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SPHERU is a bi-university interdisciplinary research unit committed to critical population health research. We currently have ten faculty researchers, four associate researchers and a post doctoral fellow, working from the Universities of Regina and Saskatchewan and based out of three Saskatchewan sites: at the main campus of both universities and a satellite office and research lab in Prince Albert, Saskatchewan.

Established in 1999, SPHERU is the first bi-university health research unit of its kind in Saskatchewan. Funding for SPHERU comes in the main from project-specific grants, such as our Phase III Health Research Group Grant from the Saskatchewan Health Research Foundation (SHRF), as well as from other provincial and national health research funding agencies. SPHERU also does some contract policy and evaluation research funded by governments and non-governmental agencies that fits within our mission.

The unit’s mission – the promotion of health equity by understanding and addressing population health disparities through policy-relevant research – is incorporated into all of our research projects. SPHERU research is categorized by four inter-related types:

- The creation of new knowledge;
- Independent policy analysis;
- Collaborative research with policy makers around shared research questions and evaluation of policies and programs; and
- Collaboration with communities on strategies to reduce health inequities.
SPHERU receives funding from a variety of sources that changes from year to year. In addition to small grants from its two university partners that help defray the administrative costs associated with the unit’s operation, the majority of SPHERU’s funding comes in the form of project-specific grants from provincial and federal health funding agencies. Key among these are the Phase III Health Research Group Grant from SHRF and Operating Grants from the Canadian Institutes of Health Research (CIHR), held by one or more researchers affiliated with the unit. As well, SPHERU has been awarded smaller-focused grants for conferences, knowledge translation activities, training, project development and the like from SHRF, CIHR, and its partner universities. From time to time, SPHERU conducts contract research on behalf of governments and non-governmental agencies that align with SPHERU’s overall mission and also conducts program evaluations in the area of population health. All of these sources of funding combine to sustain the unit and provide researchers the necessary administrative and infrastructure supports necessary to fulfill its mission.

Health research is a major focus for the University of Regina, with world-class researchers conducting leading-edge studies in aging, long-term care, pain assessment and management, cancer research, population health, rehabilitation and risk reduction, rural health, and northern health. Work at the University of Regina includes a multi-disciplinary study of the impact of health determinants on populations, as well as research on policy and program interventions designed to improve health determinants and provide equitable access to health services. Through the provision of funding and office space in Prince Albert and Regina, the University continues to support SPHERU in its work to produce high-quality, policy-relevant research.

The University of Saskatchewan, through its involvement with SPHERU, is helping to redefine the way people think about health determinants and to chart new territory in actively engaging communities, non-governmental organizations, and policy makers in the research enterprise. With a wide range of health science colleges and programs, the University of Saskatchewan is committed to expanding health research. The university contributes to SPHERU’s funding and is home to SPHERU’s Saskatoon-based researchers and staff. This relationship, along with an association with the College of Medicine, affords SPHERU opportunities to expand its research and continue to achieve its goals.
MESSAGE FROM THE DIRECTOR

This has been something of a different year for SPHERU, marked as much by transition and change as by a continuation of the work we have pursued for well over a decade.

I am coming to the end of my term as Interim Director with both a feeling of relief that I got through it and a degree of pride that the unit has laid the groundwork for a transition to a new Director and somewhat different model of operating. I am pleased to pass on the Directorship to Dr. Nazeem Muhajarine of the Department of Community Health and Epidemiology at the University of Saskatchewan. Nazeem is a long-time SPHERU researcher, and his enthusiasm and commitment to the unit’s mission is unmatched. We will be in good hands.

On the operational side, SPHERU has worked hard in the past year to come to grips with a changing reality of how we carry out our collective enterprise. As the nature of our funding has changed in recent years, this has meant a new approach to funding the project management and support operations so crucial to SPHERU’s success. Over the next few years, our goal is to sustain those important supports by the faculty committing to collectively and cooperatively funding those operations out of the individual grants each receives. It is that commitment from my fellow faculty researchers at SPHERU that will allow us to continue our mission of undertaking high-quality population health intervention research in the areas of children’s, northern, Aboriginal, and rural health in Saskatchewan.

It has also been a year of transition for research personnel. We have welcomed new colleagues at both the University of Regina and the University of Saskatchewan. Again, these transitions are important for the revitalization of any research enterprise and even more so for one well into its second decade. For me the desire of new faculty to join us and bring their own research under our umbrella demonstrates how important our past work has been and how bright the unit’s future is. And while all these transitions have played themselves out during this past year, this report is evidence that the research enterprise did not come to a halt. We can point to significant progress on our existing research program and the expansion into new areas. The commitment to policy-relevant community-based research on population health interventions is evidenced in the pages that follow.

Finally, I want to thank not only my faculty colleagues for their support during this past year, but especially the project management, support, and KT staff of the unit who did so much to lighten my load and allow me to focus on these important transitions.

Tom McIntosh, PhD
Interim Director, SPHERU
MANAGEMENT ADVISORY GROUP

Representing both the University of Saskatchewan and the University of Regina, the Management Advisory Group (MAG) provides advice and direction to SPHERU on management level issues. The group consists of senior university administrators who are appointed by the Vice-Presidents Research at both universities.

The management of SPHERU is guided by a Memorandum of Understanding (MOU) signed by the University of Regina and the University of Saskatchewan. This MOU outlines the cooperative agreement to support the work of SPHERU and highlights the role of the Management Advisory Group in providing consultation and advice to the director and members of SPHERU.

The members of this group meet with SPHERU’s director at bi-annual meetings, which allow for an update of research and financial activities of the Unit as well as the provision of collegial support to the research program.

For this last year, the MAG consisted of Dr. M.E. (Beth) Horsburgh, Dr. Dennis Fitzpatrick, Dr. Jim Thornhill, and Dr. Craig J. Chamberlin.

The ultimate aim of the MAG is to help SPHERU and its researchers in their work with communities, government agencies, and other academics and institutions to improve the health of our communities and inform dialogues on population health and its many facets.
RESEARCH FACULTY

TOM MCINTOSH, PH.D.
Dr. McIntosh brings expertise on public policy making and knowledge transfer and exchange to numerous SPHERU projects, most notably his work on the political and economic components of SPHERU’s historical analysis of population health in Saskatchewan. Dr. McIntosh is a professor and head of the Department of Political Science at the University of Regina.

SYLVIA ABONYI, PH.D.
Dr. Abonyi is an anthropologist working primarily in the area of Aboriginal health. She explores the role of culture in health through a number of research projects in northern and remote areas of Saskatchewan and across the Prairies. She is an associate professor with the University of Saskatchewan’s Community Health and Epidemiology Department and a Canada Research Chair in Aboriginal Health.

JAMES DASCHUK, PH.D.
Dr. Daschuk is an historian with a background in anthropology. He has been researching and teaching in the field of Aboriginal health for nearly twenty years, and is working on the SPHERU team project analyzing the history of health inequities in Saskatchewan. He is an assistant professor in the Faculty of Kinesiology and Health Studies at the University of Regina.

PAUL HACKETT, PH.D.
Dr. Hackett’s interests focus on the impact of cultural change on community health. His research includes Type 2 diabetes among First Nations in Saskatchewan and Manitoba, and the history of tuberculosis among western First Nations. He is also team lead on the SPHERU project looking at the origins and import of health inequities in Saskatchewan. He is an assistant professor with the University of Saskatchewan’s Department of Geography and Planning.

BONNIE JEFFERY, PH.D.
Dr. Jeffery has been a research faculty member since 2000. As a social work educator, she has maintained a long-standing commitment to access to post-secondary professional education for rural and northern residents. Dr. Jeffery’s research work is concentrated primarily in the Northern and Aboriginal Health and Rural Health research themes.
SHANTHI JOHNSON, PH.D.
Dr. Johnson is a professor and Associate Dean (Research and Graduate Studies) in the faculty of Kinesiology and Health Studies at the University of Regina. Her work covers epidemiological research related to the surveillance and monitoring of falls and fall-related injuries among seniors, and intervention research on the understanding of the underlying mechanisms associated with falls among seniors in community and long-term care settings.

DIANE MARTZ, PH.D.
Dr. Martz works in the area of rural women’s health with a focus on the social, economic, and cultural dimensions of rural health. She is an associate professor with the Department of Geography and Planning at the University of Saskatchewan, and Director of the Research Ethics Office.

NAZEEM MUHAJARINE, PH.D.
Dr. Muhajarine is a social epidemiologist and leads SPHERU’s Healthy Children research program. His work includes researching questions related to community and family contextual influences in child development and health, risk in the prenatal period, and developing community-university research partnerships to improve knowledge creation, transfer, and application. He is a professor and department head of Community Health and Epidemiology, University of Saskatchewan.

NUELLE NOVIK, PH.D.
Dr. Novik is an assistant professor with the Faculty of Social Work at the University of Regina. Prior to joining the unit in 2013, she worked with SPHERU as co-investigator on the Role of Social Systems in the Health of Seniors Living in Rural Saskatchewan pilot project. Her research interests include social determinants of health and equity, rural and remote practice in health and social services, aging and seniors, mental health, community-based research, and palliative care and bereavement.

NAZMI SARI, PH.D.
Dr. Sari is a health economist with specific research interest in quality and efficiency issues in hospital markets, provider reimbursements and health care financing reforms, and the economics of smoking and physical activity. He is an associate professor in the Department of Economics with the University of Saskatchewan.
GLORIA DESANTIS, PH.D.
Dr. DeSantis is a research associate as well as a post doctoral fellow in the area of socio-health. She has been an instructor in Health Studies, Justice Studies, and Graduate Public Policy at the University of Regina. Her interest in socio-health is a result of her twenty years of work and volunteering in the non-profit social service sector.

MARY HAMPTON, PH.D.
Dr. Hampton’s research interests are focused on developing materials to increase cross-cultural knowledge and facilitate delivery of culturally appropriate end-of-life care for Aboriginal families. She is the Saskatchewan Research Coordinator for Research and Education Solutions to Violence and Abuse (RESOLVE) and a professor in the Department of Psychology with Luther College, University of Regina.

CORY NEUDORF, PH.D.
Dr. Neudorf joined SPHERU as a research associate in January 2013. He is an assistant professor in the Department of Community Health and Epidemiology at the University of Saskatchewan. He is Chief Medical Officer of Health for the Saskatoon Health Region and collaborated with SPHERU to produce the Healthy Families, Healthy Communities report. His research areas of interest include intervention research, healthy children, and health inequities.

PAMMLA PETRUCKA, PH.D.
Dr. Petrucka’s research interests include Aboriginal health, rural women’s health, informatics in health care, and global health. She currently leads/co-leads various community-based research projects with Aboriginal groups in Saskatchewan. Dr. Petrucka is an associate professor at the University of Saskatchewan’s College of Nursing.

SARAH OOSMAN, PH.D.
Dr. Oosman is a post-doctoral fellow and physiotherapist working in the area of health promotion with a specific interest in community-based health intervention research in partnership with Aboriginal communities. She is interested in working with communities to develop and implement culture-based health promotion programs in order to positively influence health across the lifespan.
ADMINISTRATIVE AND RESEARCH STAFF

JUANITA BACSU, PROJECT COORDINATOR
UNIVERSITY OF SASKATCHEWAN
Juanita has been project coordinator for SPHERU team projects since 2009. She is completing her PhD in Community Health and Epidemiology at the University of Saskatchewan. She is currently working on the Healthy Aging in Place and History of Public Health and Health Care in Saskatchewan team projects.

MIKE CHOUINARD, KT OFFICER
UNIVERSITY OF SASKATCHEWAN
Mike joined SPHERU as knowledge translation officer in April 2011. He has also been managing editor of the Healthy Children team’s website, kidSKAN.ca, since September 2010.

DIANA FEDOSOFF, RESEARCH OFFICER
UNIVERSITY OF SASKATCHEWAN
Diana has been a member of SPHERU since 2002. She is research officer for Dr. Sylvia Abonyi and manages Dr. Abonyi’s research program by coordinating administrative, financial, and research activities on various projects.

FLEUR MACQUEEN SMITH, KT MANAGER
UNIVERSITY OF SASKATCHEWAN
Fleur is the knowledge transfer manager in the Healthy Children research program. She works with academics and decision makers to share research findings and best practices through kidSKAN, the Saskatchewan Knowledge to Action Network for early childhood development (kidskan.ca), which she coordinates.

KATHY MCMULLIN, PROJECT MANAGER
UNIVERSITY OF SASKATCHEWAN
Kathy joined SPHERU in 2006 as project coordinator, working on research projects targeted at reducing the spread of tuberculosis. She is currently the project manager on the First Nations Lung Health Project, based at the Prince Albert SPHERU Population Health Research Lab.

TARA TODD, RESEARCH SECRETARY
UNIVERSITY OF REGINA
Tara joined SPHERU in 2011 as a research assistant, working with Dr. Gloria DeSantis and Dr. James Daschuk. Since completion of her health studies degree, she has expanded her role to include both research assistance and administrative support at the Regina office.

JESSICA TRAWIN, RESEARCH SECRETARY
UNIVERSITY OF SASKATCHEWAN
Jessica joined SPHERU in 2011 as the research secretary at the Saskatoon site. Her role with SPHERU is to provide administrative support to the research unit at the University of Saskatchewan and support SPHERU’s knowledge translation strategies.

COLLEEN HAMILTON, ADMINISTRATIVE COORDINATOR
UNIVERSITY OF REGINA (PRINCE ALBERT CAMPUS)
Colleen has been with SPHERU since 2002, located at the SPHERU Prince Albert site. She has worked as project coordinator on a number of research projects and is now the unit’s Administrative Coordinator.
PROJECT STAFF

UNIVERSITY OF REGINA

Andrea Scerbe – Research Officer

Research Officer Andrea Scerbe at U of R

UNIVERSITY OF SASKATCHEWAN

Thilina Bandara – Research Assistant
Kathryn Green – Professional Research Associate
Joel Heitmar – Research Assistant
Amanda Kirby-May – Research Assistant
Kathleen McMullin – Project Coordinator
Chelsea Millman – Research Assistant / Clerical Assistant
Tracy Ridalls – Research Officer
Stephanie Rideout – Research Assistant
Jennifer Schmidt – Research Assistant
Jeffrey Smith – Professional Associate
Mohsen Soltanifar – Research Assistant
Sharmeen Zahir – Research Assistant

UNIVERSITY OF REGINA

Andrea Scerbe – Research Officer

Research Officer Andrea Scerbe at U of R

UNIVERSITY OF SASKATCHEWAN

Thilina Bandara – Research Assistant
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Amanda Kirby-May – Research Assistant
Kathleen McMullin – Project Coordinator
Chelsea Millman – Research Assistant / Clerical Assistant
Tracy Ridalls – Research Officer
Stephanie Rideout – Research Assistant
Jennifer Schmidt – Research Assistant
Jeffrey Smith – Professional Associate
Mohsen Soltanifar – Research Assistant
Sharmeen Zahir – Research Assistant

RESEARCH TRAINEES

UNIVERSITY OF SASKATCHEWAN

Peter Boateng Opoku – Masters
Jethro Cheng – Masters
Stephen Cook – PhD
Le Ha – PhD
Shan Jin – Masters
Tarun Katapally – PhD
Jostein Kevinsen – Masters
Natalie Ludlow – PhD
Stacey McHenry – Masters
Daphne McRae – Masters
Sheria Myrie – PhD
Ana Novakovic – Masters
Sujani Sivanantharajah – Masters
Brinn nameade Smith – Undergraduate
Sugandhi Wickremarachchi – PhD
Orhan Yilmaz – Undergraduate

UNIVERSITY OF REGINA

Stacey Duncan – Undergraduate
Jonathan Harris – Masters
Amanda Kirby-May – Masters
Samantha Levin – Undergraduate
Katherine McLeod – PhD
Tara Todd – Undergraduate
Carolyn Tran – Masters

Research Trainees Sheria Myrie and Natalie Ludlow at U of S
WHAT WE DO

SPHERU’s work includes the creation of new knowledge, independent policy analysis, collaborative research with policy makers, and collaboration with communities to develop strategies to reduce health inequities. Our research falls within the following areas:

- Northern and Aboriginal Health
- Healthy Children
- Rural Health
- History of Health Inequities
- Intervention Research

Our researchers take a collaborative approach to population health research by working with communities and policy makers through: mobilizing and building upon the expertise of our researchers, students, trainees, and research partners; ensuring our research questions and results are relevant to improving the health of Saskatchewan residents; and exchanging our research knowledge through engagement with communities and policy makers.

NORTHERN AND ABORIGINAL HEALTH

All over, Indigenous peoples continue to show disproportionate disparities in most social and health indicators when compared with other populations. SPHERU’s work on Northern and Aboriginal Health is grounded in this global context.

We know culture is an important determinant when looking at the health of Aboriginal people in Canada, and our projects explore the role of culture and how it affects health. This highlights the importance of developing culturally relevant definitions of health, as well as appropriate health indicators.

These areas of research are new and still unfolding, and we recognize there are limits on our understanding of culture and health. We also need to better understand how culture intersects with more-defined determinants – income, social status, education, and employment.
HEALTHY CHILDREN

What happens to children not only has effects on their long-term health and well-being but on society as a whole.

Some evidence has shown that broad social influences – for example, a neighbourhood in which the child grows up – affect children’s health and well-being, though to a lesser degree than the individual differences among children. Recent studies of child health outcomes, however, are finding children could be more deeply affected by social, economic, or other factors than was previously understood.

SPHERU’s work in the area of Healthy Children provides a deeper understanding of how various contexts – family, neighbourhood social and physical environments, schools – play a crucial role in determining the health and development of children.

HISTORY OF HEALTH INEQUITIES

Saskatchewan has historically shown some of the most extreme health outcome disparities in Canada, especially when comparing First Nations with non-Aboriginal populations, or rural with urban populations.

SPHERU is looking at a range of historical data collections to understand how health changed over the course of the twentieth century, how it varied between communities, and how the lessons of the past could assist modern policy makers to reduce health inequities.
Despite urbanization, much of Saskatchewan’s population still lives in rural areas. These areas have been hurt by economic restructuring in farming and forestry, young people moving away, deteriorating infrastructure, and restructuring of health and education services.

Government cutbacks in health and social services have led to a decline of primary services in communities, and in turn have forced communities to look to community groups and residents to provide care and services to a population that is aging. One result of these developments is that rural people’s health status is relatively poor when compared with that of people in urban communities.

A key approach to our work is that SPHERU research is not simply conducted on rural communities but is done in conjunction with these communities. The rationale is that to best bring about change at the local level, it is important to involve local partners early and often.

SPHERU’s work has collectively addressed the growing issue of health inequity through population health research. Building on this knowledge and expertise, we will now address the health impact of current and historical interventions through innovative population health intervention research.

Our focus moves to investigating the health impact of current and historical interventions and addresses the growing criticism that population health research has not substantially contributed to effective responses, as seen by the growing health disparities between populations.
SPHERU brings researchers together in an environment that promotes and supports collaboration among academics and between academic and community partners. Researchers developing projects are able to draw on their colleagues’ disciplinary expertise, experience, and relationships that they have with other researchers, policy makers, and community members.

SPHERU’s knowledge translation and exchange activities are conducted as an integral part of our collaboratively driven research strategy. We begin by identifying potential users of research, involving them throughout the process. Our knowledge translation and exchange includes:

- Publishing research findings in more accessible, plain language documents;
- Using videos and new media to share findings;
- Developing toolkits of findings for communities to use as resource guides;
- Developing research networks for knowledge exchange; and
- Delivering and participating in presentations, forums, and expert dialogues.

**SHRF VIDEO**

SPHERU’s Shanthi Johnson and Nazeem Muhajarine were each featured in a promotional video from the Saskatchewan Health Research Foundation highlighting the province’s success stories in health research. The short video mentions Johnson’s work on how home-based exercise is improving functional capacity and reducing falls and fall-related fractures among seniors. It also cites Muhajarine’s work looking at how families, communities and society can affect children’s development through programs or policies, to promote healthy environments in which children can grow.
HEALTHY AGING IN PLACE

There were numerous KT examples for the research group grant project this past year. Among them were two articles in peer-reviewed journals: Activities, Adaptation & Aging, and Journal of Rural Nursing and Healthcare; and conference presentations at Aging in America, ASA Conference in Chicago, the Canadian Rural Health Research Society: 11th Conference in Levis, Quebec, and the 41st Annual Scientific and Educational Meeting in Vancouver.

The team kept in touch with its communities through a regular newsletter, a Facebook page, and presentations in Wolseley and Watrous in May and June, respectively. There were also two presentations in Saskatoon, to the Saskatchewan Seniors Association Annual Convention last June and the Ministry of Health and Saskatoon Health Region in February. As well, in January, the team produced a report of findings from a longitudinal study, based on two years of interviews in the two communities.

AWARENESS, ACTION AND ACHIEVEMENT: A REPORT ON MET-SYN – A COMMUNITY-BASED, EXPLORATORY PILOT PROJECT FOR WOMEN WHO HAVE METABOLIC SYNDROME

This report co-authored by Dr. Bonnie Jeffery of SPHERU evaluates a pilot project in Saskatoon aimed at reducing the incidence of diabetes in women. Metabolic syndrome is an internationally recognized clinical diagnosis indicating an individual has a cluster of factors for Type 2 diabetes, as well as cardiovascular disease. From June 2010 through November 2011, an exploratory pilot project – MetSyn – aimed at reducing the likelihood that women with a diagnosis of metabolic syndrome will develop diabetes was conducted in Saskatoon. The evaluation assessed measures of clinical and lifestyle change, as well as a Building Awareness Phase of the project. It found the program did result in positive changes of metabolic syndrome factors or lifestyle measures among many of the women.

COMPLETING THE CIRCLE

The Completing the Circle project has a new website to share videos and publications concerning culturally sensitive end-of-life care with Aboriginal families. Mary Hampton is the principal investigator for Completing the Circle, whose research team includes Elders from Saskatchewan First Nations, Aboriginal and non-Aboriginal graduate and undergraduate students, faculty from the First Nations University of Canada, Luther College and the University of Regina, and Aboriginal and non-Aboriginal health care providers.
SMART CITIES, HEALTHY KIDS

The Smart Cities, Healthy Kids team has given formal presentations, produced a series of fact sheets and hosted a riding tour of downtown bike lanes and trails last June in conjunction with Saskatoon Cycles. In October, they put on a full-day workshop at the University of Saskatchewan that looked at everything from mapping neighbourhoods for their activity potential to redesigning local streets to practising unstructured play.

In the last year, Smart Cities launched its new website, www.smartcitieshealthykids.com. The built environment study was also the subject of a special supplement in the Canadian Journal of Public Health. The November/December 2012 issue includes several articles authored or co-authored by Nazeem Muhajarine.

HEALTHY AGING THROUGH THE EYES OF RURAL SASKATCHEWAN SENIORS: FACTORS THAT SUPPORT AGING IN RURAL SASKATCHEWAN

Representing SPHERU, Sarah Oosman presented a Healthy Aging in Place poster, “Healthy Aging Through the Eyes of Rural Saskatchewan Seniors: Factors that Support Aging in Rural Saskatchewan,” at the Canadian Association on Gerontology conference. The theme of the event, held in Vancouver Oct. 18-20, was “Aging in a Changing World.” Oosman co-authored the poster with Bonnie Jeffery, Juanita Bacsu, Nuelle Novik, Sylvia Abonyi, and Shanthi Johnson. Over 700 delegates attended, including health care professionals, community leaders, researchers, government representatives, national organization executives, and seniors.

COMMUNITY VOICES: BUILDING A FOUNDATION

SPHERU researchers collaborated with the Rosetown Regional Family and Community Services to determine the supports needed for people within the community. The Community Voices: Building a Foundation for the Future study is a multi-method project, which included such elements as an environmental scan, semi-structured interviews and focus groups. The findings highlighted four groups in Rosetown as having priority needs: young families, teenagers, seniors, and people new to the community. It resulted in three reports: an environmental scan of the community; a toolkit documenting the project’s methods and approaches; and a final report summarizing the research findings. Throughout the project, the research team used innovative knowledge translation strategies, including an information table at a community trade show; fact sheets; media releases; radio and newspaper coverage; informational posters; a community presentation; and online dissemination of research findings.
USING RESIDENTIAL SCHOOL ENTRANCE EXAMINATIONS TO ASSESS YOUTH BMI IN MANITOBA AND SASKATCHEWAN FIRST NATIONS COMMUNITIES, 1930-50

In November, SPHERU faculty Paul Hackett and Sylvia Abonyi presented at the annual meeting of the Canadian Association of Physical Anthropologists, in Victoria, B.C. The topic was “Using Residential School Entrance Examinations to Assess Youth BMI in Manitoba and Saskatchewan First Nations Communities, 1930-50.” For this presentation Hackett and Abonyi reviewed an innovative way to calculate values for the body mass index of First Nations youth during a critical period of dietary and cultural change in western Canada. The work is part of SPHERU’s research group grant project, The Origins and Import of Health Inequities in Saskatchewan 1905-1985.

BUILDING SOCIAL CAPITAL AS A PATHWAY TO SUCCESS

When SPHERU conducted an evaluation of the Saskatchewan’s KidsFirst program a few years ago, the idea of social capital was not part of the original discussion, but the theme of “relationship building” kept recurring during the evaluation. KidsFirst is a federally funded, provincially run intervention program that provides services and support to vulnerable families in nine areas of the province identified as having “high needs.” Home visits are a key feature.

The discussion of the program’s social capital forms the subject of an article that Nazeem Muhajarine and Bonnie Jeffery co-authored with Hongxia Shan and Kristjana Loptson. The piece, “Building social capital as a pathway to success: community development practices of an early childhood intervention program in Canada,” was published in Health Promotion International.

HEALTHY FAMILIES + HEALTHY COMMUNITIES = HEALTHY CHILDREN

Nazeem Muhajarine, head of the Healthy Children research program, and Fleur Macqueen Smith, the program’s knowledge transfer manager, collaborated with Cory Neudorf, as Chief Medical Health Officer for the Saskatoon Health Region, and staff at the Public Health Observatory to release this report examining the vulnerability of children entering kindergarten – in other words, whether they are ready for school. The report includes recommendations to lower the vulnerability rate. These include developing a province-wide, cross-ministerial and regional intersectoral early childhood strategy, focusing on family needs with increased supports for parenting and access to services like child care, a holistic approach to meeting the needs of Aboriginal families, and monitoring tools to measure progress over time.
MENTORING ABORIGINAL YOUTH

James Daschuk was heavily involved in two mentoring projects for Aboriginal youth this past year.

The Aboriginal Youth Leadership Camp brought together Aboriginal high school students for a focused three-day event to learn about leadership from a team of mentors, including University of Regina President Vianne Timmons, Jacob Pratt (Cote First Nation, FNUC), Colby Tootoosis (Poundmaker First Nation) and CBC journalist Wab Kinew. The program was put together by Jennifer Love Green, the student advisor in Kinesiology and Health Studies (KHS).

Daschuk was an organizer of another KHS initiative, Sports for Life. The event, targeting First Nations and Métis youth, highlights the importance of sports and health for personal development and educational accomplishment and success. Turnout for the conference exceeded expectations, and it received media attention from CBC and the Regina Leader-Post. It featured a line-up of successful athletes, including former NHL legend Reggie Leach as keynote speaker.

MAKING A CASE FOR FALLS PREVENTION IN SENIORS

This presentation given by Shanthi Johnson took place on March 22, 2013 at the University of Regina and was also videoconferenced to an audience at the University of Saskatchewan.

In it, she highlighted the epidemiological research related to the surveillance and monitoring of falls and fall-related injuries among seniors as well as the intervention research focusing on the understanding of the underlying mechanisms of factors associated with falls among seniors in community and long-term care settings. The challenges and opportunities in the area of injury prevention research also made up part of the discussion.

HACKETT ON RADIO NAHO

SPHERU researcher Paul Hackett was interviewed about his work for the “Healthy Living” episode on the Aboriginal Internet radio site, Radio NAHO. Hackett spoke about the growth of Type 2 diabetes among Aboriginal people.

For the episode, Hackett was interviewed along with a Mi’kmaq youth leader inspiring young people to get active through the sport of parkour and an Ojibwe women’s boxing champion. In his interview, Hackett provided historical context for Aboriginal health on the Prairies – for example, the relative rarity of Type 2 diabetes among the populations until the 1970s and 1980s. Currently, these Aboriginal communities show some of the highest rates in the world.
GIS AS A TOOL FOR POPULATION HEALTH RESEARCH – PAST, PRESENT & FUTURE

SPHERU took part in the third annual GIS & Data Expo on Nov. 14 hosted by the University of Regina Archer Library, as part of International GIS Day. Our faculty from the University of Regina and the University of Saskatchewan once again celebrated geographic information systems – the data available to researchers who work with spatial and numeric social science quantitative data.

This year the two projects featured on the SPHERU poster were “The Smart Cities, Healthy Kids Food Landscape Study: How close are Saskatoon neighbourhoods to healthy foods”, and “Building a baseline for measuring impact on public policy interventions on tuberculosis rates in Saskatchewan”.

MAMA KWANZA

Pammla Petrucka, Diane Martz, and Bonnie Jeffery are working with the Mama Kwanza (Women First) Socio-economic/Health Initiative, an integrated, intersectoral approach to the Maternal, Infant, and Child Health continuum in Tanzania’s Arusha region. The primary goal is to co-construct, co-deliver and co-evaluate a holistic model for responsive, sustainable MICH Socio-economic and Health programs and services in the Arusha region. The target group is economically and socially marginalized women that assume the primary responsibility for the physical and financial well-being of themselves and their children.

ALBERTA CENTRE FOR ACTIVE LIVING’S RESEARCH UPDATE

The Alberta Centre for Active Living (www.centre4activeliving.ca/) publishes Research Update summarizing and promoting research of interest to academics and practitioners in health promotion and physical activity.

Confronting Health Disparities: University of Regina Promotes Sports for Life and Aboriginal Youth Leadership Camp (Vol. 19 / No. 3 September 2012) discusses the work of Dr. James Daschuk and others at the University of Regina to promote health, athletics, and leadership to Aboriginal youth.

A Snapshot of Regina’s Organizations at Work on the Determinants of Community Well-being (Vol. 19 / No. 4 December 2012) discusses Dr. Gloria DeSantis’s study looking at community-based social service organizations in Regina, in relation to several determinants of community well-being.
Funding from a three-year Phase III team grant from the Saskatchewan Health Research Foundation, as well as from the Universities of Saskatchewan and Regina, has allowed SPHERU researchers to focus on two multi-dimensional projects to meet our goal of addressing inequities by taking action on the social determinants of health.

Researchers are working closely with community members and leaders in the towns of Wolseley, Watrous and Ile a la Crosse, exploring the history of health care in each community and the supports needed by rural, northern, and Aboriginal seniors as they age. Understanding these issues will help inform policy that addresses the historical health inequities of these population groups, and assist communities to put in place the necessary supports to allow residents to remain in the community throughout their senior years.

**SHRF Phase III Health Research Group Grant 2011 - 2014**

Bonnie Jeffery, Principal Investigator; Nazeem Muhajarine, Co-Principal Investigator
**History of Public Health and Health Care in Saskatchewan: The Origins and Import of Health Inequities in Saskatchewan 1905-1985**

*SPHERU Researchers: Paul Hackett (project lead), James Daschuk, Gloria DeSantis, Tom McIntosh*

Despite Saskatchewan’s longstanding commitment to providing health care for all, the province manifests some of the most extreme disparities in health outcomes in the nation. These disparities have been long entrenched, yet ongoing attempts to achieve a solution have been largely historical. This project seeks to understand the root causes of these current health inequities through the use of an historical approach. This approach will identify the past patterns of health in Saskatchewan, how they have changed over time, and how key medical, policy, and other interventions impacted, and were impacted by, the inequitable distribution of health supports for specific sub-populations.

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**Healthy Aging in Place: Improving Rural and Northern Aboriginal Seniors’ Health Through Policy and Community-Level Interventions**

*SPHERU Researchers: Bonnie Jeffery (project lead), Sylvia Abonyi, Juanita Bacsu, Shanthi Johnson, Diane Martz*

Seniors are one of the fastest growing population groups in Saskatchewan, which makes understanding their health needs of vital importance. Rural and northern communities in Canada are facing escalating challenges in meeting the health care needs of an aging non-Aboriginal and Aboriginal population. Using a model of population health intervention research, SPHERU researchers will identify effective interventions at the policy, community, and kin levels that support healthy aging in place for both non-Aboriginal and Aboriginal seniors. The project follows up on a SPHERU pilot project, The Role of Social Systems in Health of Seniors Living in Rural Saskatchewan.
RESEARCH PROJECTS (FUNDED 2012-13)

Along with the SPHERU Team Grant projects, SPHERU faculty members also hold grant funds as principal investigators or co-investigators on a number of projects related to SPHERU’s research themes. The following is a listing of some of the projects on which faculty are working collaboratively with researchers at Saskatchewan universities and other institutions throughout Canada and abroad.

**COMMUNITY VOICES: BUILDING A FOUNDATION FOR THE FUTURE**  
**SPHERU RESEARCHERS: BONNIE JEFFERY (PRINCIPAL INVESTIGATOR)**  
Mitacs-Accelerate ($7,500)  
Rosetown Regional Family and Community Support Services, Inc. ($7,500) 2012

This project involved collaboration between SPHERU researchers and the Rosetown Regional Family and Community Support Services (RRFCSS) to conduct a comprehensive community assessment. The multi-method project involved an environmental scan, semi-structured interviews, focus groups, and a community dialogue night, held to share study findings with the public and encourage collective discussion of community strengths, challenges, and future directions for Rosetown. The project supported a research mentoring opportunity for a masters student.

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**CREATING ACTIVE COMMUNITIES: THE BUILT ENVIRONMENT AND CHILDREN’S HEALTH INTERACTIVE WORKSHOP**  
**SPHERU RESEARCHER: NAZEEM MUHAJARINE (PRINCIPAL INVESTIGATOR)**  
Saskatchewan Health Research Foundation ($5,000) 2012

As part of the Smart Cities, Active Kids project, Creating Active Communities was a one-day interactive workshop held at the University of Saskatchewan on Oct. 13, 2012. It provided an opportunity for researchers in built environment and health to exchange knowledge and ideas with civic and municipal stakeholders and policy makers in Saskatchewan and other Canadian provinces about built environment research, and how it can impact children’s health. Built environment researchers from across Canada were given the opportunity to discuss the importance of health research and how it relates to planning policy in municipalities and explore possible partnerships and linkages between decision makers and the research community that can directly benefit community members and researchers alike.
**EVALUATION OF TELEHEALTH FOR THE ASSESSMENT AND FOLLOW-UP OF LUNG CANCER PATIENTS FROM RURAL SASKATCHEWAN**

**CHRISTOPHER HERGOTT, UNIVERSITY OF SASKATCHEWAN (PRINCIPAL INVESTIGATOR)**

**SPHERU RESEARCHER: NAZMI SARI**

Saskatchewan Health Research Foundation ($119,957) 2012 – 2015

In Saskatchewan, many lung cancer patients live outside of large medical centres and must travel long distances to see a specialist for assessment and diagnosis. This project will evaluate the potential for a telehealth lung cancer assessment clinic to improve rural patients’ access to assessment and diagnosis and provide evidence to support government funding of this initiative. Researchers will document patient satisfaction, potential cost savings, and diagnosis/treatment timelines. Telehealth uses videoconference equipment to conduct assessment and follow-up of patients and has been successfully used in other areas of medicine to improve access to care for patients in rural areas.

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**FOOD BANK UTILIZATION BY COMMUNITY-DWELLING SENIORS IN AN URBAN SETTING**

**SPHERU RESEARCHER: NUELLE NOVIK (PRINCIPAL INVESTIGATOR)**

Social Science and Humanities Research Council ($19,362) 2012 – 2013

Working in collaboration with three community service groups in Regina, this one-year pilot research project will seek to identify older adults who utilize community food security services, and/or who identify as being food insecure. Information will be gathered related to: how well current food bank and other programs and programs are meeting the needs of seniors; how easily seniors are able to access services; and how aware seniors are of the food security programs and services available to them. The research will identify current and developing needs of food insecure seniors that are not being met through existing programming.
The Good Food Junction: A community-based food intervention to reduce nutritional health inequities

Rachel Engler-Stringer and NazeeM Muhajarine (Principal Investigators)
SPHERU Researchers: Sylvia Abonyi, Cory Neudorf (Co-Investigators)

Canadian Institutes for Health Research ($10,000 Letter of Intent; $50,000 Operating)
Public Health Agency of Canada ($150,000) 2012 – 2015

The environments in which people live, work, and play have an important role in determining their health, including obesity and diabetes risk, and nutrition. The Good Food Junction, which opened in September 2012 is a 4,900-square-foot full-service not-for-profit grocery store containing a full range of fresh, frozen, and packaged foods. It is located in a low-income food desert neighbourhood in Saskatoon’s inner city. The goal of this two-year study is to understand and model how the introduction of this large community-based food program impacts the health of individuals and families. This research presents a unique opportunity to study and understand how transformation occurs from a food desert with poor health outcomes to neighbourhoods with healthy food and healthy citizens.
**Health inequality in Saskatchewan: Comparing small area aggregate data and individual linked data in urban and rural developments**

*SPHERU RESEARCHERS: Cory Neudorf (Principal Investigator); Nazeem Muhajarine (Co-Investigator)*

Saskatchewan Health Research Foundation ($120,000) 2012 – 2015

This study will examine the relative effect of individual- and area-level socio-economic factors on health inequalities. Analyzing health administrative data and survey data at both individual and aggregate levels will help researchers to define geographic areas of greater health inequalities within the province overall and within the targeted areas, and determine the inequality trends over time for selected health indicators. Through dissemination and discussion of the findings, the research will provide a better understanding of priorities and possible interventions at local, regional, and provincial levels. It will assist in determining potential policy and program options.

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**Informing the ‘Strategy against tuberculosis for First Nations On-Reserve’. Evidence from the Determinants of TB Transmission Project**

*Richard Long, University of Alberta (Principal Investigator)*

*SPHERU RESEARCHERS: Sylvia Abonyi and Paul Hackett (Co-Investigators)*

Canadian Institutes of Health Research ($200,000) 2013 – 2014

This project will analyze data from The Determinants of TB Transmission in the Canadian-born Population of the Prairie Provinces (DTT) through the lens of the newly launched 2012 Health Canada Strategy against Tuberculosis for First Nations On-Reserve. Since there was no Aboriginal TB patient consultation process in the development of the strategy, the DTT project interviews with Aboriginal TB patients will provide some of this missing perspective. This new analysis will provide evidence to promote engagement of First Nations communities, upon which the 2012 Strategy depends for success.
**Improving functional capacity and reducing falls among frail older adults: Delivery of exercise intervention through home care network**

*Spheru Researcher: Shanthi Johnson and Dawn McNeil (Principal Investigators)*

Canadian Institutes for Health Research ($282,008)

Saskatchewan Health Research Foundation ($68,252) 2012 – 2015

This project is studying ways to improve functional capacity and reduce falls among frail, largely homebound older adults, by examining the impact of a home-based exercise program on functional capacity, falls, and fall-related injuries. Comparisons will be made among seniors living in rural and urban areas, and between those participating in an exercise group and those who are not. By focusing on the delivery of exercise programs through home care networks, researchers aim to reduce the impact of falls on the lives of Saskatchewan residents and the health care system.

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**MHealth information for migrants: A pilot project to increase health information accessibility for migrants in Vietnam**

*Spheru Researcher: Nazeem Muhajarine (Principal Investigator)*

Grand Challenges Canada ($113,000) 2013 – 2014

In the developing world, rural people are increasingly leaving their homes for jobs in cities. In Vietnam, the flow of migrants increased from 1.3 million in 1989 to 3.4 million in 2009, and may top 6 million by 2019. Many of these migrants are poor, and live in unstable environments, putting them at higher risk for poor health outcomes. They also have limited access to reliable sexual and other health information. MHealth for Migrants provides reliable, low-cost health advice for migrant workers via text messaging. This is a common form of communication in the developing world, and a good way to exchange sensitive information and connect people with health services.
Promoting health equity in Saskatoon
SPHERU RESEARCHER: CORY NEUDORF (PRINCIPAL INVESTIGATOR); NAZEEM MUHAJARINE (CO-INVESTIGATOR)
Canadian Institutes of Health Research ($100,000) 2012 – 2013

The three main purposes of this recent program of health disparity research were to: a) investigate health disparities in Saskatoon, including the determinants associated with health disparities; b) implement and evaluate evidence-based population health interventions aimed at decreasing health disparities; and c) engage in integrated knowledge translation (KT) to raise awareness of health disparities and prompt action. With the investigation and intervention implementation/evaluation phases completed, we now aim to continue the knowledge translation work already begun. KT activities will focus on promoting awareness and action for health equity among two primary audiences: the community and decision makers.

Youth Smoking Survey 2012/2013
STEVE MANSKE, UNIVERSITY OF WATERLOO (PRINCIPAL INVESTIGATOR)
SPHERU RESEARCHER: NAZEEM MUHAJARINE (SASKATCHEWAN PROVINCIAL COLLABORATOR)
Health Canada ($60,000) 2012 – 2013

SPHERU is the Saskatchewan coordinator of the biennial Youth Smoking Survey (YSS). The survey is an important tool helping schools and provincial and federal government agencies across Canada assess youth substance use and related health behaviours and understand youth perspectives on tobacco, alcohol, drugs, bullying, school connectedness, self-esteem, healthy eating, and physical activity. Participating schools receive detailed results in a customized School Health Profile, used to educate communities and inform school policies and programs. Provincial and federal tobacco control policies and programs are currently being informed by YSS data from previous surveys. There is an opportunity to impact the health of Canadian youth to a greater extent through population-based interventions informed by evidence such as YSS data.
CONTINUING PROJECTS

ASSESS, REDRESS, RE-ASSESS: ADDRESSING DISPARITIES IN RESPIRATORY HEALTH AMONG FIRST NATIONS PEOPLE
JAMES DOSMAN, UNIVERSITY OF SASKATCHEWAN (NOMINATED PRINCIPAL INVESTIGATOR); SYLVIA ABONYI, JO-ANN EPISKENEW, PUNAM PAHWA (CO-PRINCIPAL INVESTIGATORS)
Canadian Institutes for Health Research ($1,592,521) 2011 – 2016

Living and social conditions in some First Nation communities have created environments that are associated with adverse respiratory outcomes. In partnership with the rural communities of Beardy’s and Okemasis First Nation and Montreal Lake Cree Nation, the project will evaluate individual and contextual factors on the outcomes of asthma, chronic bronchitis, and other respiratory conditions. Characterization of conditions will provide communities with information that will assist them to undertake interventions aimed at redressing the issues.

HEALTH CARE SERVICES AND NEEDS IN SPINAL CORD INJURY AFTER ACUTE CARE
GARY LINASSI, UNIVERSITY OF SASKATCHEWAN (PRINCIPAL INVESTIGATOR)
SPHERU RESEARCHER: BONNIE JEFFERY (CO-INVESTIGATOR)
Saskatchewan Health Research Foundation ($156,450) 2012 – 2013

Persons with traumatic spinal cord injury (tSCI) living in the community often face health complications, which if not prevented or treated early, can lead to significant illness or death. In addition, they often have other diverse, unmet needs related to health and well-being. Our vision is to implement a provincial outreach program that will improve quality of life in persons with tSCI by ensuring a continuum-of-care after transition into the community. As a first step towards achieving this vision, the goal of this study is to identify the demands on health services and the needs of persons with tSCI in the community in Saskatchewan. This research aligns with the Rick Hansen Institute’s identified objectives concerning improving SCI health care outcomes and quality of life.
**Immigrants’ quality of life: Relationship to adaptation in three Canadian cities**

*Allison Williams, McMaster University (Principal Investigator)*

*Spheru Researcher: Nazeem Muhajarine (Co-Principal Investigator)*

Social Science and Humanities Research Council ($124,999) 2011 – 2013

Quality of Life (QoL) is the degree to which a person enjoys the important possibilities of his or her life. Canada’s cities are the major immigrant reception centres and where the majority of new Canadians reside. This project will investigate QoL issues for immigrants in three small and medium-sized urban areas. The project findings will contribute to the understanding of immigrant integration and adaptation. They will identify significant predictors of QoL among immigrants in different cities across Canada, and inform government policy and programs at all levels.

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**Impact of a home-based exercise program on falls and fall-related injuries among seniors living in rural and urban areas in Saskatchewan**

*Spheru Researcher: Shanthi Johnson (Principal Investigator)*

Canadian Institutes of Health Research – Knowledge Translation Branch ($100,000)

Saskatchewan Health Research Foundation ($72,995)

Canadian Institutes of Health Research – Regional Partnerships Program ($72,995) 2010 – 2013

Unintentional falls are one of the leading causes of mortality and morbidity among frail older adults. While a majority of the community-based falls prevention programs have been shown to reduce falls and falls-related injuries, there is a need for exploring this issue among frail, largely homebound older adults. The purpose of this study is to examine the impact of a home-based exercise program on functional capacity, falls, and fall-related injuries among seniors living in rural and urban areas.
**Indigenous Knowledge Networks for Infant, Child, and Family Health**

**Janet Smylie, St. Michael’s Hospital (Principal Investigator)**

**SPHERU Researcher: Sylvia Abonyi (Co-Investigator)**

Canadian Institutes of Health Research Operating Grant ($980,000) 2008 – 2013

This knowledge translation project has the goal of improving the content and flow of Indigenous and Western public health information into community health programs for young First Nations and Métis families in Ontario and Saskatchewan. Our transdisciplinary team of scientists and Indigenous members applies a cutting edge, mixed-method evaluation of knowledge products and processes.

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**NeuroDevNet**

**Dan Goldowitz, University of British Columbia (Principal Investigator)**

**SPHERU Researcher: Nazeem Muhajarine (Director/Platform Manager, Knowledge Transfer and Exchange)**

Government of Canada – Networks of Centres of Excellence ($19.5 million – total project $1 million – University of Saskatchewan portion) 2009 – 2014

NeuroDevNet is the first trans-Canada initiative dedicated to studying children’s brain development from both basic and clinical perspectives. The network will receive $19,572,000 in funding over five years to accelerate the pace of understanding the causes of neurological deficits, with an initial focus on autism spectrum disorder, fetal alcohol spectrum disorder, and cerebral palsy. Researchers will explore how the normal brain develops, how to detect abnormalities, and how to repair the damaged brain. NeuroDevNet will also train the next generation of researchers in pediatric brain development, and it will disseminate new knowledge into improved diagnosis, treatments, and interventions to inform care delivery and policy decisions.
**Parent training for challenging behaviour in children with Fetal Alcohol Spectrum Disorders (FASD): Strongest families for FASD**  
*Patrick McGrath, Dalhousie University (Principal Investigator)*  
*Spheru Researcher: Nazeem Muhajarine (Co-Investigator)*  
Canadian Institutes of Health Research ($399,858) 2011 – 2014

Although the neurodevelopmental disabilities associated with FASD have been well characterized, there is a significant lack of communication between families affected by FASD, service delivery providers, and policy makers that, along with access and eligibility issues, prevents the implementation of appropriate (and timely) treatment programs. This project will develop an Internet-based FASD-specific parent training program designed to meet the current limitations in access and eligibility for families seeking services and supports, and provide evidence for feasibility and efficacy to support policy changes by key decision makers.

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**Rural and northern community response to intimate partner violence**  
*Spheru Researchers: Mary Hampton (Principal Investigator); Bonnie Jeffery, Paul Hackett, Diane Martz (Co-Investigators)*  
Social Science and Humanities Research Council Community-University Research Alliance ($1,000,000) 2010 – 2015

This CURA project, led by RESOLVE Saskatchewan at the University of Regina, will build upon the established connections among the three RESOLVE provincial research offices, and justice and community family violence agencies across the provinces. The project will conduct research to enhance our understanding of current community responses to intimate partner violence in rural and northern regions of the Canadian Prairie Provinces in order to expand support in targeted areas experiencing abuse and violence.
This CRC renewal continues a program of study exploring the role of culture in health and wellness of Aboriginal peoples. Working closely with northern Aboriginal communities out of the population health research lab in Prince Albert, we will focus our research on two questions: “What is a healthy community?” and “How would we measure that?”

Current research is exploring the lived experience of selected indicators from the Community Health and Wellness Toolkit, created in an earlier phase of the research. The toolkit included over 200 indicators, including strong and vital community cultures, food security, a healthy environment, and access to health and social services. Over the next five years, the toolkit will be implemented with the Athabasca Health Authority in northern Saskatchewan, to build a community database of information and create ways of evaluating programs and policies.