

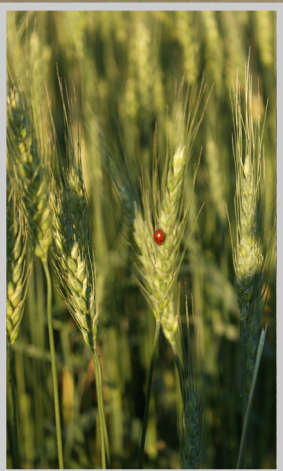
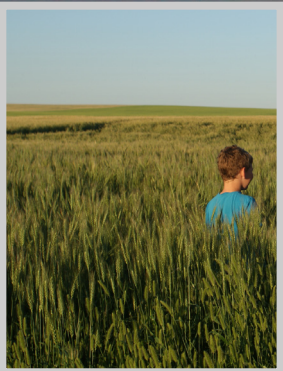


CCHSA CCSSMA
Canadian Centre for Health and Safety in Agriculture
Centre canadien de santé et sécurité en milieu agricole



2012 - 2013 ANNUAL REPORT

& SUMMARY OF ACTIVITIES



WORLD LEADERSHIP IN HEALTH OF RURAL PEOPLE

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.

OUR VISION

WORLD LEADERSHIP IN
HEALTH OF RURAL PEOPLE.

MESSAGE FROM THE DIRECTOR

It is my privilege to provide my first message as Acting Director of the Canadian Centre for Health and Safety in Agriculture - CCHSA. It is a humbling experience to work with such a tremendous team of people. It has been a busy year for us. Planning for our eventual move into our new home in the Health Sciences E – Wing has been an ongoing activity.

CCHSA also underwent an external review mandated by the University as part of a continuing review of all Type-B Centres at the University of Saskatchewan. The review team came in January and the report was presented in February. It is safe to say the review team was very impressed overall with CCHSA and the report was very positive. The report made a number of recommendations that we, as a Centre, agree with including a clear need for enhanced resources and a longer term strategic plan. Overall CCHSA was seen as an internationally recognized and productive research and outreach unit highly aligned with University priorities and directions. Onwards and upwards!



We also made a strong pitch to the Ministry of Agriculture for increased funding for the Agricultural Health and Safety Network, and our funding has increased to 100K this year after having been reduced previously. The Ministry of Agriculture has been a strong and longstanding key supporter of the Network and we are grateful for their continued support. The Network and the Centre will be undertaking strategic planning sessions in the near future to help forge a plan for the next 5+ years.

Lastly, we are hoping to move to our new location in October, which will be an exciting and daunting challenge, I know we are up to the task and the overriding sense of optimism about our new home will provide all the energy we'll need. I am very much looking forward to the next year,

Sincerely,

A handwritten signature in blue ink, appearing to read 'Niels Koehncke'.

Niels Koehncke, MD, MSc, FRCPC
*Acting Director,
Canadian Centre for Health & Safety in Agriculture*

RURAL AND REMOTE DEMENTIA CARE

CCHSA faculty member Dr. Debra Morgan and members of the interdisciplinary Rural Dementia Care research team have been working together since 2003. Team members have travelled throughout Saskatchewan to better understand the needs of rural and remote people and have significant experience providing care to people with dementia and studying how to improve dementia care in rural settings. In Saskatchewan a higher proportion of seniors live in rural communities than in urban centres. The research focus of Dr. Morgan and the team is on finding new ways to provide care.



Some members of the Rural Dementia Care team

Research Developed in Partnership with Community

A Decision-Maker Advisory Council, consisting of front-line health care providers and managers, family members of people with dementia, health region representatives, international researchers, and governmental and community based organizations provides guidance to the team's research. This input ensures that research is relevant to the people of our province. The Advisory Council also actively supports the research team by taking the research efforts and findings of the team back to the communities that they represent. This iterative process informs the focus of the various projects of the team, and ensures that research knowledge is shared and put into practice.

Team Activities

Team members are involved in a variety of complementary research interests. Current projects include:

1. Rural and Remote Memory Clinic

The flag-ship project of the rural dementia care team is the Rural and Remote Memory Clinic. The clinic focus is diagnosis and management of atypical and complex cases

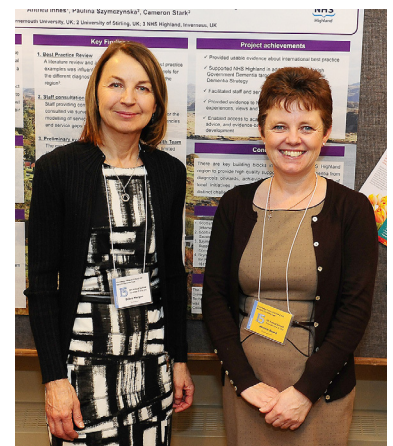
of suspected dementia, where an interdisciplinary team assessment is most needed. The clinic streamlines processes in order to reduce repeated travel and to shorten the time to diagnosis by coordinating the team assessment on one day. The Saskatchewan TeleHealth network is then used for follow-up appointments. The Rural and Remote Memory Clinic was originally

operated as a research project. However, the clinical service it provides continues to be valuable to the people of our province, and on-going funding for the Clinic has been provided by the Saskatchewan Ministry of Health ever since the original research funding ended four years ago. A rich longitudinal database has been maintained since the clinic started, allowing

researchers to explore a wide range of research questions related to rural and remote dementia care.

2. Meeting of the Advisory Council and the Research Team members

Summit 5, the 5th Annual meeting of the Knowledge Network in Rural and Remote Dementia care was held in Saskatoon on November 15th and 16th 2012. Researchers, students, members of the Advisory Council, and others whose interests lie in the field of rural dementia care met during this two day event.



At Summit 5: Debra Morgan and Michele Board (Keynote presenter)

The Saskatchewan Minister for Rural and Remote Health – the Honourable Randy Weekes – attended the Summit and spoke with the attendees about some of the challenges faced in rural areas of the province. Ms. Michele



*Honourable Randy Weekes,
Minister for Rural and Remote
Health at Summit 5.*

Board, Senior Lecturer in Nursing Older People at Bournemouth University, England, and Associate Director of the Bournemouth University Dementia Institute was the Summit keynote presenter. She spoke of her experiences working in an interdisciplinary memory clinic operated out of Christchurch hospital in Dorset, and her own research work exploring the meaning of home in later life and the important role

home plays for those with dementia. As well as presentations from researchers and workshops to plan new projects, presenters also included Saskatoon-based journalist Steve Pasqualotto from CBC television. He spoke about the important role the media can play in the research process.

3. Rural Dementia Action Research Team (RaDAR) June Planning Retreat

The goal of the Rural Dementia Action Research (RaDAR) team is to develop and evaluate innovative community-based primary healthcare and explore better models of care for provision of primary healthcare services for rural residents affected by mild cognitive impairment or dementia. In June of 2012 the team built upon previous information collected from province-wide stakeholders and hosted a planning retreat to build the framework of a team grant in primary healthcare. One of the team's UK based researchers, Dr. Anthea Innes, Director of the Bournemouth University Dementia Institute, came to Saskatoon to participate in this important planning session.

In the fall of 2012, the completed team application was submitted to CIHR for consideration. While the team's application was strong, it was not one of the final 12 out of 36 applications that were awarded funding by CIHR. However, the team has a wealth of background work done to support the value of this research and is seeking alternative sources of funding to continue along the research path that has been developed by the RaDAR team.

4. From Research to Action

A. Alzheimer Society of Saskatchewan sustains Frontotemporal Dementia (FTD) Caregiver Support Group.

Telehealth delivered Frontotemporal Dementia (FTD) Caregiver Support Group is a unique videoconference-based support group for family members providing care to those affected by FTD (a relatively rare form of dementia that typically affects people at a younger age than Alzheimer Disease). This group was developed, delivered, and evaluated by research team members Dr. Margaret Crossley and Dr. Megan O'Connell. Working with the researchers, the Alzheimer Society of Saskatchewan has now adopted this model to make the support group available province-wide. The team is helping with this transition and also evaluating this process. This is another example of a team research project that has 'grown' to become a service after the original research was completed.

B. Northern Cultural Assessment of Memory (N-CAM) Development.

The N-CAM is a cognitive assessment tool developed in collaboration with Aboriginal healthcare providers and communities in Saskatchewan's Keewatin Yatthé Regional Health Authority that is used in the Rural and Remote Memory clinic in Saskatoon. Many existing assessment protocols are not appropriate for the assessment of cognitive function in Aboriginal seniors and others not from the majority culture. Led by Dr. Margaret Crossley, research team members and Northern partners worked together over many years to develop, test, and refine the N-CAM. It is designed for use by front-line staff, can be administered in the language of the patient using translation by a caregiver, and incorporates easily assembled 'everyday' household items. The research team has developed a video that illustrates how to administer the N-CAM as an important training tool for administrators.



Jubilee Medal presentation. Left to Right: Joanne Bracken, Dr. Jenny Basran, Dr. Andrew Kirk, Honourable Dustin Duncan

Queen's Diamond Jubilee Medal awarded to Research Team Members.

On November 27th, 2012, Rural Dementia Care team members Dr. Jenny Basran and Dr. Andrew Kirk were each presented with a Queen's Diamond Jubilee Medal by Joanne Bracken of the Alzheimer Society of Saskatchewan, and the Honourable Dustin Duncan, Minister of Health at an Alzheimer Awareness Reception at the Saskatchewan Legislature. The award pays tribute to their contributions to the Alzheimer Society, to the medical community, and to Saskatchewan residents who are affected by dementia.

To learn more about the research and activities of the Rural Dementia Care team, please visit their website: www.cchsa-ccssma.usask.ca/ruraldementiacare

AIRWAYS RESEARCH PROJECT

The Airways Research Project led by Dr. John Gordon and Dr. Don Cockcroft and funded by Saskatchewan Health Research Foundation, the College of Medicine and the Ministry for the Environment from 2011-2014 is well under way. The Airways Research Group is looking into "The impact of airborne environmental contaminants on respiratory public health in Saskatchewan".

Residents of Estevan and Swift Current, adults (>50 years old) with or without respiratory conditions, are recruited to participate on a voluntary basis in the study. Participants record their daily respiratory symptoms and measure their

Forced Expiratory Volume (FEV1) across three 1-2 month periods (Nov-Dec, 2012; April-June 2013; and/or Oct-Dec 2013) during which the team investigators are also monitoring the local air quality in both cities. Working in collaboration with SaskPower and the Southeast Saskatchewan Airshed Authority in Estevan and Saskatchewan Environment in Swift Current, organic matter (particulate matter of 2.5 and 10 μm diameter) and gaseous components (sulphur dioxide and nitrogen dioxide) are being monitored and dust is also being collected for mass spectroscopy and biological analysis of contaminants.

MASS SPECTROMETRY LABORATORY

The Mass Spectrometry (MS) Laboratory of the Canadian Centre for Health and Safety in Agriculture (CCHSA) is part of the National Agricultural Industrial Hygiene Laboratory, which was established with CFI and University of Saskatchewan matching funds, and is housed in the new Health Sciences Building, College of Medicine. The MS lab is equipped with state of the art instrumentation capable of environmental (e.g. air particulates, dust) and agricultural samples analysis, pesticide analysis, global proteomics (e.g. identification of proteins, analysis of protein modification, characterization of protein-protein interaction), quantitative proteomics for discovery and validation of biomarkers, small molecule (drugs) analysis, metabolomics and clinical proteomics. Dr. G. Katselis is the lead CCHSA faculty in research programs focused on MS-based method development in the areas of agricultural and rural medicine, environmental and occupational health, clinical proteomics and metabolomics. His current research interests are: 1) Development of mass spectrometry-based techniques for the discovery, characterization, and validation of respiratory distress biomarkers in rural and agricultural populations. 2) Identifying biomarkers of human exposure to pesticides in order to prevent adverse health effects. This is done by developing mass spectrometry-based proteomic methods to detect biomarkers in serum, urine, and tissue samples from agricultural populations that have been exposed to pesticides. 3) Use of mass spectrometry-based techniques for the identification of biomarkers in various diseases such as cancer and diabetes. Research Team: George Katselis, Ph.D., Shelley Kirychuk, Ph.D., (Collaborator), Amanda Lambrecht, M.Sc., (Research Technician)

THE SASKATCHEWAN FARM INJURY PROJECT (SFIP) PHASE 2

Purpose and Objectives

The purpose of SFIP-Phase 2 is to extend and expand study of the cohort assembled in SFIP Phase 1 in the context of the Population Health Framework (CIHR). In SFIP-Phase 2 our primary focus will be specific types of farm injury and their determinants in vulnerable subgroups of the agricultural population. Second, we will conduct a series of analyses in order to explore promising risk factors for farm injury as well as risk factors for other outcomes. Third, we will use the opportunity to evaluate components of a provincial agricultural health and safety initiative. The long-term goal of the project is to provide new information that will inform the development of interventions directed at the prevention of injury within both farm populations and agricultural production settings. The new features of Phase 2 will be:

- To develop a cohort of farming and non-farming rural children and youth and
- For the first time we will examine musculoskeletal injuries in a population of Canadian farmers.

The Research Team:



The research team comprises members from Saskatchewan, Ontario, Alberta, the United States and Australia. **Dr. Will Pickett** (Queen's University) and **Dr. Jim Dosman** (University of Saskatchewan) lead the research team. Co-investigators include **Dr. Josh Lawson** (University of Saskatchewan), **Dr. Barbara Marlenga** (Marshfield Clinic Research Foundation), **Dr. Robert Brison** (Queen's University), **Dr. Lesley Day** (Monash University), **Dr. Don Voaklander** (University of Alberta), **Dr. Catherine Trask** (University of Saskatchewan), **Dr. Niels Koehncke** (University of Saskatchewan) and **Ms Louise Hagel** (University of Saskatchewan). **Ms Candace Seaby** is the project research assistant.

Trainees:

Two graduate students, Ms Yvonne Dewit and Ms Michelle McMillan are participating in the project. Both students are Master's candidates from Queen's University and both will use baseline data to conduct their research.

Progress to date:

Baseline data collection for the Farm Family Cohort was conducted January to March 2013. There are 1,218 farms and 2,850 persons living on those farms enrolled in the study. The data has been electronically encoded and data analysis will begin this fall. The follow-up study for this cohort will begin in November 2013. We plan to conduct the baseline data collection for the Children's Cohort during January 2014.

Funded by the Canadian Institutes for Health Research (CIHR). For detailed information about the study including a list of publications please contact Louise Hagel, Study Manager at louise.hagel@usask.ca.

THE SASKATCHEWAN RURAL HEALTH STUDY (SRHS)

Purpose and objectives:

SRHS is a large observational prospective study of respiratory health in rural dwellers in Saskatchewan. The goal of the SRHS is to develop a better understanding of the factors that influence respiratory health in rural Saskatchewan. Our hope is that this will lead to more effective respiratory health promotion and respiratory disease prevention efforts.

The research team:

The research team is lead by **Dr. James Dosman** and **Dr. Punam Pahwa** of the University of Saskatchewan. Co-investigators include **Dr. Josh Lawson**, **Dr. Donna Rennie**, **Dr. Chandima Karunanayake**, **Dr. Shelley Kirychuk**, **Dr. Niels Koehncke**, **Dr. Bonnie Jensen**, **Dr. Roland Dyck** all of the University of Saskatchewan and **Dr. Yue Chen** of the University of Ottawa and **Dr. Ambikaipan Senthilselvan** of the University of Alberta. **Ms Louise Hagel** is the Project Manager and **Ms Candace Seaby** is the Research Assistant.

Trainees:

We have five graduate students participating in the project. Ms. Meenu Rai, Mr. Guangming Zhao, Mr. Luan Chu, Ms. Lakshmi Balakrishnan all master's candidate at University

of Saskatchewan and Ms Rebecca Barry of Queen's University who has successfully defended her Master's Thesis.

Progress to date:

The project was launched in 2009 and will continue through to 2015. The baseline study was conducted in 2010/2011 and 8,257 adults from 4,622 rural households participated plus 2,383 children attending schools in the study areas. The follow-up study will begin in November 2013 and be completed in March 2014. Other components of the study currently underway are the environmental study of grain dust exposure and the health care utilization study. The analyses of the results of the baseline study are well underway. To date the investigators have published 5 manuscripts in peer reviewed journals. The fourth annual meeting of the Community Advisory Council for this study was held in April in Saskatoon.



For detailed information about the study including a list of publications please contact Louise Hagel, Study Manager at louise.hagel@usask.ca. This project is funded by the Canadian Institutes for Health Research (SIHR).

THE SASKATCHEWAN FARM INJURY SURVEILLANCE PROGRAM

CCHSA continues to participate as the provincial collaborator in the Canadian Agriculture Injury Reporting Program. This program has been ongoing in Saskatchewan since 1995. Existing mortality and morbidity data bases are used to track fatal and hospitalized farm injuries in the province. The farm injury surveillance data bases currently hold de-identified data for 410 fatal injury cases for the period 1990 to 2011 and 5135 hospitalized farm injury cases for the period 1990 to 2007.

Periodic provincial farm injury surveillance reports are published that present the frequency of serious farm injuries,

the trends over time and the patterns and causes of the injury events. These data are used to inform the farming community, health and safety professionals, and interested government and non-government agencies. The provincial data are shared with the Canadian Agriculture Injury Reporting program at the University of Alberta and comprise part of the Canadian agriculture injury database.

The co-investigators on this project are Ms Louise Hagel and Dr. Niels Koehncke of the Canadian Centre for Health and Safety in Agriculture, University of Saskatchewan. Collaborators on this project include the Office of the Provincial Coroner, the Ministry of Health and the Occupational Health and Safety Division of the Ministry of Labor Relations and Workplace Safety.

Look for updated reports on our website at [HTTP://www.cchsa-ccsma.usask.ca](http://www.cchsa-ccsma.usask.ca). This project is funded by the Canadian Centre for Health and Safety in Agriculture, the Occupational Health and Safety Division of the Ministry of Labour Relations and workplace safety, Government of Saskatchewan, Canadian Agriculture Injury Reporting, the Canadian Agriculture Safety Association and Agriculture and Agri-food Canada.

CAPACITY BUILDING

CANWORKSAFE

CCHSA has been providing workplace health screening and monitoring to companies in Saskatchewan since 1987 through CANWORKSAFE. Our resources in occupational health and hygiene put us in a truly unique position to provide modern and comprehensive occupational health surveillance and screening.

Respiratory Health Screening and Quantitative Fit Testing were undertaken by CANWORKSAFE for Novozymes BioAg Limited of Saskatoon in October 2012. In the summer of 2013, CANWORKSAFE will begin offering Hearing Screening services for Saskatchewan Rural Municipality employees throughout the province.

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, identifying changes or problems early and provide intervention, and educate workers to help reduce the risk of developing occupational health diseases or disabilities. Visit the website for more information on programs at <http://www.cchsa-ccsma.usask.ca/occhealth/services.php>

CAPACITY BUILDING

GRADUATE TRAINING PROGRAM IN THE PUBLIC HEALTH AND THE AGRICULTURAL ECOSYSTEM (PHARE)

The CIHR Strategic Training Initiative in Health Research entitled, “Public Health and the Agricultural Rural Ecosystem” (PHARE) provides scholarship support along the development continuum from Master’s through to Post Doctoral Fellows to train and mentor young scientists.

Trainees participate in an annual conference and an online agriculture medicine/public health course and seminar. The PHARE national graduate training program has a May 31st deadline for applications and runs until 2015.



2012-2013 PHARE awardees:

Post Doctoral Fellows: Laetitia Bonifait, Université Laval; David Schneberger, University of Saskatchewan.

PhD: *Juanita Bacsu*, University of Saskatchewan; *Pascale Blais-Lecours*, Université Laval; *Allison Cammer*, University of Saskatchewan; *Amanda Froehlich-Chow*, University of Saskatchewan; *Kyungsu Kim*, University of Alberta; *Megan Kot*, Dalhousie University; *Laura Nimmon*, University of British Columbia; *Abayomi Olaniyi*, University of Saskatchewan; *Oluwafemi Oluwole*, University of Saskatchewan; *Shinjini Pal*, University of Ottawa; *Gregory Piorkowski*, Dalhousie University; *Robin Repta*, University of British Columbia; *Janna Schurer*, University of Saskatchewan; *Paulo Rogers da Silva Ferreira*, Université Laval; *Arcadio Viveros Guzman*, University of Saskatchewan; and *Ming Ye*, University of Alberta.

Master's: *Margaret Carson*, Trent University; *Ariel Pulver*, Queen's University.

THE NATIONAL PARTNERS FUND

The National Partners Fund, the former Founding Chairs Program, which was established in 1989, goal is to create a secure financial base for CCHSA and provide opportunities for new program initiatives. A portion of the funds are used for special research projects, scholarships for graduate students and knowledge translation. The following categories recognize contributions of current and recent contributors.

Gold Guardians	Canadian National Railways
Silver Guardians	Farm Credit Canada, Federated Co-operatives Ltd, Viterra
Bronze Guardians	The Cooperators

The Director of Institutional Advancement, Maura Gillis-Cipywnyk, coordinates the program in consultation with the Founding Chairs Management Committee. The Committee meets twice a year to make recommendations regarding the fund which is administered by the University of Saskatchewan. The Committee membership consists of 3 members who are Contributors and 3 members from the University of Saskatchewan. Current members include: *Lyndon Carlson*, Vice-President, Marketing and Product Development, Farm Credit Canada, *Terry Baker*, former Chair of Viterra Board of Directors, and the University of Saskatchewan representatives: *Dr. Niels Koehncke*, Acting Director, Canadian Centre for Health and Safety in Agriculture, *Dr. Lou Qualtiere*, Acting Dean, College of Medicine; *Sue Verhille-Long*, Financial Services Division.

Our focus continues to be promotion of the Foundation within Canadian agricultural industries, companies and associations. This year sponsorship was solicited for the 25th Anniversary of the Agricultural Health and Safety Network celebrations. In addition a \$4,500 one time contribution was provided by the Foundation to fund three \$1,500 Special 25th Anniversary Scholarships for grade twelve students who were adjudicated for the best essays on “Changes to Attitudes in Agricultural Safety through the Generations”.

Plans are now underway to mount a campaign to secure sponsorship for the 7th International Symposium: “Safety and Health in Agricultural & Rural Populations: Global Perspectives “ being held in 2014 in Saskatoon.

SERVICES



THE AGRICULTURAL HEALTH AND SAFETY NETWORK

The Canadian Centre for Health and Safety in Agriculture (CCHSA) partnered with the Saskatchewan Association of Rural Municipalities (SARM) and six Rural Municipalities in 1988 to found the Agricultural Health and Safety Network with the mission “to improve health and safety on the farm through education, service, and evaluation research.” In 2013 the Network is celebrating its 25th Anniversary. The Network now provides occupational health and safety services to 207 RMs that are members of the Network. The Network continues to grow with a list of over 29,000 farm families. This steady increase attests to the viability and success of an agricultural health and safety program that is unique to Saskatchewan and Canada.

CCHSA Research and the Network

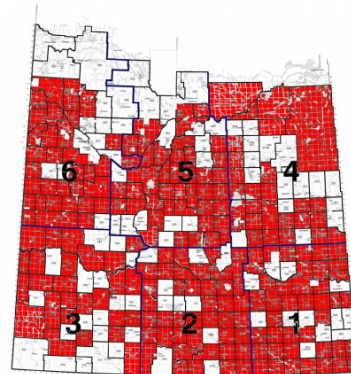
CCHSA was founded in 1987 and celebrated its 25th Anniversary in 2011. The Network began shortly thereafter when research indicated that respiratory hazards on the farm needed to be addressed. Research continues to guide the Network’s focus on various safety concerns. CCHSA’s extensive research on the respiratory effects of exposures for the Saskatchewan farmers impacts the Network’s outreach program regarding respiratory safety and hazards. Recent research findings at CCHSA also illustrate that farm families are at risk for the following reasons:

- Long work hours and fatigue
- The physical environment
- The aging process puts older farmers at a higher risk
- Children and teens are at a higher risk while parents cope with long work hours

The Network is CCHSA’s avenue to provide resources and services that consider the above, and other related concerns to best serve Saskatchewan farm families. The Network’s resources and services reflect the issues originating in current CCHSA research.

Membership, Recruitment & Funding

Current membership is 207 RMs. These RMs pay an annual fee of \$3.75 per active farm family to benefit from the Network resources and services. The maximum Network membership fee continues to be capped at \$1200 per RM.



These partnerships act as the foundation of the Network and provide leverage to draw in additional resources to better serve Saskatchewan farmers, their families and their workers. The Network also receives funding from the Saskatchewan Ministry of Agriculture and other grants.

RMs that are new to the Network or that are rejoining this year are as follows: Arborfield, Birch Hills, Garden River, Colonsay, Antler, Browning, Rocanville, and Sherwood Park.

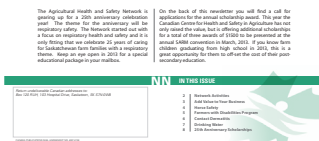
Steering Committee

The Steering Committee is an advisory group composed of RM councilors and a Saskatchewan Ministry of Agriculture representative. These committee members represent the voice of Saskatchewan farmers, their families and their workers to provide direction and feedback on programs delivered in the Network. Their support and input are invaluable to the Network. The members of the Steering Committee are as follows:

Division 1	Stanley Lainton	RM of Coalfields #4
Division 2	Duane Filson	RM of Wood River #74
Division 3	Floyd Thunstrom	RM of Coteau # 255
Division 4	Brenda Zemluk	RM of Elfros #307
Division 5	Eugene Matwishyn	RM of Prince Albert #461
Division 6	Gary Hoppe	RM of Glenside #377
Ministry of Agriculture	Rick Bjorge	

Network Newsletters & Other Publications

This resource is delivered twice a year and mailed to Saskatchewan farm families that are enrolled in the Network by their RM. Currently over 29,000 farm families receive this farm safety newsletter that includes current agriculture issues, scholarship information, farm safety articles and tips and contact information.



The Network provides health and safety articles for the following magazines and newsletters. This is a valuable opportunity to promote the Network and provide outreach beyond our membership. It gives nonmembers a chance to see what they are missing. The Network contributes an article to each Rural Councilor (SARM's

publication with a readership of 2,000) as well as occasionally to the Farmers with Disabilities publication (5,000 readers).

Partnerships



Federated Co-operatives Limited joined with the Agricultural Health and Safety Network to present Respiratory Health Clinics in specific communities throughout 2013. This

pilot program recognizes the importance of safe farming practices for farmers and their families. This initiative seeks to further expand our partners in delivering agricultural health safety clinics. The following Co-ops will host this pilot program in 2013:

- Lloydminster, AB/SK
- Melfort, SK
- Swift Current, SK
- Yorkton, SK
- Swan River, MB

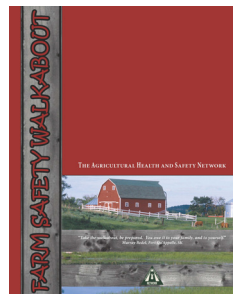
Projects

1. Respiratory Safety DVD and Resource Project

CCHSA research recognizes that respiratory hazards on the farm are a major concern for the agricultural industry, and continues to focus at farming related health issues including respiratory disease, chemical and environmental exposure in the workplace. A copy has been sent out to each member RM accompanied by a poster.



2. Farm Safety Walkabout



Thanks to \$10,000 funding from **Farm Credit Canada** the updated and reprinted Farm Safety Walkabout booklet will be developed into a "Train-the-Trainer" manual which includes resources and activities. It is suitable to use with children, new workers, and workers where English is a second language.

3. Farm Safety Plan Workshops

The Farm Safety Plan workshop series was developed and piloted two years ago in partnership with the Canadian Agricultural Safety Association (CASA). The workshops have continued with funding from **Farm Credit Canada** until December, 2012. This three year project has resulted in development of a useful workshop which will continue to be offered.

Hearing & Respiratory Clinics

Respiratory Clinics are an educational and respiratory screening service provided to rural residents in the Network RMs. A registered nurse works with farmers and their families in their local community to increase awareness of health and safety risks associated with respiratory hazards on the farm, develop methods to reduce their exposure and show how together with their physician they can monitor the effects such hazards have on their respiratory health.

Hearing Clinics are provided in a format similar to the Respiratory Clinic. Trained staff work with farmers and their families in their local community to increase awareness of noise hazards on the farm, develop methods to reduce their exposure to harmful noise and discuss show how together with physician they can monitor the effects of hazardous noise on their hearing.

SARM Scholarship

3 STUDENT SCHOLARSHIPS
\$1500 each

The Scholarship's History: In 1995, the Saskatchewan Association of Rural Municipalities (SARM) auctioned off the first copy of its history book "The Building of a Province: Commemorating the 90th Anniversary of the Saskatchewan Association of Rural Municipalities." This auction netted the sum of \$2,600 which the SARM Board of Directors contributed to the Canadian Centre for Health and Safety in Agriculture (CCHSA). These funds initiated the Saskatchewan Association of Rural Municipalities 90th Anniversary \$1,000 Student Scholarship in Agricultural Safety & Rural Health. The CCHSA's Founding Chairs Program, maintains the scholarship.

This year, in celebration of the Agricultural Health and Safety Network's 25th Anniversary, three \$1500 scholarships were awarded to grade 12 students who submitted the best essay on "Changes in Attitudes in Agricultural Safety through the Generations". They are:



(2012) Shane Wornath
Engineering & Applied Science
University of Regina

*"Safety is decided by man,
every operation is only as safe as
you make it"*



(2012) Alexa McEwen
Arts & Science
University of Saskatchewan

*"... we lull ourselves into a false sense of
security, since our equipment seems to
be much safer and we feel we are much
more educated than those in the past"*



(2012) Yvonne Sprangers
Lakeland College

*"There is no longer a belief that it is
a sign of weakness to use the safety
equipment offered to producers"*

TECHNICAL REPORTS & PRESENTATIONS RELEVANT TO ACADEMIC FIELD

Morgan, D., & Minish, D. (Feb 2013). Summit 5 final report. Final report from the fifth annual summit of the knowledge network in rural and remote dementia care, November 15th & 16th 2012. Report printed at the University of Saskatchewan (26 pages).

KTE & INVITED PRESENTATIONS

Morgan D. Dementia care in rural Canada. Seminar at Bournemouth University Dementia Institute (BUDI), Bournemouth, Dorset, UK, January 30, 2013.

Morgan D, Kosteniuk J. Planning a Rural Primary Health Care Research Program in Dementia Care, presentation to the Primary Healthcare Committee of the Saskatchewan Medical Association as a Consultation to plan CIHR Team Grant. Saskatoon, SK, September 13, 2012.

Morgan D, Kirk A, Kosteniuk J, Minish D. Planning for the Rising Tide: New Models of Rural Primary Healthcare for Persons with Dementia, presentation to the Supportive Services Committee of the Saskatchewan Ministry of Health as a Consultation to plan CIHR Team Grant. Saskatoon, SK, September 12, 2012.

Research Team Profile. Aiding rural dementia patients, The Western Producer, 89(20) 21-22. May 17, 2012.

Researcher Profile, The IHSPR Innovator, The Institute of Health Services and Policy Research Newsletter, July 2012 edition. Featured in Researcher Showcase on second page of newsletter. Available online at: http://www.cihr-irsc.gc.ca/e/documents/ihspr_2012_07_newsletter_e.pdf

The Saskatchewan Farm Injury Study Team Saskatchewan Farm Injury Project. Report to participants. March 2011.



Barry RJ, Pickett W, Rennie DC, Senthilselvan A, Cockcroft DW, Lawson JA. Factors contributing to risks for pediatric asthma in rural Saskatchewan. *Annals of Allergy, Asthma and Immunology*. 2012. 109: 255-9.

Cranley L, Birdsell J, Norton P, Morgan D, Estabrooks C. Insights into the impact and use of research results in a residential long-term care facility: A case study. *Implementation Science*, 7, 90. 2012. DOI:10.1186/1748-5908-7-90.

Dosman J, Hagel L, Skomro R, Sun X, Day A, Pickett W. for the Saskatchewan Farm Injury Study Team. Primary snoring is a risk factor for occupational injury on farms. *Canadian Respiratory Journal*, 2013; 20(1):42-46.

Dyck R, Karunanayake C, Pahwa P, Hagel L, Lawson J, Rennie D, Dosman J and on behalf of the Saskatchewan Rural Health Study Group. Rates, Risk Factors and Co-morbidities of Diabetes among adults in Rural Saskatchewan: The influence of farm residence and agriculture-related exposures. *BMC Public Health* 2013, 13:7. doi:10.1186/1471-2458-13-7.

Dyck R, Karunanayake C, Pahwa P, Hagel L, Lawson J, Rennie D, Dosman J. Prevalence, risk factors and co-morbidities of diabetes among adults in rural Saskatchewan: the influence of farm residence and agriculture-related exposures. *BMC Public Health*. 2013 13:7 (epub).

Fedortsiv O, Brozek GM, Luchyshyn N, Kubey I, Lawson JA, Rennie DC, Zejda JE. Prevalence of childhood asthma, rhinitis, and eczema in the Ternopil region of Ukraine – results of BUPAS study. *Advances in Medical Sciences* 2012. 57: 282-9.

Forbes D, Finkelstein S, Blake C, Gibson M, Morgan D, Markle-Reid M, Culum I, Thiessen E. Knowledge exchange throughout the dementia care journey by rural community-based health care practitioners, persons with dementia, and their care partners: an interpretive descriptive study. *Rural and Remote Health*, 12, 2201, online 2012.

Hagel L, Pahwa P, Dosman J, Pickett W for the Saskatchewan Farm Injury Study Team. Economic worry and the presence of safety hazards on farms. *Accident Analysis and Prevention*, Volume 53, 1 April 2013 pp156-160.

Kosteniuk J, Morgan D, D'Arcy C. Use and perceptions of information among family physicians: sources considered accessible, relevant, and reliable. *Journal of the Medical Li-*

brary Association, 101(1), 32-37. 2013. DOI: 10.3163/1536-5050.101.1.006.

Lacny C, Kirk A, Morgan D, Karunanayake C. Predictors of cognitive impairment severity at memory clinic presentation. *Canadian Journal of Neurological Sciences* 2012; 39 (6): 774-781.

Lawson JA, Dosman JA, Rennie DC, Beach J, Newman SC, Crowe T, Senthilselvan A. Endotoxin as a determinant of asthma and wheeze among rural dwelling children and adolescents: a case-control study. *BMC Pulmonary Medicine*. 2012; 12: 56 (epub).

O'Connell M, Germaine N, Burton R, Stewart N, Morgan D. Degree of rurality is not related to dementia caregiver distress, burden, and coping in a predominantly rural sample. *Journal of Applied Gerontology*. (June 25, 2012. Epub ahead of print). DOI: 10.1177/0733464812450071.

Pahwa P, Karunanayake C, Hagel L, Janzen B, Rennie D, Lawson J, Pickett W, Dosman JA. Self- Selection Bias in an Epidemiological Study of Respiratory Health of a Rural Population. *Journal of Agromedicine* 2012; 17(3): 316-325.

Pahwa P, Karunanayake C, McCrosky J, Thorpe L. Longitudinal trends in mental health among ethnic groups in Canada. *Chronic Diseases and Injuries in Canada* 2012; 32(3): 164-176.

Pahwa P, Karunanayake C, Willson PJ, Hagel L, Rennie DC, Lawson JA, Dosman JA. Prevalence of Chronic Bronchitis in Farming and Non-Farming Rural Residents in Saskatchewan. *Journal of Occupational and Environmental Medicine* 2012; 54(12):1481-1490.

Pahwa P, Karunanayake CP, Dosman JA. Association between Pulmonary Dysfunction as a Result of Occupational Exposures and Risk of Developing Cancer. *Journal of Occupational and Environmental Medicine* 2012; 54(12):1471-1480.

Pahwa P, Karunanayake CP, Hagel L, Janzen B, Pickett W, Rennie D, Senthilselvan A, Lawson J, Kirychuk S, Dosman JA. The Saskatchewan Rural Health Study: An Application of a Population Health Framework to Understand Respiratory Health Outcomes. *BMC Research Notes* 2012, 5:400. [http://www.biomedcentral.com/1756-0500/5/400].

PUBLISHED PAPERS: E-PUB & IN REFEREED JOURNALS

Pickett W, Hagel L, Dosman JA. The Saskatchewan Farm Injury Study Team. Safety Features on Agricultural Machines and Farm Structures in Saskatchewan. *Journal of Agromedicine*. 2012 October;17(4):421-424.

Silver T, Lawson J, Mayer M. Sonographic characteristics of presumptively normal canine main axillary and superficial cervical lymph nodes. *American Journal of Veterinary Research*. 2012; 73(8):1200-6.

Slaughter S, Morgan D. (2012) Functional outcomes of nursing home residents in relation to features of the environment: Validity of the Professional Environmental Assessment Protocol. *Journal of the American Medical Directors Association*, 13(5), 487.e1-487.e7. DOI: 10.1016/j.jamda.2012.01.003.

Trask C, Teschke K, Koehoorn M, Johnson P, Callaghan J. Anthropometry-corrected exposure modeling as a method to improve trunk posture assessment with a single inclinometer. *Journal of Occupational and Environmental Hygiene*. 2012 March; 10(3).

Trask C, Rezagholi M, Mathiassen SE, Wahlstrom J, Heiden M. Data collection costs in industrial environments for three biomechanical exposure assessment methods.. *BMC Medical Research Methodology*. 2012;12(89).

Uswak U, Hoover JN, Li KYJ, Karunanayake C. A double-blind cross-over study to compare the efficacy of Soladey-J3X toothbrush. *International Journal of Experimental Dental Science*, July-December 2012, 1(2):57-60.

Watanabe J, Charles-Schoeman C, Miao Y, Elashoff D, Lee YY, Katselis GS, Lee TD, Reddy ST. Proteomic profiling following immunoaffinity capture of HDL: Association of Acute Phase Proteins and Complement Factors with Pro-Inflammatory HDL in Rheumatoid Arthritis. *Arthritis & Rheumatism*, 2012; 64(6), 1828-1837.

Zhang L, Katselis GS, Moore RE, Lekpor K, Goto RM, Lee TD, Miller MM. MHC Class I Target Recognition, Immunophenotypes and Proteomic Profiles of Natural Killer Cells Within the Spleens of Day-14 Chick Embryos. *Developmental and Comparative Immunology*, 2012; 37, 446-456.

 The Agricultural Health & Safety Network <small>Making a Difference in Farm Health & Safety</small>	 The Agricultural Health & Safety Network <small>Making a Difference in Farm Health & Safety</small>	 The Agricultural Health & Safety Network <small>Making a Difference in Farm Health & Safety</small>
<p>WE OFFER</p> <ul style="list-style-type: none"> Leadership in Agricultural Health & Safety Research & Knowledge Translation Health Screening: Respiratory & Hearing  <p>aghealth.usask.ca</p>	<p>I CHOOSE</p> <ul style="list-style-type: none"> To be a Network Member To be Informed About Farm Safety To Practice Health & Safety on the Farm  <p>aghealth.usask.ca</p>	<p>WE CAN</p> <ul style="list-style-type: none"> Make the Farm a Safe & Healthy Workplace Make a Difference for Future Generations  <p>aghealth.usask.ca</p>
		

CONFERENCE PROCEEDINGS & ABSTRACTS

Alimezelli H, Leis A, Karunanayake C, Denis W. Self-rated Health: comparing Official Language Minority seniors with their counterparts in the General Canadian Population. Canadian Society for Epidemiology and Biostatistics 2012 CSEB National Student Conference: Saskatoon, SK, May 13-14, 2012.

Barry RJ, Pickett W, Rennie RC, Dosman JA, Pahwa P, Hagel L, Karunanayake C, Lawson JA. Small Town and Farm-specific Factors as Risks for Pediatric Asthma in Rural Saskatchewan. 11th Canadian Rural Health Research Society Conference, Lévis, Quebec, October 25-27, 2012.

Cammer A, O'Connell M, Crossley M, Morgan D. A telehealth delivered support group for spousal caregivers of persons with frontotemporal dementia: Connection and Action. **Presented:** International Federation on Ageing 11th Annual Conference, Prague, CZ, June 2012.

Cammer A, Morgan D, Stewart N, Rycroft-Malone J, Dopson S, Estabrooks C, McGilton K. The hidden complexity of long-term care: A case study of contextual factors that mediate knowledge translation and best practice. **Presented:** International Federation on Ageing 11th Annual Conference, Prague, CZ, June 2012.

Cutler C, Innes A, Board M, Cash M, Birkett P, Morgan D, Edvardsson D, Dias A, Cammer A. Developing international rural dementia care service excellence. **Presented:** 22nd Alzheimer Europe Conference, Vienna, Austria, October 2012.

Estabrooks C, Squires J, Cummings G, Morgan D, Stewart N, Teare G, Norton P, Ginsberg L, McGilton K, Hayduk L, Kang S. The influence of organizational context on use of research and staff outcomes in healthcare aides. **Presented:** Canadian Association on Gerontology Conference, Vancouver, BC, October 18-20, 2012, & Gerontological Society of America, San Diego, CA, Nov 14-18, 2012. *The Gerontologist*, 52(S1), 485.

Forbes D, Peacock S, Harrison W, Woytkiw T, Blake C, Strain L, Hawranik P, Morgan D. Factors in northern home care centres that influence the use of evidence. **Presented:** International Collaboration of Community Health Nursing Research Conference: Transforming Community Health - the Nursing Impact, Edinburgh, UK, March 13-14, 2013.

Forbes D, Harrison W, Strain L, Peacock S, Morgan D, Hawranik P, Woytkiw T, Blake C. Context and its Influence on

the Spread and Uptake of Evidence within Alberta North Zone Home Care Centres. Rural Linkages: Intercollaborative Practice for Safe & Healthy Communities, Edmonton, AB, September 28, 2012.

Forbes D, Abram A, Blake C, Finkelstein S, Gibson M, Morgan D, Markle-Reid M, Thiessen E. Dementia care knowledge needs of a First Nation Community: A Success Story. **Presented:** Alzheimer's Association International Conference 2012, Vancouver, BC, July 14-19, 2012.

Gibson M, Forbes D, Finkelstein S, Morgan D, Markle-Reid M, Blake, C. A rural perspective on dementia care decision-making. **Presented:** Canadian Association on Gerontology, Vancouver, BC, October 18-20, 2012.

Haugrud N, Crossley M, O'Connell M, Morgan, D. Individuals diagnosed with preclinical and early stage Alzheimer's disease produce fewer low frequency words on a semantic verbal fluency task. **Presented:** International Neuropsychological Society, Waikoloa, HI, February 6-9, 2013.

Hildebrand C, Karunanayake CP, Rennie DC, Lawson JA, Hagel L, Pahwa P, Dosman JA. Parental perceptions of their child's body weight: The Saskatchewan Rural Health Study. 11th Canadian Rural Health Research Society Conference, Lévis, Quebec, October 25-27, 2012.

Karunanayake C, Rai M, Dosman J, Pahwa P. Prevalence and associated risk factors of breast cancer among rural women of farm and non-farm dwellers: the Saskatchewan Rural Health Study. 11th Canadian Rural Health Research Society Conference, Lévis, Quebec, October 25-27, 2012.

Kiryuchuk S, Jewitt L, Gordon J, Dosman J, Duchaine C, Pickett W, MacLeod M, Laprise C, Morgan D, Senthilselvan S, Reeder B, Potter A, Guernsey J, Ebbesen L. Halfway and Growing Stronger: The Evolution of the CIHR-STIHR PHARE Training Program. **Presented:** Canadian Rural Health Research Society Conference, Rural and Remote Health Research: Creative Approaches, Lévis, Quebec, October 25-27, 2012.

Kiryuchuk S, Owusu-Kyem A, Pahwa P, Karunanayake C, Koehncke N, Rennie D. Hearing and Lung Health: Results of an Occupational Health Surveillance Program for Saskatchewan swine workers. 11th Canadian Rural Health Research Society Conference, Lévis, Quebec, October 25-27, 2012.

Kosteniuk J, Morgan D, Crossley M, O'Connell M, Kirk A, Stewart N, Dal Bello-Haas V, Forbes D, Innes A, Keady J, Vaitheswaran S, Murdoch A. Rural Dementia Action Research (RaDAR) Team: Report on a Community-Based Primary Healthcare Team Grant Planning Session. **Presented:** Alzheimer's Association International Conference 2012, Vancouver, BC, July 14-19, 2012.

Lacny C, Kirk A, Morgan D, Karunanayake C. Predictors of severity of cognitive impairment in rural patients presenting to a memory clinic. **Presented:** American Academy of Neurology. New Orleans, LA, April 21-28, 2012.

Lawson J, Kirychuk S, Bryce R, Pahwa P, Karunanayake C, Hagel L, Rennie DC, Dosman J. On behalf of the Saskatchewan Rural Health Study (SRHS) Research Group. Shortness of breath associated with chronic conditions among those with and without asthma or COPD. European Respiratory Society Annual Congress, Vienna, Austria, September 1-5, 2012.

Morgan D, Kosteniuk J, Cammer A. A systematic review of primary healthcare models for dementia. **Presented:** Canadian Association on Gerontology, Vancouver, BC, October 18-20, 2012.

Neufeld KM, Karunanayake CP, Maenz LY, Rosenberg AM. Stressful life events antedating chronic childhood arthritis. Child Health research Trainee Day, University of Saskatchewan, Saskatoon, SK, April 11th, 2013.

Pahwa P, Hagel L, Karunanayake C, Pahwa P, Lawson J, Rennie DC, Dosman JA. Determinants of Self-perceived health of farming and non-farming rural people of Saskatchewan. 11th Canadian Rural Health Research Society Conference, Lévis, Quebec, October 25-27, 2012.

Rennie DC, Karunanayake CP, Pahwa P, Lawson J, Hagel L, Gjevre JA, Dosman JA, and the Saskatchewan Rural Health Study (SRHS) Research Group. Prevalence of sleep apnea and risk factors of subjective sleepiness in a rural population: Saskatchewan Rural Health Study. American Thoracic Society International Conference ATS, San Francisco, California, USA, May 18-23, 2012, .

Rai M, Lawson J, Karunanayake C, Dosman J, Pahwa P. Prevalence and associated risk factors of prostate cancer among rural men of farm and non-farm dwellers: the Saskatchewan Rural Health Study. Canadian Society for Epidemiology and Biostatistics 2012 CSEB National Student Conference, Saskatoon, SK, May 13-14, 2012.

Rai M, Hagel L, Karunanayake C, Pahwa P, Lawson J, Rennie DC, Dosman JA. Saskatchewan Rural Health Study: Knowledge translation in respiratory illnesses. 11th Canadian Rural Health Research Society Conference, Lévis, Quebec, October 25-27, 2012.

Rezaei E, Karunanayake C, Rosenberg A. Biology based approach to evaluate current classification criteria for Juvenile Idiopathic Arthritis (JIA). Child Health research Trainee Day, University of Saskatchewan, Saskatoon, SK, April 11th, 2013.

Slaughter S, Morgan D. Validating the professional environment assessment protocol: Nursing home milieu and resident mobility. **Presented:** Gerontological Society of America, San Diego, CA, Nov 14-18, 2012.

Slaughter S, Morgan D. Nursing homes characteristics associated with the walking ability of residents with dementia: Validation of the Professional Environment Assessment Protocol. **Presented:** International Conference on Aging, Mobility, and Quality of Life, Ann Arbor, MI, June 24-26, 2012.

Trask C, Mathiassen SE, Wahlstrom J, Heiden M. Getting what we pay for: comparing the cost efficiency of direct and observed trunk posture methods[abstract]. Paper presented at: PREMUS; Busan, Korea, July 8-11, 2013.

Trask C. Musculoskeletal risk factors of intensive swine operations: the Ergo-pig project[abstract]. Paper presented at: PREMUS; Busan, Korea, July 8-11, 2013

FACULTY, STUDENTS & STAFF NEWS & AWARDS

- **Dr. Debra Morgan:** As a part of her 2013 sabbatical, Dr. Morgan travelled to the United Kingdom where she had opportunity to meet with researchers investigating access to dementia care for people living in rural areas of the UK. Her travels in February and March took her to Aberdeen Scotland, and a variety of locations in England: Bournemouth University Dementia Institute (BUDI), Age UK (Dorchester), and City University London.
- **Dr. Debra Morgan** was designated a Visiting Professor at Bournemouth University, School of Health & Social Care, from December 2012 to December 2015.



Debra with BUDI Seminar group in UK

- **Dr. Debra Morgan** was awarded the University of Saskatchewan, Department of Medicine Research Award silver medal for her research progress over the past year.
- **Dr. Morgan** and team received approval of their Letter of Intent (LOI) for CIHR's Roadmap Signature Initiative in Community-Based Primary Healthcare. 35 of 78 applicants were approved. The CIHR Roadmap Signature Initiative in CBPHC will support researchers to conduct original research on innovative models of care delivery, build capacity for research excellence, and translate evidence for uptake into practice and policy. The actual application deadline was October 22, 2012.
- **Drs. Josh Lawson & Donna Rennie** were awarded a CIHR Planning grant for "Childhood Asthma: An International Research Initiative". The grant is to host a meeting in Krakow, Poland with the investigators from Belarus, Ukraine, and Poland as part of the BUPAS project.
- **Dr. George Katselis** was appointed Assistant Professor in June 2012.

- **Dr. Catherine Trask** was awarded a Tier 2 Canada Research Chair in Ergonomics and Musculoskeletal Health to address musculoskeletal disorders for the first time among agricultural workers. In addition she received a 5 year Canadian foundation for Innovation grant to purchase equipment for the Ergonomic Lab.



- **Dr. Catherine Trask** was winner of the 2012 Saskatchewan Health Research Foundation Top establishment Grant, Socio-Health, for the grant: *Risk Factors for Low Back Disorder in Saskatchewan Farmers; Building a Foundation for Epidemiological Studies.*

HIGHLIGHTS:

CCHSA's future home in the Academic Health Sciences Centre, University of Saskatchewan



Pictures taken in July 2012



Building Photos by: Bizetto
Annual Report compiled & designed by Sueli B. de Freitas
Edited by: Maura Gillis-Cipywnyk