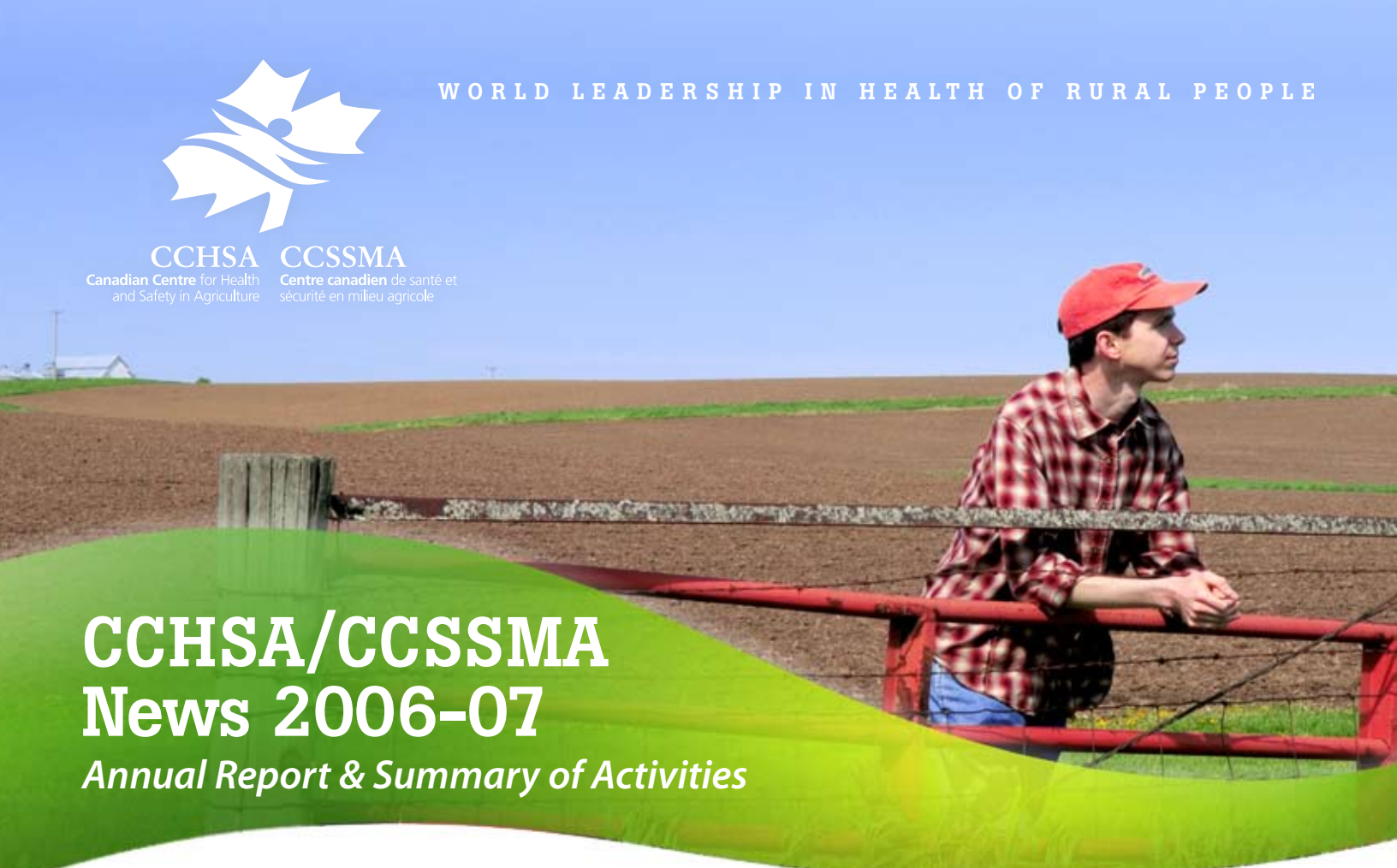




WORLD LEADERSHIP IN HEALTH OF RURAL PEOPLE

**CCHSA** **CCSSMA**  
Canadian Centre for Health and Safety in Agriculture  
Centre canadien de santé et sécurité en milieu agricole



# CCHSA/CCSSMA News 2006-07

*Annual Report & Summary of Activities*

## Canadian Agricultural Health Research Agenda – Building at Home – Learning from Partners



*Artist's rendering of the  
Academic Health Sciences Building*

### A National Laboratory: The First of Its Kind

Our big news going into the year was the notification by the Canada Foundation for Innovation that our application for the National Industrial Hygiene Laboratory was approved! With credit going to the 14 Canadian Universities who joined us in this landmark application, and in the face of an 18% success rate, we received the outstanding amount of \$5.8M towards a future \$14.5M state-of-the-art facility that will be Canada's, and likely the world's, most modern laboratory linking agricultural exposures and rural living to the health of people. A thank you to the participating Universities that include Dalhousie, Laval, Queen's, Quebec, University of Prince Edward Island, University of Ottawa, University of Western Ontario, University of Alberta, University of Calgary, University of Lethbridge, University of Regina, First Nations University of Canada, University of British Columbia and University of Northern British Columbia. This international lab will cover the areas of "What we breathe" (respiratory exposures lab), "How we work" (occupational hygiene lab and the national injury control lab), "What we eat and drink"

### Our Mission

*To conduct and stimulate research, education and health promotion programs aimed at enhancing the health and well-being of agricultural, rural and remote populations.*

<http://cchsa-ccssma.usask.ca>  
[canadian.centre@usask.ca](mailto:canadian.centre@usask.ca)

### Board of Directors:

**Jean-Yves Savoie** (Chair of CCHSA Board of Directors)  
**William Albritton** (U of S)  
**Ernie Barber** (U of S)  
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**Lyndon Carlson** (Farm Credit Canada)  
**Debra Morgan** (CCHSA)  
**Murray Purcell** (SARM)



**UNIVERSITY OF  
SASKATCHEWAN**

(environmental assessment lab) and “How we live” (environmental epidemiology lab, rural health lab, telecommunications lab, and knowledge translation lab). A new state-of-the-art teletransmission lab will link the Canadian Centre for Health and Safety in Agriculture with our University partners across Canada. With the lab expected to open in 2012, we will occupy the main floor of the new Academic Health Science Complex.

## Research Development

We continue to develop our research agenda both at the University of Saskatchewan and across Canada. Here at the University, our research funding reached an all-time high of some \$2.3 M, primarily through the Canadian Institutes of Health Research. We are extremely proud of our research in the areas indicated in this report, and in doing so we are helping to solve the problems not only in Saskatchewan and Canada but worldwide. In addition, we are aware that our efforts to bring in funding through the Canadian Institutes of Health Research results in infrastructure funding and Canada Research Chairs at the University level. At the national level, we called our partners together from across Canada in April of 2007 to form the Canadian Agricultural Health Research Agenda (CAHRA). During the meeting, attended by some 87 scientists and students from across Canada, we worked on a plan to develop priorities for research in our classic areas of “What we breathe”, “What we eat and drink”, “How we work” and “How we live”.

## Knowledge Translation

We continued to forge ahead in our efforts to reach the farmers and rural people of Saskatchewan and Canada. In Saskatchewan, the number of municipalities in our Agricultural Health and Safety Network reached a remarkable 173 participating municipalities that enroll some 27,400 farm families from across the province. These partners and stakeholders receive twice yearly newsletters (*The Network News*), theme packages and on-site clinics in hearing conservation and respiratory health.

At the national level, we worked with the Canadian Collaborating Centre on Environmental Health (Public Health Agency of Canada) in hosting a National Symposium on Knowledge Translation in Prince George, British Columbia in October. At that meeting we formed a National Task Force on Health and Safety Research and its Effective Translation to the Agricultural Sector. With support from the Task Force, we were funded by Agriculture and Agri-Food Canada to undertake a national consultation in on research to practice in agriculture. Our national newsletter ***Agricultural Health and Injury Prevention; Research and Control*** reaches more than 5000 decision makers professionals and private sector leaders across Canada.

## Training

Our students and trainees continue to encourage and stimulate our efforts. Our National Training Program, ***Public Health and the Agricultural Rural Ecosystem*** (PHARE) Program enrolls 17 students across Canada at the Master’s and PhD levels, and also Post Doctoral Fellows. We are proud that the PHARE Program is stimulating a new generation of scientists not only in Saskatchewan but also across Canada in this important area.

## Private Sector

During the year, our private sector fund, the Founding Chairs Development Fund, chaired by Mr. Glen Tully, President of the Board, Federated

Co-operatives Limited, continued to grow in support of the Centre. Major investments were made in us by Canadian National Railways, Farm Credit Canada, Federated Co-operatives Ltd., Saskatchewan Wheat Pool (Viterra), and The Co-operators. As a result of the generosity, and confidence on us by our supporters, our Founding Chairs Development Fund is becoming a cornerstone of our ability to lead Canada and the world in innovation in this area.

## Our Stakeholders

In summary, the Canadian Centre for Health and Safety in Agriculture is a reality because of the multiple stakeholders that embrace our mission and support us in science and financially. Our principal supporters, the University of Saskatchewan, Government of Saskatchewan (Departments of Agriculture and Labour), Saskatchewan Health Research Foundation, Government of Canada (Canadian Institutes of Health Research and Agriculture and Agri-Food Canada), partners in the private sector and co-operatives, and Saskatchewan Rural Muniiciipalities make our mission and our activities a reality. Most importantly, the farmers and rural people of Saskatchewan and Canada are pivotal in our success. We offer all of you a sincere thank you.

As Dean, College of Medicine and Chair of the Board of Directors for the Canadian Centre for Health and Safety in Agriculture, we sincerely thank our students, staff and faculty, and co-operating scientists across Canada and internationally.

Sincerely,

**William Albritton**, Dean, U of S College of Medicine

**Jean-Yves Savoie**, Chair, Board of Directors, Canadian Centre for Health and Safety in Agriculture

## Research

### The Endotoxin and the Lung Community Based Study

The Humboldt Study of 2003 – 2004 examined the relationship between genetics and respiratory disease in a rural population ages 6 to 79. Results from this study have been disseminated to health professionals in the town of Humboldt and we are in the process of submitting scientific papers of our findings to peer reviewed journals.

### The Endotoxin and the Lung Case-Control Project

As part of the “Endotoxin and the Lung” study we have been conducting a case-control study to investigate the relationship between the indoor environment, specifically the independent and joint effects of endotoxin and tobacco smoke exposures, and lung health. The study was completed in Humboldt, SK as well as towns in the surrounding area. Data collection began in March 2005 and was finished in March 2007. Data was collected through questionnaires, saliva samples, pulmonary function testing, home floor dust measurements and two week peak flow monitoring of cases. Over 300 children aged 6 to 18 years completed the study with approximately one third being cases. At present we are analyzing the data and preparing for dissemination.



**Dr. Debra Morgan leads the Rural and Remote Memory Clinic at the University of Saskatchewan**

## Improving Access to Assessment and Diagnosis of Early Stage Dementia in Rural and Remote Saskatchewan

Saskatchewan has the largest proportion of seniors in Canada. Rural towns and villages in Saskatchewan have a high proportion of seniors (about 22%) compared to cities (about 15%). Since the risk of Alzheimer Disease and other dementias increases with age, providing access to early assessment and diagnosis of memory problems for rural seniors is an important health care delivery issue. A team of researchers at the University of Saskatchewan is studying ways to improve dementia care for seniors living outside of urban centres. The team is evaluating a one-stop interdisciplinary Rural and Remote Memory Clinic that provides assessment, diagnosis, and management of early stage dementia for seniors living in rural and northern Saskatchewan. Telehealth videoconferencing is used for pre-clinic assessment and follow-up, allowing the patient to be seen in their home community. At the one-day clinic in Saskatoon, patients have a comprehensive assessment by a team of specialists. The study is not yet completed, but feedback from patients and their family members shows high levels of satisfaction with the one-stop assessment and the use of telehealth for follow-up appointments, which reduce the need for repeated travel over long distances. Funding is provided by the Canadian Institutes of Health Research, University of Saskatchewan, Saskatchewan Health Research Foundation, and the Alzheimer Society of Saskatchewan. Telehealth Saskatchewan provides personnel and technical support.

## Dementia Care in Rural Nursing Homes

Several studies are focusing on rural nursing homes, which tend to be smaller than those in urban settings. Size may have an effect on the resources available and the ability to meet the needs of residents with special needs, such as those with dementia. One study is examining the process that occurred during the implementation of the “Enhancing Care” program, which was developed by the Alzheimer Society of Canada to help nursing homes improve the care provided to residents with

dementia. Teams made up of staff from all departments, from maintenance to nursing, work together to evaluate current care practices and decide where they would like to make changes. The program was implemented in two small rural nursing homes in Saskatchewan. Data have been collected and analysis is nearing completion. Early results indicate that the program led to a stronger sense of teamwork because of improved communication and trust between staff.

In another study, researchers examined the experiences of nursing aides, who provide the majority of hands-on care for residents in nursing homes. Behavioral disturbances, including physical aggression, are a common symptom of Alzheimer Disease and other types of dementia, and these behaviors are a frequent cause of admission to nursing homes when family members can no longer manage care at home. Nursing aides are often exposed to physically aggressive behavior from residents. The aim of the study was to learn about nursing aides’ perceptions of the causes of physically aggressive resident behavior and how they respond to these situations. Nursing aides from 11 rural facilities documented 495 incidents of aggression. Focus groups were conducted to explore the data reported in the diaries. The aides reported that they are exposed to high levels of aggressive behavior but they have little control over the factors that contribute to resident aggression. They are discouraged that little is being done to reduce their exposure to these behaviors or to involve them in decisions related to resident care. A report of the study findings was distributed to aides in all participating facilities, and the researchers are now meeting with the aides to discuss the report and future directions. Funded by: The Saskatchewan Health Research Foundation.

## Capacity Building

### Founding Chairs Program

The Founding Chairs Development Fund was established in 1989 to create an Endowment fund for the newly formed Centre for Agricultural Medicine at the University of Saskatchewan. Corporation and individual

contributions exceeded \$2 million dollars. Since 1989 the fund has expanded to over \$3 million dollars. The Endowment Fund interest is used to provide scholarships for graduate students and to initiate special programs.

The Founding Chairs Program is directed by a Management Committee comprised of 3 members who are contributors and of 3 members appointed from the University. The current members include **Glen Tully, President, Federated Co-operatives Ltd., Chairperson; Terry Baker, President, Saskatchewan Wheat Pool, Lyndon Carlson, Vice-President, Marketing and Product Development, Farm Credit Canada, Dr. James Dosman, Director, Canadian Centre for Health and Safety in Agriculture, Dr. William Albritton, Dean, College of Medicine; Matt, Webster, Trust Advisory Services, University of Saskatchewan.** Maura Gillis-Cipywnyk, Institutional Advancement Director, coordinates the initiatives of the program in consultation with the Board and the Director.

In 2005 a new fund raising initiative commenced in conjunction with the University of Saskatchewan's "Thinking the World of Our Future" campaign. The funds raised, almost \$2 million, will go into an Opportunities Fund of the Founding Chairs Program to assist in equipping the new Canadian Centre for Health and Safety in Agriculture building plus providing funds for special research projects, student training and knowledge translation.

A future campaign to increase the fund to \$10 million is in the development phase.

## Graduate Training Program in Public Health and the Agricultural Rural Ecosystem (PHARE)



**PHARE students at the Midterm Planning Session in Saskatoon**

The CIHR Strategic Training Program entitled, "Public Health and the Agricultural Rural Ecosystem (PHARE) provides scholarship support to graduate students at the Master's, Ph.D., and Postdoctoral level and seeks to increase the knowledge needed to address the challenges facing rural people as they seek a healthy, safe and sustainable lifestyle. The following training scholarships were awarded in 2006 – 2007: **Postdoctoral fellows:** Jakob Bonlokke, Université Laval; Benjamin Nehmé, Université Laval and Yongxin Li, University of Saskatchewan. **PhD:** Hope Bilinski, U of S; Leah Boutilier, Dalhousie University; Brenda Bruner, U of S; Mark Bruner, U of S; Chandrashekhar Charavaryamath, U of S; Tara-Leigh Fleming, U of S; Justin Gawaziuk, U of S; Shawnda Lanting, U of S; Joshua Lawson, U of S; Valérie Létourneau, Université Laval; Rasha Maal-Bared, UBC; William Midodzi, U of A; Sarah Oosman, U of S; Mikiko Terashima, Dalhousie University; **Masters:** Lewis Baarda, U of Lethbridge; Geneviève Filion, Université Laval; Lee Hynes, Dalhousie University; Guoxin (Gavin) Li, Queen's University.

## Canadian Centre for Health and Safety in Agriculture / Centre canadien de santé et sécurité en milieu agricole – CIHR Network

The overall objective of the Canadian Centre for Health and Safety in Agriculture (CCHSA) Network is to address the health of people as a result of working and living in the agricultural rural ecosystem. The CCHSA provides interdisciplinary teams of researchers and their stakeholders with core infrastructure support to access other research funds to develop integrated programs of research and knowledge exchange. The 67 scientific collaborators currently involved in the CCHSA Scientific Network of researchers represent 14 Canadian Universities across 9 provinces and also include other organizations and non-Canadian Universities.

In October 2006, the CCHSA Scientific annual meeting was held in collaboration with the Seventh Annual Canadian Rural Health Research Society (CRHRS) Conference in Prince George, British Columbia. The CCHSA and the National Collaborating Centre Environmental Health – NCCEH, one of the seven Centres funded by the Public Health Agency of Canada (PHAC), co-sponsored one of the CRHRS pre-conference workshops entitled, **Symposium on Knowledge Translation: Paving a Road to Success.** Speakers representing research, policy development and industry shared their success stories related to the exchange and application of specific knowledge. Réjean Landry, Canada Research Chair on Knowledge Transfer and Innovations, defined knowledge translation and discussed a conceptual framework and approaches, including success factors and obstacles to Knowledge Translation.

The Knowledge Translation (KT) committee, chaired by Bruce Johnson, developed a Business Plan for activities including a protocol, a list of Knowledge Translation contacts across the country. Five research topics were chosen for KT and summary articles with recommendations for policy and practice were produced, in English and French. The Canadian Agricultural Safety Association provided funding to implement these activities.

April 2007 was another meeting of the CCHSA network of scientists. Over 80 researchers, decision makers and PHARE students (Public Health and the Agricultural Rural Ecosystem) attended the CCHSA Midterm Planning Session for a Canadian Agricultural Health Research Agenda in Saskatoon, Saskatchewan to discuss and identify priorities and gaps for basic and applied research and Knowledge Translation in Canada.

The Knowledge Translation Committee and other working committees (the Management Committee, the Mentoring Committee, the Evaluation Committee and the International Advisory Committee) of the Canadian Centre for Health and Safety in Agriculture, along with the Decision Makers Advisory Council, are all instrumental in contributing to the continuing success of the CCHSA. At the end of 2005, the CCHSA underwent a Midterm Review with the CIHR Institute of Population and Public Health and in April of 2006 we were given a rating of "excellent progress in relationship to objectives and context".

The CCHSA – CIHR Network provides funding for the Junior/Senior Faculty Release Time Support Program in which applicants devote their research activities to one or more of the CCHSA Themes: **What we breath** (Genetic and environmental determinants of lung dysfunction), **What we eat and drink** (Determinants of infections), **How we work** (Occupational health issues), and **How we live** (Physical and mental health, and social issues). A release time stipend is used for salary replacement for teaching duties in order to increase their time for CCHSA research. In 2006, two Senior Faculty were awarded Release Time; Caroline Duchaine from Université Laval and

Syed Shah from the University of Saskatchewan. The CCHSA also provides funding through the Pilot Project Program, which is intended to address research gaps in the theme areas, encourage new collaborations among researchers, and lead to the development of research proposals for submission to national granting agencies.



**Midterm Planning Session – April 2007, Saskatoon**

The CCHSA also supports 4 Postdoctoral and 10 PhD scholarship support through the CIHR Strategic Training Program Grant “**Public Health and the Agricultural Rural Ecosystem**” (PHARE) in a seamless manner with leveraged participation by other organizations in the training and mentoring of students at the masters, PhD and postdoctoral levels.

The Canadian Centre for Health and Safety in Agriculture (CCHSA) – CIHR Network is funded by the Canadian Institutes of Health Research (CIHR) Centres for Research Development (CRD) Institute for Population and Public Health (IPPH), “Understanding and Addressing the Impacts of Physical and Social Environments on Health” Strategic Initiative. The CCHSA – CIHR Network is also supported by Quebec’s Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST).

## Student’s Research

**Pamela Farthing**, MSc Candidate. **Thesis Title:** Farming Activities and Respiratory Health in School Age Children. CCHSA and Community Health and Epidemiology, University of Saskatchewan. Canadian Nurses Respiratory Association Fellowship and Founding Chairs Fellowship recipient.

**Chandima Karunanayake**, PhD, is working as Post Doctoral Fellow under the supervision of Dr. Punam Pahwa. Thesis defended April 2007. **Thesis Title:** Multivariate Poisson hidden Markov models for analysis of spatial counts. Department of Mathematics & Statistics and Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan. Background: Bachelor’s in Statistics, Masters in Applied Statistics and Biostatistics, and Ph.D. in Applied Statistics.

**Maureen Horn**, MSc Candidate. **Thesis Title:** Childhood Immunizations in Rural Pakistan: A Comparison of Immunization Uptake Across Study Years (1994 and 1997) and an Analysis of Correlates. Community Health and Epidemiology and Canadian Centre for Health and Safety in Agriculture Founding Chairs Scholarship recipient.

**Claire McGuigan**, MSc Candidate. **Thesis title:** Nitrates, gene expression, and cytotoxicity in human cell lines. Supervisors: Dr. Lalita Bharadwaj, College of Nursing, Dr. Nick Ovsenek, Department of Anatomy & Cell Biology. One year scholarship recipient: NSERC Canada Graduate Scholarship, Master’s Level.

## Services

### CANWORKSAFE

**CANWORKSAFE** completed a Weyerhaeuser Asbestos Exit Medical Screening in Prince Albert in June of 2006, screening 138 Weyerhaeuser employees. In the fall of 2006, we provided respiratory and hearing surveillance to Grainworkers in Saskatchewan and northwest Manitoba. The spring of 2007 took us to Biggar Saskatchewan, providing respiratory surveillance to Prairie Malt employees. The grain companies have requested that CANWORKSAFE provide surveillance, not only to their workers in Saskatchewan, but also Alberta and Manitoba



**CANWORKSAFE** programs provide an opportunity for workers to have a regular health screening focused on their occupational exposures and to receive current health information and education. This type of regular screening can help detect changes to health over time, identify changes or problems early and provide intervention, and educate workers to help reduce the risk of developing occupational health problems. Visit the website for more information on programs at <http://www.cchsa-ccssma.usask.ca/occhealth/services.php>

### Agricultural Health and Safety Network

The Agriculture Health and Safety Network (The Network) began in 1988, as a joint venture between the Centre for Agriculture Medicine, Saskatchewan Association of Rural Municipalities and six Rural Municipalities (RMs). Over the past year, 13 RMs joined the Network, two returned and one dropped out. One hundred and sixty-six RMs which includes 27, 000 farm families are current members of the Network. The Network continues to benefit from the input of the Steering Committee which is comprised of six RM councilors each representing one of the six divisions of SARM.



# The Network Programs – 2006-07 Initiatives

## A Stress on the Farm Initiative: Building Momentum

The Network has made an effort to enable farm families to better understand stress, its impact, and learn how to address stress when farming in difficult times. This initiative involved the following elements: *Sleepless in Saskatchewan*, Difficult Times: Stress on the Farm, The Farm Stress Inventory, Saskatchewan Farm Injury Control Summit VIII, and Spring Annual Package. A poster presentation was prepared and presented at the Seventh National Conference of the Canadian Rural Health Research outlining the *A Stress on the Farm Initiative: Building Momentum* and its provincial and national scope.

The Network's partnerships within Saskatchewan were necessary to deliver this initiative over a vast geographical area. This initiative allowed The Network to link Saskatchewan farm families' voices to decision makers. The Network understands and communicated that Saskatchewan farmers and their families are facing tremendous pressures while farming in these difficult times and continued services and resources are necessary.

## Information Gathering – Farm Stress Inventory

A *Farm Stress Inventory* was included in the 2006 Annual Package. Recipients were asked to complete the inventory and return it to the Network in a postage paid, anonymous envelope. The Network received 1600 Farm Stress Inventories back. The inventories responses have been entered and will be summarized and made available to stakeholders – ie, The Network, Saskatchewan Agriculture and Food and the Canadian Agriculture Safety Association to magnify farmers' voices.

## Saskatchewan Farm Injury Control Summit VIII



**Lung function testing at the Summit**

The Saskatchewan Farm Injury Control Summit VIII *Taking Care of the Farmer* was organized by the Network with sponsorship from Saskatchewan Agriculture and Food, the Canadian Agriculture Safety Association, Agriculture and Agri-Food Canada, and the College of Agriculture's Cyril Capling Trust fund for the benefit of delegates from community agencies and organizations, health districts, individual farm families, RM councilors and provincial government employees who work in agriculture.

An occupational health nurse specialist led delegates through a morning discussion on the value of a healthy lifestyle and how that relates to occupational health and safety on the farm. The discussion highlighted the importance of taking care of oneself with the discussion theme being "If I knew I was going to farm this long I would have taken better care of myself". The afternoon was centered on a health fair for attendees with screening and interactive displays specific to farmers' personal health and safety. Examples of displays included: skin health, lung function, cholesterol testing, massage, heart health, cancer prevention, PPE use, nutrition and safe ergonomic practices.

## Respiratory Health and Hearing Conservation Program for Farmers

The Respiratory Health Program for Farmers is an educational and screening service provided free of charge to rural residents in Network RMs. Professionally trained staff work with farmers and their families in their local community to increase awareness of health and safety risks associated with respiratory hazards on the farm and develop methods to reduce their exposure. Clinics were held in the RMs of: Glenside #377, GoodLake #274, Cymri #36, Indian Head #156, Edenwold #158, Saltcoats #213, Blaine Lake #434, Mervin #499, Whista Creek #106, MooseCreek #33, Reciprocity #32, Coalfields #4, and Nipawin #487.



**Hearing testing**

The Hearing Screening Service is a clinic in which professionally trained staff work with farmers and their families in the communities to increase awareness of noise hazards on the farm, develop methods to reduce their exposure to harmful noise, and demonstrate hearing protection that may work best for each individual. Clinics were held in the RMs of: Cymri #36, Whista Creek #106, MooseCreek #33, Reciprocity #32, Nipawin #487, and Perdue #346. The Network works in co-operation with the RMs to advertise and encourage participation of the farm families.

## Newletters

*Network News* is a newsletter produced and delivered twice yearly to all farm families in the Network. It focuses on health and safety issues in rural Saskatchewan, research updates and Network activities. *Network News Fall 2006* focused on Harvesting Safety, Working Alone: A Farmer's Reality, a Farm Stress Inventory Update, Summit VIII information, the SARM scholarship winner, and outlined safe and proper disposal of used animal health products. *Network News Spring 2007* highlighted Sleepless in Saskatchewan successes and identified new Sleepless in Saskatchewan resources, listed Progressive Farm Safety Day camps, provided an update on the Saskatchewan Farm Injury Project, and focused on the Canadian Agriculture Safety Week theme "Protect Your Moving Parts".



*Sleepless in Saskatchewan Tour*

## Sleepless in Saskatchewan

The *Sleepless in Saskatchewan Tour* was organized by the Network and the Farm Stress Unit with sponsorship from SARM, Saskatchewan Agriculture and Food, the Canadian Agriculture Safety Association, Agriculture and Agri-Food Canada. The tour began at the SARM mini-convention in November with 1200 SARM delegates in attendance for the first workshop. The tour continued with a workshop in Regina for people who work with farmers, their families and workers. The tour then went on to locations in rural Saskatchewan in 2007 stopping in Lloydminster, Swift Current, and Melfort in January and Estevan, Yorkton and Canwood in February. Two thousand people from across Saskatchewan have attended the Sleepless in Saskatchewan tour.

Jon Shearer, a sleep specialist from Algonquin College in Ottawa was the speaker for Sleepless in Saskatchewan. Through the Sleepless in Saskatchewan tour Jon captivated, entertained and informed participants about the dynamics of sleep, reducing stress and fatigue, managing shift work and extended hours and what easy, inexpensive ways exist that farmers can use to make sleep work more effectively for them as well as identified the link between stress, fatigue and the risk of injury.

Sleepless in Saskatchewan was made available to all farm and rural Saskatchewan residents and plans are in the works to have the tour continue in 2007 – 2008.

## Healthworks Column in The Rural Councillor

*The Rural Councillor* continues to host a column written by The Network staff. Each article focuses on farm health and safety issues. Topics this year included:

- Working Alone: A Farmer's Reality
- RM of Wolseley #155 Student Awarded Scholarship at SARM Convention
- Sleepless in Saskatchewan

## Student Scholarship

Initiated in 1995 with SARM and the continued support of the Founding Chairs, this \$1000 scholarship is awarded each year to a grade twelve student for the best farm safety essay discussing farm safety. The \$1000 scholarship is to be applied to the winner's post-secondary education tuition. This year's winner was Kelsi Christopher from the RM of Coulee # 136. Kelsi is planning to enter the College of Arts and Science and major in Biology at the University of Saskatchewan in the fall of 2007.



*Kelsi Christopher*

## New Resources

**The Farm Safety Walkabout** has been updated, revised and reprinted. This resource is a popular request and is a core resource to the Saskatchewan Labour, Saskatchewan Abilities Council and SaskFerco program "Operation Farm Safety: Keep the Harm from the Farm".

**The Network Website** has been reviewed, updated and new additional material made available at <http://aghealthandsafetynetwork.usask.ca> will continue to evolve this year to offer quality agricultural health and safety resources.

## Published Papers in Referred Journals

**Chen Y, Rennie D, Cormier YF, Dosman J.** Waist circumference is associated with pulmonary function in normal-weight, overweight, and obese subjects. *American Journal of Clinical Nutrition*, 2007, 85:35-9.

**Chenard L, Senthilselvan A, Grover V, Kirychuk S, Lawson J, Hurst TS, Dosman J.** Lung function and farm size predict healthy worker effect in swine farmers. *Chest* 2007, 131:245-254.

**Dosman JA, Lawson JA, Kirychuk SP, Cormier Y, Biem J, Koehncke N.** Three new cases of apparent occupational asthma in swine confinement facility employees. *European Respiratory Journal*, 2006, 28:1281-2.

**Dosman JA, Fukushima Y, Senthilselvan A, Kirychuk SP, Lawson JA, Pahwa P, Cormier Y, Hurst T, Barber EM, Rhodes CS.** Respiratory response to endotoxin and dust predicts evidence of inflammatory response in volunteers in a swine barn. *American Journal of Industrial Medicine*, 2006, 49:761-766.

**Forbes DA, Jansen L, Markle-Reid M, Morgan D, Taylor B, Wood J.** Physical activity programs for persons with dementia (Protocol). *Cochrane Database of Systematic Reviews*, 2007, Issue 2, Art. No.: CD006489. DOI: 10.1002/14651858. CD0066489.

**Forbes DA, Morgan D, Janzen B, Biem HJ.** Rural and urban Canadians with dementia : Use of health care services. *Canadian Journal on Aging*, 2006, 25(3):321-330.

**Karunanayake CP, Laverty WH.** Multivariate Poisson Markov Dependent finite Mixture Models for Analysis of Weed Counts. *Model Assisted Statistics and Applications*, 2006, Vol. 1 (4), pp. 267-277.

**Kirychuk SP, Dosman JA, Reynolds SJ, Willson P, Senthilselvan A, Feddes J Jr, Classen HL, Guenter W.** Total dust and endotoxin in poultry operations: Comparison between cage and floor housing and respiratory effects on workers. *Journal of Occupational and Environmental Medicine*, 2006, Vol 48(7), 741-48.

**Kulig J, Stewart N, Morgan D, Andrew ME, MacLeod M, Pitblado R.** Aboriginal Nurses: Insights from a national study. *Canadian Nurse*, 2006, 102(4):16-20.

**Macleod ML, Dosman JA, Kulig JC, Medves JM.** The development of the Canadian Rural Health Research Society: Creating capacity through connection. *Rural Remote Health*, 2007, Jan-Mar. 7(1):622.

**Morgan D, Funk M, Crossley M, Basran J, Kirk A, Dal Bello-Haas V.** The potential of gait analysis to contribute to differential diagnosis of early stage dementia: Current research and future directions. *Canadian Journal on Aging*, 2007, 26(1):19-32.

**Penz K, D'Arcy C, Stewart N, Kosteniuk J, Morgan D, Smith B.** Barriers to participation in continuing education among rural and remote nurses: results from a national survey. *Journal of Continuing Education in Nursing*, 2007, 38(2): 58-68.

**Senthilselvan A, Chenard L, Ulmer K, Gibson-Burlingutte N, Leuschen C, Dosman JA.** Excess respiratory symptoms in full-time male and female workers in large-scale swine operations. *Chest* 2007, 131(4):1197-204.

## Technical Reports Relevant to Academic Field

**Jeffery B, Tait C, Haysom A, McBain L, Levitsky G, Mason K, Tomilin L, Johnson M.** Integrated Mental Health Service Delivery In Isolated First Nation Communities: Issues and Directions. Prepared for the Northern Inter Tribal Health Authority (NITHA) December 2006.

**Stewart N, Kulig J, Penz K, Andrews ME, Houshmand S, Morgan D, MacLeod M, Pitblado R, D'Arcy C.** Aboriginal Registered Nurses in rural and remote Canada: Results from a national survey, August 2006.

## Invited Lectures and Invited Conference Presentations

**Morgan D.** A comparison of telehealth vs. in-person follow-up appointments for rural memory clinic patients: Perspectives of patients, families, and telehealth coordinators. *Telehealth/E-Health Seminar Series (TESS)*, University of Calgary, Telehealth/e-Health Program, Calgary, AB (web based seminar series), March 29, 2007.

**Morgan D.** Satisfaction and convenience of telehealth vs. in-person follow-up appointments in patients and caregivers referred to a rural and remote memory clinic. *Psychiatry Research Rounds*, University of Saskatchewan, Saskatoon, SK, January 26, 2007.

**Morgan D.** Using telehealth for dementia care in rural and remote areas. Invited keynote speaker, *Health Informatics: Practical Applications, Future Possibilities*. Saskatoon, SK, January 25-26, 2007.

**Pahwa P, Karunanayake C, McDuffie HH.** Modeling of Longitudinal Polytomous Outcome From Complex Survey Data – An Application. **Presented:** Statistical Society of Canada Annual Meeting, Proceedings of the Survey Methods Section. 2006.

**Karunanayake C, Pahwa P, McDuffie HH.** Statistical Modeling of Mental Distress among the National Population Health Survey Participants Assessed Longitudinally: Missing Data Analysis. **Presented:** Statistical Society of Canada Annual Meeting, Proceedings of the Survey Methods Section. 2006.

**Ghosh S, Pahwa P.** Design-based vs. Model-based methods: A comparative study using longitudinal survey data. **Presented:** Recent advances in the analysis of longitudinal survey data. *Statistical Society of Canada Annual Meeting, Proceedings of the Survey Methods Section*. London, Ontario, May, 2006.

**Pahwa P, Karunanayake C, McDuffie HH.** Modelling of Longitudinal Polytomous Outcomes From Complex Survey Data: Using GEE and Missing Data Analysis. **Presented:** Recent advances in the analysis of longitudinal survey data. *Statistical Society of Canada, London, Ontario, May, 2006.*

## Conference Proceedings and Abstracts

**Bergen A, Morgan D, Stewart N, Green K, Normand S.** Organizational change in rural long-term care facilities: An implementation evaluation of a program designed to address the needs of residents with dementia. **Presented:** Alzheimer Society of Canada 28th National Conference: Alzheimer Research and Innovation, Yesterday, Today, and Tomorrow. Toronto, ON. November 6 – 7, 2006.

- Bilinski HN, Rennie DC, Lawson JA.** Prevalence of overweight and obesity in Saskatchewan schoolchildren. **Presented:** National Research Forum for Young Investigators in Circulatory and Respiratory Health May 4 – 7, 2006. *Experimental and Clinical Cardiology*, 11: 42.
- Cammer A, Morgan D, Janzen B, Stewart N.** Personal stigma versus cultural and historical context: Barriers to dementia care in Northern versus rural Saskatchewan communities. **Presented:** Seventh National Conference of the Canadian Rural Health Research Society, Prince George, BC. October 19 – 21, 2006.
- Forbes DA, Jansen L, Markle-Reid M, Kawranik P, Henderson S, Morgan D, Leipert B, Peacock S, Kingston D, Wood J.** Canadian with dementia: Use of health care services. **Presented:** 20th Annual Research Conference: Celebrating Research and Innovation in Achieving Nursing Excellence, University of Western Ontario, London, ON, April 13, 2007.
- Forbes DA, Jansen L, Markle-Reid M, Hawranik P, Morgan D, Henderson S, Leipert B, Peacock S, Kingston D, Wong M, Wong M, Normand S.** Canadians with dementia: Use of health care services. **Presented:** 59th Annual Scientific Meeting: Education and the Gerontological Imagination. The Gerontological Society of America, Dallas, Texas, Nov 16 – 20, 2006.
- Forbes DA, Jansen L, Markle-Reid M, Hawranik P, Morgan D, Henderson S, Leipert B, Peacock S, Kingston D, Wong M, Wong M, Normand S.** Availability and quality of health care received by persons with dementia. **Presented:** Alzheimer Society of Canada 28th National Conference: Alzheimer Research and Innovation, Yesterday, Today, and Tomorrow, Toronto, ON, Nov 6 – 7, 2006.
- Ghosh S, Pahwa P, McDuffie HH, and The Cross Canada Study of Pesticides and Health Researchers.** Multiple Myeloma and Occupation: A Population Based Case-control Study. **Presented:** Seventh National Conference of the Canadian Rural Health Research Society: Rural and Remote Health – Taking Action Together, Prince George, BC, October 2006.
- Horn M, Pahwa P, Dosman JA, McDuffie HH.** The role of prior infection in the development of non-Hodgkin lymphoma (NHL). **Presented:** Taking Action Together: 7th National Conference of the Canadian Rural Health Research Society, Prince George, October 19 – 21, 2006.
- Horn M, McDuffie HH, Pahwa P, and The Cross Canada Study of Pesticides and Health Researchers.** The Role of prior infection in the development of Non-Hodgkin's Lymphoma (NHL). **Presented:** Seventh National Conference of the Canadian Rural Health Research Society: Rural and Remote Health – Taking Action Together, Prince George, BC, October 2006.
- Hossain A, Pahwa P, McDuffie HH, Bickis, M.** Case-control study on occupational risk factors for soft-tissue sarcoma (STS). **Presented:** 18th Bi-Annual Central Region Student Conference, Canadian Society for Epidemiology and Biostatistics (CSEB). June 9th, 2006, University of Guelph, Guelph, ON, 2006.
- Jansen L, Forbes DA, Markle-Reid M, Kingston D, Henderson S, Wong M, Hawranik P, Peacock S, Morgan D, Normand S.** Formal careprovider perspectives on the quality of community-based dementia care. **Presented:** Alzheimer Society of Canada 28th National Conference: Alzheimer Research and Innovation, Yesterday, Today, and Tomorrow. Toronto, ON. November 6 – 7, 2006.
- Karunanayake CP, Pahwa P, McDuffie H.** "Statistical modeling of longitudinal mental distress among the National population health survey participants: Missing data analysis", **Presented:** 2006 Proceedings of the American Statistical Association, Health Policy Statistics Section [CD-ROM], Alexandria, VA: American Statistical Association: 1604-1611, 2006.
- Karunanayake C, Pahwa P, McDuffie HH.** Non-Hodgkin's Lymphoma and Occupational Exposures. **Presented:** Seventh National Conference of the Canadian Rural Health Research Society: Rural and Remote Health – Taking Action Together, Prince George, BC, October 2006.
- Karunanayake CP, Pahwa P, McDuffie HH.** 2006. Multiple myeloma (MM) and pesticides hypothesis. **Presented:** Seventh National Conference of the Canadian Rural Health Research Society, Prince George, BC, October 19 – 21, 2006.
- Kirk A, Crossley M, Morgan D, D'Arcy C, Biem J, Forbes D, Stewart N.** Mini-Mental State Examination scores differ when administered via telehealth compared with administration in person to patients with early dementia. **Presented:** XL1st Canadian Congress of Neurological Sciences, June 16, 2006, Montreal, Quebec. *The Canadian Journal of Neurological Sciences*.
- Kiryuchuk S, Koehncke N, Reynolds S, Schneberger D, LaBrash L, Thiessen N, Lawson J.** Endotoxin and dust size fractionated from cage and floor-housed poultry operations. **Presented:** Seventh Conference of the Canadian Rural Health Research Society. Prince George, BC, October 19 – 21, 2006.
- LaBrash L, Ulmer K, McDuffie HH, Karim-Tessem F, Morrison M, Imhoff K.** A stress on the farm initiative: Building momentum. **Presented:** Seventh National Conference of the Canadian Rural Health Research Society, Prince George, BC, October 19 – 21, 2006.
- Lanting S, Crossley M, Morgan D.** The Grasshopper and Geese Test: A modified neuropsychological measure for assessing semantic memory in a Rural and Remote Memory Clinic. **Presented:** International Neuropsychological Society 35th Annual Meeting. Portland, Oregon, Feb 7 – 10, 2007.
- Lawson JA, Rennie DC, Senthilselvan A, McDuffie HH, Cockcroft DW.** Early life farm exposure, rural living and pulmonary function in schoolchildren. **Presented:** Seventh Conference of the Canadian Rural Health Research Society. Prince George, BC, October 19 – 21, 2006.
- Lawson JA, Rennie DC, Kiryuchuk SP, Senthilselvan A.** Early farm exposures modify the relationship between current rural living and wheeze. **Presented:** European Respiratory Society Annual Congress, Sept 2 – 6, 2006, Munich Germany. *European Respiratory Journal*, 28 (suppl 50): 1556, 2006.
- Lawson JA, Rennie DC, McDuffie HH, Cockcroft DW, Senthilselvan A.** Distinctive wheeze phenotypes in school children. **Presented:** European Respiratory Society Annual Congress, Sept 2 – 6, 2006, Munich Germany. *European Respiratory Journal*. *European Respiratory Journal*, 28 (suppl 50): 1548, 2006.
- Lawson JA, Rennie DC, McDuffie HH, Cockcroft DW, Senthilselvan A.** A comparison of health profiles of distinctive wheeze phenotypes. **Presented:** National Research Forum for Young Investigators in Circulatory and Respiratory Health May 4 – 7, 2006. *Canadian Respiratory Journal*, 13: 162.

**Madani K, Reeder B, Pahwa P, Hossain A.** Impact of Body Mass Index and Waist Circumference on Coronary Heart Disease risk in men and women. **Presented:** Canadian Society for Epidemiology and Biostatistics (CSEB) Student Conference, University of Calgary, Calgary, AB, 2007.

**Madani K, Reeder B, Pahwa P, Hossain A.** Socio-economic differentials in the impact of body index and waist circumference on coronary heart disease risk. **Presented:** Canadian Public Health Association Annual Conference, Ottawa, ON, 2007.

**McBain L.** "Better, Worse or Dead by Now": Jurisdictional divisions and providing healthcare in northern Saskatchewan. **Presented:** Canadian Historical Association Annual Conference, May 28, Saskatoon, Saskatchewan, 2007.

**McBain L, Morgan D, Crossley M, Stewart N, D'Arcy C, Biem J, Kirk A, Forbes D, Harder S, Basran J, Cammer A.** Overcoming the challenges of distance: The role of Telehealth coordinators in a Rural and Remote Memory Telehealth Clinic. **Presented:** Canadian Society of Telehealth conference, October 17, Edmonton, Alberta, 2006.

**McBain L.** Providing healthcare in northern Saskatchewan: Testing nurses' professional resolve? **Presented:** International Conference on Nursing History, Institute for the History of Medicine of the Robert Bosch Foundation, September 29, Stuttgart, Germany, 2006.

**McBain L.** Going beyond the 'one and only purpose': Resistance in northern Nursing. **Presented:** Northern Ontario School of Medicine, Algoma University College, June 2, Sault Ste. Marie, 2006.

**McBain L, Morgan D, Crossley M, Stewart N, D'Arcy C, Biem. J, Kirk A, Forbes D, Harder S, Basran J, Cammer A.** Overcoming the challenges of distance: The role of telehealth coordinators in a rural and remote memory clinic. **Presented:** Canadian Society of Telehealth, Edmonton, AB, October 15 – 17, 2006.

**McDonald, MN , D Rennie, P Pawha, L Bharadwaj, K Nakagawa, LH Burc, D Schwartz and JA Dosman.** TLR4 And The hygiene hypothesis: Is there increased risk of atopic sensitization in a rural population with TLR4 Snps? **Presented:** Canadian Institutes for Health Research National Research Forum for Young Investigators in Circulatory and Respiratory Health, May 4 – 7, 2006.

**McDuffie HH, Pahwa P.** Cancer Among Male Potash Workers in Saskatchewan. **Presented:** Second North American Congress of Epidemiology, Seattle, WA, USA, 163(Suppl):S1-S258 – S93, June 2006.

**McGuigan C, Ovsenek N, Bharadwaj L.** Nitrate, gene expression, and cytotoxicity in human cell lines. **Presented:** 7th Western Canadian Symposium on Water Quality Research, Canadian Association on Water Quality/British Columbia Waste and Water Association, Whistler, BC. April 29 – May 4, 2006.

**Morgan D, Crossley M, Stewart N, D'Arcy C, Forbes D, Normand S, Cammer A.** Physical aggression toward nursing aides: Focussing on caregiver "error" masks systemic and organizational factors. **Presented:** 59th Annual Scientific Meeting: Education and the Gerontological Imagination. The Gerontological Society of America, Dallas, Texas, November 16 – 20, 2006.

**Morgan D, Crossley M, Kirk A, D'Arcy C, Stewart N, Forbes D, Biem J, Dal Bello-Haas V, Basran J, Harder S, Holfeld L, Cammer A, Vickers D.** Telehealth videoconferencing in a Rural and Remote Memory Clinic: Family and Site Coordinator evaluation. **Presented:** Alzheimer Society of Canada 28th National Conference: Alzheimer Research and Innovation, Yesterday, Today, and Tomorrow. Toronto, ON. November 6 – 7, 2006.

**Morgan D, Crossley M, Stewart N, D'Arcy C, Forbes D, Normand S.** Barriers to nursing aide participation in a study of resident aggression in long-term care. **Presented:** Alzheimer Society of Canada 28th National Conference: Alzheimer Research and Innovation, Yesterday, Today, and Tomorrow. Toronto, ON. November 6 – 7, 2006.

**Morgan D, Crossley M, Kirk A, Stewart N, D'Arcy C, Forbes D, Biem J, Harder S, Dal Bello-Haas V, Basran J, McBain L, Holfeld L, Vickers D.** Satisfaction and convenience of telehealth versus in-person follow-up appointments in patients and caregivers referred to a rural and remote memory clinic. **Presented:** Canadian Society of Telehealth, Edmonton, AB. October 15 – 17, 2006 \*Received Concurrent Session Podium Award.

**Pahwa P, Karunanayake CP, McDuffie, HH.** 2006. Modelling of longitudinal polytomous outcomes from complex survey Data: Using GEE and missing data analysis. **Presented:** Statistical Society of Canada, SSC Conference, May 2006, London, Ontario, Canada.

**Pahwa, P, Karunanayake CP, McDuffie HH.** 2006."Modelling of longitudinal polytomous outcomes from complex survey data". **Presented:** 2006 Proceedings of the American Statistical Association, Health Policy Statistics Section [CD-ROM], Alexandria, VA: American Statistical Association: 3492-3499.

**Rennie DC, Lawson JA, Kirychuk SP, Willson P, Paterson C, Senthilselvan A, McDuffie HH.** Assessment of the relationship between endotoxin and current asthma and wheeze in a case-control study of school age children. **Presented:** European Respiratory Society Annual Congress, September 2 – 6, 2006, Munich Germany. European Respiratory Journal. European Respiratory Journal, 28 (suppl 50): 4831, 2006.

**Rennie DC, Dosman JA, Lawson JA, Senthilselvan A.** Association between distances from farm homes to outbuildings or hay bales and increased asthma in school children. Abstracts: 2006 **Presented:** American Thoracic Society International Conference, San Diego, CA, May 19 – 24, 2006.

**Seo T, Nakagawa K, Pahwa P, Shindo J, McDuffie HH, Hashimoto M, Yurube K.** Influence of Paraoxonase-1 Q192R Polymorphism on Lung Function in Male Grain Handlers. **Presented:** Seventh National Conference of the Canadian Rural Health Research Society: Rural and Remote Health – Taking Action Together, Prince George, BC, October 2006.

**Senthilselvan A, Lawson JA, Rennie DC, Dosman JA.** Use of inhaled corticosteroids following discharge from hospital and reduced risk of readmission for asthma. Abstracts: 2006 **Presented:** American Thoracic Society International Conference, San Diego, CA, May 19 – 24, 2006.

**Vishwakarma G, Pahwa P, McDuffie HH, & Cross Canada Study of Pesticides and Health Researchers.** Occupational Exposure and Hodgkin's Lymphoma: A Case-control Study. **Presented:** Seventh National Conference of the Canadian Rural Health Research Society: Rural and Remote Health – Taking Action Together, Prince George, BC, October 2006.

## Research Grants Received

**Dal Bello-Haas V, Crossley M, Morgan D, Kirk A, Harder S.** Factors Associated with Falls and Near-Falls in Community-Dwelling Older Adults with Early-Stage Dementia, Saskatchewan Health Services Research Foundation, Establishment Grant. Awarded June 2006.

**Dosman JA and Collaborators.** Canada Foundation for Innovation. National Agricultural Industrial Hygiene Laboratory. 2007-12.

**Dosman JA and Collaborators.** Agriculture and AgriFood Canada. A National Consultation on Health and Safety Research and its Effective Translation to the Agricultural Sector, 2007-08.

**Dosman JA, Ulmer K, LaBrash L.** A Musculoskeletal Injury Prevention & Ergonomic Workshop "Taking Care of the Farmer". Canadian Agricultural Safety Association (CASA). September 2006 – March 2007.

**Dosman JA, LaBrash L, Ulmer K.** Sleepless in Saskatchewan Tour. Canadian Agricultural Safety Association (CASA). September 2006 – March 2007.

**Dosman JA, LaBrash L, Ulmer K.** Modification of existing resource "Hearing Conservation for Farm Families". Canadian Agricultural Safety Association (CASA). September 2006 – March 2007.

**Dosman JA, Ulmer K, LaBrash L.** "Taking Care of the Farmer" Workshop. Cyril Capling Trust Fund. College of Agriculture and Bioresources. University of Saskatchewan. Awarded October 2006.

**Estabrooks C, Cummings G, Degner L, Dopson S, Laschinger H, Leiter M, Morgan D, Norton P, Profetto-McGrath J, Rycroft-Malone J, Smith M, Sales A.** Translating Research in Elder Care (TREC). Canadian Institutes of Health Research, Canadian Institutes of Health Research. Awarded January 2007.

**Ramsden V (Res. Leader), McBain L (Associate member).** Primary Health Care Research Group (PHC-RG) Research Group Development. Saskatchewan Health Research Foundation (SHRF) Grant awarded March 2007.

## Continuing Research Grants

**Morgan D, Stewart N, Crossley M, D'Arcy C, Biem J, Kirk A. (Co-Investigators).** CIHR New Emerging Team Proposal "Strategies to Improve the Care of Persons with Dementia in Rural and Remote Areas. Canadian Institutes of Health Research and partners (Saskatchewan Health Research Foundation, University of Saskatchewan, Alzheimer Society of Saskatchewan). Awarded April 2003.

**Forbes D, Anderson M, Hawranik P, Henderson S, Liepert B, Morgan D, Markle-Reid M, Parent K.** Role of Home Care in Dementia Care, Alzheimer Society of Canada, Canadian Nurses Foundation, Nursing Care Partnership of the Canadian Health Services Research Foundation, CIHR Institute of Aging, CIHR Institute of Gender and Health. July 2005 – June 2007. Awarded April 2005.

**Chilibeck P, Whiting S, Biem J, Case A, Pierson R, Olatunbosun O, Pahwa P.** Effect of Combined exercise Therapy and Phytoestrogen Supplementation on Prevention of Osteoporosis. Funded by: Canadian Institutes of Health Research, March 2004 – 2009.

**Dosman JA, Babiuk LA, Cormier Y, Brison R., Pickett W, Kennedy SM, Gagnon GA.** Canadian Centre for Health and Safety in Agriculture (CCHSA). Funded by: Canadian Institutes of Health Research, Centres for Research Development. 2003 – 2009. Also supported by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST).

**Dosman J.A., Babiuk, L., Barber E., Brison R., Cormier Y., Guernsey J., Kennedy S.M., Pickett W.** National Training Program, "Public Health and the Agricultural Rural Ecosystem (PHARE)". Funded by: Canadian Institutes of Health Research. 2002 – 2007.

**Katamayzk P, Reeder B, Elliot S, Raine K, Joffres M, McLean D, Pahwa P.** Understanding the Individual and Socio-Environmental Health Risks of Obesity: The Canadian Heart Health Surveys Follow-up Study. CIHR, 2004 – 2009.

**Pickett W, Dosman, J, Brison R, Marlenga B, Day L, Biem HJ, Hagel L, Crowe T, Pahwa P.** Saskatchewan Farm Injury Cohort Study. Funded by: Canadian Institutes of Health Research (CIHR).

# Awards

## Faculty, Students and Staff

**Lesley McBain:** Recipient of the Canadian Institutes of Health Research (CIHR) Postdoctoral Research Fellowship, 2006 – 2007.

**Pamela Farthing:** Received the College of Medicine Graduate Student Society Student of The Year Award for 2006 – 2007.

**Chandima Karunanayake:** Received in August 2006 the Graduate Student Travel Award from the College of Medicine, University of Saskatchewan in the amount of \$500 to attend and present her research at the American Statistical Association conference, Seattle, WA, USA.

**Chandima Karunanayake:** Received in September 2006 a University of Saskatchewan Student Travel Award from the University of Saskatchewan in the amount of \$350 to attend and present her research at the American Statistical Association conference, Seattle, WA, USA.

**Chandima Karunanayake:** Received in October 2006 the Graduate Student Travel Award from the College of Medicine, University of Saskatchewan in the amount of \$500 to attend and present her research at the Canadian Rural Health Research Society Annual Conference in Prince George, BC.

**Claire McGuigan:** Won a College of Graduate Studies Travel Award from CGSR 9n the amount of \$350 to attend and present her research in Whistler, BC.

**Claire McGuigan:** Received the Dr. C Sisodia Award for Academic Excellence in the amount of \$300. This award is given to the student with the highest average in the Toxicology graduate program.

**Claire McGuigan:** Received in January of 2007 a six month Founding Chairs Fellowship from the Canadian Centre for Health and Safety in Agriculture.

**Debra Morgan:** Received Concurrent Session Podium Award with the presentation entitled "Satisfaction and convenience of telehealth versus in-person follow-up appointments in patients and caregivers referred to a rural and remote memory clinic at the Canadian Society of Telehealth conference, Edmonton, AB. October 15 – 17, 2006.

## Farewell

**Helen McDuffie:** Dr. McDuffie retired from the Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan after a long and successful career in genetic epidemiology. Her work excellence and dedication was reflected upon the mentoring of so many students at Masters' and PhD levels; the quality of her published peer-reviewed research publications, book chapters and invited presentations. Dr. McDuffie retired on June 30, 2006 and left a legacy to all who had the honor to know and work with her. Congratulations!!



**Helen McDuffie**

*Annual Report compiled and edited by Sueli B. de Freitas*



**CCHSA CCSSMA**  
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