



Health Santé
Canada Canada

CHRONIC DISEASE AND INJURY PREVENTION (CDIP)

Cluster Evaluation

Final Report

October 2011

Canada 

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Chronic Disease and Injury Prevention — Cluster Evaluation Management Action Plan

Recommendations	Management Response	Outputs/Deliverables	Accountability	Anticipated Completion Date
<p>1. Develop and implement a solid approach to collecting and analysing performance data to improve the quality of ongoing performance reporting and periodic evaluation for the Cluster.</p>	<p>Data collection is a priority for the Community Programs Directorate (CPD) to inform performance measurement and is a key theme in the Healthy Living Logic Model, effective April 1, 2011.</p> <p>Data Collection</p> <p>1a. Develop the Chronic Disease and Injury Prevention (CDIP) data collection strategy.</p> <p>1b. Develop data collection/planning tools which support availability of data for performance measurement.</p> <p>Evaluation</p> <p>2. Develop the CDIP evaluation approach to link to and inform the Healthy Living evaluation framework which will guide the next full evaluation of the Healthy Living component scheduled for 2013-14.</p> <p>3. Support analytic reports/special studies of Healthy Living programs and services.</p>	<p>1a.-1b. Chronic Disease and Injury Prevention (CDIP) data collection strategy</p> <p>2. Healthy Living evaluation framework</p> <p>3. 4 analytic reports/special studies of Healthy Living programs and services</p>	<p>1. Director, CDIP Division, Community Programs Directorate (CPD), First Nations and Inuit Health Branch (FNIHB), Health Canada (HC)</p> <p>2. Director, Departmental Performance Measurement and Evaluation Directorate (DPMED), Chief Financial Officer Branch (CFOB), HC</p> <p>3. Director, CDIP Division, CPD, FNIHB</p>	<p>1a –1b. March 31, 2012</p> <p>2. March 31, 2012</p> <p>3. March 31, 2013</p>
<p>2. Build on community efforts to foster sustainable, supportive environments to address barriers and challenges to access and participation in community-level healthy living programs and services. Particular attention should be placed on those barriers and challenges which the Cluster can most effectively address.</p>	<p>Enhanced environments to increase individual and community level access to, and participation in, healthy living programs and services is a priority for the CPD and is an important outcome within the Healthy Living Logic Model, effective April 1, 2011.</p> <p>Evidence-based primary prevention and health promotion efforts promote the development of supportive environments that improve access to healthy food and the promotion of healthy eating, physical activity, and achieving healthy body weights and diabetes awareness.</p> <p>1. Support eligible communities to develop/implement nutrition education activities through Nutrition North Canada (NNC) and other CPD programs with the aim to increase knowledge of healthy eating and skill development on selection and preparation of healthy store bought and traditional/country foods.</p>	<p>1a. 250-300 Nutrition North Canada (NNC) education initiatives offered</p> <p>1b. 70 community-based food security projects in place</p> <p>1c. 4 regional food security plans developed (ADI)</p> <p>2. 40 additional communities funded through Phase 2 of the Physical Activity Incentive Fund</p> <p>3a. 7 demonstration projects on diabetes prevention in urban communities underway</p> <p>3b. 15 to 20 community based Urban First Nations, Inuit, Métis Diabetes Prevention</p>	<p>Director, CDIP Division, CPD, FNIHB</p>	<p>1a. March 31, 2012</p> <p>1b. March 31, 2012</p> <p>1c. March 31, 2012</p> <p>2. March 31, 2012</p> <p>3a. March 31, 2012</p> <p>3b. September 30, 2013</p>

Recommendations	Management Response	Outputs/Deliverables	Accountability	Anticipated Completion Date
	2. Increase community-based diabetes prevention activities through the Physical Activity Incentive Fund. 3. Promote and strengthen access to urban diabetes prevention activities that create or strengthen supportive environments where policies and practices promote health for First Nations, Inuit and Métis.	(UFNIMDP) projects underway		
3. Sustain and enhance the progress made in capacity building at the community level over the past five years which has directly contributed to the overall effectiveness of the Cluster.	Capacity building is a priority for the CPD and is identified as a key theme in the Healthy Living Logic Model, effective April 1, 2011. Build on and intensify support for evidence-based community action fostering environments and conditions that support individuals, families and communities to adopt healthy practices. 1. Enhance training, support and/or continuing education across community programs through regionally-based multi-disciplinary teams and use of technology to strengthen Home and Community Care nurses', Community Diabetes Prevention Workers' (CDPW), and other community workers' delivery of ADI and NNC initiatives.	1a. 120-125 Home and Community Care nurses trained on clinical practice guidelines and chronic disease management strategies 1b. 25 new CDPWs trained (graduated) 1c. 50 NNC community workers trained 1d. Integrated training opportunities to share/exchange knowledge among community program workers that include use of technology	1a. Director, Primary Health Care Division (PHCD), Primary Health Care and Public Health Directorate, (PHCPHD) FNIHB 1b.–1d. Director, CDIP Division, CPD, FNIHB	1a. March 31, 2012 1b. March 31, 2012 1c. March 31, 2012 1d. March 31, 2013
4. Sustain and enhance collaboration and networking at all levels in order to ensure that activities remain culturally relevant, resources are optimally utilized, and that new technologies and opportunities for beneficial collaboration are supported.	Stakeholder engagement and collaboration are priorities for the CPD and are identified as key themes in the Healthy Living Logic Model, effective April 1, 1011. 1. Strengthen collaborative partnerships (e.g., with National Aboriginal Organizations, Health Canada regions, chronic disease organizations, international partners, private and not-for-profit sectors, other areas in Health Canada, other federal departments/agencies, provinces and territories) that support and/or inform the development and delivery of culturally relevant, community-based Healthy Living programs and services. 2. Health promotion is a key activity of the First Nations and Inuit Health Branch (FNIHB) through community-based programs. FNIHB is developing a community development and capacity building (CDCB) framework, building competencies and facilitating partnerships to support increased CDCB capacity in First Nations and Inuit communities. The Branch is also developing an integrated	1a. Sustain 7 current and establish 2 new ADI physical activity partnerships 1b. A network established that includes regional representatives, retailers, community members, etc to support implementation of NNC community-based nutrition education initiatives 2. Reports to Health Canada's Executive Committee on: - strategies to support community development and capacity building within First Nations and Inuit communities; and - strategies for integrating FNIHB health promotion and	Director, CDIP Division, CPD, FNIHB	1a. March 31, 2012 1b. March 31, 2012 2. March 31, 2012 3. March 31, 2012

Recommendations	Management Response	Outputs/Deliverables	Accountability	Anticipated Completion Date
	<p>approach to its health promotion programs to enable communities to better address their individual circumstances, adapt supportive environments and influence behaviours.</p> <p>3. Strengthen opportunities and mechanisms for enhanced knowledge sharing.</p>	<p>3. A review of technologies (e.g. websites, video-conferencing) to promote knowledge exchange.</p>		
<p>5. Given the importance of policy work in nutrition, chronic disease prevention and injury prevention for effective program development, the Cluster should sustain and enhance work in these key areas. The focus should be on policy development to support existing programs; and knowledge development, interpretation and exchange activities to support national groups, regions and communities.</p>	<p>Policy development and knowledge sharing are priorities for the CPD and are identified as key themes in the Healthy Living Logic Model, effective April 1, 2011.</p> <p>1. Gather and use best available evidence to inform policy and program development on healthy living.</p> <p>2. Provide policy expertise to strengthen and inform policy work on current health issues (e.g., gestational diabetes, school health, food security) and emerging health issues (e.g., obesity, food policy).</p>	<p>1. Input to FPT processes regarding <i>Creating a Healthier Canada: Making Prevention a Priority – A Declaration on Prevention and Promotion from Canada’s Ministers of Health and Health Promotion/Healthy Living</i>; and <i>Curbing Childhood Obesity: A Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights</i></p> <p>2a. A review of evidence and best practices and identification of models and actions for comprehensive Indigenous school health.</p> <p>2b. Scoping paper on increasing access to, and availability of traditional and country foods (primarily in the North)</p>	<p>Director, CDIP Division, CPD, FNIHB</p>	<p>1. March 31, 2012 2a. March 31, 2012 2b. March 31, 2012</p>



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CHRONIC DISEASE AND INJURY PREVENTION (CDIP) CLUSTER EVALUATION

Final Report

May 2011

Canada

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ACRONYMS

ADI	Aboriginal Diabetes Initiative
AFN	Assembly of First Nations
ATV	All Terrain Vehicle
CBRT	Community Based Reporting Template
CD	Chronic Disease
CDA	Canadian Diabetes Association
CDIP	Chronic Disease and Injury Prevention
CDPW	Community Diabetes Prevention Worker
CFNFA	Canada/First Nations Funding Agreement
CPNP	Canada Prenatal Nutrition Program
DPMED	Departmental Performance Measurement and Evaluation Directorate
F/P/T	Federal/Provincial/Territorial
FNIHB	First Nations and Inuit Health Branch
FNOIIC	First Nations On-Reserve and Inuit in Inuit Communities
HC	Health Canada
INAC	Indian and Northern Affairs Canada
IP	Injury Prevention
ITK	Inuit Tapiriit Kanatami
MOAUIPP	Métis, Off-Reserve Aboriginal and Urban Inuit Prevention and Promotion
NAO	National Aboriginal Organization
NGO	Non-governmental Organization
RAPB	Regions and Programs Branch
RMAF	Results-based Management and Accountability Framework

EXECUTIVE SUMMARY

Overview of the Chronic Disease and Injury Prevention Cluster

This report presents the findings from the evaluation of the Chronic Disease and Injury Prevention (CDIP) Cluster at Health Canada's First Nations and Inuit Health Branch (FNIHB). In the 2005 renewal of programs authority, FNIHB integrated its programs and activities into clusters of related programs and policy areas to support a comprehensive approach to program delivery, and to simplify the delivery of programs and activities, as well as their integration. The CDIP Cluster includes one community-based program, the Aboriginal Diabetes Initiative (ADI), and three policy areas (Nutrition Policy, Chronic Disease Prevention Policy, and non-intentional Injury Prevention Policy).

FNIHB's overarching strategic outcome for its suite of programs, including those delivered through the CDIP Cluster, is better health outcomes and the reduction of health inequalities between First Nations and Inuit and other Canadians. Together with First Nations and Inuit, FNIHB and Health Canada's Regional Offices deliver public health and community health programs, primarily on-reserve, that support the above objectives.

Within this context, the main priorities of the Cluster are to assist eligible First Nations, Inuit and Métis recipients to design, develop, implement, coordinate, deliver and evaluate diabetes prevention programs, as well as to develop knowledge and policy aimed at promoting nutritional health and food security. The objective of these priorities is to reduce illness, death and disability from chronic disease and unintentional injury among First Nations, Inuit and Métis. Prevention activities are delivered at the national, regional and community levels. Expenditures for programs and supports delivered under the CDIP Cluster over the five-year period of 2005-06 to 2009-10 were approximately \$205 million.

Overview of evaluation

The overall objective of the evaluation was to assess the relevance and the performance of the CDIP Cluster with respect to the various anticipated outcomes. Because the CDIP Cluster completed an operational cycle in March 2010, an evaluation was completed to meet the requirements of the Treasury Board of Canada Secretariat. The evaluation focused on the core issues identified by Health Canada (HC) in the *Chronic Disease and Injury Prevention Cluster Evaluation Strategy*, which was based on the *2009 Directive on the Evaluation Function* document that accompanies the Treasury Board Evaluation Policy.

The scope of the evaluation was the five year period from April 2005 to March 2010. The evaluation focused primarily on programs and initiatives for First Nations on-reserve and Inuit in Inuit communities. While the evaluation did collect some information from territorial and Northern Region representatives, most of the primary data collection occurred in First Nations and Inuit communities south of the 60th parallel. The evaluation was conducted between April and December 2010, with most of the primary data collection such as community visits and key informant interviews conducted between June and August 2010.

The main methods used for the evaluation included community site visits with 29 communities during which 75 interviews were conducted with community health staff, 27 interviews with community leaders, and focus groups with 197 participants in CDIP activities and 105 non-participants. In addition, 34 key informant interviews were conducted with representatives from the Assembly of First Nations (AFN) and Inuit Tapiriit Kanatami (ITK), HC representatives from FNIHB and regional offices, and health representatives from the Territories. Other lines of evidence included an extensive document review, and a literature review that focused on the economic analyses of chronic disease and injury prevention.

Conclusions

Overall, the evaluation found that the Cluster is relevant and performing well; however, the findings would have been more conclusive with respect to performance if there had been comprehensive performance and monitoring data available for the Cluster for the 2005-10 period covered by the evaluation.

The CDIP Cluster's design and implementation addresses chronic disease needs identified in First Nations and Inuit communities. The key Cluster characteristics contributing to this are the community-based approach to delivery, the emphasis placed on knowledge development, interpretation and exchange, and a cluster structure that enhances collaboration between programming and policy areas within the Cluster.

The CDIP Cluster's design and implementation addresses injury prevention needs identified in First Nations and Inuit communities via support from a policy area that facilitates knowledge development, interpretation and exchange with communities developing and implementing injury prevention activities and policies. The evaluation concluded that while injury prevention was not a high priority in many communities during the 2005-10 period, the area is likely to become a higher priority for more communities as a result of the work in injury prevention recently undertaken at the national level and in some regions. As the area becomes a higher priority, the Cluster can continue to sustain and enhance its support through policy development, knowledge development, interpretation and exchange activities, and partnerships and networks.

There is alignment between the CDIP Cluster and current federal priorities, as well as alignment with federal mandates and responsibilities for First Nations and Inuit health.

The CDIP Cluster has been effective in contributing to individuals' increased levels of awareness and knowledge of diabetes, healthy eating and physical activity. The evaluation found evidence that the Cluster has contributed to some of these individuals making the next step of actual sustained behavioral changes in healthy eating and physical activity. There is also evidence that appropriate capacity at the community level to deliver health promotion programs and create supportive environments helps promote sustained healthy behavioral changes.

There were various barriers identified by the evaluation that if appropriately addressed may enhance the reach of the Cluster, contributing to increased levels of awareness and knowledge.

The evaluation highlighted collaboration and network development at multiple levels as a key area of success for the CDIP Cluster. Given the reported positive benefits associated with this outcome, it is important that the Cluster efforts in this area be maintained and enhanced when opportunities arise.

The CDIP Cluster efforts in capacity development of community health staff implementing Cluster activities were assessed as successful and contributed to positive outcomes at the community level. Given the associated benefits, it will be important for the Cluster to continue efforts in this area.

Overall, the evidence indicates that the delivery of the CDIP Cluster demonstrates adequate economy and efficiency by minimizing resources needed to achieve expected results, while maximizing outputs and progress towards outcomes.

Recommendations

Based on the findings and conclusions from the evaluation, five recommendations have been developed for the CDIP Cluster.

Recommendation #1:

Develop and implement a solid approach to collecting and analysing performance data to improve the quality of ongoing performance reporting and periodic evaluation for the Cluster.

Recommendation #2:

Build on community efforts to foster sustainable, supportive environments to address barriers and challenges to access and participation in community-level healthy living programs and services. Particular attention should be placed on those barriers and challenges which the Cluster can most effectively address

Recommendation #3:

Sustain and enhance the progress made in capacity building at the community level over the past five years which has directly contributed to the overall effectiveness of the Cluster.

Recommendation #4:

Sustain and enhance collaboration and networking at all levels in order to ensure that activities remain culturally relevant, resources are optimally utilized, and that new technologies and opportunities for beneficial collaboration are supported.

Recommendation #5:

Given the importance of policy work in nutrition, chronic disease prevention and injury prevention for effective program development, the Cluster should sustain and enhance work in these key areas. The focus should be on policy development to support existing programs; and knowledge development, interpretation and exchange activities to support national groups, regions and communities.

1.0 Introduction

This report presents the findings from the evaluation of the Chronic Disease and Injury Prevention (CDIP) Cluster at Health Canada's First Nations and Inuit Health Branch (FNIHB).

1.1 CDIP Cluster Description

1.1.1 History and Context of Cluster

In the 2005 renewal of programs authority, FNIHB integrated its programs and activities into clusters of related programs and policy areas to support a comprehensive approach to program delivery, and to simplify the delivery of programs and activities, as well as their integration. Under FNIHB's Community Programs Directorate, there are three clusters: Children and Youth; Mental Health and Addictions; and Chronic Disease and Injury Prevention (CDIP). The CDIP Cluster has the responsibility for the development and delivery of community-based health promotion and diabetes prevention programs and services for First Nations and Inuit, and policy support in the areas of chronic disease, nutrition and injury prevention. The Cluster targets individuals, families and whole communities.

In addition to the development of the clusters, two other important changes have affected the context of the CDIP Cluster in the timeframe covered by this evaluation:

- In 2005, FNIHB introduced four new funding models to support community-based activities which were designed to allow communities to progressively gain more flexibility in their use of funding, while requiring fewer reporting requirements.
- In 2006 the Aboriginal Diabetes Initiative (ADI), the only community-based CDIP program, received a substantial increase in funding to \$190 million over five years. The expectations that accompanied this increase in funding were that it would lead to an enhancement of diabetes prevention programs in First Nations and Inuit communities across Canada, ensure access to quality screening activities based on the Canadian Diabetes Association (CDA) Clinical Guidelines, and increase collaboration with provinces and territories to improve service delivery.

1.1.2 Overview of Cluster initiatives, programs and objectives

The CDIP Cluster includes one community-based program, the Aboriginal Diabetes Initiative (ADI), and three policy areas (Nutrition Policy, Chronic Disease Prevention Policy, and Injury Prevention Policy).¹

¹ Description of the Cluster components is derived from the Cluster's *Performance Report 2004-05 to 2006-07 (2009)*.

Aboriginal Diabetes Initiative (ADI)

The ADI is the largest component of the Cluster and is the sole component that delivers community-based programs and services with a significant regional presence.

Ultimately, the ADI aims to reduce the incidence and prevalence of diabetes among Aboriginal peoples and to improve the health status of First Nations and Inuit individuals, families and communities. To reduce the prevalence of type 2 diabetes and its complications in Aboriginal peoples, the ADI supports a range of health promotion, prevention, screening and care activities that are community based and culturally appropriate.

The ADI also aims to promote supportive environments and:

- increase physical activity and healthy eating habits to decrease prevalence of risk factors (such as obesity);
- increase access to screening and improve detection of diabetes;
- improve quality of life for those living with diabetes and its complications (i.e., improved diabetes management);
- improve collaboration and partnership;
- increase awareness and knowledge of diabetes, as well as its risk factors, complications and prevention strategies;
- increase First Nations and Inuit participation in the delivery of programs and supports; and
- improve community supports to prevent diabetes.

During the period 2005 - 2010 covered by this evaluation, the ADI delivered programs and services through two streams:

- First Nations On-reserve and Inuit in Inuit Communities (FNOIIC)—funding community-based and culturally relevant projects involving diabetes screening and treatment, health promotion and prevention.
- Métis, Off-reserve Aboriginal and Urban Inuit Prevention and Promotion (MOAUIPP)—funding (by application) primary prevention and health promotion programs to Aboriginal communities across Canada. MOAUIPP also promoted the need for screening, treatment and referral, which are the responsibility of provincial and territorial governments for these populations.

One of the main activities under ADI during this period was focused on increasing the capacity of First Nations and Inuit community workers to deliver projects and services through competency-based Community Diabetes Prevention Worker (CDPW) training. CDPW core competencies were identified by ADI staff in consultation with various partners and experts to guide regional selection of training programs. CDPW training was delivered by several different educational institutions. From 2004-05 to 2009-10, there were 336 graduates from CDPW training programs.

The diabetes workers interact with local health service providers and are supported by regional multi-disciplinary health teams. A key initiative during the period 2005-2010 was establishing these regionally-based professional health teams, including a registered dietician/nutritionist, a physical activity specialist and a diabetes coordinator. This regional multi-disciplinary team (MDT) approach, based on the U.S. Diabetes Prevention Program (USDPP)², provides professional expertise for nutrition and physical activity to support community interventions, and outreach, training and coaching for the local diabetes workers.

The three policy areas of the Cluster include Nutrition Policy, Chronic Disease Prevention Policy, and non-intentional Injury Prevention Policy. The overall goals of these three policy areas are knowledge development, interpretation and exchange to inform policy and programs; and developing and maintaining partnerships. Within these overall goals, each policy area has specific objectives as outlined below.

Nutrition Policy

Nutrition Policy aims to enhance the nutritional health of First Nations and Inuit by working with partners across sectors in the following priority areas: food security; healthy weights; dietary adequacy; and chronic disease prevention.

Objectives of Nutrition Policy are to:

- Collaborate with those who specialize or work in the area of First Nations and Inuit nutrition (and, in some cases, Aboriginal peoples more generally) to exchange information and to provide a forum for input into national initiatives.
- Identify needs related to First Nations and Inuit nutrition (and, in some cases, Aboriginal peoples more generally) and develop or strengthen policies, strategies, programs, projects, research and capacity-building initiatives to respond.
- Build and strengthen capacity, including human resource capacity, to deliver nutrition related programs and services through resources, tools, supports and training.
- Facilitate the creation of supportive environments that contribute to improved nutritional and healthy lifestyle practices within First Nations and Inuit communities.

It should be noted that while the above description accurately reflects the program description included in the Cluster Results-based Management and Accountability Framework (RMAF) (2007), the focus of Nutrition Policy continued to evolve over the evaluation period to meet changing needs of First Nations and Inuit and to provide knowledge development and leadership/expertise on policies, programs³, research and surveillance, and capacity building initiatives related to nutritional health for Aboriginal Canadians.

² Diabetes Prevention Program (DPP) Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or Metformin. *N Engl J Med.* 2002 February 7; 346:393-403.

³ A main focus is on federal community based programs with a nutrition component such as Aboriginal Diabetes Initiative, Canada Prenatal Nutrition Program, and Aboriginal Head Start on Reserve.

Activity areas have included:

- supporting efforts to build the evidence base for nutrition and food security (e.g., First Nations Food Nutrition and Environment Study);
- tailoring national dietary guidance for Aboriginal peoples (e.g., Eating Well with Canada's Food Guide - First Nations, Inuit and Métis);
- collaborating with First Nations and Inuit partners and other stakeholders to address issues related to nutrition and food security (e.g., Food Security Reference Group, Retail Based Nutrition Interventions Advisory); and
- providing advice for health promotion programming and policy development (e.g., enhanced focus on community-led food security planning within the Aboriginal Diabetes Initiative, development of Nutrition North Canada).

Chronic Disease Prevention Policy

Chronic Disease Prevention Policy aims to help reduce the incidence and prevalence of chronic diseases among First Nations and Inuit peoples by working with First Nations and Inuit partners, as well as chronic disease organizations, the Public Health Agency of Canada (PHAC), and the Primary Health Care and Public Health Directorate of FNIHB, on the following objectives:

- Raise awareness about chronic disease prevention at the national, regional, and community levels.
- Support knowledge development, analysis and exchange, and inform policy, strategies, programs and research agendas in the area of chronic disease prevention.
- Support integration efforts at the community level for chronic disease prevention and management.

Chronic Disease Prevention Policy informs policy and program development in specific chronic disease prevention areas (such as cancer, heart health and stroke, lung health), promoting awareness for an integrated approach to disease prevention at the community level. Main areas of activity include: supporting the engagement of First Nations and Inuit national organizations in policy development; support for knowledge development, translation and exchange on evidence-based practices for chronic disease prevention and management in Aboriginal communities; and capacity building for the development and delivery of chronic disease prevention and management activities in First Nations and Inuit communities.

Injury Prevention Policy

Injury Prevention Policy aims to help reduce the incidence and severity of non-intentional injuries (e.g., related to fire, falls, motor vehicle collisions, drowning and poisoning) among First Nations and Inuit by working with partners on the following objectives:

- raise awareness about injury prevention at the national, regional and community levels;
- support knowledge development, analysis and exchange to inform policy, strategies, programs and research agendas related to injury prevention; and
- increase capacity and enhance coordination among multi-sectoral stakeholders committed to First Nations and Inuit injury prevention.

In working toward these objectives, Injury Prevention Policy undertakes policy development, knowledge development, translation and exchange, and capacity building. It seeks to collaborate and develop partnerships with those who work with First Nations and Inuit populations to provide injury prevention expertise that may be incorporated into other programs.

Cluster reach (intended beneficiaries)

The CDIP Cluster reaches over 600 First Nations and Inuit communities through community-based diabetes programming (health promotion, prevention, screening and treatment). The Cluster also reaches Métis, off-reserve Aboriginal populations and urban Inuit (via projects funded through application), with diabetes primary prevention and health promotion projects. A total of 62 projects were delivered following the peer-reviewed application process.

The Cluster's reach extends directly and indirectly to all Aboriginal populations through a range of policy, knowledge development and advisory activities in support of Branch, departmental and government-wide programs and services. CDIP activities include the generation of evidence/knowledge; partnering, collaborating and consulting with First Nations and Inuit and health care organizations; leading and contributing to policy initiatives; development of information resources; and building capacity. These activities contribute to the Cluster program and policy areas as well as to initiatives of the federal government, provincial/territorial and local governments, and national and local Aboriginal organizations.

Cluster governance

A FNIHB Executive Committee is responsible for overseeing the work of the Cluster. The Branch Executive Committee includes representation from senior management (FNIHB National Office), HC Regional Offices, other HC Branches, the Assembly of First Nations (AFN) and the Inuit Tapiriit Kanatami (ITK). The Committee discusses and determines objectives, plans and priorities through a consultative process that feeds into the development of operational and financial plans. Through an annual funding allocation process and regular system pressures reviews, Cluster funds are allocated to meet priorities and deal with pressing needs and risks. Regional Offices collaborate with regional Aboriginal organizations and Health Canada senior management to determine and review regional priorities in the context of national priorities and to establish strategies to address regional needs. Each Region has an advisory body representing First Nations/Inuit which provides guidance to program implementation in the Region.

Several networks exist to share information about ADI and to guide its activities including the Inuit Diabetes Network and the AFN Diabetes Working Group. These networks meet by teleconference and in person one to three times a year. FNIHB (CDIP) and Regions and Programs Branch (Regional Offices) have a collaborative network, the ADI Regional Contacts Team (including members from regional multi-disciplinary teams), that meets monthly to plan and discuss ADI activities and issues. There are also several focussed advisory groups, including the National Physical Activity Team, the Capacity Building Advisory Group and the Expert Advisory Group (with key representatives from Aboriginal, academic, medical, research and government communities).

In collaboration with First Nations and Inuit partners and Regional Offices, the National Office leads the strategic policy, knowledge development and exchange, and program planning that supports Cluster work. Specifically, the National Office is responsible for:

- coordinating linkages with other government departments and agencies, provinces/territories, NAOs and non-governmental organizations (NGOs);
- coordinating communication among regions;
- implementing a performance measurement strategy and an evaluation strategy as described in the RMAF;
- contributing to knowledge development and providing advice on emerging trends, issues and priorities to support and inform the development of policy and programs (especially for physical activity, nutrition, food security and diabetes);
- ongoing collection and analysis of available data, and using this information to inform program design and implementation; and
- being directly involved in the management and monitoring of contribution agreements for a program targeted to Aboriginal peoples living outside of their traditional communities.

Between 2005 and 2010, the National Office delivered the Métis, Off-reserve Aboriginal and Urban Inuit Prevention and Promotion (MOAUIPP) Program of the Aboriginal Diabetes Initiative. The National Office managed and monitored contribution agreements through regular contact and discussion with recipients (through on-site visits and reporting).

In collaboration with First Nations and Inuit, Regional Offices play a lead role in supporting the effective delivery of CDIP Cluster activities and services to implement, monitor and assess the performance of policies, programs and initiatives in keeping with results-based management. Specifically, Regional Offices are responsible for:

- managing and monitoring contribution agreements through regular contact and discussion with recipients (through on-site visits and reporting);
- the regular roll-up and analysis of data collected from reporting requirements at the community level;
- monitoring the performance of activities and initiatives for which Regional Offices are accountable, and making informed decisions;
- supporting program evaluation activities through communication and the provision of information and coordination of evaluation work conducted in the communities;
- in consultation with the Regional Advisory Committee, implementing recommendations developed on the basis of evaluation results;
- supporting communities in program planning, capacity development and other aspects of program delivery and administration;
- providing an advisory role for program policy activities; and
- working in partnership with First Nations and Inuit at the regional and local level to ensure the effective delivery of chronic disease and injury prevention programming.

Regional Offices contribute to national policy work by bringing forward their unique perspectives to the National Office - identifying issues and priorities, shaping policy and program direction, and contributing expertise.

Resources

Table 1 outlines the planned and actual expenditures for the CDIP Cluster from fiscal years 2005-06 to 2009-10.

Table 1: Planned and Actual Expenditures for CDIP Cluster (\$M)

CDIP's Programs	2005/06		2006-07		2007-08		2008-09		2009-10	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Aboriginal Diabetes Initiative	20.3	17	29.7	23.3	40	33.7	45	39.6	55	49.3
Injury Prevention	1	0.5	1	0.7	1	0.9	1	0.7	1	0.5
Safe Food and Nutrition	1	1.8	1	2.1	1	1.8	1	2.5	1	2.5
Chronic Disease Prevention	0.6	0	0	0	0	0.1	0	0.2	0	0.8
CDIP Transfer	0	0	0	0	0	0	0	15.2	0	12.2
Total CDIP Cluster (\$M)	22.9	19.3	31.7	26.1	42	36.5	47	58.2	57	65.3

Source: Health Canada, Chief Financial Officer Branch, Financial Services, (FNIHB), 2010

Notes:

- Planned and Actual include corporate, Employee Benefit Plan (EBP) and accommodations costs.
- The "CDIP Transfer" program activity code was used to capture costs associated with programs under the Chronic Disease Prevention Program authority included in multi-year Health Services Transfer agreements entered into between First Nations and Inuit recipients and the regional offices at that time.

1.1.3 Cluster Logic Model

The CDIP Cluster follows a program logic, with activities and outputs contributing to specific outcomes. The Cluster logic model is attached as Appendix A.

Main activities and outputs

The main activities of the CDIP Cluster include:

- 1) Collaborating with First Nations and Inuit, federal/provincial/territorial (F/P/T) authorities and organizations (in the form of agreements, joint projects, working groups and strategic alliances)
- 2) Delivering CDIP programs and supports (in the form of projects and activities, participants and clients)
- 3) Leading, innovating and incorporating evidence-based practices in CDIP programs (in the form of policies and procedures, guidelines and frameworks, reports and conferences)
- 4) Educating and creating awareness of CDIP (in the form of education and awareness activities)

- 5) Building capacity by developing a skilled community workforce (in the form of training needs assessments, competency-based training, culturally appropriate training materials, training sessions and trained workers).

Anticipated outcomes

Through collaborations with First Nations and Inuit, F/P/T authorities and organizations the CDIP Cluster works to increase and improve collaborations and networking among stakeholders.

The other activities (delivery of programs; leading, innovating and incorporating evidence-based practices in programs; education and creating awareness; as well as capacity building) are expected to:

- improve the continuum of programs and supports in First Nations and Inuit communities;
- increase participation of First Nations and Inuit in programs and supports; and
- increase awareness of healthy behaviours.

The immediate outcomes are expected to contribute to the following intermediate outcomes:

- increased practice of healthy behaviours in First Nations and Inuit;
- increased First Nations and Inuit community ownership and capacity to address chronic diseases and injuries; and
- improved access to quality, well coordinated programs and support for First Nations and Inuit individuals, families and communities.

When achieved, these immediate and intermediate outcomes are expected to lead to the ultimate outcome of the CDIP Cluster contributing to the improved health status of First Nations and Inuit individuals, families and communities through strengthened CDIP programs and supports.

Contributing factors external to the Cluster

When measuring the achievement of outcomes for CDIP Cluster program and activities, it was important for the evaluation to consider that factors that complement but are external to CDIP also influence their achievement. For example, communities are located in territories and provinces whose governments offer chronic disease and injury prevention programs that cover similar areas of prevention. As well, given that some of the CDIP activities are combined with other health promotion activities at the community level, it is challenging to separate the influence or contribution of individual activities on outcomes.

Finally, other broader factors that are external to the CDIP Cluster have an influence on the achievement of outcomes and are reflected in the diversity of communities that CDIP serves such as level of community isolation, economic development, leadership, and educational attainment.

1.2 Evaluation Context

1.2.1 Evaluation Rationale

Purpose of evaluation

Because the CDIP Cluster completed an operational cycle in March 2010, an evaluation was completed to meet the requirements of the Treasury Board of Canada Secretariat. The evaluation focused on the core issues identified by HC in the *Chronic Disease and Injury Prevention Cluster Evaluation Strategy*, which was based on the *2009 Directive on the Evaluation Function* document that accompanies the Treasury Board Evaluation Policy. The issues fall into two categories: relevance and performance.

Intended audience and stakeholders

The evaluation is expected to support HC (national and regional offices) and Aboriginal partners (AFN and ITK) in managing for results by providing information on the achievement of outcomes for the Cluster.

1.2.2 Objective, Considerations, Scope, and Timing

Evaluation objective

The overall objective of the evaluation was to assess the relevance and the performance of the CDIP Cluster with respect to the various anticipated outcomes.

Cluster evaluation considerations

Cluster evaluations are designed to assess overall achievement of high level, integrated outcomes of a group of programs and policies. The objective of this evaluation was to take a broad perspective with respect to how the programs and policies within the Cluster combined and worked with other external resources to contribute to the intended outcomes. The evaluation findings are framed as contributions to outcomes, rather than causes of outcomes.

For the present evaluation, there was a challenge with respect to the cluster composition. As described above, the Cluster consists of one very large program (ADI) and three policy areas. The ADI component of the Cluster accounts for the vast majority of the Cluster budget, is the most visible component in communities, and is structured given the design and delivery of specific activities and outputs in comparison to the three policy type components. The policy units are more diffuse - they not only contribute to ADI and other Cluster activities, but also contribute and support activities and programs in other FNIHB clusters (e.g., Canada Prenatal Nutrition Program (CPNP), Brighter Futures). As a result, the data collected for the evaluation was concentrated to a large extent on ADI activities, outputs and outcomes. Where possible, the data and information collected for the policy areas were focused on the extent to which the policy units were contributing broadly to the achievement of Cluster outcomes (e.g., providing materials to ADI activities to assist with nutrition awareness, supportive networking).

Evaluation scope

The scope of the evaluation was the five year period from April 2005 to March 2010. The evaluation focused primarily on programs and initiatives for First Nations on-reserve and Inuit in Inuit communities. While the evaluation did collect some information from territorial and Northern Region representatives, most of the primary data collection occurred in First Nations and Inuit communities south of the 60th parallel. The MOAUIPP component had recently undergone an assessment⁴, and was covered as one aspect of the document review.

Timing of evaluation

The evaluation was conducted between April and December 2010, with most of the primary data collection such as community visits and key informant interviews conducted between June and August 2010.

1.2.3 Evaluation Issues and Questions

As outlined in the evaluation objectives, the main evaluation issues were relevance and performance. Under each of these two broad issue areas, the evaluation framework identified eight overarching evaluation questions, and 16 specific evaluation research questions and outcomes (see Table 2).

Table 2: Evaluation Questions

Overarching Evaluation Question	Specific Evaluation Research Questions and Outcomes
Issue: Relevance	
R 1.0 Does the CDIP Cluster address clearly identified needs of First Nations and Inuit as they relate to chronic diseases (CD) and injury prevention (IP)?	R1.1 What are the current health needs of First Nations and Inuit as they relate to Chronic disease and injury prevention?
	R1.2 How have these needs changed since the last funding period?
	R1.3 Is there a clear link between the current needs and the activities delivered by the CDIP Cluster?
	R1.4 Are the programs and supports delivered by the CDIP Cluster addressing the needs of their community as they relate to Chronic disease and injury prevention?
R2.0 To what extent is this Cluster linked to a Government priority?	R 2.1 According to what, the Budget or other priority, were the programs and supports in this Cluster created and what year (source of Cluster / program authority)?
	R 2.2 Does this Cluster relate to current Government priorities and explain how its expected results are consistent with current Government priorities?
R3.0 To what extent is this Cluster appropriate to the federal government and a core federal role?	R3.1 To what extent are the CDIP Cluster programs consistent with federal government roles & mandate to address health needs of First Nations and Inuit?

⁴ Catalyst Research and Communications (2010) *Evaluation of the Métis, Off-reserve First Nations and Urban Inuit Prevention and Promotion Component of the Aboriginal Diabetes Initiative*.

Overarching Evaluation Question	Specific Evaluation Research Questions and Outcomes
Issue: Performance	
P 4.1 Are CDIP programs and supports meeting individual health needs of First Nations and Inuit? And if so, how?	P 4.1.1 Increased participation / reach of First Nations and Inuit individuals, families and communities in programs and supports
	P 4.1.2 Improved access to quality programs and supports
	P 4.1.3 Delivery of quality programming
	P 4.1.4 Increased awareness of healthy behaviours
	P 4.1.5 Increased practice of healthy behaviours
P 4.2 Are CDIP programs working together at the community, regional, national levels to meet expected logic model outcomes? If so, how?	P 4.2.1 Improved continuum of programs and supports in First Nations and Inuit communities
	P 4.2.2 Increased and improved collaboration and networking
P 4.3 Are CDIP program investments contributing to increased First Nations and Inuit ownership to deliver chronic disease and injury prevention programs and supports?	P 4.3.1 Increased First Nations and Inuit community ownership and capacity to combat chronic diseases and injuries
P 4.4 Are CDIP program investments contributing to increased human resource capacity (i.e., training) to deliver Chronic disease and injury prevention programs in First Nations and Inuit communities?	P 4.4.1 Increased First Nations and Inuit community ownership and capacity to combat chronic diseases and injuries
P 5.1 Does CDIP demonstrate efficiency and economy?	P 5.1.1 Does the program use resources efficiently in relation to the production of outputs and progress towards outcomes?
	P 5.1.2 Does the program delivery approximate the minimum amount of resources needed to achieve expected outcomes?

2.0 Methods

This section provides an overview of the specific evaluation methods implemented and the approach for analysis, as well as a brief discussion of the limitations and challenges of which the reader should be mindful when reviewing the findings from the evaluation.

2.1 Community Site Visits

One of the main methods used to collect primary data for the evaluation was community site visits. These visits consisted of one to two day visits to a specific community by a member of the evaluation team. While in the community, the evaluation team member conducted key informant interviews with community stakeholders including community leaders and community health staff. The team member facilitated focus groups with community members where these could be arranged with the assistance of community health staff.

Community selection

The first step in the community visits was the selection of communities. Using a purposive sampling scheme, communities were selected based on a number of factors including diversity by region, population, type of funding agreement and level of isolation. The evaluation team initially selected a primary and two alternate samples from lists of the communities delivering ADI programs. These selections were reviewed by HC regional representatives to provide feedback on the communities selected and additional information for consideration such as levels of ADI activity in communities, and potential response burden for communities (e.g., communities that had previously participated in site visits for other evaluations). Selected communities were initially contacted by the HC regional representatives to obtain permission to have the evaluation team contact them directly to discuss their potential participation in the evaluation.

Of the 31 communities contacted by the evaluation team, 29 communities agreed to participate in the evaluation. The two communities that declined to participate expressed interest in the evaluation, but were unable to accommodate the preparations for a visit during the summer months due to vacation schedules and turnover of staff. Four of the 29 participating communities preferred to participate in interviews by phone rather than have an evaluation team member visit on site, given the challenges in coordinating schedules over the summer months.

Community key informant interviews

During community visits, semi-structured interviews were conducted with community health staff (ADI workers, management level health staff and CDPW workers if present in the community) and community leaders (chiefs, council members, Elders, etc.). Interviews with community health staff were on average 90 minutes in length, and covered most of the evaluation questions. Interviews with community leaders were on average 45 minutes. Across the 29 communities participating in the evaluation, interviews were held with 75 community health staff and 27 community leaders.

The main themes derived from the key informant interviews are presented according to the various groups of key informants (e.g., community health staff, community leaders, regional representatives). To provide an indication of prevalence of certain themes among groups of key informants, the report presents the number of instances where a particular theme was raised by key informants compared with the total number of key informants that responded to that particular question. For example, *health staff in most communities agreed that X was successful (23 of 29 communities)*. The base number (e.g., 29 communities) changes according to the theme area if not all 29 communities responded to a particular question. Reasons for non-response to certain questions included unavailability of representatives who could provide responses to certain questions due to summer schedules, interviewees who had limited background or knowledge in some areas covered by interviews, and insufficient time to conduct lengthy interviews resulting in prioritization of questions asked.

Community member focus groups

Community health staff assisted the evaluation team in recruiting community members to participate in focus groups for the evaluation. Some focus groups consisted primarily of ADI

participants, while others consisted primarily of community members who had not participated in recent ADI activities. Given the manner in which the groups were assembled within the communities, there was some overlap between the groups (i.e., participant focus group vs. non-participant focus group). Also, some community health staff could not identify non-participants to attend such a session. Focus groups lasted on average 90 minutes depending on the number of participants. Participants were provided with light refreshments and a small honorarium of \$20 for attending the group. Focus groups were undertaken with 302 community members (197 ADI participants, and 105 non-participants).

2.2 Non-community Based Key Informant Interviews

In addition to the community site visits, interviews were undertaken with a variety of non-community based respondents. These included representatives from Health Canada (including national office and regions), Territories, and some National Aboriginal Organizations (NAOs). Potential respondents were identified by the Project Authority, and sent an invitation to participate in a phone or in-person interview, depending on their proximity to the National Capital Region. A semi-structured interview guide tailored to the respondent was provided with the invitation. Interviews lasted on average approximately 60 minutes. Interviews were conducted with 34 respondents: 6 national representatives from FNIHB, 20 HC regional representatives, 6 representatives from the three territories, and 2 representatives from National Aboriginal Organizations (AFN, ITK) were interviewed. A few provincial representatives were identified by the regional representatives as potential interviewees, but they were not available for an interview during the data collection period for the evaluation.

2.3 Document Review

At the outset, a list of documents was provided by the Project Authority to focus the document review. The document list was expanded throughout the evaluation as additional documents were identified through key informant interviews and via the references identified in suggested documents. Overall, the evaluation team systematically reviewed approximately 150 documents, including statistical reports, previous evaluation reports from programs in the Cluster, and policy-related publications. The document review captured relevant information from each document and organized information by indicators that directly linked to an evaluation question. This allowed the evaluation team to group together and systematically compare evidence from all documents for each indicator.

2.4 Literature Review

A literature review and content analysis focused on the evaluation questions on efficiency and economy of the CDIP Cluster was conducted by Health Canada's Departmental Performance Measurement and Evaluation Directorate (DPMED). The review covered both scholarly literature and grey literature focused on chronic disease and injury prevention economic analyses. The results from this literature review were shared with the evaluation team and integrated into the overall evaluation findings.

2.5 Description of Analysis

Qualitative methods allow the collection of rich, in-depth insights from those directly affected by the subject matter under examination. This approach allows the researcher to explore thoughts, ideas and opinions in ways not possible through quantitative methods of inquiry. As the research is completed, consistency in responses brings forward key themes that demonstrate the strength in responses.

The analysis of the multiple lines of evidence was undertaken using three levels of evidence matrices. Initially, the first level findings/data were captured in evidence matrices for each of the lines of evidence (e.g., document review, community based interviews, non-community based interviews). The first level matrices were organized according to respondent/document by indicator. The first level matrices were then analysed according to indicator, and the second level matrices were developed which included sub-group summaries by indicator (where applicable) for each line of evidence. Finally, an overall, broad third level evidence matrix was compiled which rolled up the evidence from each line of evidence according to evaluation question. DPMED undertook the analysis and reporting for the evaluation of Cluster economy and efficiency.

2.6 Limitations and Challenges

The evaluation was able to assess both CDIP Cluster relevance and performance in contributing to the outcomes identified in the program logic model. The lines of evidence were strong with respect to demonstrating relevance, and some of the more immediate outcomes. As with any evaluation study of this magnitude and complexity, various challenges and limitations were encountered. The reader should be aware of these and take them into consideration when interpreting the findings and recommendations from the evaluation. The main challenges and limitations encountered were the following:

- **Lack of performance and monitoring data for the Cluster** - Given the challenges encountered by the CDIP Cluster in systematically collecting and analysing performance and monitoring data across the period covered by the evaluation, there were limited data upon which to base the assessment of performance with respect to many of the outcomes.

This was partly addressed through triangulation where possible, and by conditioning analysis and conclusions where necessary.

- **Not able to demonstrate direct causal links** - As previously indicated, the evaluation was designed to demonstrate the likely contributions of CDIP Cluster activities and outputs to the anticipated outcomes, rather than demonstrate direct causal links and incremental impacts. However, this problem is common to program evaluation - especially in community-based health prevention and promotion. It was no more of a limitation in this evaluation compared to others, and was considered as a condition of the findings throughout the analysis.
- **Lack of baselines** - Many of the anticipated outcomes imply an incremental change over baseline (e.g., increased, improved). Given that there were no baseline measures for these outcomes established in 2005 when the Cluster was initially developed and limited performance data available, the evaluation was unable to determine the magnitude of the increase, beyond the retrospective recollections and perceptions of key informants collected in a qualitative manner.
- **Heavy reliance on information from those with vested interest in Cluster** - Most of those participating in the evaluation were directly involved with the delivery of programs and initiatives under the Cluster, or were responsible for implementing components of the Cluster. This was partly balanced by the recruitment of non-participants for focus groups in some communities. However, key informants did not appear reluctant to discuss negative aspects of the program delivery and performance, which tends to indicate that vested interest was not a strong source of response bias.
- **Timing of the evaluation in relation to availability of key data** - The timing of the evaluation was such that it was not able to benefit from some key data sources as they were not available at the time of analysis and reporting. These included data from the recently implemented Community Based Reporting Template (CBRT), evaluation report on the Patient Wait Time Guarantee (PWTG) pilot projects in First Nations communities, and findings from the 2008-2010 First Nations Regional Longitudinal Health Survey (RHS), the Canadian First Nations Diabetes Clinical Management Epidemiologic (CIRCLE) Study, and the First Nations, Food Nutrition and Environmental Study.
- **Economy and efficiency analyses** - The literature review dedicated to economic cost-consequence analysis indicated that this type of analysis would not be appropriate for the CDIP Cluster evaluation. A reliable, regionally sensitive quantitative analysis of the range of different program costs and prevention outcomes was not conducted, since it would require considerable time and resources beyond the scope of the evaluation. Such a national level analysis would likely be limited in usefulness, since the design and delivery of CDIP includes a wide range of programs with a diverse mix of objectives, prevention approaches and participant populations, and CDIP programming changes year by year. Furthermore, the administrative data for CDIP does not support quantitative analysis of cost-outcomes. Development of these data would be a multi-year process involving considerable consultations, resources and changes in current accounting practices. The lines of evidence for efficiency and economy are therefore limited to the literature review and key informant interviews at national, regional and community levels.

3.0 Evaluation Findings for CDIP Relevance

R1.1 Current Health Needs of First Nations and Inuit as Related to Chronic Disease and Injury Prevention

Across communities and regions, diabetes was cited the most frequently as a key chronic disease health issue for First Nations and Inuit communities. In 2002-03, the prevalence rate of diabetes among First Nations adults was 19.7% compared with 5.2% in the general Canadian adult population. Recent research has found that First Nations people are getting diabetes at younger ages, and at a much faster rate when compared to non-First Nations populations. As well, First Nations women are disproportionately affected. Those working with Inuit communities noted that while the rate of diabetes among adults in Inuit communities is lower (3% in 2005-06) than the rate in many First Nations communities, the prevalence of risk factors associated with diabetes is rapidly rising among Inuit adults. Other key chronic health issues identified by the evaluation were cardiovascular disease, cancer, mental health and addictions, and respiratory illness. While injury prevention was not viewed as a key priority for some communities, where injury prevention activities were being implemented, the main issues identified included injuries resulting from substance use such as impaired driving, motor vehicle accidents including all terrain vehicles (ATV), bicycle safety, and water safety. The evaluation identified various nutrition-related challenges in communities including availability and accessibility of healthy foods, low income and poverty, elevated costs of healthy foods, knowledge and skills related to diet and nutrition, motivation and lifestyle choices, and accessibility of more traditional foods.

Identified key chronic health issues

Across all lines of evidence, diabetes was the most frequently cited chronic disease health issue for First Nations and Inuit. It was identified in community site visits, interviews with non-community based representatives and the document review. Community health staff identified diabetes as a key health issue in 27 of 29 communities visited. Similarly, most HC regional representatives (15 of 16) and all territorial representatives (5 of 5) interviewed cited diabetes as a key health issue to be addressed in First Nations and Inuit communities.

Earlier prevalence rates of diabetes cited in the Phase One of the First Nations Regional Longitudinal Health Survey (2002-03)⁵ indicated an overall prevalence rate of 19.7% among First Nations adults.⁶ More recently measured rates in some communities are similar to this with

⁵ NAHO (2007) *First Nations Regional Longitudinal Health Survey (RHS) 2002/03: Results for Adults, Youth and Children Living in First Nations Communities*.

⁶ One potential additional source for more updated diabetes rates would be the First Nations Regional Longitudinal Health Survey which had Phase One data collection in 2002-03 and Phase Two data collection in 2007-08. Phase Two data collection is within the scope of the evaluation, however, the reporting has not been finalized at this point.

an example from the Cree Region of East James Bay (Iiyiyiu Aschii) which found that the crude prevalence rate of Type 2 diabetes in adults was 19.1% in 2007.⁷ Similarly, the 2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit commissioned by FNIHB found that 16% of adult respondents indicated that they had been told by a physician that they have diabetes, unchanged from a similar survey conducted in 2006.⁸ These rates are in comparison with 5.2% among the general Canadian adult population in 2002-03.⁹

According to a recently published epidemiology study comparing First Nations and non-First Nations populations in Saskatchewan, First Nations are experiencing a type 2 diabetes epidemic that disproportionately affects First Nations women during their reproductive years.¹⁰ Incidence and prevalence of diabetes were more than 4 times higher among First Nations women than non-First Nations women, and 2.5 times higher among First Nations men than non-First Nations men. The number of incident cases of diabetes was highest among First Nations people aged 40-49, in comparison to those aged 70 or more among the non-First Nations population. Over the 20-year span covered by the study, the prevalence of diabetes increased from 9.5% to 20.3% among First Nations women, and from 4.9% to 16.0% among First Nations men. This is in comparison to changes in rates from 2.0% to 5.5% among non-First Nations women, and 2.0% to 6.2% among non-First Nations men during the same time period.

Gestational diabetes mellitus (GDM), an impaired glucose tolerance that may develop during pregnancy, occurs in approximately 3.7% of the non-Aboriginal population, with an incidence of 8-18% in Aboriginal women.¹¹ Evidence suggests that GDM predisposes women to type 2 diabetes, with approximately 4 to 10% of GDM cases proceeding to type 2 diabetes within the first 9 months after pregnancy.¹² Up to 70% of First Nations women with GDM in their first pregnancy will later develop type 2 diabetes, compared to about 40% of non-First Nations women.¹³ Diabetes during pregnancy was identified as the strongest risk factor for type 2 diabetes in First Nations children in Manitoba.¹⁴

⁷ Cree Board of Health and Social Services of James Bay (2008) *Cree Diabetes Information System (CDIS) 2007 Annual Report*.

⁸ Environics Inc. (2009) *2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit - Final Report*.

⁹ Health Canada (November, 2009) *First Nations and Inuit Health Fact Sheet*.

¹⁰ Dyck, Osgood, Lin, Gao & Stang (2010) *Epidemiology of diabetes mellitus among First Nations and non-First Nations adults*, Canadian Medical Association Journal, 182 (3), 249-256.

¹¹ Canadian Diabetes Association Clinical Practice Guideline Committee. 2008 clinical practice guidelines for the prevention and management of diabetes in Canada. *Can J Diabetes*. 2008.

¹² Kim C, Berger DK, Chamany S. Recurrence of gestational diabetes mellitus: a systematic review. *Diabetes Care* 2007;30(5):1314-1319.

¹³ First Nations Centre, National Aboriginal Health Organization (NAHO). Gestational Diabetes and First Nations Women: A Literature Review. 2009. Available from: http://www.naho.ca/documents/fnc/english/gestational_diabetes_first_nations_women.pdf

¹⁴ Young TK, Martens PJ, Taback SP, Sellers EA, Dean HJ, Cheang M, Flett B. Type 2 diabetes mellitus in children: prenatal and early infancy risk factors among native Canadians. *Arch Pediatr Adolesc Med* 2002; 156(7):651-5.

Territorial representatives and community health staff from one of two Inuit communities noted during interviews that while the current rate of diabetes is lower than the rates present in many First Nations communities, their perceptions were that the risk factors for diabetes are rising rapidly in many Inuit communities. This contributed to their expectations that actual rates of diabetes will rise quickly as well. The prevalence rate of diabetes among Inuit adults in 2005-06 was 3% compared to 5.1% among the general Canadian adult population.¹⁵

In addition to diabetes, the main other chronic health issues identified by community health staff included: cardiovascular disease (20 out of 29 communities), cancer (9 out of 29 communities), mental health and addictions (8 out of 29 communities), and respiratory illness (6 out of 29 communities). This finding was concurrent with the findings from the interviews with regional and territorial representatives who also identified cardiovascular disease (12 of 16 and 4 of 5 respectively) and cancer (7 of 16 and 4 of 5 respectively) as key chronic disease health issues in communities.

Injury-related issues

In general, community health staff found it challenging to comment on what were the main injury issues that the communities needed to address. Health staff from 6 of the 29 communities indicated that injuries and injury prevention were not really an issue for their communities, while health staff from another 9 communities could not comment on questions related to issues in this area. Of the remaining 14 communities, the most frequently cited issues were injuries resulting from substance use (7 communities), motor vehicle injuries including all terrain vehicles (ATVs) (6 communities), bicycle safety (4 communities), and water safety (3 communities).

According to the 2002-03 First Nations Regional Longitudinal Health Survey (RHS), First Nations children experience the same types of injuries as others, but at higher rates: 17.5% of First Nations children on-reserve received medical attention for injury, compared to 12% of Aboriginals off-reserve and 10% of Canadian children in general.¹⁶ The RHS shows that 28.8% of First Nations adults living on-reserve sustained an injury serious enough to require medical care in the year prior to the survey¹⁷, compared to 13.1% of Canadian adults in 2003.¹⁸

Nutrition-related issues

Significant nutrition related needs were identified in site visits, interviews and the document review. Among community health staff, HC regional representatives, and territorial representatives the most frequently cited issues included the following:

¹⁵ Dyck, Osgood, Lin, Gao & Stang (2010) *Epidemiology of diabetes mellitus among First Nations and non-First Nations adults*, Canadian Medical Association Journal, 182 (3), 249-256.

¹⁶ First Nations Information Governance Committee (FNIGC). First Nations Regional Longitudinal Health Survey (RHS) 2002-03; Results for Adults, Youth and Children Living in First Nations Communities. Assembly of First Nations; 2005 November.

¹⁷ Ibid

¹⁸ Statistics Canada. Canadian Community Health Survey 2.1 Indicator profiles, by sex, Canada, provinces, territories, health regions and peer groups. 2005. Report No: CANSIM table 105-0200. CHHS Profiles, catalogue 82-576-XIE.

- **Availability and access to healthy food choices in community** - Health staff from 17 of 29 communities, HC regional staff (12 of 14), and territorial representatives (5 of 6) indicated that availability and access was a major issue. This included limited availability of healthy food choices in local stores, presence of only convenience store foods, and limited access to transportation out of the community to shop in stores with more selection. Examples were provided where the only grocery store is a \$35 taxi ride away so many residents cannot afford to shop more than once per month. In another example, food is shipped in only once per month to the local store, so if community members are not available or do not have money to shop right away, then the selection is limited for the remainder of the month. When responses were analysed by remoteness of community, there was not a clear trend as one might expect. This is likely due to the fact that while many communities visited were categorized as “non-isolated”¹⁹, there are often considerable distances between the communities and the nearest commercial centre where there would be better access to healthy food choices.
- **Low incomes and poverty** - Linked to the issue of access to healthy food choices was the issue of community members living in poverty and with very low household incomes. Health staff in 16 of 29 communities, 6 of 14 HC regional staff, and 5 of 6 territorial representatives cited this as an important nutrition-related issue. Given the issues of higher cost of healthy foods (see below), this issue exacerbates an already challenging situation for community members. An example given in one community described how families are not able to afford cars, so they end up shopping at the convenience store that had limited healthy alternatives. In another example, participants in focus groups reported that they did not have enough money to risk wasting it on healthy food that was new to them and which they may not like.
- **Cost of healthy foods** - When healthy food options were available, they were described in many cases as being more expensive, particularly when transportation costs are figured in. Health staff in 14 of the 29 communities, 10 of 14 HC regional staff, and 5 of 6 territorial staff identified this as a barrier to good nutrition in communities. Examples from some communities demonstrated that healthier options were more expensive - a bag of chips might be \$2 but a bunch of grapes would be \$6 or more and of very poor quality, whole wheat pasta would be more expensive than white pasta, or milk at \$14 for 4 litres would be more expensive than pop.

¹⁹ FNIHB classifies First Nations communities into one of four types: *non-isolated* - communities that are accessible by road and are less than 90 kilometres from physician services; *semi-isolated* - communities that have road access, but the nearest physician services are farther than 90 kilometres away; *isolated* - communities that have scheduled flights and good telephone service, but no road access; and *remote isolated* - communities that have no scheduled flights or road access and minimal telephone and radio service. Source: Health Canada (2008) *A statistical profile on the health of First Nations in Canada: Determinants of health 1999-2003*

- **Knowledge and skills** - Approximately one-half of health staff in communities (13 of 29 communities) and HC regional staff (8 of 14), and one-third of territorial staff (2 of 6) reported that the lack of knowledge and skills in selecting and preparing foods impact nutrition. People in many communities had limited cooking skills and an overall lack of knowledge of what constitutes healthy food, the importance of portion sizes, and the need to balance food choices across different food groups. In one community, this lack of knowledge was attributed to a generation of parents who had been in residential schools and did not have the skills to pass on to their children. Another example was provided in a key informant interview of how community members did not understand the importance of portion sizes and would eat a whole loaf of whole wheat bread because it was healthy food.
- **Motivation and choice of lifestyle** - Approximately one-third of health staff in communities (8 of 29 communities) and HC regional staff (4 of 14), and one of the territorial staff cited the common challenge of motivating people to make changes in their lifestyle and food choices. In these communities, the health staff indicated that knowledge and skills were not as much an issue as the motivation required to have community members make changes in their diet and food choices. In focus groups, some community members reported that they learned to fry everything in bacon grease, and that it was very difficult to get used to different food items (e.g., salad, low fat options). Other examples included the preference for fried bannock even though some recipes had been developed for baked bannock.
- **Access to traditional foods** - Communities' challenges with accessing traditional, local foods were also identified. These challenges were cited by health staff in 6 of 29 communities, 5 of 14 HC regional staff, and 5 of 6 territorial representatives. The challenges included impact of climate change on migration routes of various animals, the high costs of resources required to hunt and fish (e.g., equipment, gas, ammunition), the safety of local food given potential contamination issues, and the scarcity of some species of plants and animals due to changes in habitats. Examples of these challenges included one community that lived close to a lake that had been polluted by local industry. Their traditional diet included a lot of fish, freshly caught from the nearby lake, but they could no longer consume this fish. Another example outlined the costs associated with hunting. The expenses described in one isolated community included the initial purchase of an ATV (can be upwards of \$50K once transportation has been included), and the high costs of gas to run the ATV. These expenses were described as very challenging given low incomes and poverty levels in the community. Challenges regarding knowledge and skill gaps identified included the transfer of traditional skills across generations with respect to how to hunt, fish, gather, preserve, and prepare traditional and local foods. In one community visited only a few Elders still had the knowledge and skill to prepare wild game. Participants in focus groups noted that people in the community would go to the Elders' homes to get their game prepared because the younger generations have lost this skill and knowledge.

In concordance with the lines of evidence obtained from community visits and key informant interviews, data from various surveys completed between 2001 and 2009 demonstrate that food insecurity is higher among Aboriginal populations than non-Aboriginal populations, and is a critical issue for northern and isolated communities. Income-related household food insecurity rates for off-reserve Aboriginal households across the country (33%; 14% severe food insecurity) are approximately 3 to 4 times higher than non-Aboriginal households (9%; 3% severe).²⁰ In Nunavut, where 85% of the population is Inuit, income-related household food insecurity rates of 33%²¹ to 83%²² have been measured between 2003-2008.

Site visits and key informant interviews confirmed that in many First Nations and Inuit communities, food security is impacted by the low availability and affordability of healthy food choices such as fresh fruit and vegetables, whole grains, and dairy products. According to FNIHB representatives, the Food Security Reference Group (which comprises AFN, ITK and federal government (Health Canada and Indian and Northern Affairs Canada) representatives) has identified some unique considerations for First Nations and Inuit, including that both traditional and store-bought food must be considered when understanding food security issues. Other key factors that have an impact on food security are poverty, environmental contamination, global climate change, loss of cultural identities, traditional knowledge and traditional food practices, and the unreliable supply, quality and high prices of store-bought food, particularly in remote and isolated communities.

R1.2 Changes in Health Needs of First Nations and Inuit as Related to Chronic Disease and Injury Prevention

From qualitative data collected during community visits and interviews, challenges to addressing chronic health issues in communities were perceived as having become worse if the emphasis was placed on disease rates, or the same or better if emphasis was placed on improving supports and strengths of the communities over the past decade. For those who placed emphasis on disease rates, it was acknowledged that disease rates for many chronic diseases likely increased over the period, which may be partly attributable to increased screening in many communities. This increase in rates was then interpreted as increasing the overall challenges. For those who placed emphasis on supports and strengths in the community, challenges were viewed as having decreased over the past decade as communities implemented various activities which had impacts on increasing community members' awareness of the risk factors associated with chronic diseases. HC regional staff also highlighted that challenges varied considerably in magnitude given the wide diversity among communities with respect to capacity to manage and implement health promotion programming.

²⁰ Canadian Community Health Survey, Cycle 2.2, Nutrition (2004) *Income-Related Household Food Security in Canada*.

²¹ Canadian Community Health Survey (2007-08) accessed from website: <http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/key-stats-cles-2007-2008-eng.php>

²² INAC (2003) *Nutrition and Food Security in Kugaaruk, Nunavut - Baseline Survey for the Food Mail Pilot Project*.

Community health staff, community leaders and HC regional staff were asked whether the challenges identified with respect to chronic health issues in communities had changed over the past ten years. The community health staff were fairly evenly divided when indicating whether the challenges had been reduced (12 of 29 communities) or whether they had stayed the same over this period (13 of 29 communities). A smaller proportion (4 of 29 communities) indicated that they believed the challenges had grown during this time. Where communities indicated that challenges had declined, respondents gave examples to support their responses, e.g., community members participating in more physical activities, increased awareness of risk factors associated with diabetes, and changes in school lunch programs. In one community, health staff worked with the local school cafeteria to ensure that food served was healthy and in accordance with Canada's Food Guide. The menus were submitted to the health staff for review to help ensure that they were healthy and appropriate. In another community, the health staff offered healthy cooking classes to cooks in the schools and in band cafeterias/food services.

For those community health staff who believed that challenges had remained relatively constant, examples focused on increased awareness by community members, rather than actual behavioural changes. For the few communities that reported increased challenges, the main focus was on the increasing incidence of diabetes and other chronic diseases such as cancer and cardiovascular disease in their communities. There were no overall patterns apparent when the responses were analysed according to size of community, remoteness, funding model or presence of a trained CDPW.

Interviews with community leaders in 17 communities found that approximately one-half (8 of 17 communities) perceived that the challenges became greater in the past decade, while fewer found these stayed about the same (6 of 17 communities) or decreased (3 of 17 communities). This pattern of responses is opposite to that found among the community health staff. Interestingly, similar to the few community health staff who found that challenges had increased, the community leaders also tended to focus on the increased rates of chronic disease in communities as indicative of increasing challenges.

Interviews with HC regional staff resulted in a relatively even split between reporting increased challenges (5 of 13), similar challenges (3 of 13), or decreased challenges (5 of 13) for communities over the past decade. Similar to the other groups, those who perceived the situation as increasingly challenging tended to focus on the increased rates for chronic diseases, particularly diabetes. Some regional staff (6 of 13) went a step further in their interpretations by adding that a large proportion of increased rates is likely due to increased screening activities in many communities. Challenges increase when a larger number of people are diagnosed who then require monitoring, education and various supports and services from resources that may already be stretched in the community. The diversity in capacity among communities was also highlighted by some regional staff (5 of 13) as contributing to some of the challenges in addressing issues such as increased rates of diabetes.

The community health staff and leaders were also asked to comment on the extent to which community supports for healthy living increased over the same time period. Among community health staff, over three-quarters (22 of 28 communities) reported that community supports and strengths increased, while the remainder (6 of 28 communities) perceived things stayed the same.

All community leaders from 17 communities interviewed reported that community supports and strengths had improved over the past decade. Examples included the presence of various types of community health staff (e.g., nutritionists, diabetes nurses, CDPWs), screening clinics occurring at local health clinics, and support groups for people with diabetes.

Quantitative data that could systematically determine the extent to which health needs related to chronic disease and injury prevention had changed over the scope of the evaluation (2005-2010) are not available at this time. It is anticipated that findings from the second phase of the First Nations Regional Longitudinal Health Survey which had data collection in 2007-08 will be able to provide a comparison for First Nations communities on changing health needs when compared to Phase One (2002-03).

R1.3 Link Between Current Needs and CDIP Activities

Based on findings from the literature, the CDIP Cluster activities are aligned with interventions generally highlighted in the literature as being effective in addressing various chronic-disease prevention needs outlined by communities. The five main activity areas of the CDIP Cluster logic model align with the common success factors identified for chronic-disease prevention interventions.

CDIP approaches, including for the ADI, were established based on a number of international models. Studies undertaken in China (1997)²³, Finland (2001)²⁴ and the United States (2002)^{25,26} demonstrated that significant lifestyle modifications, including weight loss and regular physical activity, lead to decreases in the risk of diabetes (and other chronic diseases) in high risk populations. The model for the design of the ADI activities and the regional multi-disciplinary teams (MDT) approach was the U.S. Diabetes Prevention Program (USDPP).

As outlined in Section 1.1.3, the five main activity groups of the CDIP Cluster as defined in the logic model are: 1) collaborating with First Nations and Inuit communities and organizations, and Federal/Provincial/Territorial (F/P/T) authorities; 2) delivering chronic disease and injury prevention programs and supports; 3) leading, innovating and incorporating evidence-based practices in chronic disease and injury prevention programs; 4) educating and creating awareness of chronic disease and injury prevention; and 5) building capacity through developing a skilled community workforce.

²³ Pan XR, Li GW, Hu YH, *et al.* The effects of diet and exercise in preventing NIDDM in people with impaired glucose tolerance. The DA Qing IGT and Diabetes Study. *Diabetes Care*. 1997; 20(4):537-44.

²⁴ Tuomilehto J, Lindström J, Eriksson JG, *et al.* Finnish Diabetes Prevention Study Group. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *N Engl J Med*. 2001 May 3; 344(18):1343-50.

²⁵ Diabetes Prevention Program (DPP) Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or Metformin. *N Engl J Med*. 2002 February 7; 346:393-403.

²⁶ Diabetes Prevention Program (DPP) Research Group. The Diabetes Prevention Program (DPP): description of lifestyle intervention. *Diabetes Care*. 2002; 25(12):2165-71.

A review of the effectiveness literature for chronic disease prevention prepared for Health Canada²⁷ indicated that various factors relate to the success of programs and initiatives implemented to meet the needs associated with chronic disease prevention. These main factors are outlined in Table 3 below and are aligned, where appropriate, with the main activity groups of the CDIP Cluster. There is at least one area of activity aligned with each success factor identified. It should be noted that there are various additional factors associated with the extent to which the activities defined in the logic model are implemented. Implementation and focus are reflective of the diversity of the communities and regions participating in the CDIP Cluster programs and initiatives.

²⁷ Jacobson, P., McMurchy, D. & Palmer, R.W.H. (2006) *Chronic Disease Prevention: A Review of the Effectiveness Literature*. Unpublished Report prepared for Health Canada.

Table 3: Alignment between identified success factors and CDIP activities

Success Factor (Jacobson et al.)	Relevant CDIP Activity Group	Examples of Activities
Laying the Groundwork - ensuring community participation and ownership, developing common understanding of needs, priorities and goals, addressing social organization, etc.	Activity Area #1: collaborating with First Nations and Inuit communities and organizations, and F/P/T authorities	<ul style="list-style-type: none"> • workplan development • participation in national and regional working groups with First Nations and Inuit organizations • implementation of Contribution Agreements
Community Involvement - interventions must reflect the needs and priorities of the community, and be tailored to these using consultative and participatory approaches	Activity Area #1: collaborating with First Nations and Inuit communities and organizations, and F/P/T authorities	<ul style="list-style-type: none"> • Policy areas to address determinants of health and health promoting environments • priority setting at community level • selection and development of activities at community level • development of culturally relevant tools and guides
Cultural Appropriateness - programs and services must reflect the community in which they are delivered	Activity Area #1: collaborating with First Nations and Inuit communities and organizations, and F/P/T authorities	<ul style="list-style-type: none"> • community development and implementation of activities • development of culturally relevant tools and guides • participation in national and regional working groups with First Nations and Inuit organizations
Program Design - the format, ecology, relevancy of the materials, interventions designed on a strong theoretical framework and tailored to combine medical knowledge with holistic view of health	<p>Activity Area #2: delivering chronic disease and injury prevention programs and supports</p> <p>Activity Area #3: leading, innovating and incorporating evidence-based practices in chronic disease and injury prevention programs</p>	<ul style="list-style-type: none"> • evaluation and monitoring • national and regional support for selection and development of community activities • policy areas to produce relevant, evidence-based information
Capacity Building - the community, program administration and health worker or provider	Activity Area #5: building capacity through developing a skilled community workforce	<ul style="list-style-type: none"> • CDPW training • Self-management training • A Journey to the Teachings²⁸
Individual Participation - importance of individual engagement in health promotion activities and the various factors that can impact on participation	<p>Activity Area #2: delivering chronic disease and injury prevention programs and supports</p> <p>Activity Area #4: educating and creating awareness of chronic disease and injury prevention</p>	<ul style="list-style-type: none"> • activities for community members such as diabetes walks, health fairs, information booths at pow-wows

²⁸ *A Journey to the Teachings* (JTT) is an injury prevention training manual developed by Health Canada in 2009 to support building injury prevention capacity in First Nations and Inuit communities. The JTT manual provides an inclusive, step-by-step curriculum for health workers to deliver workshops in First Nations and Inuit communities on promoting injury prevention awareness regarding unintentional injuries (e.g., falls, motor vehicle collisions, drowning, poisoning) and intentional injuries (e.g., suicide).

Success Factor (Jacobson et al.)	Relevant CDIP Activity Group	Examples of Activities
Education and Behavior Change - addressing gaps in comprehensive, accurate, timely, cost-effective, culturally appropriate health information	Activity Area #2: delivering chronic disease and injury prevention programs and supports Activity Area #4: educating and creating awareness of chronic disease and injury prevention	<ul style="list-style-type: none"> activities in schools and for community members such as cooking classes, community kitchens and gardens, preparing traditional foods, self-management training
Nutrition and Physical Activity - a number of factors were found to have an impact on changing eating behavior, while physical activity programs were found to need to reflect the usual activities of daily living and leisure time specific to the community	Activity Area #2: delivering chronic disease and injury prevention programs and supports Activity Area #4: educating and creating awareness of chronic disease and injury prevention	<ul style="list-style-type: none"> activities for community members such as walking clubs, school lunch programs, menu planning development of relevant tools and guides such as <i>Eating Well with Canada's Food Guide - First Nations, Inuit and Métis</i>
Tobacco - well established as a major cause of many chronic diseases and the prevalence of smoking in First Nations and Inuit communities is extremely high	Activity Area #4: educating and creating awareness of chronic disease and injury prevention	<ul style="list-style-type: none"> education and awareness activities for community members focused on risk factors for chronic disease including smoking
Secondary and Tertiary Prevention - broad acceptance of an integrated system approach to chronic disease prevention rather than a disease focus; local delivery of integrated services was shown to improve outcomes	Activity Area #1: collaborating with First Nations and Inuit communities and organizations, and F/P/T authorities Activity Area #2: delivering chronic disease and injury prevention programs and supports	<ul style="list-style-type: none"> collaboration and network development at national, regional and community levels integration of activities across programming areas at community level focus on associated general risk factors for chronic disease for community activities
Remote Challenges - acknowledge the challenges of delivering health care in remote locations	Activity Area #1: collaborating with First Nations and Inuit communities and organizations, and F/P/T authorities Activity Area #2: delivering chronic disease and injury prevention programs and supports	<ul style="list-style-type: none"> activities selected, developed and implemented by community according to their priorities and needs and challenges development of partnerships in remote areas to create health promoting environments
Resource Allocation and Funding - adequate resources and well-supported staff are essential for successful interventions	Activity Area #1: collaborating with First Nations and Inuit communities and organizations, and F/P/T authorities Activity Area #5: building capacity through developing a skilled community workforce	<ul style="list-style-type: none"> regional support for communities training for professional and community staff implementation of contribution agreements under various funding models
Surveillance and Evaluation - surveillance is an essential component for the planning, implementation and assessment of chronic disease prevention and control activities	Activity Area #1: collaborating with First Nations and Inuit communities and organizations, and F/P/T authorities Activity Area #3: leading, innovating and incorporating evidence-based practices in chronic disease and injury prevention programs	<ul style="list-style-type: none"> evaluation and monitoring of activities collaboration and networking with other agencies to develop surveillance

The literature review conducted for this evaluation also found similar evidence with respect to how the CDIP activities align with the needs related to chronic disease and prevention more broadly. The literature review found that the benefits of chronic disease and injury prevention in general are well-developed from both the societal and health care system perspectives, particularly from an economic analytic perspective. Positive broad social and economic benefits, as well as individual-level benefits, from interventions similar in scope and focus to those delivered within the CDIP Cluster have been identified in the literature.

From the key informant interviews and site visits, the evaluation found that the focus of activities at the community level is primarily on diabetes and its risk factors, given that most of the funding distributed under the Cluster is associated with ADI. Communities with greater capacity in the area of program development and implementation, however, tend to take a broader approach overall with respect to chronic disease. Nonetheless, findings from interviews with key informants from the AFN and ITK, territorial representatives and HC regional representatives confirmed that by addressing the risk factors associated with diabetes (e.g., poor nutrition, physical inactivity), communities are addressing the same risk factors associated with many other chronic diseases (e.g., cancer, cardiovascular disease).

R1.4 Meeting Community Needs with CDIP Programs and Supports

Overall, the CDIP Cluster programming is working well for communities. All communities indicated that the ADI programming and activities assist community members to address challenges related to chronic disease, in particular diabetes. Communities that have a trained CDPW, and smaller communities were more likely to rate the programs as helping considerably in addressing challenges. Areas identified by community health staff as assisting community members include promotion and awareness activities (e.g., diabetes walks, information booths during pow-wows, radio shows on diabetes prevention), education activities (e.g., workshops, lunch session at local employers, multiple sessions on weight loss/healthy eating, diabetes care, training on use of newer, more accurate blood testing kits), and screening and care activities (e.g., foot clinics, clinics to screen for common health problems associated with diabetes, verification of accuracy of blood testing kits, menu planning, individual counselling). Challenges presented by ADI programming include ensuring program reach within the community (e.g., youth, men, Elders), balancing various types of activities (e.g., awareness, education, screening and care), translating increased knowledge and awareness into behaviour change (e.g., aware of importance of good nutrition and actually changing diet), and ensuring sufficient capacity and resources to meet community priorities and ensure continuity of programming.

The extent to which the CDIP programs and supports were meeting the community needs in the areas of chronic disease and injury prevention was assessed through the community site visits. Community health staff were asked to rate the extent to which ADI programming and activities helped community members address challenges (as outlined in Section 3.1). Consistently,

communities reported that the CDIP programming worked well for their communities. The staff in approximately one-half of communities (15 of 27) reported that the programming was helping “a lot”²⁹, while the remainder indicated that it was helping “somewhat”. No communities indicated that the programming was not helping at all.

Communities with trained CDPWs were more likely to rate the programs helping “a lot” compared with communities that did not have a trained CDPW. Nearly twice as many communities with a CDPW indicated “a lot” compared with “somewhat” (10 vs. 5), whereas, communities that did not have a CDPW were equally divided between “somewhat” and “a lot” (6 vs. 6).

Another trend noted was that smaller communities (under 2,000 members) were more likely to rate the programming as helping “a lot” compared with the larger communities with over 2,000 members. Most of the smaller communities indicated that the programming helped “a lot” compared with a few who rated the programming as helping “somewhat” (13 vs. 2). The larger communities were less likely to rate the programming as “a lot” helpful than “somewhat” helpful (3 vs. 6). This may be partly explained by smaller communities being able to develop somewhat of a “critical mass” of dedicated resources under the ADI, which may not be as noticeable in the larger communities given the differences in magnitude.

The finding that CDIP programming was of value to smaller communities is significant, because the majority of First Nations and Inuit communities are small. Recent statistics indicate that 90% of First Nations communities and 60% of Inuit communities have a population of less than 1000³⁰. Furthermore, 57% of First Nations and 38% of Inuit live in Communities with fewer than 500 members³¹.

Health staff in communities identified a number of different activities and programming components that assisted community members to address their diabetes-related health challenges. Many of these were promotion and awareness activities (21 out of 29 communities) and included activities such as health fairs, weight loss contests and diabetes awareness walks. Education activities were also cited (17 out of 29 communities) that included activities such as workshops, cooking classes, and school programs. The third main group included screening and care activities (14 out of 29 communities) with examples such as foot care clinics, screening clinics, and home visits.

The main challenges outlined by the communities with respect to the CDIP programs and supports were similar to challenges that are commonly faced by community-based health promotion programs in general:

²⁹ During key informant interviews, in order to achieve some sort of scaling beyond yes/no, respondents were asked to scale their answers for some questions using a simple 3-point scale consisting of “not at all”, “somewhat” and “a lot”.

³⁰ Health Canada. March 1, 2009. First Nations and Inuit Health Fact Sheet. Health Information, Analysis and Research Division, FNIHB.

³¹ Health Canada. February 1, 2011. First Nations and Inuit Health Fact Sheet. Health Information, Analysis and Research Division, FNIHB.

- **Program reach** - while there appears to be high levels of participation in many communities, program reach remains an issue in some communities as only a proportion of those likely to benefit are being reached (7 of 29 communities). Potential barriers to participation are discussed in more detail in Section 4.1.
- **Challenges in balancing various activities** - Given the breadth of the CDIP programming, and in particular ADI, some communities (9 out of 29 communities) reported challenges in covering various components such as prevention, screening and care for diabetes. As a result, there is a tendency to focus on the main priorities of the community at a particular point in time, and to cover the areas for which they have resources and capacity with the staff available.
- **Translating increased awareness and knowledge into changes in behaviour** - Some communities identified challenges in ensuring that the increased awareness and knowledge from various activities actually produces longer-term changes in behaviour, particularly in the areas of physical activity and healthier eating behaviours (11 of 29 communities). This is a known challenge for health promotion programs in general.
- **Capacity and resources** - Some communities indicated that a substantive challenge in meeting the needs of their communities is insufficient resources to address the priority needs identified (7 of 29 communities). The main factor associated with this challenge is the size of the community. With funding allocations based on a per capita formula, smaller communities have insufficient funds to undertake activities that target different sub-populations, and to address prevention, screening and care. Smaller communities with limited resources also find it challenging to ensure that community workers working in chronic disease and injury prevention are properly trained since they are often part-time, and/or are responsible for multiple areas and programs in their community. Challenges with capacity were also noted by territorial representatives for northern communities.

R2.1 Consistency Between CDIP and Government Priorities at Time Cluster was Created

The objectives and anticipated outcomes of the CDIP Cluster align with the Government of Canada priorities at the point at which the Cluster was initially formed in 2005. *The Integrated Pan Canadian Healthy Living Strategy*, Speeches from the Throne from this period, and the *Blueprint on Aboriginal Health* outline priorities in the areas of health promotion, addressing risk factors of physical inactivity and poor nutrition, injury prevention, and integrated disease strategies.

The CDIP Cluster was formed in 2005. There were clear links between the Government of Canada's priorities at that time and the intended outcomes of the CDIP Cluster. Examples of these links are found in the *Integrated Pan-Canadian Healthy Living Strategy*, Speeches from the Throne for the 37th and 38th Parliament, as well as the *Blueprint on Aboriginal Health* that was considered at a First Ministers and National Aboriginal Leaders meeting in 2005.

Specifically, these include:

- **The Integrated Pan-Canadian Healthy Living Strategy (2005)** - “The Strategy is a conceptual framework for sustained action based on a population health approach. Its vision is a healthy nation in which all Canadians experience the conditions that support the attainment of good health. The intersectoral nature of the Strategy provides a national context and reference point for all sectors, governments and Aboriginal organizations to measure the success of strategies and interventions.”
- **Speech from Throne (37th Parliament - 2004)** “Partnership for a Healthy Canada - strengthening our social foundations also means improving the overall health of Canadians - starting with health promotion to help reduce the incidence of avoidable disease.”
- **Speech from Throne (38th Parliament – 2004)** “Better health for Canadians... requires the promotion of healthy living, addressing risk factors such as physical inactivity and nutrition; the prevention of injury; and integrated disease strategies.”
- **Blueprint on Aboriginal Health: A 10-year Transformative Plan (2005)** “The Blueprint is a ten-year transformative plan for making significant progress in closing the gap in health outcomes between the general Canadian population and Aboriginal peoples, including First Nations, Inuit and Métis. This will be achieved by improving access and quality of health services through comprehensive, holistic and coordinated service provision by all parties to the Blueprint, and through concerted efforts on determinants of health.”

R2.2 Consistency Between CDIP and Current Government Priorities

The objectives and anticipated outcomes of the CDIP Cluster align with a number of current priorities outlined by the Government of Canada. These include alignment with the declaration outlined in *Creating a Healthier Canada, the F/P/T Framework for Action to Promote Health Weights*, recent integrated strategies on chronic disease, patient wait time guarantees, and physical activity targets.

The objectives of the CDIP Cluster align with a number of recently announced strategies, initiatives and pledges that are reflective of the current Government of Canada priorities. Some examples include:

- **Creating a Healthier Canada: Making Prevention a Priority** - In 2010, Canada’s health and healthy living ministers endorsed this declaration which lays out a vision of how governments will work together and with other organizations in the promotion of health, and the prevention of disease, disability, and injury.
- **F/P/T Framework for Action to Promote Healthy Weights** - In 2010 F/P/T Ministers of Health agreed to focus efforts on curbing childhood obesity rates and promoting healthy weights as a critical first step in helping Canadians live longer, healthier lives. Under this

framework, F/P/T Ministers will work together and with stakeholders to identify joint and/or complementary actions.

- **Various recent initiatives on chronic disease** - The Government of Canada has been working in partnership with other levels of government and organizations to move forward in the prevention of various chronic diseases. These include the Canadian Heart Health Strategy, the Canadian Partnership Against Cancer, the Canadian Stroke Strategy and the National Lung Health Framework. The underlying objectives and basic principles of CDIP align with these broader strategies.
- **Speech from the Throne (40th Parliament, 3rd session - 2010)** - “To prevent accidents that harm our children and youth, our Government will also work in partnership with non-governmental organizations to launch a national strategy on childhood injury prevention.”
- **Patient wait time guarantees** - In 2006, the Government of Canada announced guarantees on patient wait times for federally funded health services in First Nations communities. These include wait times specifically for diabetes care.
- **Physical activity targets** - In 2008, the Government of Canada in collaboration with most of the provincial and territorial governments set the first-ever national physical activity targets for children and youth aged 5 to 19 years old.
- **Nutrition North Canada** - announced in 2010, this new program will subsidize retailers for the cost of shipping healthy perishable foods to northern isolated communities and support retail and community-based nutrition education activities.

R3.0 Consistency Between CDIP and Government's Mandate and Role to Address First Nations and Inuit Health Needs

Overall, the CDIP programming was assessed as congruent with the Government of Canada’s mandates and responsibilities as outlined in the Federal Indian Health Policy, funding agreements, and FNIHB’s mandate. The community-based nature of programming under CDIP and the extent to which programming is developed and implemented by communities to address their own identified priorities fits with the longer-term plan of transfer of delivery and administration of health programming to First Nations control. Similarly, the emphasis on capacity development also aligns with the transfer process.

The mandate and role of the Government of Canada to address First Nations health needs is captured in the Federal Indian Health Policy (1979).³² The goal of the Policy is to achieve an increasing level of health in First Nation communities. The Canadian Government, recognizing its legal and traditional responsibilities, indicated that this increasing level of health must be built on three pillars. The first, and most significant, is community development. The second pillar,

³² Information for the Indian Health Policy was adapted from information contained on the following Health Canada website: http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/fnihb-dgspni/poli_1979-eng.php

respecting traditional relationships, includes promotion of the capacity of First Nation communities to achieve their aspirations. The third pillar is the Canadian health system. The most significant federal roles in this interdependent system are in public health activities on reserves, health promotion, and the detection and mitigation of hazards to health in the environment. First Nation communities have a significant role to play in health promotion, and in the adaptation of health services delivery to the specific needs of their community. The Federal Government is committed to promoting the capacity of First Nation communities to play an active, more positive role in the health system and in decisions affecting their health.

In keeping with the Indian Health Policy, there has been a long-term plan to transfer delivery and administration of health programming to First Nations control. Roles and responsibilities of the Government of Canada and the First Nations are evolving as the transfer process continues.

The federal government no longer has a direct service delivery role³³ for First Nations living in the North or for Inuit living in the four Inuit regions located in Nunavut, the Northwest Territories (Inuvialuit Settlement Region), Quebec (Nunavik Region), and Newfoundland and Labrador (Nunatsiavut Region). The majority of health services have been integrated through territorial transfer and self-government/land claim agreements, supported through federal funding commitments.

Health Canada provides funding for specific health promotion and illness prevention programming and Non-Insured Health Benefits through contribution agreements with the governments of Nunavut and the Northwest Territories, and the Nunavik Regional Board of Health and Social Services in Quebec. Funding for specific health programs and services for Inuit living in the Inuit Region of Nunatsiavut is provided under the auspices of Final Fiscal Agreement (FFA) of the Labrador Inuit Comprehensive Land Claims and Self Government Agreement.

In keeping with the overall Policy and mandate of the Government of Canada, the First Nations and Inuit Health Branch (FNIHB), Health Canada, fulfills an important role in the management and delivery of health programs and services for First Nations and Inuit communities. The mandate of FNIHB is to:³⁴

- ensure the availability of, or access to, health services for First Nations and Inuit communities;
- assist First Nations and Inuit communities address health barriers, disease threats, and attain health levels comparable to other Canadians living in similar locations; and
- build strong partnerships with First Nations and Inuit to improve the health system.

³³ With the exception of a dental clinic in Whitehorse (Health Canada (2008), *Health Canada - Northern Region - Moving Forward*).

³⁴ Mandate was obtained from the following Health Canada website: <http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/fnihb-dgspni/mandat-eng.php>

4.0 Evaluation Findings for CDIP Performance

P4.1.1 Increased Participation of First Nations and Inuit in CDIP Programs and Supports

From the qualitative information collected during community site visits, there was a strong indication of more activities taking place and more community members involved during the 2005-2010 period compared with the previous five years. Nearly all of the communities reported that they had increased both the number and types of ADI activities offered during this period. This concurred with the findings from a national survey that indicated the proportion of First Nations and Inuit screened for diabetes increased over the same period. Despite the apparent increase in participation, a number of barriers to participation were identified by the evaluation, similar to challenges commonly found in health promotion programming at the community level. These barriers to participation included: the perception by non-participants that the activities will not be useful, the tendency to seek care/advice for acute conditions rather than chronic conditions, the concern that activities are not offered in comfortable environments (e.g., privacy concerns, structural requirements), the need to focus on more basic needs or dominant needs such as shelter, child care or addictions, and a general preference for other types of more sedentary social or recreational activities.

One of the main anticipated outcomes of the CDIP Cluster was an increase in the numbers of First Nations and Inuit people and communities participating in CDIP programs and supports. This was examined according to numbers of communities and people participating, target populations and identified barriers to participation.

Number of communities/people participating

According to data provided on approximately 450 CDIP-related contribution agreements, over 600 First Nations and Inuit communities participated in CDIP programming and supports. The overall population of these communities is approximately 460,000. Additional off-reserve and urban communities have been served with the various projects under MOAUIPP.

Qualitative information collected during site visits indicates that more activities were taking place and more community members were involved during the 2005-2010 period, compared with the previous five years. Twenty-six (26) of 29 communities reported that they had increased both the number and types of ADI activities offered during this period.³⁵ Many communities (21 of 29 communities) also indicated that they had implemented activities that targeted new sub-

³⁵ It should be noted that the representatives from the three communities that did not indicate that activities had increased were relatively recent in their positions and did not have the historical perspective to comment. It should not be interpreted as activities having not increased.

populations within the community (e.g., canoe trips for youth, foot care clinics for diabetics) during this five-year period. The evaluation was not able to determine the actual number of people participating in the CDIP activities given the changes in monitoring and reporting at the community and regional levels that took place during the time period covered by the evaluation.

The findings from the site visits corroborated results of a national survey of First Nations and Inuit. A follow-up survey of First Nations on-reserve and Inuit in 2009 found that large proportions of First Nations (69%) and Inuit (46%) had been “checked for diabetes”. This proportion had increased five percentage points for First Nations, and seven percentage points for Inuit since 2006.³⁶ While the findings from this survey cannot be attributed directly to CDIP activities, the trend towards increased attention to screening among respondents can at least be logically linked to increased screening and awareness activities in these communities.

Target populations

A roll-up report of community performance reporting tables estimated that based on the 2005-06 ADI activities, approximately two-thirds (66%) of First Nations and Inuit people with diabetes may be receiving diabetes education services. This estimate should be interpreted with caution given the extent of the imputations and extrapolations that were required as a result of missing data and incomplete information (i.e., data from only 233 of approximately 600 communities).³⁷

Barriers to participation

The community visits, interviews and focus groups with participants and non-participants identified a number of potential barriers to participation for community members. Some of these are commonly found in health promotion programming with various types of populations, while others may be more specific to First Nations and Inuit communities and conditions. The main barriers identified during the evaluation included:

- **Perception by non-participants that activities are not useful/relevant** - During community visits, the evaluators were told by participant and non-participant groups in 14 of 21 communities that a main barrier to participation is that the activities are often not viewed as useful or relevant by those who choose not to participate. The lack of “usefulness” was attributed to different perceptions such as believing that diabetes won’t “happen to them”, or the more fatalistic, opposite perception that, given the rates of diabetes in their family or community, they are likely to “get it” and so activities will not help in the prevention. Another perception was that the ADI activities are only for people who already have diabetes, so would not be relevant for them.

³⁶ The findings reported are from the following reference: Environics Inc. (2009) *2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit - Final Report*. This report makes reference to and comparisons with the results from the baseline survey that was conducted in 2006 among First Nations people on-reserve and Inuit in the North to assess awareness, attitudes and behaviours surrounding chronic disease, nutrition and physical activity.

³⁷ FNIHB (2008) *Community Roll-up Report Tables 2005-06 and 2006-07*.

- **Choose to engage in other activities, often more sedentary** - Participants in focus groups in 8 of 21 communities described individuals making choices to participate in other activities that they find more interesting but are often more sedentary such as bingo, playing video games, watching television, etc., rather than participating in ADI activities. Health staff in one community explained that in order to ensure reasonable turn-out at activities, they work around social events or busy times in the community.
- **Requirement to focus on basic needs and other dominant issues** - Given the day-to-day challenges with various social-economic conditions in many of the communities, people do not have the resources and energy to attend activities focused on prevention and health promotion when there are more immediate pressing issues such as inadequate housing, money for groceries, child care, or dealing with impacts of addictions. This was presented as a barrier to participation by groups in 6 of 21 communities.
- **Tendency to seek care/advice for acute conditions rather than chronic conditions** - As is found in other populations and prevention programming, there is a tendency among people to often focus on seeking care and advice for acute, changing conditions. They are less likely to seek advice or care for more chronic conditions, and even less likely to seek advice on issues of prevention. For example, in two focus groups with non-participants, young men reported that they did not see chronic disease as an issue for them, so did not perceive the various activities as relevant or applicable to them. During the community visits, participant and non-participant groups in 5 of 21 communities reported this as a barrier to participation.
- **Activities are not in comfortable environment (e.g., concerns about privacy, structural requirements)** - In 5 of 21 communities, groups of participants and non-participants reported that in some cases, community members are less likely to participate because they are uncomfortable with the environment within which the activities are held. Examples include having people from outside the community attend activities, issues with individual privacy and group activities, or the structure of the activity such as a program with multiple requirements.

P4.1.2 Improved Access to Quality Programs and Supports Relating to CDIP

Overall, there was satisfaction with the accessibility of ADI programming. Satisfaction was expressed in the areas of frequency, continuity, timing and language of activities. Barriers to access identified by the evaluation included logistical barriers (e.g., transportation, child care), issues with materials and information (e.g., translation, literacy levels), awareness of activities (e.g., promotion issues, target populations), and consistency of programming. Entry points to services and supports were readily identifiable by community members.

The community visits and document review provided information on community members' access to CDIP programs and supports. Information was collected on community members' satisfaction with their access to ADI activities, identified barriers to access, the extent to which

people in the community were aware of the ADI services and supports, and the extent to which they could clearly identify entry points to services and supports. Barriers to access were defined as those factors not really under the control of the person that make it difficult for a person to participate. These were identified separately from barriers to participation which are described in Section 4.1.2.

Satisfaction with access to ADI activities

In the 18 communities where ADI participants in focus groups commented on their satisfaction with access, all groups expressed satisfaction. They were also all able to identify areas for improvement, particularly with respect to improving accessibility for non-participants. Non-participants generally reported that they chose not to participate for reasons unrelated to accessibility of programming (see “barriers to participation” in Section 4.1), but, similar to the participants, were able to provide suggestions for improving accessibility for other non-participants (see below “barriers to access”).

To further assess satisfaction with access, community health staff were asked to comment on the extent to which they perceived four specific aspects of programming to be effective in enhancing accessibility for community members.

- **Frequency of activities (e.g., clinics once per week)** - Health staff generally rated the frequency of activities offered as effective. Health staff in 20 communities indicated that their programming was either “very effective” (6 communities) or “somewhat effective” (14 communities) with respect to frequency of specific activities. Health staff in three additional communities provided relatively diverse ratings within the community (e.g., not effective to somewhat effective).
- **Continuity of activities (e.g., seasonal, continuous)** - Similarly, health staff indicated that the level of continuity of activities was effective for the communities. Out of 20 communities that provided ratings, health staff in 8 communities indicated the continuity of their activities were “very effective” while the remaining 12 communities reported they were “somewhat effective”. In two other communities, health staff ratings were variable.
- **Timing of activities (e.g., weekends, mornings)** - Health staff reported that the timing of activities was effective, and taken into account in making programming decisions. Out of 21 communities that provided ratings, staff in 8 communities reported that the timing of activities was “very effective”, while 12 communities rated the same aspect as “somewhat effective” and one community indicated that their timing was “not effective”.
- **Language of activities** - Out of 14 communities that supplied ratings, 10 communities reported that the language of activities was “very effective”, while the remaining 4 indicated “somewhat effective”. Two (2) communities provided diverse ratings. Interestingly, health staff from 5 communities indicated that the language of activities was not an issue for their communities.

Barriers to access

A number of barriers to having community members access CDIP programming and supports were identified during community visits. The most commonly cited categories of barriers included:

- **Logistics** - Logistical barriers included factors such as no access to transportation, lack of childcare, timing of activities did not correspond with other activities such as work schedules, or poor weather.
- **Information and materials** - Low levels of education among some potential participants were found to accentuate barriers to accessing information provided during activities. In an Inuit community, many of the materials were not translated.
- **Awareness of activities** - Some people living in the communities were unaware of CDIP programs or believed that all ADI activities were aimed at people living with diabetes. This access barrier was also identified in a 2009 survey of First Nations on-reserve where approximately one-third of respondents were not aware of programming in their community to help residents prevent or manage diabetes. This proportion was unchanged from the results obtained in 2006.³⁸
- **Consistency of delivery of activities** - Programs and supports were not consistently available. Challenges to consistency include the turnover and replacement of staff, and for some communities, the lack of year-round or multi-year funding for those working under set/consolidated funding arrangements.

Entry points to supports and services

To assess whether there were commonly understood entry points to supports and services, the evaluation asked ADI participants to identify the various ADI activities in the community. Non-participants were asked where they would be likely to go in the community if they wanted more information about diabetes. Community health staff were asked to comment on the effectiveness of their promotion and advertising of programs and activities to community members.

In focus groups, ADI participants were readily able to identify numerous ADI activities that had been taking place in their communities. Of the 20 communities with participant focus groups commenting on activities, groups in 16 communities were able to describe a wide variety of ADI activities. In contrast, groups in the four remaining communities described a limited number or types of ADI activities, commenting only on one or two activities with which they had been directly involved.

Non-participants were most likely to identify the Health Centre as the source they would consult if they wanted more information on diabetes. Of the 11 communities where non-participants commented on sources, groups in seven communities identified the Health Centre as a source they would consult. Other sources included specific individuals with diabetes knowledge such as CDPWs or nurses (5 communities), family and friends (3 communities), or specific ADI activities (2 communities). Supporting this qualitative information from the community was the

³⁸ Environics Inc. (2009) *2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit - Final Report*.

information from the 2009 survey of First Nations on-reserve and Inuit which found that over half of the respondents (55%) would seek information from the local health centre if they were looking for information about diabetes.³⁹

Health staff reported that the promotion and advertising of ADI activities were effective. Out of the 19 communities in which health staff provided ratings of effectiveness, six communities rated their promotion and advertising as “very effective”, 11 communities “somewhat effective”, and two “not effective”. Four communities provided mixed ratings (e.g., not effective to very effective). Interestingly, some methods such as websites and newsletters were cited as very effective in some communities and not effective in other communities. This would indicate that the methods of effective promotion are specific to communities.

P4.1.3 Delivery of Quality Programming

Overall, the types of activities and interventions being implemented are consistent with effective, evidence-based programming described in the literature. Increasingly, regional-level activities are evidence-based. Challenges remain with respect to having sufficient quality evidence-based findings to guide selection and implementation of activities in First Nations and Inuit communities. With respect to frequency, continuity and variety of activities, communities consistently rate their activities as effective. Communities with trained CDPWs are more likely to rate the variety of activities they are offering as more effective. Challenges in these areas appear to be related to the size of community, which is likely indicative of the resources available. Also potentially related are the remoteness of communities and issues of turnover of key staff. Cultural traditions are increasingly being taken into account in the selection and development of activities at the community, regional and national levels. Most participants consider this an attractive and beneficial component of activities.

The extent to which quality programming was being delivered under the CDIP Cluster was assessed according to whether activities were evidence-based, the depth and intensity of services, and the cultural relevancy of programming and supports.

Evidence-based activities

Activities described in interviews and workplans are consistent with the activities that have been demonstrated to be effective in chronic disease prevention, for example, screening, monitoring and care, and prevention. Many of the activities and interventions being implemented in communities are similar to those found in the literature reviewed by Jacobson et al.⁴⁰ The literature review conducted for this evaluation also concluded that the types of interventions being implemented in communities under the CDIP Cluster are effective.

³⁹ Ibid.

⁴⁰ Jacobson, P., McMurchy, D. & Palmer, R.W.H. (2006) *Chronic Disease Prevention: A Review of the Effectiveness Literature*. Unpublished Report prepared for Health Canada.

Most HC regional representatives (11 of 16) indicated that they are increasingly using evidence from research and evaluation in selecting regional activities. For example, evidence-based CDA clinical guidelines and physical activity guidelines are being used, and training is being evaluated. Regional respondents also reported increased efforts to act as information conduits to the communities and regional First Nations organizations by ensuring information is transmitted that could potentially assist communities in implementing more evidence-based activities into their programming at the community level. Examples included clinical guidelines, food guides, and training materials that are evidence-based (e.g., A Journey to the Teachings for injury prevention programming). The challenges identified by HC regional representatives in ensuring activities are evidence-based were: 1) there is little First Nations' specific evidence; and 2) there is limited surveillance and outcome data available for communities, so gathering evidence on effectiveness of activities is difficult.

FNIHB representatives indicated that the Cluster also participated in efforts to expand the evidence-base of information available about chronic disease prevention related to First Nations and Inuit communities. The Cluster supported and invested in various research efforts such as the *CIRCLE Study*⁴¹, and the First Nations, Food Nutrition and *Environment Study*⁴². As well, the Cluster has commissioned background papers in areas such as food insecurity among Aboriginal peoples, and determinants of healthy eating.

Depth and intensity of services

A review of 15 available workplans from the communities visited demonstrated that the numbers and types of activities varied considerably across communities. The trends noted from the workplans were that communities with smaller populations also tended to have fewer activities overall. As well, when there were fewer activities, the trend noted from the review was that the communities appeared to focus on *either* prevention activities *or* screening and care activities related to diabetes. In contrast, those communities that offered a larger number of activities generally offered a broader range of activities covering both prevention and screening and care.

Findings from interviews with HC regional staff and territorial staff were consistent with observations made from the review of workplans. Challenges with the frequency, continuity, and variety of services and supports offered at the community level were noted by most interviewees (8 of 11). These challenges were associated with smaller communities with fewer resources, and communities that had issues with turnover of staff in key roles (e.g., health director, nurse), Territorial representatives reported that frequency, continuity and variety of supports and services were of particular concern for northern communities.

⁴¹ The CIRCLE Study was a 3 year national diabetes research study that involved the review of medical charts of 19 First Nations communities in order to determine the current state of clinical management of type 2 diabetes and related complications in Canada's First Nations. Harris SB, *et al.* Major gaps in diabetes clinical care among Canada's First Nations: Results of the CIRCLE Study. *Diab Res Clin Pract* 2011 May; 92(2):272-279.

⁴² First Nations Food, Nutrition, and Environment Study is a national scope study on the benefits and risks of food and water in First Nation communities. The study will gather information in 100 randomly selected First Nation communities across Canada about regarding current traditional and store bought food use and food security. Description adapted from the following website: http://www.fnehin.ca/site.php/sitenews/first_nations_food_nutrition_and_environment_study/

Community health staff indicated that the frequency (e.g., 2 times per month, weekly), continuity (e.g., seasonal, year round), and types of ADI activities offered were effective overall. Health staff from communities rated frequency either “somewhat” effective (16 of 21 communities) or “very” effective (5 of 21 communities). They gave slightly higher ratings to continuity of activities (13 of 21 communities rated continuity “somewhat effective” and 8 of 21 communities rated continuity as “very” effective). Similar ratings from health staff were found with respect to the effectiveness of the types of activities offered where they reported that these were “somewhat” effective (17 of 25 communities) or “very” effective (8 of 25 communities). When these three sets of ratings were analysed according to whether there was a CDPW in the community, the evaluation found that communities with trained CDPWs were more likely to rate the types of activities as “very” effective compared with communities that did not have a trained CDPW. Nearly equal proportions of communities with a CDPW indicated “very” compared with “somewhat” (6 vs. 7 communities), whereas, communities that did not have a CDPW were much more likely to rate the types as “somewhat” effective (2 vs. 8 communities). This trend was not found for frequency or continuity, or for other variables such as community size or remoteness.

Cultural relevancy

Findings from the community visits and interviews with representatives from National Aboriginal Organizations (AFN and ITK) and HC Regions indicate that cultural traditions are increasingly being taken into account in the selection and development of activities at the community, regional and national levels. At the community level, most community health staff (23 of 26 communities) and community leaders (15 of 17 communities) interviewed described various examples of how cultural traditions were being considered and incorporated into activities to ensure greater levels of cultural relevancy for activities (e.g., consideration of traditional foods in understanding nutrition, physical activities organized around traditional dance, sports and games). For example, one community visited reconnected to their long history as warriors and used this to encourage team sports and physical activity emphasizing that their people had a history of being physically fit.

HC regional representatives described the efforts made by First Nations and Inuit advisory or steering committees to assist in not only identifying priorities, but also to ensure the cultural relevancy of regional initiatives. FNIHB representatives, AFN and ITK also identified working groups and advisory committees with First Nations and Inuit representation as key to ensuring the cultural relevancy of initiatives under the CDIP Cluster. An example of a product resulting from this type of collaboration is the Eating Well with Canada’s Food Guide which has been tailored for First Nations, Inuit and Métis to reflect the values, traditions and food choices of Aboriginal populations. Since its release in 2007, over 1,000,000 copies of the Guide have been printed. Public opinion research indicated that, within the first year of the Guide's release, almost half of First Nations on-reserve (46%) were aware of the Guide.⁴³ To March 31, 2010, more than 970,000 copies of the Guide have been disseminated. In 2010, the Guide was launched in four Aboriginal languages (Woods Cree, Plains Cree, Ojibwe and Inuktitut).

⁴³ Ekos (March, 2008). *First Nations People Living On-Reserve Health and Safety - Part of the First Nations People On-Reserve Study*.

In the communities visited, most participants in focus groups indicated that inclusion of cultural traditions in activities was an attractive feature and assisted with engaging community members to participate (19 of 21 communities). It should be noted that a small proportion of ADI participants and non-participants in focus groups from a few of the communities (2 of 21 communities) did not assign importance to the cultural relevancy of activities, and perceived attempts to incorporate cultural traditions into activities as unnecessary.

P4.1.4 Increased Awareness of Healthy Behaviours Related to Chronic Disease and Injury Prevention

The evaluation found that community members and health staff perceived that CDIP Cluster activities had resulted in community members increasing their knowledge with respect to diabetes, healthy eating and physical activity. This increase in knowledge was more evident in communities with trained CDPWs, and in smaller communities. The findings were less clear with respect to whether or not CDIP Cluster activities had contributed to changing community members' perceptions of susceptibility and severity of chronic disease.

Increased awareness of healthy behaviours related to chronic disease and injury prevention was evaluated according to changes in perceptions of susceptibility, perceptions of severity, and increases in knowledge about healthy behaviours.

Perception of susceptibility

The evidence of increased awareness of healthy behaviours resulting from changes in the perception of susceptibility was somewhat mixed. An indication that perceptions of susceptibility had not changed substantially over the past five years was provided by the document review. The 2009 Follow-up Survey among First Nations on-reserve and Inuit indicated that the perceived causes of five chronic diseases had remained relatively constant since originally measured three years prior.⁴⁴ It should be noted that the survey was of communities in general, and did not focus on those community members who had participated in CDIP activities.

In contrast, indications that perceptions of susceptibility had changed were found in a report outlining the results from an assessment of ADI in nine communities.⁴⁵ This report provided numerous examples of activities that successfully increased community members' awareness of susceptibility to chronic diseases due to factors such as obesity, age, and diet. In line with the findings from this report, the findings from an assessment of CDPW training outlined a number of positive community level outcomes, many of which are likely attributable in part to an

⁴⁴ Environics Inc. (2009) *2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit - Final Report*.

⁴⁵ Patterson (2009) *Assessment of the Health Canada Aboriginal Diabetes Initiative in Selected First Nations and Inuit Communities*.

increased awareness of susceptibility to chronic diseases among community residents.⁴⁶ These changes in perceptions of susceptibility are focused more on those who participated in CDIP programming, rather than the community overall.

Perception of severity

The main evidence of changes in perceptions of severity was found in the report on findings from the 2009 Follow-up Survey among First Nations On-reserve and Inuit.⁴⁷ The majority of First Nation respondents (63%) and almost one-half of Inuit respondents (46%) were able to identify at least one sign or symptom of Type 2 diabetes. There was very little change in the rates that were obtained three years earlier. The report authors concluded that knowledge among respondents of how Type 2 diabetes affects the human body remains fairly limited, and across the two time periods there were no physical effects from diabetes that stood out as being well understood among respondents. Again, this is a measure of the community overall, rather than the changes in perception among specifically those who have participated in CDIP activities.

Perception of efficacy of action

The evaluation found that for some groups, the perception of efficacy of action had changed over the past five years. A report outlining an assessment of ADI in nine communities provided examples of how community members are participating in activities that are action-based, and are linking action to reducing risk levels (e.g., improved nutrition, physical activity).⁴⁸ Similarly, an evaluation of the impacts of CDPW training outlines some community level impacts that have occurred including becoming more aware of the efficacy of action.⁴⁹ As well, the 2009 Follow-up Survey among First Nations On-reserve and Inuit found that among Inuit, the rate of respondents who are not able to identify at least one way to reduce the risk of developing Type 2 diabetes dropped from 40% in 2006 to 26% in 2009. The rate among First Nations participants remained constant at 22%. However, respondents were more likely to rate known methods to prevent or reduce the chance of developing diabetes as “somewhat effective” to “very effective”.⁵⁰

Increased Knowledge

Increased knowledge with respect to diabetes, healthy eating and physical activity was a common theme that was identified during the community site visits, and in particular through the focus groups with CDIP participants. Numerous examples of increased knowledge were provided by focus group participants including: knowing how to read food labels; knowing how to control blood sugar levels through healthier food choices; knowing how to cook healthy foods; knowing how to make better food choices when shopping; increased familiarity with different

⁴⁶ Catalyst Research and Communications (2009) *Aboriginal Diabetes Initiative Capacity Building: Phase 2 Evaluation Report*.

⁴⁷ Environics Inc. (2009) *2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit - Final Report*.

⁴⁸ Patterson (2009) *Assessment of the Health Canada Aboriginal Diabetes Initiative in Selected First Nations and Inuit Communities*.

⁴⁹ Catalyst Research and Communications (2009) *Aboriginal Diabetes Initiative Capacity Building: Phase 2 Evaluation Report*.

⁵⁰ Environics Inc. (2009) *2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit - Final Report*.

types of vegetables; learning about different types of options for exercising; and creating their own gardens to have increased access to healthy foods. Community health staff were asked to rate the extent to which community members' knowledge of healthy behaviours had increased as a result of their participation in CDIP activities. All health staff interviewed in the communities indicated that knowledge had increased among community member participants either "a lot" (18 of 29 communities) or "somewhat" (11 of 29 communities).

Communities with CDPWs were more likely to report larger increases in knowledge. A larger proportion of communities with a CDPW indicated "a lot" compared with "somewhat" (12 vs. 3 communities), whereas, communities that did not have a CDPW were slightly less likely to rate the increase as "a lot" (5 vs. 7 communities).

Another trend noted was that the smaller communities (under 2,000 members) were more likely to rate the knowledge of community member participants as having increased "a lot" compared with the larger communities with over 2,000 members. Smaller communities were more likely to indicate that knowledge had increased "a lot" rather than "somewhat" (13 vs. 6 communities). The larger communities were equally likely to rate knowledge as having increased "a lot" as "somewhat" (5 vs. 5 communities).

Community health staff provided examples of how community members had participated in various activities and learned about aspects of prevention, reducing risk factors for chronic disease (primarily diabetes), self-care and management, and important aspects of daily living tasks such as food preparation and storage, how to participate in different types of physical activities, reading nutrition labels while shopping and making food choices. This is in keeping with the finding from a roll-up report of community reporting that most of the communities had general diabetes and education awareness activities (82% of the communities contributing data to the analysis in 2005-06).⁵¹ Similarly, the proportion of First Nations respondents who rated themselves very knowledgeable about diabetes increased slightly between 2006 and 2009 (22% in 2006; 26% in 2009).⁵²

P4.1.5 Increased Practice of Healthy Behaviours Related to Chronic Disease and Injury Prevention

Common to most health promotion programming, a challenge faced by the CDIP Cluster is translating the increased levels of awareness and knowledge into sustained changes in healthy behaviors. Overall, community health staff and participants reported positive changes with respect to healthy eating and physical activity among community members who had participated in CDIP activities, although the level of change was lower than what

⁵¹ FNIHB (2008) *Community Roll-up Report Tables 2005-06 and 2006-07*.

⁵² Environics Inc. (2009) *2009 Chronic Diseases Follow-up Survey among First Nations On-Reserve and Inuit - Final Report*. It should be noted that these proportions should be interpreted with some caution. It was also found that a certain proportion of those who rated themselves as "very knowledgeable" were at the same time unable to identify any causes of the disease (24%), could not name a sign or symptom (22%), or could not cite a way that the disease affects the human body (35%).

was reported for changes in knowledge. Improvements in injury prevention were reported in only a small proportion of communities. In communities where improvements were not identified, this was due to either injury prevention not being a priority for the community, or work in the area had only recently begun, and therefore it was too early to observe any changes. Within the CDIP Cluster, injury prevention is a policy area and not a program area.

The community site visits provided information on the extent to which community health staff perceived increases in healthy behaviours among community members in the areas of healthy eating, physical activity levels and injury prevention. Participants in focus groups provided various examples of where they had experienced changes, particularly with respect to healthy eating and physical activity. For example, in one community, a weight loss contest was assessed by participants and health staff as a success. The success was not because of the weight loss alone, but because it was accompanied by nutrition and physical activity support and advice from community based health workers (including a nutritionist). As one nutritionist explained, they used the popular activity to make the health services better known to community members who would not otherwise have participated. The real impact was measured by maintained weight loss, improved nutrition, and use of health services.

Community health staff were asked to provide their perceptions on the extent to which participants in CDIP activities had begun to practice healthier eating. Overall, community health staff reported positive changes in participants with respect to healthy eating. Health staff in most communities indicated that this had happened “somewhat” (26 of 29 communities), with a few indicating “a lot” (2 of 29 communities) or “not much” (1 of 29 communities).

With respect to physical activity, most community health staff saw positive changes occurring among community members who had participated in CDIP activities. Health staff in most communities indicated that they had observed increases in levels of physical activity “somewhat” (17 of 27 communities), with a few indicating “a lot” (5 of 27 communities) or “not much” (5 of 27 communities). Interestingly, there was a stronger tendency in communities with trained CDPWs to indicate “a lot” vs. “not much” (4 vs. 1 communities) compared with communities that did not have a trained CDPW (1 vs. 4 communities).

While all community health staff were also asked to comment on perceived changes with respect to injury prevention, respondents in most communities indicated that injury prevention was not a priority for the community at this time (18 of 29 communities), or this area had just begun to develop so there were limited changes at this time (4 of 29 communities). As a result, most of the communities that did provide a response to this question indicated that there had been “not much” change (15 of 20 communities) or “somewhat” of a change (5 of 20 communities). The communities that did notice change most often provided examples of car seat programs and bicycle safety initiatives.

All of the participant focus groups provided examples of how participants had made changes with respect to healthy eating and physical activity (21 of 21 communities). Some of the examples provided during focus groups were reading labels at the grocery store, selecting food with less sodium, preparing various traditional foods, and choosing alternatives to frying food. Examples of increased physical activity included walking clubs, organized sports, pedometer step counts, and lifting weights.

These examples of changes need to be viewed within the context provided during interviews with community health staff who indicated that one of their major challenges is to assist and support people in translating their knowledge and understanding of chronic disease and injury into making and maintaining positive behaviour changes. This was evident in the ratings by health staff, as overall the ratings for increasing knowledge were substantially higher (18 of 29 communities indicating “a lot”) than for behaviour changes (2 or 5 out of 29 communities indicating “a lot”). The challenge of behaviour change is consistently found in the field of health promotion, and is not unique to the CDIP Cluster. Examples of activities that were more successful in encouraging the progression from awareness to changed behaviour tended to be those where an integrated approach was used. For example, in one community during diabetes awareness walks the health staff introduced healthy foods (e.g., fruit smoothies or barbecued skinless chicken breasts) to participants. As well, they offered blood sugar testing before and after the walk to help participants see the drop in blood sugar from a simple walk. This was also used as a screening event with community health staff inviting respondents with high readings to visit a nurse or physician at the local health centre.

P4.2.1 Improved Continuum of Programs and Supports in First Nations and Inuit Communities

The evaluation found examples of awareness and health education activities in each community visited, and numerous examples of various knowledge and skills development activities for community members. A few communities had progressed to developing community mobilization and supportive environments, mostly in the areas of community partnerships and some policy development. The evaluation found that the scope of services available had broadened over the past five years under ADI. There was evidence of partnerships that were developed to enhance programs and services for First Nations and Inuit communities.

The extent to which the continuum of programs and supports for chronic disease and injury prevention had improved in First Nations and Inuit communities was assessed by examining the numbers and types of activities, the scope of services available, partnerships, and referral systems. The continuum was conceptualized according to the components outlined in the CDIP evaluation strategy which described awareness activities, health education activities, skills development, community mobilization and supportive environments.

Numbers and types of activities

From the qualitative information collected during the community visits, there were examples of awareness and health education activities in all 29 communities visited. Most of the communities (25 of 29 communities) also reported offering various skills development activities for community members, such as cooking classes, learning how to exercise, gardening skills, monitoring blood sugar levels, or self-management of diabetes. Approximately two-thirds of communities (19 of 29 communities) described activities that they considered contributed to the development of community mobilization and supportive environments. The three main types of activities described were: different community organizations working together to develop overall supportive environments; policy development that contributed to supportive environments; and leader participation that mobilized the community. Some examples of community organizations working together included the health department working with other departments to combine efforts on similar activities so that the approaches were more seamless for community members (e.g., working with pregnant women to screen for gestational diabetes while they are also learning about prenatal nutrition), working with the local grocery stores to ensure greater accessibility to healthy food choices, or working with the local school to deliver awareness and educational activities. Policies that contributed to supportive environments included school policies that limited pop in schools, and band office vending machines stocking healthy choices. Examples of leaders mobilizing the community were provided where leaders were participating directly in activities and choosing healthy lifestyles, and therefore were perceived by community members and health staff as role models.

Appropriateness of scope of services available

During community visits, community health staff from most communities (26 of 29 communities) indicated that the range of services available had broadened over the past five years under ADI. Most HC regional representatives (8 of 11 communities) reported that they perceived the scope had increased. Two respondents noted that it was challenging to determine if and where there were gaps in the continuum at the community level, given that the community-level reporting to the region does not enable this type of analysis.

Partnerships for supports and services

Partnerships with external service providers varied considerably across the communities visited ranging from formal agreements with regional organizations to no evidence of formal or informal agreements. The document review provided examples of partnerships between various parties in the delivery of services and supports focused on chronic disease and/or injury prevention. In general, the overall purpose of these partnerships was to enhance programs and services for First Nations and Inuit communities by facilitating access to health care services and supports, leveraging different sources of funding to enhance common outcomes, and sharing expertise and knowledge from different perspectives. Examples of partnerships included:

- Intergovernmental partnerships – these include various MOUs, tripartite agreements, and less formalized cooperation; and
- Partnerships with NGOs – these are often at the local or regional level and can involve MOUs, and less formalized cooperation.

Referral systems

Community health staff described referral systems for health services not available in the community as being individualized and patient specific. For services available within the community, various informal systems were described to ensure that patients get the services and supports required. There were no major concerns expressed by focus group participants with respect to referral processes.

P4.2.2 Increased and Improved Collaboration and Networking

The evaluation found that numerous types of formal and informal partnerships and collaborations are occurring within and across levels of the CDIP Cluster including community, regional and national. In addition, the frequency of networking opportunities has increased over the past five years. Networking opportunities are reported to provide useful information for communities. Many of the networking opportunities result from efforts made by the HC regional offices to develop and support these opportunities, which often arise from regional training events or conferences.

One main anticipated outcome for the CDIP Cluster was increased and improved collaboration and networking. This outcome was assessed through examining the types of partnerships and collaborations that were developed, and the networking opportunities at different levels.

Partnerships and collaborations

The evaluation found that numerous types of formal and informal partnerships and collaborations are occurring at multiple levels with the CDIP Cluster. At the community level there were often collaborations between the health departments, schools, seniors groups, and local grocery stores. The presence of collaborative efforts was reported as occurring in approximately two-thirds of the communities visited (20 of 29 communities). As well, there were numerous examples of collaborations between communities and other larger external organizations such as regional health authorities, and school boards (15 of 29 communities). In communities where linkages were occurring, community health staff reported that these were helpful in providing healthy living supports and services to people either “a lot” (11 of 16 communities) or “somewhat” (5 of 16 communities).

HC regional representatives also identified numerous partnerships and collaborations at the regional level. These included collaborations with the provinces and territories, regional First Nations and Inuit organizations, NGOs, training institutions and research groups. As well, given the broad nature of the CDIP policy areas (e.g., injury prevention, nutrition, chronic disease prevention) representatives reported various more informal collaborations among people working in these areas within the Cluster and between various FNIHB programs, sharing information, contacts and materials where appropriate. Interviews with territorial representatives indicated that there were some missed opportunities for collaboration with the other regions given the current structure of representation of the North at meetings of ADI regional representatives.

At the national level, interviews with FNIHB representatives provided information on a variety of partnerships and collaborations including those with National Aboriginal Organizations, NGOs, and training institutions, other government departments, and F/P/T fora (e.g., Public Health Network which includes the Chronic Disease and Injury Prevention and Control Expert Group, and the Injury Prevention and Control Task Group). An example of partnerships for supports and services was the Food Security Reference Group, in which members from the AFN, ITK, and federal government (HC, INAC), and resource people and organizations (both government and non-government), meet to share information, strategize and set priorities for collective action to improve food security for First Nations and Inuit. Another example involved partnerships with the private sector in which the Cluster partnered with the three major food retailers in the North and various other partners to develop and implement retail-based nutrition interventions.

At the international level, collaboration with the United States was extended and strengthened when the Canada-US Memorandum of Understanding on Indigenous Health, originally signed on May 13, 2002, was renewed on November 1, 2007. This MOU recognizes and advances common objectives to raise the health status of Indigenous populations in Canada and the US through the sharing of knowledge, experience, lessons learned and best practices. The renewed MOU was expanded to include new joint working groups, including one on urban and community health. Working groups meet regularly by teleconference or in-person and identify activities to fulfill the objectives of the MOU, which may include the exchange of information and personnel, participation in workshops, conferences, seminars and meetings. The Urban and Community Health Working Group is led by the Director of CDIP (FNIHB) and the Director of Urban Indian Health Programs (IHS). To date, this working group has focussed its efforts on diabetes, given the severity of the issue.

Networking

During community visits, community health staff indicated that the availability of networking opportunities had increased over the past five years. The health staff in most communities (19 of 22 communities) reported that networking had increased, while the remainder (3 of 22 communities) felt that networking had largely stayed the same across the time period. Health staff also reported that the information received from networking was useful either “a lot” (14 of 23 communities) or “somewhat” (9 of 23 communities). Neither the presence of a CDPW nor community size had an effect on networking. HC regional representatives confirmed the perception that there were increased opportunities for networking over the past five years (9 of 11). From the examples provided, many of the networking opportunities resulted from efforts made by the HC regional offices to develop and support these opportunities. Often the opportunities for networking arose from more formal training opportunities or conferences for community health staff that then developed into networks through which additional information or updates are provided. Some regional representatives noted (6 of 11) that while many of the networking opportunities are held through teleconferencing, email, etc., an important step in developing these networks was to initially bring people together in-person (e.g., training, conference) so that connections can be made.

P4.3 Increased First Nations and Inuit Community Ownership to Deliver Chronic Disease and Injury Prevention Programs and Supports

The evaluation found considerable variability across communities in community leaders' awareness of CDIP Cluster activities. The most important roles identified for community leaders were as active participants in community activities, and as role models for healthy living. The evaluation found that Elders played key roles in supporting and contributing to ADI programming in most communities visited. An examination of funding agreements (Table 4) found that approximately one-half of agreements (53%) had increased flexibility over the "Set/Consolidated" agreements (47%). Community health staff had mixed opinions on whether the funding model supports the delivery of quality supports and services under ADI for community members. Those communities with the least flexible models (i.e., set/consolidated) were less likely to indicate that the model was helpful in supporting delivery.

One anticipated outcome of the CDIP Cluster is an increase in community ownership of delivery of chronic disease and injury prevention activities and supports. This outcome was assessed by examining community leaders' awareness and support of CDIP programming, types of funding models implemented, and the perceived influence of funding models.

Community leader awareness and support

Interviews with community leaders and health staff during community visits demonstrated considerable variability in awareness levels of the Chief and Council of chronic disease and injury prevention activities. Community health staff were asked to rate the levels of awareness of community leaders of ADI activities and supports. While the majority of health staff rated community leaders as either "a lot" (6 of 29 communities) or "somewhat" aware (14 of 29 communities), approximately one-third (9 of 29 communities) reported that the leaders were "unaware". Community leaders themselves rated their level of awareness a little higher with the majority indicating that they were either "very" aware (6 of 18 communities) or "somewhat" aware (9 of 18 communities), and a small number indicating that they were "not" aware (3 of 18 communities) of ADI activities and supports.

The role of community leaders cited as having the most impact on the success of ADI activities in the community was participation as role models. Responses of community health staff (18 of 29 communities) and community leaders (11 of 18 communities) pointed to the importance of community leaders being seen by the community members as active participants in healthy living activities.

From the community visits, the evaluation found that Elders played key roles in supporting and contributing to ADI programming in most communities visited (23 of 29 communities). Their involvement ranged from more advisory roles through to active participation in programs and activities such as teaching traditional methods of food preparation.

Contribution funding mechanisms

FNIHB provides most of its support to First Nations communities through contribution funding. Funding mechanisms are based on the premise that communities taking greater control over their health services experience better health outcomes⁵³. Evaluations of FNIHB program clusters provide an opportunity to assess whether the type of funding agreement helps the community achieve its program goals.

From 1998 to 2008, three funding models were in use by FNIHB (general or consolidated, integrated and transfer). New funding models, introduced in 2005, allow recipients to progress from low to high levels of control, flexibility, authority and accountability for health programs and services on reserve. These new funding models are set, transitional, flexible and flexible-transfer. They are fundamentally similar to the old models, but recipients are able to sign a single contribution agreement which includes one or more funding model(s); for example, a recipient may opt to deliver some programs under a 'set' model and others under a 'transitional' or 'flexible' model within the same contribution agreement.

In addition to FNIHB's funding models, a multi-departmental funding agreement was jointly developed by Health Canada (FNIHB), Indian and Northern Affairs Canada (INAC) and the Department of Justice. This funding mechanism, the Canada/First Nations Funding Agreement (CFNFA), is used by First Nations who wish to have one agreement that includes programs from several government departments. This approach results in a reduced number of agreements and less administrative burden for both recipients and federal departments, and the agreements generally cover a wider range of federal programs.

During the period of this evaluation, a mixture of old and new FNIHB funding models and CFNFAs were in effect.

In 2009-10, there were 440 agreements that covered 647 First Nations and Inuit communities. The breakdown of agreements by type are shown in Table 4 below. Slightly less than one-half of agreements (47%) are Set/Consolidated agreements which are the least flexible. The evaluation attempted to determine the extent to which the distribution of types of agreements had changed over the five year period covered by the evaluation (e.g., trend to more flexible agreements). This was not possible given the changes in types of agreements that occurred during this period combined with the presence of multi-year agreements.

⁵³ Health Canada (March 1999). Transferring Control of Health Programs to First Nations and Inuit Communities.

Table 4 - Types of Funding Agreements for 2009-10

Type of Funding Agreement	n	%
Canada First Nations Funding Agreement	5	1%
Flexible Transfer	11	3%
Flexible/Transfer	50	11%
Transitional	168	38%
Set/Consolidated	206	47%
Total	440	100%

Source: Health Canada, Chief Financial Officer Branch, Financial Services, (FNIHB), 2010

Perceptions of influence of funding models

Community health staff indicated mixed opinions when reporting on the extent to which the funding model supports the delivery of quality supports and services under ADI for community members. The majority indicated that it helped either “a lot” (6 of 19 communities) or “somewhat” (10 out 19 communities), with a few reporting that the funding model did not help (3 of 19 communities). Those communities with set models were less likely to indicate that the model was helpful (“a lot” 0; “somewhat” 5; “not at all” 3) compared with communities that had more flexible agreements (“a lot” 6; “somewhat” 5; “not at all” 0). The main challenges identified with the set funding models were not being able to transfer funds across fiscal years, lack of flexibility in types of activities that could be funded, and increased reporting burden.

P4.4 Increased First Nations and Inuit Community Capacity to Deliver Chronic Disease and Injury Prevention Programs and Supports

The evaluation found that considerable effort has been made over the past five years to develop the capacity of community health staff. Numerous training opportunities were provided, particularly for CDPWs. The training was assessed as effective with results demonstrated in the areas of increased skills and positive changes in delivery of services and supports at the community level. The training posed some challenges because staff had to leave the community. This particularly affected smaller and northern communities where the staff working in chronic disease often fill various other roles in providing supports and services to the community. Issues regarding retention and turn-over of staff vary across the different communities and regions, with particular challenges for professional staff in northern, remote and smaller communities.

In the context of the CDIP Cluster, capacity refers to the expertise/skills of health workers (professionals and lay) involved in the delivery of promotion and education activities aimed at preventing chronic disease and injuries. The evaluation focused on the changes in level of expertise/skills of workers, changes in service delivery as a result of changes in capacity, training opportunities and needs, trainee satisfaction and confidence, and retention.

Changes in level of expertise/skills of workers

There was considerable effort by regions and communities during the time period covered by the evaluation to build the capacity of community health workers through CDPW training. CDPW core competencies were identified by ADI staff in consultation with various partners and experts to guide regional selection of recognized training programs. CDPW training, based on these core competencies, is designed to increase knowledge and capacity in the following areas: healthy eating; physical activity; health promotion; communication; community responsibility; stress management; anatomy and physiology; defining diabetes; diabetes management; and prevention of complications.⁵⁴

CDPW training was delivered by several different educational institutions. From 2004-05 to 2009-10, there were 336 graduates from CDPW training programs.

According to assessments of CDPW training⁵⁵, there was an increase in the level of expertise among CDPW workers as a result of the training they received. The review of the training indicated that graduates returned to their communities with higher levels of knowledge and skills directly related to diabetes prevention and health promotion.

In addition to CDPW training, the evaluation found examples of other training that occurred at the regional level. These included chronic disease self-management program (community health workers, people living with diabetes, support/caregivers), food educator training (community health workers), diabetes screening training (professional health staff, community health workers), and foot care training (professional health staff, community health workers).

Changes in service delivery

From the document review, the assessment of CDPW training showed improvements in diabetes prevention and health promotion activities that took place in the community as a result of the training received by graduates.⁵⁶ The main areas highlighted as having improved were:

- offerings of workshops, presentations, community events, support groups and other education of community residents;
- promotion of healthy eating (menu planning, cooking classes, encouraging traditional foods, grocery store tours, teaching how to read food labels, community kitchens, Good Food Box, etc.);
- offerings of physical activity promotion and activities (community events, walking groups, exercise groups, traditional activities, fitness rooms and equipment, etc.);
- promotion of diabetes screening; and
- promotion of foot care.

⁵⁴ Catalyst Research and Communications (2009) *Aboriginal Diabetes Initiative Capacity Building: Phase 2 Evaluation Report*.

⁵⁵ Catalyst Research and Communications (2009) *Aboriginal Diabetes Initiative Capacity Building: Phase 2 Evaluation Report*.

⁵⁶ Ibid.

Respondents in the CDPW assessment also indicated that they are more likely to refer clients to health care professionals (87%), and approximately three-quarters (74%) reported that the training helped improve their collaboration with other services and providers, such as nurses and other health care providers, schools, children's programs, and regional health bodies.

Training opportunities and needs

HC regional representatives and territorial representatives indicated that training needs at the community level tend to be assessed in an ongoing manner. The ongoing dialogue with communities and regional Aboriginal organizations assists in identifying the training priorities and gaps.

The main challenge identified by communities with respect to training was the requirement to leave the community in order to obtain the training (18 of 29 communities). This was identified as particularly challenging for the smaller communities where the staff working in chronic disease often fill other roles in providing various supports and services to the community. As a result, their absence for a number of days means that services and supports are put on hold.

The challenges of having to leave the community for training, and the multi-tasking nature of the job for workers in smaller communities and northern communities were recognized by regional and territorial representatives during interviews. As a result, there have been some efforts to offer different training formats, and to try and coordinate training opportunities across programs and initiatives.

Trainee satisfaction and confidence

From the document review, overall there appears to be high levels of satisfaction across the various, diverse areas of training. According to the documents reviewed, the CDPW training has resulted in greater self-confidence among graduates upon returning to the community. Evaluations of other training programs (e.g., foot care, food educator) also indicated increased self-confidence among trainees.

Retention

According to interviews in communities and with regional and territorial representatives, issues with respect to retention and turn-over of staff vary across communities and regions. In the more remote, smaller communities, issues of retention of professional staff (e.g., nurses, dietitians) are present, particularly when the staff do not originate from the community. For some communities, there are also issues of turnover of lay workers, however, the evaluation was not able to find a distinctive pattern or trend with respect to the types of communities for which this was a challenge. The main factors that contribute to turnover that were identified during interviews with community health staff and community leaders were low salary scales, job dissatisfaction, other more attractive job opportunities available in the community, lack of training opportunities, and the tendency for people from outside the community to leave after a short tenure in a job (particularly professionals).

The evaluation of the CDPW training program found in a follow-up survey with graduates that 87% who responded to the survey were still working in their same position one to two years after graduation.⁵⁷

P 5.1 Demonstration of Efficiency and Economy

Overall, the evidence tends to indicate that CDIP is delivered in the most efficient means to achieve the current level of outcomes. This includes support from the literature on effectiveness of tailored, community-based approaches, as well as the opinions of national and regional partners that the CDIP approach to flexibility at the community level is needed to maximize the reach of the programs.

The finding is also supported by patterns of responses in interviews that indicate a common practice of identifying and limiting activities with low participation, and continual assessment and adjustment of the balance and mix of activities, participants and program objectives - given locally-defined needs. The overall practice of seeking economies and efficiencies is reflected in the most commonly reported strategy for achieving these efficiencies - i.e. the combination of activities of different programs and the roles of staff, such as the use of dedicated staff where possible, and combination of program roles where necessary. This tends to indicate that efficiencies are sought on an on-going basis through allocations and reallocations of resources.

The evaluation meets the requirement to assess efficiency and economy under Core Issue #5: Demonstration of Efficiency and Economy in the 2009 TB Policy Directive on Evaluation. As such, the evaluation defined efficiency and economy as:

Efficiency: The extent to which resources are used such that a greater level of output is produced with the same level of input or, a lower level of input is used to produce the same level of output. The level of input and output could increase or decrease in quantity, quality, or both.⁵⁸

Economy: Minimizing the use of resources... [which is] achieved when the cost of resources used approximates the minimum amount of resources needed to achieve expected outcomes.⁵⁹

In this evaluation, the scope of the analysis for efficiency and economy was determined primarily by questions about economy and efficiency at the level of program implementation and delivery, and does not involve societal benefits such as reduced care costs through prevention of chronic disease and injury. It is also important to consider the context for the assessment of economy and efficiency - particularly the overall objectives of prevention. Specifically, while

⁵⁷ Catalyst Research and Communications (2009) Aboriginal Diabetes Initiative Capacity Building: Phase 2 Evaluation Report.

⁵⁸ Treasury Board Secretariat Centre of Excellence for Evaluation, 2010

⁵⁹ Ibid.

one prevention measure may be more costly than another, they are all important as a means of reaching the largest proportion of the population in need. This is reflected clearly in the response from one community partner when asked if efficiencies could be gained: "We can increase efficiency by targeting the general community, but we also focus on delivering care on a 1-on-1 basis - which is not as cost-effective, yet still important".

A main issue with respect to economy and efficiency is the existence of differential cost drivers, which impacts Canadian program delivery at the regional level. In short, the cost of CDIP programs in remote areas of Canada is greater than in other areas. Each local approach to prevention has its own context, history and conditions that tend to make bench marking and other generalizations difficult. For example, a successful mix of screening clinic hours vs. mobile clinic travel in a given community may not work well in another, even though the communities are similar along some dimensions. This also illustrates the need for cost-benefit estimates that are regionally sensitive.

5.1.1 Efficiency

The literature review indicated that the flexible, community-based mix of interventions is a reasonable design approach that produces efficiencies for programs similar to CDIP. The document review showed that CDIP has a nationally targeted approach to reduce health risk in areas of chronic disease and injury prevention by supporting a suite of community-based and community delivered programs, initiatives and strategies that collectively aim to improve health outcomes and reduce health risks in these areas. The delivery mechanisms and agreements with regional and community partners provide a local flexibility that produces outputs oriented to local program delivery contexts and needs. The document review showed that the arrangements that are in place have historically included requirements for local decision-making related to programs and expenditures that change from year to year. Given this expected result, the funding mechanisms directed at community-based activities are likely the best way to minimize resource allocation while maximizing outputs.

The interviews at the regional, program and community levels also tended to indicate that program delivery generally minimizes resources while maximizing outputs. This flexibility and diversity of program delivery was also generally seen as the most efficient means to meet diverse, local needs among regional informants. Regional partners indicated that the CDIP program flexibility is an efficient approach - for instance: "The communities are very cost-effective in building partnerships". Aside from generally validating the CDIP approach as efficient, there were minimal specific suggestions for improving efficiencies from regional partners, with the exception of two partners from the same region who suggested that teleconferences of meetings and training could be increased across communities, minimizing the expenses of regional travel and taking advantage of the fact that community partners have multiple roles to manage to conduct business across programs.

While there are no quantitative indicators of efficiency from administrative data, there is evidence from interviews and focus groups that programs are delivered efficiently at the community levels. Community-based groups tend to make decisions on CDIP activities with the perspective that they will conduct as much activity as the budget will allow, defined within the

scope of locally-defined priorities. Key informant interviews indicated that they seek efficiencies routinely by eliminating activities that have low levels of participation - which changes depending on external factors. This is evidenced both by occasional reference to past programs, as well as by the open suggestions that certain current programs are not efficient in this way, and could be dropped.

At the level of CDIP program and project delivery, there is good indication that the most efficient means are being used to achieve outputs on an on-going basis. For example, several regional partners gave specific regional-level efficiencies that are gained by communities combining resources and expenditures, e.g., "For example, two neighbouring communities can share the costs of hiring a nurse specializing in foot care with each other". Several regional partners described the efficiencies that are gained through either combining functions or dedicating functions to staff - depending on local needs and objectives. Several partners at the community level confirmed that they made these types of decisions to improve efficiency - e.g., "[it would be more efficient if] we had someone who just does ADI"; and "We made a decision to hire a full-time dietitian in order to make the funding more efficient".

There is also good indication from key informant responses that leveraging of resources and infrastructure that are provided by other programs has produced efficiencies for CDIP. Several program-level partners described the practice of combining the roles of staff and the activities of different programs, and three described the importance of using resources external to CDIP to improve its efficiency: "If we didn't already have the infrastructure in place, we certainly wouldn't have enough funding to run ADI"; "CDIP programs would not be possible without the infrastructure in place"; "Staff not funded under ADI often contribute time to assist with activities"; and "It is very efficient for them to reach the children through the school - they reach them all at once".

There was overall minimal indication of potential ways to improve efficiency among community key informants. Only two program partners suggested that efficiencies could be gained - in this case by combining program delivery in the future: "We could potentially increase the efficiency with other target groups by incorporating ADI activities into existing activities and events in the community"; and "The ADI program could be more effective if there were more linkages with other health programs in the community". On the other hand, there was also some suggestion among key informants that cost-drivers may continue to increase, which may reduce program efficiency in the future. For example, one regional partner indicated that climate change has impacted the cost of transportation to remote locations by decreasing ice road access in some areas and increasing shipping lane access in others.

5.1.2 Economy

There is minimal indication that the results achieved through CDIP could be achieved with fewer resources. At the broadest perspective, the program outcome of having a strengthened system of community-based supports for prevention could not be achieved without CDIP or a program similar to it. Given the way funds are distributed to communities, and that the level of activity is determined mostly by the level of funding, it is likely that fewer resources would result in a weakened system of supports overall, and so would not produce the expected results. This is

supported by the key informant interviews conducted with partners at the national and regional levels. No regional key informants indicated that the results of CDIP could be achieved with fewer resources, and several indicated that the current results are probably limited by a lack of resources, even though efficiencies are sought on an on-going basis.

Coincidentally, regional partners, particularly those in the North, indicated that the issues of efficiencies are impacted by higher cost drivers and greater needs. For example, colder climates and lack of private fitness facilities creates a greater need for exercise equipment in places where the costs are also typically much higher. In addition, the ways that a partner finds efficiencies in urban areas - such as competitive pricing and bulk purchases, are not always available to partners in remote areas. These differences in cost drivers make baseline assumptions about levels of cost difficult.

Similar support for the finding that the same results could not be achieved with fewer resources was found at the program delivery level. The clear majority of program and community partners offered no suggestions, indicated that they had no response - e.g., "I cannot think of anything"; and "Cannot answer this question" - or stated specifically that the same results could not be achieved with fewer resources. One indicated an objection to the question on the basis that the answer was obvious: "No. Why would you ask that?" This reflects what is likely a majority opinion that CDIP operates on minimal resources by seeking efficiencies on a routine basis.

Some partners did, however, respond with positive suggestions of ways to achieve the same results through fewer resources. Two program level partners indicated that specific programs could be eliminated because they tend to have low levels of participation. In addition, one regional partner suggested that a funding formula based on population, remoteness and rates of diabetes in communities may help reduce overall costs in their region. One regional partner suggested that strategies such as allocating more resources per activity while having fewer activities may reduce the costs of delivery. In addition, though not directly related to the issue of fewer resources, one partner was concerned about the efficiency of the funding application process: "We need to spend too much time applying for funding and not enough on service delivery".

It is noteworthy that the majority of partners who offered a suggestion indicated that both greater impacts and efficiencies could be gained with additional funding - even though this was not the thrust of the question. Moreover, only one of these offered a specific suggestion of how increased funding could produce efficiencies: i.e. an education campaign aimed at the broader public would be too costly for a local CDIP program, but would be considerably less costly per person reached.

5.0 Summary

5.1 Key Findings

Relevance #1:

Does the CDIP Cluster address clearly identified needs of First Nations and Inuit as they relate to chronic diseases (CD) and injury prevention (IP)?

The evaluation found that the CDIP is actively responding to many of the needs identified in First Nations and Inuit communities with respect to chronic diseases. The ADI, along with supports from the Nutrition and Chronic Disease policy areas, addresses many of the common risk factors associated with chronic disease (e.g., physical inactivity, poor nutrition, obesity).

Across communities and regions, diabetes was cited the most frequently as a key chronic disease health issue for First Nations and Inuit communities. In 2002-03, the prevalence rate of diabetes among First Nations adults was 19.7% compared to 5.2% in the general Canadian adult population. Recent research also indicates that First Nations people are getting diabetes at younger ages, women are disproportionately affected, and that rates are rising faster when compared with non-First Nations populations. Those working with Inuit communities noted that while the rate of diabetes in Inuit communities among adults is lower (3% in 2005-06) than the rate in many First Nations communities, the prevalence of risk factors associated with diabetes is rapidly rising in many Inuit communities. Given the timing of the evaluation, more recent prevalence rates were not yet available from national surveys, however, respondents predicted that reported rates are likely to increase which is potentially attributable to increased activities under the Cluster in the areas of awareness and screening.

Overall, the CDIP Cluster programming is working well for communities. All communities indicated that the ADI programming and activities are assisting community members to address challenges related to chronic disease, in particular diabetes. Communities that had a trained CDPW, and small communities were more likely to rate the programs as helping considerably in addressing challenges. This is important since small communities represent the majority of First Nations and Inuit communities in Canada, with 90% of First Nations and 60% of Inuit living in communities with a population of less than 1000.⁶⁰

Programming areas that were identified by community health staff as assisting community members were promotion and awareness activities, education activities, and screening and care activities. Challenges presented by the ADI programming include:

- ensuring program reach within the community,
- balancing various types of activities,

⁶⁰ Health Canada. March 1, 2009. First Nations and Inuit Health Fact Sheet. Health Information, Analysis and Research Division, FNIHB.

- translating increased knowledge and awareness into behaviour change, and
- ensuring sufficient capacity and resources to meet community priorities and ensure continuity of programming.

The evaluation found that injury prevention was not necessarily viewed as a key issue for many communities at this time, despite the relatively high rates of non-intentional injuries prevalent in First Nations and Inuit communities. The NAOs indicated an awareness of the impacts of injuries and need for injury prevention, and the work they are undertaking in this area supports potential increased growth and emphasis. Various injury prevention initiatives and tools are currently being developed, pilots being launched, and partnerships being formed at the national and regional levels. Supporting this development is the focus of the Injury Prevention policy area of CDIP.

Relevance #2:

To what extent is this Cluster linked to a Government priority?

When initially developed in 2005, the objectives and anticipated outcomes of the CDIP Cluster aligned with the Government of Canada priorities at that time. The Cluster was directly aligned with the *Integrated Pan Canadian Healthy Living Strategy*, Speeches from the Throne from this period, and the *Blueprint for Aboriginal Health*. These priorities in the areas of health promotion, addressing risk factors of physical inactivity and poor nutrition, injury prevention, and integrated disease strategies can be linked directly to the objectives and outcomes of the Cluster.

Five years later in 2010-11, the Cluster continues to be linked with Government of Canada priorities as outlined in various strategies, frameworks and announcements. These include alignment with the recently endorsed 2010 declaration of Health Ministers entitled *Creating a Healthier Canada: Making Prevention a Priority*, the 2010 F/P/T *Framework for Action to Promote Healthy Weights*, recent integrated strategies on chronic disease, patient wait time guarantees, and physical activity targets.

Relevance #3:

To what extent is this Cluster appropriate to the federal government and a core federal role?

Overall, the CDIP Cluster was assessed as congruent with the Government of Canada's mandates and responsibilities as outlined in the Federal Indian Health Policy (1979) and FNIHB's mandate. The community-based nature of programming under CDIP and the extent to which programming is developed and implemented by communities to address their own identified priorities fits with the longer-term plan of transfer of delivery and administration of health programming to First Nations control. Similarly, the emphasis on capacity development also is in alignment with the transfer process.

Performance #1:

Are CDIP programs and supports meeting individual health needs of First Nations and Inuit? And if so, how?

The CDIP programs and supports are meeting some individual health needs of First Nations and Inuit with respect to chronic disease, primarily in the area of diabetes. Overall, the types of activities and interventions being implemented are consistent with effective, evidence-based programming described in the literature. CDIP activities and interventions, including for ADI, were modeled on the successful lifestyle modifications reported in international studies from China⁶¹, Finland⁶² and the United States^{63,64}. Increasingly, regional activities are evidence-based. Challenges remain with respect to having sufficient quality evidence-based findings to guide selection and implementation of activities in First Nations and Inuit communities.

The evaluation found that more activities were taking place and more community members were involved in CDIP activities during the 2005-10 period compared with the previous five years, and that the types of activities being offered had broadened to include a variety of prevention and promotion activities designed to address risk factors associated with chronic disease. Participants expressed satisfaction with the frequency, continuity, timing and language of activities.

The evaluation found that CDIP Cluster activities had resulted in community members increasing their knowledge with respect to diabetes, healthy eating and physical activity. This increase in knowledge was more evident in communities with trained CDPWs, and in smaller communities. This is in keeping with the community-based model for priority setting and delivery used by the Cluster, and the emphasis placed on building community capacity.

Common to most health promotion programming, a challenge faced by the CDIP Cluster is translating the increased levels of awareness and knowledge into sustained changes in healthy behaviours. Overall, community health staff and participants reported positive changes with respect to healthy eating and physical activity among community members who had participated in CDIP activities, although the level of change was lower than what was reported for changes in knowledge.

Despite the increase in participation, a number of barriers to participation and access were identified by the evaluation (similar to challenges commonly found in health promotion programming at the community level), some of which can be addressed by the CDIP Cluster program and supports. Barriers to participation identified included: the perception by non-

⁶¹ Pan XR, Li GW, Hu YH, et al. The effects of diet and exercise in preventing NIDDM in people with impaired glucose tolerance. The DA Qing IGT and Diabetes Study. *Diabetes Care*. 1997; 20(4):537-44.

⁶² Tuomilehto J, Lindström J, Eriksson JG, et al, Finnish Diabetes Prevention Study Group. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *N Engl J Med*. 2001 May 3; 344(18):1343-50.

⁶³ Diabetes Prevention Program (DPP) Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or Metformin. *N Engl J Med*. 2002 February 7; 346:393-403.

⁶⁴ Diabetes Prevention Program (DPP) Research Group. The Diabetes Prevention Program (DPP): description of lifestyle intervention. *Diabetes Care*. 2002; 25(12):2165-71.

participants that the activities will not be useful, the tendency to seek care/advice for more acute conditions rather than chronic conditions, activities are not offered in comfortable environments (e.g., concerns about privacy, structural requirements), the need to focus on more basic needs or dominant needs such as shelter, child care or addictions, and a general preference for other types of activities which are often more sedentary. Barriers to access identified by the evaluation included logistical barriers (e.g., transportation, child care), issues with materials and information (e.g., translation, literacy levels), awareness of activities (e.g., promotion issues, target populations), and consistency of programming.

Improvements in injury prevention were reported in only a small proportion of communities. In other communities, injury prevention was not a priority for the community or work in the area had only recently begun, and therefore it was too early to observe any changes.

Performance #2:

Are CDIP programs working together at the community, regional, and national levels to meet expected logic model outcomes? If so, how?

The evaluation found that the CDIP Cluster was working at various levels to contribute to anticipated outcome of improved continuum of programs and supports in First Nations and Inuit communities. The evaluation found examples of awareness and health education activities in each community visited, and numerous examples of knowledge and skills development activities for community members. A few communities had progressed to developing community mobilization and supportive environments, mostly in the areas of community partnerships and some policy development. Overall, the scope of services available had broadened over the past five years under ADI.

Numerous types of formal and informal partnerships and collaborations are occurring at multiple levels with the CDIP Cluster including community, regional and national. In addition, the frequency of networking opportunities has increased over the past five years. Networking opportunities are reported to provide useful information for communities. Many of the networking opportunities result from efforts made by the HC regional offices to develop and support these opportunities, often arising from regional training opportunities or conferences held in-person from which ongoing networking opportunities are then developed.

Performance #3:

Are CDIP program investments contributing to increased First Nations and Inuit ownership to deliver chronic disease and injury prevention programs and supports?

The community-based delivery model used for CDIP under which communities determine and set their own priorities to meet the needs of their communities is conducive to First Nations and Inuit ownership of the programs and supports. Similarly, the longer-term plan of transfer of delivery and administration of health programming to First Nations control is contributing to increased First Nations and Inuit ownership. While the data did not permit a trend analysis over

the evaluation period, in 2009-2010, approximately one-half of the agreements in place (53%) had increased levels of flexibility compared with the “set/consolidated” agreements (47%) which offer the least flexibility for First Nations and Inuit communities. Community health staff had mixed opinions on how the funding models support the delivery of quality supports and services under ADI for community members. Those communities with the least flexible models (i.e., set/consolidated) were less likely to indicate that the model was helpful in supporting delivery.

The evaluation found considerable variability across communities in the extent to which community leaders were aware of the CDIP Cluster activities. The most important roles identified for community leaders were as active participants in community activities and as role models for healthy living. The evaluation found that Elders played a key role in supporting and contributing to ADI programming in most communities visited.

Performance #4:

Are CDIP program investments contributing to increased human resource capacity (i.e., training) to deliver Chronic disease and injury prevention programs in First Nations and Inuit communities?

The evaluation found that considerable effort has been made over the past five years to develop the capacity of community health staff. Numerous competency-based training opportunities were provided, particularly for CDPWs. The training was assessed as effective with results demonstrated in the areas of increased skills and positive changes in delivery of services and supports at the community level. The training posed some challenges due to the requirement to leave the community. This differentially impacted smaller and northern communities where the staff working in chronic disease often fill various other roles in providing supports and services to the community. Issues with respect to retention and turn-over of staff vary across the communities and regions, with particular challenges with professional staff in northern, remote and smaller communities.

Performance #5:

Is there evidence to suggest that CDIP programs and supports are cost-effective? If yes, what is that evidence.

While there are no quantitative indicators of efficiency from administrative data, there is evidence from interviews and focus groups that programs are delivered efficiently at the community levels. Community-based groups tend to make decisions on CDIP activities with the perspective that they will conduct as much activity as the budget will allow, established within the scope of locally-defined priorities. Key informant interviews indicated that they seek efficiencies routinely by eliminating activities that have low levels of participation - which changes depending on external factors. This is evidenced both by occasional reference to past programs, as well as by the open suggestions that certain current programs are not efficient in this way, and could be dropped.

5.2 Additional Observations

The evaluation collected copious amounts of information from various sources and from this process was able to make additional observations that may be helpful for the management and delivery of the CDIP Cluster, but do not warrant a recommendation.

- **Importance of in-person meetings** - Throughout the evaluation, a theme that was identified was the importance of in-person meetings in generating the desired outcomes of capacity development, collaboration and networking. Given the links with capacity building in the development of future opportunities for collaboration and networking, consideration should be given to ensuring that in-person opportunities such as conferences and training are still occurring, but are then followed up with less expensive means for further collaboration and networking. In-person meetings, while initially requiring more resources, are viewed by many as a good investment that pays back considerably with stronger networks and collaboration, which in turn facilitates increased capacity at the community level.
- **Economy and efficiency** - Overall, the findings from the analysis of economy and efficiency indicated that CDIP programs and supports are delivered in the most efficient means to achieve the current level of outcomes. The interviews gathered some potential strategies for further efficiencies for program delivery, and these should be considered in the management of the programs at the national, regional and community levels. These strategies included identifying and limiting activities with low participation, and continual assessment and adjustment of the balance and mix of activities, participants and program objectives - given locally-defined needs. The overall practice of seeking economies and efficiencies is reflected in the most commonly reported strategy - i.e. combining activities of different programs and roles of staff, such as the use of dedicated staff where possible, and combination of program roles where necessary. This tends to indicate that efficiencies are sought on an on-going basis through allocation and reallocation of resources. Nonetheless, program policy and delivery partners should always consider economy and efficiency in the development of promising local programs and best practices at the regional and national levels.
- **Tailoring capacity building and other opportunities to meet the needs of small and remote communities** - Small communities were found to benefit considerably from the opportunities offered by the CDIP Cluster, particularly in the area of capacity building. The evaluation observed that there were some challenges for smaller and more remote communities in participating in opportunities, given that most of the professional and community workers fill multiple roles with respect to delivering programs and supports in the community. These workers may have to leave the community several times for training in the various areas for which they are responsible and this creates a burden for the community. Currently they are attempting to balance the benefits of in-person training with the demands from their multiple positions. Some regions have attempted to combine training opportunities for staff that are likely to have similar multiple roles in the community (e.g., diabetes, child and youth, nutrition), so that the frequency of leaving the community is decreased.

- **Support from leaders comes in different forms** - The evaluation found considerable variability in the roles that community leaders play with respect to CDIP programming and supports in communities. In some communities, leaders supported CDIP activities by being quite aware of activities and actively participating in many of them. In other communities, leaders and health staff indicated that support from leaders was expressed by not interfering with the health staff as they developed and implemented CDIP activities. This was viewed by health staff as indicative of the leaders trusting their experience and capacity.

5.3 Conclusions

Overall, the evaluation was successful in assessing CDIP Cluster relevance and performance; however, the findings would have been more conclusive with respect to performance if there had been comprehensive performance and monitoring data available for the Cluster for the 2005-10 period covered by the evaluation.

The evaluation was able to assess both CDIP Cluster relevance and performance in contributing to the outcomes identified in the program logic model. The lines of evidence were strong with respect to demonstrating relevance, and some of the more immediate outcomes. Challenges encountered in the assessment of performance resulted from the lack of reliable, comprehensive performance and monitoring data for the Cluster during the 2005-2010 period. For example, there were no reliable quantitative data available to measure Cluster reach, number of participants/activities, outputs, or outcomes. It is important to develop and implement a solid approach to performance measurement that is able to demonstrate the results of the Cluster on an ongoing basis, and can contribute to the evaluation of the Cluster on a periodic basis. It is understood that this will be challenging to implement given the community-based nature of many of the activities under the Cluster, and the balance between increased community ownership of the Cluster programs and initiatives with the need for quality information on results.

The CDIP Cluster's design and implementation addresses chronic disease needs identified in First Nations and Inuit communities. The key Cluster characteristics contributing to this are the community-based approach to delivery, the emphasis placed on knowledge development, interpretation and exchange, and a cluster structure that enhances collaboration between programming and policy areas within the Cluster.

The evaluation concluded that the CDIP Cluster addresses the substantial and diverse needs identified in First Nations and Inuit communities with respect to chronic disease. ADI's community-based approach to delivery provides the flexibility required to address community-level needs and priorities in the area of diabetes, which in turn addresses the needs related to many other chronic diseases that share similar risk factors. The Nutrition and Chronic Disease Prevention policy areas provide support at the national, regional and community levels through knowledge development, interpretation and exchange. The collaboration between the programming and policy areas at both national and regional levels enables the Cluster to better address the diversity of needs at the community level with respect to chronic disease.

The CDIP Cluster's design and implementation addresses injury prevention needs identified in First Nations and Inuit communities via support from a policy area that facilitates knowledge development, interpretation and exchange with communities developing and implementing injury prevention activities and policies. The evaluation concluded that while injury prevention was not a high priority in many communities during the 2005-10 period, the area will likely garner more attention and require additional support from the Cluster within the next few years.

With respect to injury prevention, the evaluation concluded that the CDIP Cluster generally addresses needs of First Nations and Inuit communities, although the area was seemingly not considered high priority for many communities during the 2005-2010 period. Despite the relatively high rates of non-intentional injuries prevalent in First Nations and Inuit communities which would tend to indicate an area of need, the evaluation found that injury prevention was not a priority area at the community level. Given the more recent activities, partnerships and initiatives developed in this area, it is likely that increased demands will come from national, regional and community groups as they request information to guide their development of policies, strategies, and programming for injury prevention. As injury prevention is a policy area under CDIP and not a program, its main contribution will be the provision of solid, relevant information to support the area of injury prevention as it evolves as a priority for communities.

There is alignment between the CDIP Cluster and current federal priorities, as well as with federal mandates and responsibilities for First Nations and Inuit health.

The evaluation concluded that the CDIP Cluster is aligned with current federal priorities identified in Speeches from the Throne, along with recently announced integrated strategies and frameworks. The evaluation also found that the Cluster is congruent with federal mandates and responsibilities with respect to First Nations and Inuit health, and is in line with the longer-term plan of transfer of delivery and administration of health programming to First Nations control.

The CDIP Cluster has been effective in contributing to individuals' increased levels of *awareness and knowledge* of diabetes, healthy eating and physical activity. The evaluation also found evidence that the Cluster has contributed to some of these individuals making the next step of actual sustained *behavioral changes* in healthy eating and physical activity.

With respect to meeting individual health needs, the evaluation found that the CDIP Cluster has effectively contributed to the two following outcomes at the individual community member level:

- increased levels of awareness and knowledge, primarily in the areas of diabetes, healthy eating and physical activity among community members; and
- for a smaller proportion of community members, positive behavioural changes with respect to healthy eating and physical activity.

Common to most models of health promotion, promoting supportive environments and increasing awareness and knowledge are considered first steps, but need to be followed by sustained changes in behaviour in order for interventions to be most effective. Increased awareness and knowledge are more immediate outcomes than sustained behaviour change, however there are challenges for the programming to support sustained behaviour change given the multitude of factors involved in this second step that are not within the control of the Cluster (e.g., leadership, individual motivation, competing activities).

There were various barriers identified by the evaluation that if appropriately addressed may enhance the reach of the Cluster, contributing to increased levels of awareness and knowledge.

Various barriers were identified by the evaluation that limit the ability of the CDIP Cluster to reach some individual community members. These individuals are not participating in activities that may lead to the first step of increased levels of awareness and knowledge. The CDIP Cluster can improve its performance in contributing to increased levels of awareness and knowledge by focusing on reducing specific barriers that are within the scope of the Cluster (e.g., issues with material and information, promotion issues).

The evaluation highlighted collaboration and network development at multiple levels as a key area of success for the CDIP Cluster. Given the reported positive benefits associated with this outcome, it is important that the Cluster efforts in this area be maintained and enhanced when opportunities arise.

The Cluster has achieved considerable success in developing collaborations and networks at multiple levels (communities, regions, national). The evaluation found that the work in this area was very useful for ensuring that activities were culturally relevant, that resources could be optimally utilized, and that greater outcomes could be achieved, particularly in the areas of capacity development. Efforts in this area at all levels should continue to be encouraged and supported, and additional opportunities explored such as increased involvement of community leaders in Cluster activities and networks at the community level, and increased inclusion of territorial representatives in national and regional level discussions where appropriate.

The CDIP Cluster efforts in capacity development of community health staff implementing Cluster activities were assessed as successful and contributed to positive outcomes at the community level. Given the associated benefits, it will be important for the Cluster to continue efforts in this area.

The evaluation concluded that another area of demonstrated success for the Cluster has been capacity development of community health staff who are managing and delivering the various services and supports. The evaluation found that this capacity building is associated with positive outcomes at the community level, particularly in smaller and more isolated communities. It will be important to ensure that these efforts in capacity building are maintained and enhanced so that additional communities can benefit. At this point, it is estimated that approximately one-third of communities benefit from the presence of a trained CDPW.

Overall, the evidence indicates that the delivery of the CDIP Cluster demonstrates adequate economy and efficiency by minimizing resources needed to achieve expected results, while maximizing outputs and progress towards outcomes.

The evidence consistently indicates that the program is delivered economically, in a way that minimizes the resources needed to achieve the expected results. There is some indication that cost-drivers for CDIP vary from region to region and across communities - mostly due to factors related to remoteness. Key informants at the regional and community levels indicate that higher costs in remote locations, combined with fewer opportunities to reduce costs, make CDIP delivery inherently more expensive. Moreover, informants did not provide suggestions of ways to further minimize expenditures while achieving the expected results.

The evaluation also found that CDIP is delivered efficiently overall, given that resources are minimized while outputs and progress towards outcomes are maximized. The efficiency of the design of the program tends to be supported in the literature on the effectiveness of community-based approaches, and is endorsed by national and regional partners as an efficient way to reach the program participants. In addition, the key informant interviews indicated consistently that the delivery of the program tends to use resources in a way that achieves the highest levels of

outputs given the existing resources. The suggestions that they provided for improving the efficiency of delivery tended to be in the areas of dedicating staff, combining activities and eliminating projects with low participation - which are the types of measures taken through normal project and program management practices.

5.4 Recommendations

Based on the findings and conclusions from the evaluation, five recommendations have been developed for the CDIP Cluster.

Recommendations

Recommendation #1:

Develop and implement a solid approach to collecting and analysing performance data to improve the quality of ongoing performance reporting and periodic evaluation for the Cluster.

Recommendation #2:

Build on community efforts to foster sustainable, supportive environments to address barriers and challenges to access and participation in community-level healthy living programs and services. Particular attention should be placed on those barriers and challenges which the Cluster can most effectively address.

Recommendation #3:

Sustain and enhance the progress made in capacity building at the community level over the past five years which has directly contributed to the overall effectiveness of the Cluster.

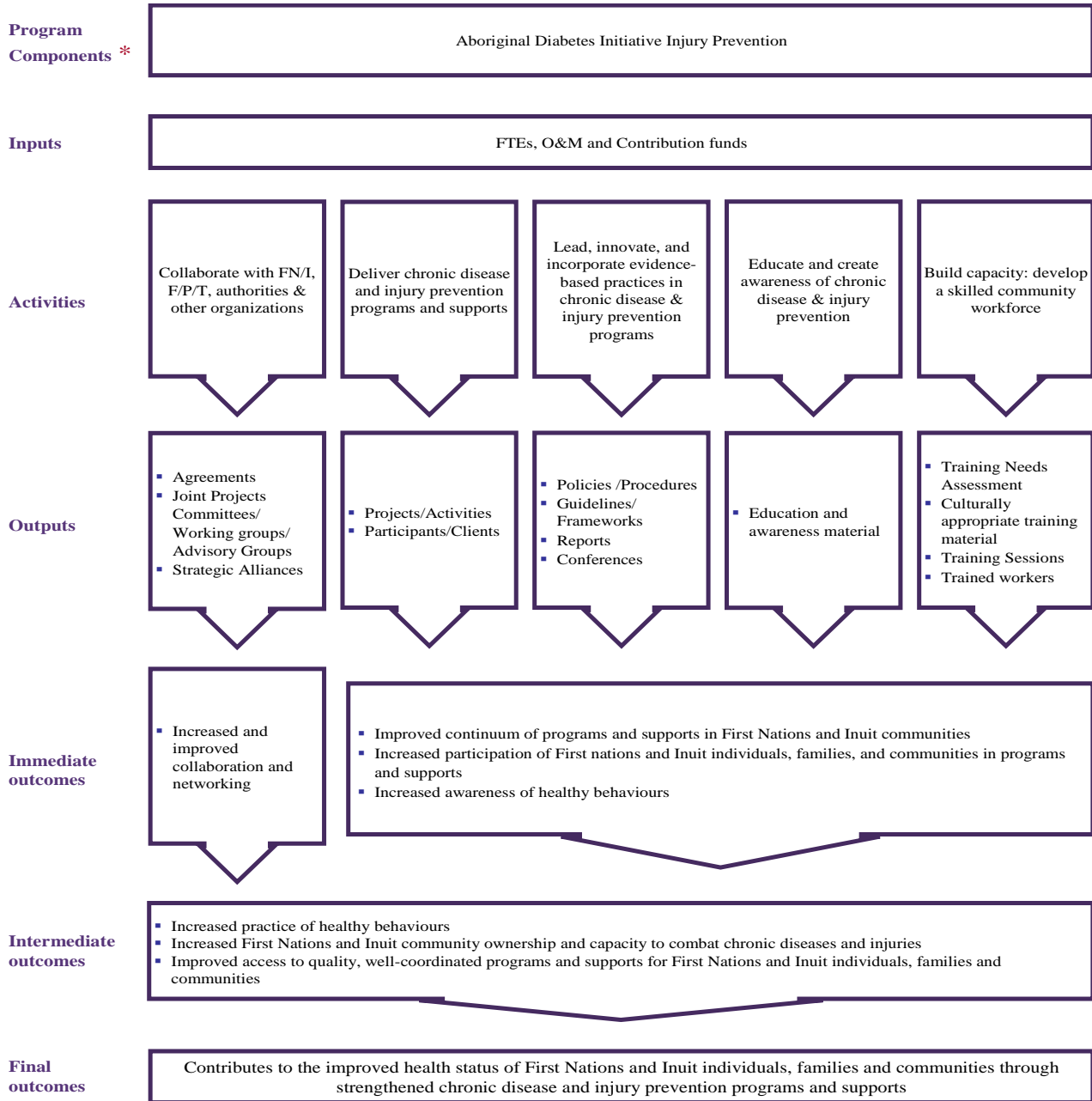
Recommendation #4:

Sustain and enhance collaboration and networking at all levels in order to ensure that activities remain culturally relevant, resources are optimally utilized, and that new technologies and opportunities for beneficial collaboration are supported.

Recommendation #5:

Given the importance of policy work in nutrition, chronic disease prevention and injury prevention for effective program development, the Cluster should sustain and enhance work in these key areas. The focus should be on policy development to support existing programs; and knowledge development, interpretation and exchange activities to support national groups, regions and communities.

Appendix A — Chronic Disease and Injury Prevention (CDIP) Logic Model



* Two of the Cluster components (Nutrition and Chronic Disease Prevention) are not reflected in this logic model which forms part of the approved RMAF. While the work of the Chronic Disease Prevention component is referenced through the five activities and related outputs of this logic model (e.g., Educate and create awareness of chronic disease and injury prevention), the work of the Nutrition component is situated primarily under the activity *Lead, innovate, and incorporate evidence-based practices in chronic disease and injury prevention programs* and under the output of *Policies/Procedures, Guidelines/Frameworks, Reports and Conferences*.