

Michigan Coordinated Chronic Disease Prevention and Health Promotion Foundational State Plan

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State of Michigan
Governor – Rick Snyder, JD, MBA

Michigan Department of Community Health
Director – James K. Haveman, Jr.

Public Health Administration
Senior Deputy Director – Melanie Brim, MHA

Bureau of Local Health and Administrative Services
Director – Mikelle Robinson, MPH

Division of Chronic Disease and Injury Control
Acting Director – Linda Scarpetta, MPH

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Executive Summary

The Michigan Coordinated Chronic Disease Prevention and Health Promotion (CCDPHP) State Plan serves as a foundational plan that outlines a broad-based goal, evidence-based strategies and measurable objectives for addressing the chronic disease and injury burden in Michigan through coordinated, statewide efforts.

Chronic diseases and unintentional/intentional injuries are among the most prevalent and costly of all health problems; yet they are also among the most preventable. While substantial progress has been made in preventing and controlling chronic diseases and injuries in some areas, the overall burden remains significant. Consequently, new and innovative ways of addressing this burden across multiple sectors are necessary.

The CCDPHP State Plan represents the collective thought and strategic direction of public health partners, categorical program leaders and key stakeholders. The successful implementation of this plan depends on the continued engagement and meaningful involvement of partners across the state. Through collaborative and coordinated efforts, the plan seeks to reach a broad group of Michigan residents with or at risk for chronic disease and injury, and employ a number of evidence-based strategies to reduce their risk or minimize the progression of disease.

The CCDPHP State Plan is designed to align with three statewide initiatives, currently underway, and centers around a number of coordination points representing areas where chronic disease and injury prevention partners can work together to build on these existing efforts to enhance efficiency and achieve greater reach and impact. The three state initiatives are:

- The Michigan Health and Wellness 4x4 Plan – A statewide initiative that recommends the practice of four healthy behaviors (maintain a healthy diet, engage in regular exercise, get an annual physical exam, and avoid all tobacco use) and the control of four health measures (body mass index--BMI, blood pressure, cholesterol level, and blood sugar/glucose level), with the goal of reducing obesity and the subsequent development of chronic illnesses.
- Michigan Primary Care Transformation Project (MiPCT) - A 3-year, multi-payer, statewide demonstration project aimed at reforming primary care payment models and expanding the capabilities of patient-centered medical homes (PCMH) throughout the state. The goal of MiPCT is to improve overall population health via: a) risk reduction for healthy individuals, b) self-management support to prevent patients with moderate chronic disease levels from progressing to the complex category, c) care coordination and case management support for patients with complex chronic diseases, and d) appropriate, coordinated end-of-life care.
- Community Linkages - Pathways/Community HUB Project – A demonstration project being implemented in Ingham, Muskegon and Saginaw Counties. The Community HUB Model uses lay Community Health Workers to address the social and economic determinants of health. The Community Health Workers focus their efforts on four activities: 1) find individuals at the greatest risk of falling between the cracks and

developing or mismanaging chronic conditions, 2) assess their situation and identify potential barriers to receiving the services they need to achieve positive outcomes, 3) refer individuals to evidence-based health and social services (i.e. Pathways), and 4) document the results of referrals, evaluate progress, and report final outcomes.

These three initiatives operate in the larger context of a movement to transform the U.S. health care system from uncoordinated, episodic, non-integrated care, to a more coordinated, seamless, efficient and accountable system of care. The goal is to progress even further to a community integrated system of care, characterized by patient, population, and community centered care with community health integrated networks capable of addressing the social and economic determinants of health and long term care needs.

Thus, these statewide initiatives provide a primed environment and unique opportunity to coordinate efforts with current chronic disease and injury prevention programs and services in order to build synergy, strengthen public health and health care systems, and improve outcomes.

The CCDPHP State Plan provides a collaborative and comprehensive approach to reach the following goal: By 2020, all people living in Michigan will have access to a community integrated health care system supporting the prevention and control of chronic disease and injuries.

The following statewide strategies are based on recommendations outlined in the Department of Health and Human Services' National Prevention Strategy, and have been developed to guide Michigan's coordination efforts:

- Develop a chronic disease and injury surveillance system (including use of health information technology) with analysis and dissemination capacity to inform, prioritize and evaluate impact of programs and policies as well as ensure strategic focus on communities and populations of greatest risk.
- Engage and empower people and communities to plan and implement prevention policies and programs to promote tobacco-free living, healthy eating and active living.
- Enhance coordination and integration of clinical, behavioral, and complementary services through support and enhancement of patient-centered medical homes and coordinated care management.
- Promote and support coordinated implementation of chronic disease and injury community-based preventive services and enhance linkages with clinical care.
- Reduce barriers to accessing clinical and community preventive services, especially among populations at greatest risk.

The strategies in the plan are centered around four domain areas: 1. Surveillance and Epidemiology, 2. Environmental Approaches, 3. Health System Interventions, and 4. Strategies to Improve Community-Clinical Linkages. Many groups and organizations throughout Michigan are already involved in work that supports these domain areas and the priorities of the CCDPHP State Plan. This plan builds on these collaborations and existing resources to create a foundation for sustainable change.

To monitor progress, specific, measureable objectives have been developed to further guide implementation efforts. Specific implementation plans will be developed over the next year to provide guidance to internal and external partners throughout the state. Progress in implementation and outcomes will be monitored through an evaluation plan based on the CCDPHP logic model.

By aligning efforts with current, broad-based, systems-level change initiatives; creating and strengthening partnerships; increasing collaboration and coordination of statewide efforts; and utilizing existing resources; Michigan is well positioned to reduce disparities and lessen the overall burden of chronic disease and injury across the state.

Acknowledgements

Michigan's Coordinated Chronic Disease Prevention and Health Promotion (CCDPHP) State Plan is the result of the hard work and dedication of numerous groups and individuals. The Michigan Department of Community Health (MDCH), Division of Chronic Disease and Injury Control would like to thank the various public health partners, categorical program leaders, health care providers, state agency employees and others that participated in the planning meetings that helped shape the direction and content of the CCDPHP State Plan. The Division would also like to recognize the contributions of the internal cross-cutting workgroups that have met throughout the year (and will continue to meet) to address various aspects of coordinating chronic disease and injury prevention and control efforts (e.g., Evaluation, Community Mobilization, Community Linkages, Health Systems Improvements, Health Disparities, Policy, Communication, Epidemiology/Surveillance, and Strategic Partnerships). In addition, the Division would like to recognize and acknowledge the support provided by MDCH management and the leadership provided by the Expanded Leadership Team in guiding planning efforts, as well as helping to shape the direction of Michigan's Coordinated Chronic Disease Prevention and Health Promotion Program. The Division would like to thank Denise Cyzman, our strategic planning meeting facilitator, and Cheryl Schott, our strategic plan writer, for the skills and expertise they brought to the process in the preparation of this plan. Finally, the Division would like to thank the Centers for Disease Control and Prevention (CDC) for their generous financial support and technical assistance, without which this effort would not have been possible.

Section 1: Introduction

Chronic diseases, such as heart disease, cancer, diabetes, stroke, and arthritis are the leading causes of disability and death in the United States. They affect the quality of life for nearly 4 million Michiganders and they kill more than 50,000 state residents every year, many prematurely (Michigan Department of Community Health [MDCH] Vital Records). Chronic diseases also account for more than 75 cents of every dollar spent on health care in Michigan and the nation (Centers for Disease Control and Prevention [CDC], National Center for Chronic Disease Prevention and Health Promotion [NCCDPHP], 2009). In 2009, this amounted to \$49.5 billion of the estimated \$66 billion spent in Michigan on health care ("Michigan Health Care Expenditures," 2009).

Injuries are the leading cause of death for Michigan residents aged 1-44 (MDCH Vital Records). In 2010, there were 61,924 hospitalizations and 5,928 deaths from injuries (e.g., motor vehicle crashes, falls, sports injuries, occupational injuries, poisoning/drug overdoses, burns, and drowning) and violence (e.g., gunshot wounds, suicides and suicide attempts, assaults and homicides) (MDCH Vital Records). Preventable injuries and violence exact a heavy burden on Michiganders through premature deaths and disabilities, pain and suffering, health care costs, rehabilitation costs, disruption of quality of life for families, and disruption of productivity for employers. Each year, injuries in Michigan cost nearly \$5.7 billion in medical care and \$17.9 billion due to work loss.

Despite the high prevalence, cost and burden of chronic disease and injuries, they are among the most preventable of all health problems. Research has demonstrated numerous cost-effective prevention strategies and policies with substantial return on investment. Healthy lifestyles, such as being physically active, eating a nutritious diet, avoiding tobacco use, using safety equipment, and having healthy relationships; combined with access to safe and supportive environments and comprehensive, quality and affordable preventive services (including education, screenings and disease-management programs), can help to prevent the incidence and progression of chronic disease and injuries, and greatly reduce mortality, disability, and costs (CDC, 2008).

Background

As part of a national effort, guided by the Centers for Disease Control and Prevention (CDC), the Michigan Department of Community Health (MDCH), Division of Chronic Disease and Injury Control (DCDIC), received funding to strengthen the state's capacity and expertise to effectively reduce Michigan's chronic disease and injury burden and promote health. This support is directly aligned with the DCDIC mission: Provide leadership, innovation and coordination to prevent and control chronic diseases and injuries and promote wellness and quality of life for people living in Michigan. The initiative, known as the Coordinated Chronic Disease Prevention and Health Promotion Program, promotes enhanced coordination among categorical chronic disease programs (including injury and violence in Michigan), and their associated risk factors in order to maximize the reach of these programs and address population health needs more effectively and efficiently by leveraging shared basic services. These basic services include partnership development, strategic planning, communication, community mobilization, policy and environmental change, health systems change, enhanced community-clinical linkages, health

disparities reduction, epidemiology/surveillance and data management, and evaluation efforts. The initiative further encourages collaboration in order to address chronic disease and injury burden particularly for populations at greatest risk and consequently, reduce health disparities (CDC, 2011).

The underlying assumption of coordination and integration efforts is that chronic disease and injury/violence programs will be more successful at improving long-term health outcomes through joint planning and implementation of strategies that address the range of chronic diseases, injuries and associated risk factors. Thus, as part of integration efforts, the MDCH DCDIC convened a diverse group of partners and stakeholders and engaged in a strategic planning process to identify goals, evidence-based strategies and measurable objectives for addressing the chronic disease and injury burden in Michigan through coordinated, statewide efforts. The result is the following plan.

Purpose of the State Plan

The CCDPHP State Plan serves as a foundational plan that provides strategic direction to increase Michigan's capacity to work collaboratively and more efficiently with internal and external partners to address the top five leading chronic disease causes of death and disability (e.g., heart disease, stroke, cancer, diabetes, and arthritis) and their associated risk factors, along with other public health priorities encompassed within the DCDIC's programs (e.g., injury, asthma, obesity, disability, etc.). This plan serves as the basis for the work that the DCDIC and partners will carry out in the next three years. It is referred to as a "foundational" plan because it is meant to provide a starting point for work in coordination efforts. It is expected that this current plan will be modified and expanded as lessons are learned through implementation efforts and as additional partners, including non-traditional partners, become involved.

At the cornerstone of this plan is collaboration with partners, key stakeholders, and public health leaders at both the state and community levels including local health departments, professional societies, voluntary organizations, academic institutions, coalitions, categorical programs, and organizations representing various sectors and settings. The implementation and success of this plan depends on the active leadership and involvement of these various partners. Consequently, the plan does not serve just as a plan for MDCH, but more so as a plan that provides guidance and direction for collective efforts of partners across the state.

Organization of the State Plan and Conceptual Framework

The CCDPHP State Plan was designed to align Michigan's chronic disease and injury prevention and control efforts with three major statewide initiatives currently underway. These include:

1. The Michigan Health and Wellness 4x4 Plan
2. The Michigan Primary Care Transformation Project (MiPCT)
3. Community Linkages – Pathways/Community HUB Project

A description of each of these three initiatives is provided below (see Overview of State Initiatives and Alignment with CCDPHP State Plan section below).

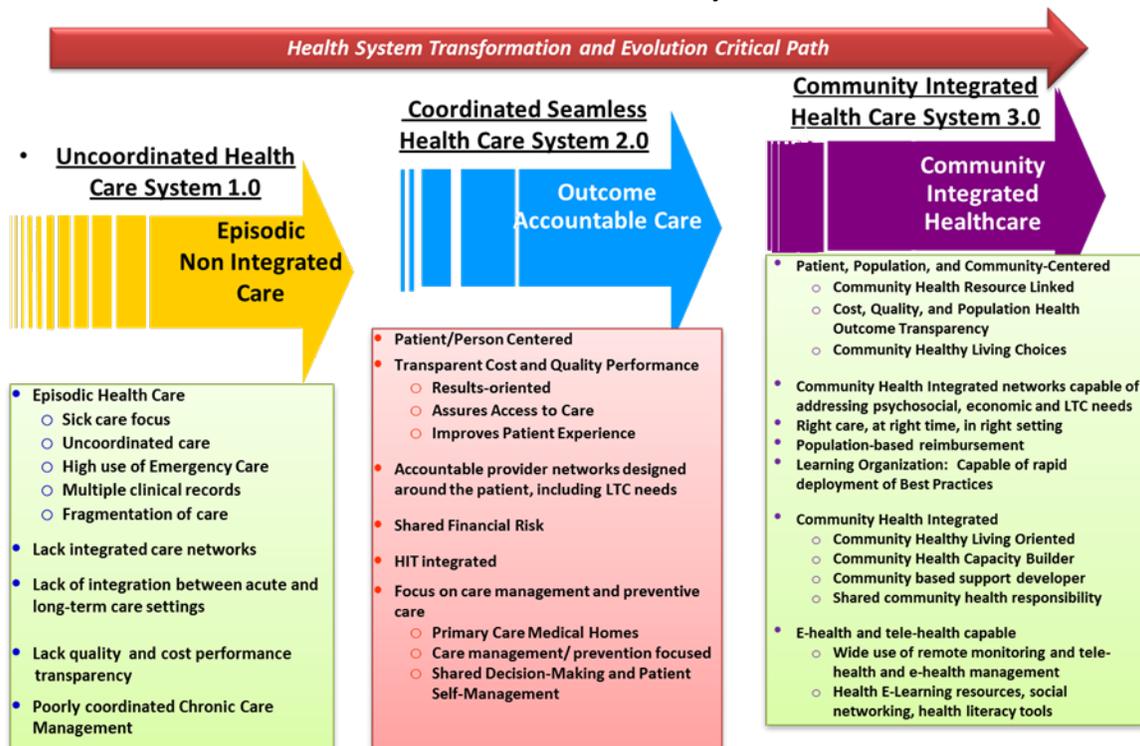
The decision to align with these three initiatives was based on the following factors.

These initiatives:

- Are cross-cutting among chronic disease, injury and risk factors.
- Are evidence-based.
- Have a community and/or statewide focus with a broad reach, as well as the potential to reach high risk or disproportionately affected populations.
- Are mutually synergistic with chronic disease and injury prevention and control efforts (i.e. coordination with these programs has the potential to improve chronic disease and injury outcomes, while also improving each initiative's broader outcomes).
- Address systems-level change.
- Involve diverse partners across multiple sectors.
- Address social determinants of health and health disparities.
- Encompass the four CDC domain areas -
 - Epidemiology and Surveillance
 - Environmental Approaches (evidence-based practice/strategies to support and reinforce healthy behaviors)
 - Health System Interventions
 - Strategies to Improve Community-Clinical Linkages.
- Have potential for the greatest impact.

These three initiatives operate in the larger context of a movement to transform the U.S. health care system from uncoordinated, episodic, non-integrated care (or baseline – health care system 1.0), to a more coordinated, seamless, efficient and accountable system of care (health care system 2.0). The goal is to progress even further to a community integrated system of care (health care system 3.0), characterized by patient, population, and community centered care with community health integrated networks capable of addressing psycho-social, economic and long term care needs (Rodgers, 2012) (see figure 1).

Figure 1
Innovation Driven U.S. Health Care System Evolution

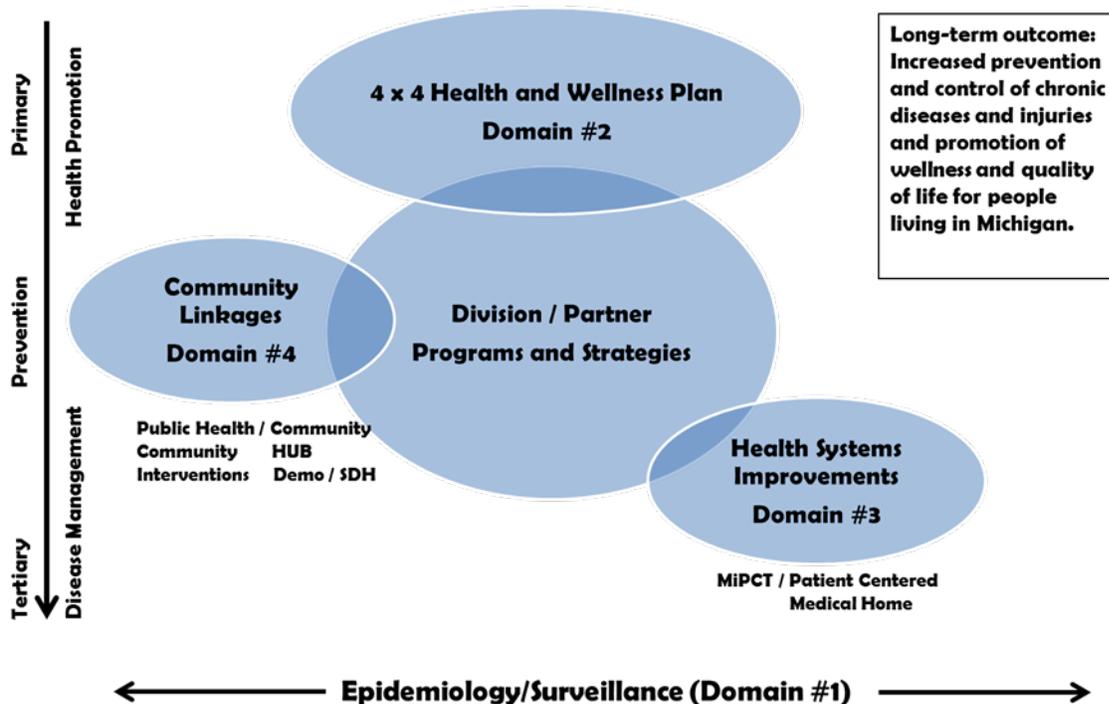


Source: Adapted from “Primary Care and Community Integration: Innovative Approaches Accelerating Health System Transformation through State Level Innovation.” Presentation by Anthony Rodgers, Deputy Administrator, Center for Strategic Planning, Centers for Medicare & Medicaid Services. March 2012.

Therefore, the overall vision for alignment and coordination with the three initiatives listed above is to help advance Michigan’s health care system initially to a coordinated, seamless system of care, and ultimately to a community integrated system of care. As an organized system focused on patients and communities, with payments rewarded based on effectiveness in providing person-centered care that achieves specific outcomes, a community integrated health system can begin addressing underlying population health issues and promote healthy community living. It is through such a community integrated health care system that both public health and health care can achieve their mutual goal of reducing chronic disease and injury and ensuring the health and wellness of all people in Michigan.

The goal, strategies, and objectives outlined in this foundational plan are based on a conceptual model which depicts the intersection of these three state initiatives with Michigan’s chronic disease and injury prevention and control efforts (see figure 2).

Figure 2
Michigan Coordinated Chronic Disease Prevention and Health Promotion State Plan
Conceptual Model



As shown, the chronic disease and injury prevention and control programs and strategies implemented by DCDIC and partners overlap and feed into each of the three initiatives. These initiatives also address chronic disease issues at various levels of prevention (depicted to the left) and within the four domains (noted below each initiative). Underlying all of the initiatives and supporting the collective efforts is epidemiology and surveillance (domain 1). By aligning and linking our efforts, we have the increased ability to achieve the long-term outcome of increased prevention and control of chronic diseases and injuries, and promotion of wellness and quality of life for people living in Michigan.

Section 2: Overview of State Initiatives and Alignment with the CCDPHP State Plan

The Michigan Health and Wellness 4x4 Plan (Domain #2)

The Michigan Health and Wellness 4x4 Plan, released in June 2012, recommends the practice of four healthy behaviors and the control of four health measures, with the primary goal of reducing obesity and thereby, reducing the subsequent development of chronic illnesses. The four healthy behaviors and health measures are as follows:

Healthy Behaviors

- 1) Maintain a healthy diet
- 2) Engage in regular exercise
- 3) Get an annual physical exam
- 4) Avoid all tobacco use

Health Measures

- 1) Body mass index (BMI)
- 2) Blood pressure
- 3) Cholesterol level
- 4) Blood sugar/glucose level

The 4x4 Plan, which was developed with input from a diverse group of experts, state partners and key stakeholders, further outlines a set of strategies, based on the social-ecological model, to promote implementation of the 4x4 Plan. These strategies include:

- Development of a multimedia campaign to raise public awareness and promote the adoption of healthy behaviors outlined in the 4x4 Plan.
- Deployment of local coalitions across the state to support implementation of the 4x4 Plan.
- Engagement of partners throughout Michigan to help the coalitions implement the 4x4 Plan. Partners include state, tribal and local governments; employers/businesses; industry and other private sector partners; trade and other professional organizations; academic institutions, schools and community organizations.
- Formation of an infrastructure within MDCH to support implementation of the 4x4 Plan and energize local coalitions and partners.
- Acquisition of funding to finance implementation of the 4x4 Plan (MDCH, June 2012).

The specific recommendations and action steps included in the 4x4 Plan have a primary prevention focus and consist of evidence-based environmental approaches that promote health, and support and reinforce healthful behaviors both statewide and in the community (including places where people live, work, learn and play). Thus, the strategies outlined in the 4x4 Plan fall within domain 2 of chronic disease prevention and health promotion efforts.

The CCDPHP State Plan builds upon the Michigan Health and Wellness 4x4 Plan by extending the 4x4 tool to preventing and reducing the burden of chronic disease (including cardiovascular disease, diabetes, cancer, arthritis, tobacco, asthma, and disability); and by delineating a broad-based goal, specific strategies, and measurable objectives to achieve the adoption of the healthy behaviors and control of the health measures through a coordinated approach among Michigan's chronic disease initiatives.

Michigan Primary Care Transformation Project (MiPCT) (Domain #3)

The Michigan Primary Care Transformation (MiPCT) Demonstration Project is a 3-year (2012-2014), multi-payer, statewide project aimed at reforming primary care payment models and expanding the capabilities of patient-centered medical homes throughout the state. The patient-centered medical home (PCMH) is a team-based model of care led by a personal physician that provides continuous and coordinated care throughout a patient's lifetime to maximize health outcomes. This model approaches care with the patient at the center, emphasizes prevention, and uses health information technology, care coordination, and shared decision-making between

patients and their providers to improve chronic illness and preventive care (Michigan Primary Care Consortium [MPCC], March 2011).

The purpose of MiPCT is to demonstrate the effectiveness of the PCMH model of care in (1) improving health outcomes and (2) patient satisfaction while (3) reducing unnecessary healthcare costs. The goal of the Transformation Project is to improve overall population health via:

- Risk reduction for healthy individuals,
- Self-management support to prevent patients with moderate chronic disease levels from progressing to the complex category,
- Care coordination and case management support for patients with complex chronic diseases,
- Appropriate, coordinated end-of-life care.

Michigan is one of eight states to participate in this demonstration and has the largest PCMH project in the nation. The Michigan project began in January 2012. Participants include 36 physician organizations (PO) and 410 primary care practices designated as patient-centered medical homes through the Blue Cross Blue Shield of Michigan Physician Group Incentive Program. Currently, over 1700 physicians are involved in the demonstration through the POs and primary care practices, with a patient population of more than one million adults and children in Michigan.

Participating practices and/or POs receive additional funds for development of PCMH infrastructure; embedding of care managers within the practices; and rewarding achievements in health outcomes, patient satisfaction, and controlling costs. Practice infrastructure includes enhanced access for patients and use of IT tools including electronic health records and patient registry functionality to assist with the provision and tracking of evidence-based chronic illness and preventive care for the entire patient panel. Professional care managers function as part of the care team to plan, coordinate, and track care for complex and moderately complex patients.

In addition, MiPCT integrates and disseminates best practices, including evidence-based care management and care coordination operational models, via a Michigan Care Management Resource Center, Learning Collaboratives and other transformation tools. The project is governed by a steering committee comprised of physician organizations, payers/insurers, MDCH, and external experts (MPCC, June 2011).

The MiPCT project addresses domain 3 (health system interventions to improve the effective delivery and use of clinical and other preventive services) through its efforts to expand and enhance the infrastructure, capabilities, and reach of patient centered medical homes in Michigan. The CCDPHP State Plan includes strategies and objectives to support and improve the patient centered medical home model of care for people who have or are at risk for chronic conditions and injuries. These are outlined in more detail below (see Goal, Strategies, Objectives section).

Community Linkages - Pathways/Community HUB Project (Domain #4)

The purpose of the Community Linkages Pathways/Community HUB Project is to holistically address factors that contribute to a person's overall health by integrating the medical care system with community resources. About 50% of all health care expenditures go to treat roughly 5% of the U.S. population (Community Care Coordination Learning Network [CCCLN], 2010, p.3). Those at greatest risk represent the greatest weight of our national health disparity, and are often disconnected from the most timely and efficient care (CCCLN, 2010, p.3). Health care has a limited impact (20%) on a person's health status, while social and economic factors (e.g., education, employment, income, family/social support, and community safety) have a greater impact (40%) on healthy daily living (University of Wisconsin Population Health Institute, 2012, p.3). If social/economic determinants of health are not addressed, these factors will impede or prevent achievement of positive health outcomes and perpetuate rising healthcare costs.

The Pathways/Community Hub Model is an outcome-based framework for care delivery that uses lay Community Health Workers to address the social and economic determinants of health. The lay Community Health Workers are incentivized according to their success in the following activities: 1) finding individuals at the greatest risk of falling between the cracks and developing or mismanaging chronic conditions, 2) assessing their situation and identifying potential barriers to receiving the services they need to achieve positive outcomes, 3) referring them to evidence-based health and social services, and 4) documenting the results of referrals, evaluating progress, and reporting final outcomes. Community Health Workers provide care coordination and create a bridge between health and social systems in order to improve population health and contain healthcare spending (CCCLN, 2010).

Community health and human service agencies that offer evidence-based programs provide the infrastructure for completing designated 'Pathways' to positive health outcomes. As a centralized "clearinghouse", the Community HUB registers individuals into the system, monitors progress in completing 'Pathways', reduces administrative inefficiencies, and holds the delivery system accountable for addressing social/economic determinants of health.

Michigan's Pathways/Community HUB Project is a three-year, cooperative agreement award from the Centers for Medicare and Medicaid Services (CMS), funded as of July 1, 2012. The project is co-directed by the Michigan Public Health Institute (MPHI) and MDCH. The funding is being used to pilot the Community HUB Model in three Michigan counties (Ingham, Muskegon, and Saginaw), hire approximately 90 Community Health Workers plus additional professional staff, and develop an IT system to enable data sharing among community agencies and health care providers that share common clients. The target population is Medicare and Medicaid beneficiaries who live in the pilot counties. Primary services provided through the HUBs will be those pertaining to the social determinants of health plus referrals to health care services as needed.

The Pathways/Community HUB Project encompasses domain 4 (Strategies to Improve Community-Clinical Linkages) through its work to build linkages with community resources and health care, as well as ensure the timely provision of appropriate, high-quality, cost-effective, evidence-based services that will have positive outcomes on those served (CCCLN, 2010, p.1

&4). The Community HUB Model brings community stakeholders together to determine local health needs and create the appropriate support, services, and interventions most effective for addressing those needs (CCCLN, 2010, p.4). Moreover, through coordination, communication, and incentives, the Community HUB seeks to increase the effectiveness of care coordination across multiple programs and services to ensure that those at risk are identified and connected to care in a timely manner (CCCLN, 2010, p.4). In addition, by identifying those at greatest risk and bringing greater equity in service delivery and outcomes, the Pathways/Community HUB project may achieve more equitable access to care and consequently help to reduce health disparities (CCCLN, 2010, p.4).

By aligning its efforts with the Pathways/Community HUB Project, the CCDPHP State Plan can work to influence and strengthen linkages and pathways pertaining to chronic disease and injury prevention and disease management; thereby increasing efficiencies and effectively reducing chronic disease and injury burden, particularly among high-risk populations.

Section 3: Collaborative Strategic Planning Process

With the three statewide initiatives described above as a starting point, MDCH DCDIC convened public health and categorical program leaders in two strategic planning sessions to consider the work of these programs and identify opportunities for alignment and coordination with chronic disease and injury prevention and control efforts (see Appendix 1 for list of planning participants). Thus, Michigan's CCDPHP State Plan represents the collective thought and strategic direction of a diverse group of partners and key stakeholders. The success of the plan rests with the on-going engagement and meaningful involvement of these and other partners and stakeholders throughout the implementation and evaluation phases. Therefore, the strategic planning process was designed to be as thoughtful, participatory, inclusive, yet efficient as possible to ensure that investment in, and ownership of, the plans rests with partner organizations, departments, and programs.

Partnership Involvement and Engagement / Planning Process

Partners were initially identified and recruited by the internal Expanded Leadership Team (ELT), comprised of the Director of the Division of Chronic Disease, Section Managers representing the categorical programs, and Division workgroup leaders.

The ELT identified three categories of partners to engage. Partners *within* each group had similar strengths, while each of the three groups provided a unique perspective that enhanced different phases of the strategic planning process. The groups included the following:

- Group One: Public Health Leaders -- Key public health thinkers (both internal and external to MDCH) identified during strategic planning and ELT discussions. Members included MDCH leadership, representatives from academic institutions, local public health leaders, and representatives from public health associations and organizations.

- Group Two: Expanded Internal Partners – Members included representatives from other MDCH Public Health Administration programs and offices, including the Office of Minority Health, Vital Records, Maternal and Child Health, Oral Health and Public Health Accreditation.
- Group Three: Categorical Leaders -- Partners within the chronic disease and injury prevention and control arena including Cancer, Cardiovascular Disease, Physical Activity/Nutrition/Obesity, Diabetes, Tobacco Prevention and Control, Injury and Violence Prevention, and Other Chronic Diseases--Asthma, Arthritis, Disability.

Specific representatives were identified and recruited based on the following characteristics:

- Expertise in population health and/or chronic disease and injury prevention and control
- Ability to influence and implement strategies related to the four domains
- Ability to see beyond categorical funding
- Identification as a categorical leader (for example, leaders of various advisory committees and coalitions)
- Have statewide connections

In order to maximize efficiency and ensure meaningful engagement, partner participation in the development of the state plan occurred through a two-step process. The first step involved initial outreach and process identification. This consisted of convening statewide leaders in public health (group one) as well as select representatives from other programs and offices within MDCH (group two) to serve in an advisory capacity and assist with determining the specific process for developing the state plan, as well as identifying the essential elements of successful partner engagement. These partners, along with ELT members, met on May 17, 2012, to learn more about the CCDPHP initiative, discuss the strategic planning process, and begin identifying additional potential partners and statewide initiatives related to the realm of CCDPHP.

The second step involved convening partners from all three groups for a strategic planning session to inform the development of strategies and objectives for the state's foundational CCDPHP State Plan. The purposes of this meeting, held July 18, 2012, were to review the three statewide initiatives (described above); identify opportunities for alignment and coordination with current chronic disease and injury prevention and control efforts; identify additional coordinated, population-based programs/project/activities that are aligned with the plan's overarching initiatives; gather input on goals, strategies, and objectives for the CCDPHP State Plan; and identify how partner organizations can support implementation of plan strategies and objectives.

Following the strategic planning meetings, a sub-group of the ELT met to review and refine the specific goals, strategies and objectives identified by the strategic planning group for inclusion in the CCDPHP State Plan. A draft of the goals, strategies and objectives was then circulated among ELT members and strategic planning partners for review and feedback. The goals, strategies and objectives were then finalized based on input and incorporated into the CCDPHP State Plan.

Future Partner Engagement

Despite the strong ties established with partners through the strategic planning process, future progress and success of the plan depends on continuing to nurture these relationships as well as reaching out to and involving non-traditional and expanded partners. Therefore, the DCDIC ELT and core planning partners will continue to meet to monitor implementation of the CCDPHP State Plan, identify priorities for outreach to non-traditional and expanded partners, and develop/modify action plans for implementation efforts.

Some of the already identified non-traditional and expanded partners include government entities, organizations that have a mutual interest in chronic disease management and prevention, and agencies with a focus on healthy communities and an overall healthier Michigan.

The Michigan government entities targeted will be ones whose sister federal agencies participated in the development of the National Prevention Strategy and who serve on the National Prevention, Health Promotion, and Public Health Council.

State of Michigan Departments include:

- Human Services
- Education
- Agriculture and Rural Development
- Transportation
- Licensing and Regulatory Affairs (LARA)
- Michigan State Housing Development Authority (MSHDA)
- Military and Veteran's Affairs
- Technology, Management and Budget
- Other Additional Partners

Additional Expanded Partners include:

- Inter-Tribal Council of Michigan
- Michigan Primary Care Consortium
- Health Insurers
- Other Additional Partners

Partners will have opportunities to directly impact the implementation of key strategies related to coordinated chronic disease and injury prevention and health promotion. Opportunities for partners will depend upon strategic plan strategies appropriate for partner involvement and partners' desire to remain engaged.

An evaluation will be conducted to monitor partners' level of satisfaction and engagement in the CCDPHP State Plan and to identify additional opportunities for partner involvement.

Section 4: Chronic Disease/Injury Burden in Michigan and Associated Risk Factors – Surveillance and Epidemiology

Public health surveillance is conducted to characterize chronic diseases, injuries, and risk factors, to identify high-risk population groups or geographic areas to which needed interventions can be targeted, to evaluate the effectiveness of programs and interventions, to develop hypotheses for further studies, and to provide information to the public and providers to make informed decisions (Smith et al., 2012) (see Appendix 2 for the specific goals of public health surveillance). MDCH collects a variety of data related to chronic disease and injury prevention and risk reduction, disease management and control, and outcomes, including vital statistics, hospitalization data, and behavioral risk factor surveys. Analyses are most often conducted to support the planning and evaluation needs of MDCH categorical programs.

Dissemination of chronic disease, injury and risk factor epidemiology and surveillance data is a priority addressed in Michigan's CCDPHP Communication Plan. There are proposed strategies to develop key messages and plans to share data with MDCH staff, administrators, stakeholders, partners, policy makers and the public. Special efforts will be made to ensure that data and surveillance reports are easily accessible, in language and formats appropriate for priority audiences. Various traditional and social media will be used to reach specific audiences.

A subset of critical indicators (see Appendix 3) provide an overall, integrated understanding of the burden of chronic disease and injury in Michigan. These indicators address structural and environmental factors affecting chronic disease and injury prevention and control within the state, and were selected based on the magnitude and severity of the impact on disease, importance for planning and evaluation in the CDC domain areas, and the current or future ability to describe health disparities in demographic and geographic subpopulations within the state. Highlighted statistics for these indicators are provided below.

Prevention and Risk Reduction Indicators

The prevalence of preventive behaviors among Michigan adults, although similar to that of United States (US) adults, is lower than state and national goals, with disproportionate burden among subpopulations. For example, in 2009, less than a quarter of Michigan adults (22.2%) reported an **average fruit and vegetable consumption** of five or more times per day, which is comparable to the US median prevalence of 23.4%. Females (25.3%) reported higher prevalence of adequate consumption than males (18.1%), and prevalence increased with increasing household income level. Intake did not differ by race/ethnicity or by disability status.

Only one-half (51.4%) reported participating in **adequate physical activity**¹, comparable to US median prevalence of 51.0%. The prevalence decreased with increasing age. Males (53.7%) reported a higher prevalence than females (49.1%). White, non-Hispanic (NH) adults (52.1%)

¹ adequate physical activity was defined as reporting either moderate physical activities for a total of at least thirty minutes of five or more days per week or vigorous physical activities for a total of at least twenty minutes on three or more days per week while not at work

reported a higher prevalence than Black, NH adults (45.4%). Disabled adults (36.3%) were much less likely to report adequate physical activity than non-disabled adults (55.7%).

Routine medical checkups are an important part of the Michigan Health and Wellness 4x4 Plan (MDCH, 2012). In 2009, 69.1% of Michigan adults reported having had a routine medical checkup within the past year, with prevalence increasing with age. Prevalence was higher among females (75.2%), Black NH adults (77.9%) and insured adults (73.6%) than among males (62.6%), Whites NH (68.2%) or uninsured adults (40.7%).

The majority of adults (78.7%) reported **no current use of cigarettes or smokeless tobacco** products. Prevalence was similar by age and race/ethnicity. Females (81.5%), insured adults (82.0%) and disabled adults (80.4%) reported a higher prevalence than males (75.6%), uninsured (57.8%), and non-disabled adults (72.7%).

Although each indicator is important to understand for program planning and evaluation, the impact on population health is much stronger when all behaviors are present. The prevalence of **all four healthy behaviors** is even worse than that of the single indicators. In 2009, less than one in ten (8.1%) adults reported having each of the above healthy behaviors. Females (10.3%) reported a higher prevalence of all behaviors than males (5.7%). Hispanics (2.5%) reported a lower prevalence than White, NH (8.5%) and Black, NH adults (7.5%). Insured adults (8.8%) more frequently reported all behaviors than uninsured (3.7%).

Michigan adults are burdened by risk factors for chronic disease, such as obesity, high blood pressure, high cholesterol, and high glucose levels, at a higher level than US adults. For example, in 2009, 30.3% of adults were classified as **being obese** (i.e., BMI of 30.0 or greater), which is higher than US median obesity prevalence of 26.9%. Nearly one-third (30.4%) reported ever being told by a doctor, nurse, or other health care professional that they had **high blood pressure** (excluding borderline hypertension and women who had high blood pressure only during pregnancy) (US median 28.7%). More than 1 in 3 (38.9%) who ever had their cholesterol checked reported ever being told by a doctor, nurse, or other health care professional that they had **high cholesterol** (US median 37.5%). Nearly one in ten (9.4%) reported ever being told by a doctor, nurse, or other health care professional that they had **diabetes**, comparable to US median prevalence of 8.3%. The distribution of this burden was not evenly distributed among adults:

- Prevalence of each risk factor increased with age.
- Males had higher prevalence rates of ever told hypertension (32.6%) and cholesterol (41.2%) than females (28.4% and 36.8%, respectively). Obesity and diabetes prevalence rates were similar by gender.
- Disparities by race/ethnicity group were more complex. White, NH adults reported a lower prevalence of obesity (28.7%), diabetes (8.6%) and hypertension (29.8%) than Black, NH (41.6%, 12.6% and 36.8%). However, White, NH adults (40.4%) reported a higher prevalence of high cholesterol than Black, NH (32.7%) and Hispanic adults (28.2%).
- A higher percentage of disabled adults reported being obese (35.1%), or having high blood pressure (47.4%), high cholesterol (50.6%), or diabetes (18.4%) than non-disabled adults (27.0%, 25.4%, 35.3%, and 6.8%, respectively).

More than one half of Michigan adults (58.4%) reported having **at least one of these four health risk factors**. This prevalence increased with age, but was similar by gender and race/ethnicity. Disabled adults (75.6%) were more likely to have reported at least one of these risk factors than non-disabled adults (53.6%).

Preventive Screenings

Preventive screenings are crucial to identify those most susceptible to disease or with preclinical disease. In 2009, an estimated 79.8% of Michigan adults reported having their **blood cholesterol checked within the past five years**, which is slightly higher than US median prevalence of 77.0%. The prevalence of having a test within five years increased significantly with age. Females (82.3%) reported a higher prevalence than males (77.1%), but there were no racial/ethnic differences.

In 2009, an estimated 73.2% of Michigan adults reported having received **appropriate screening for breast, cervical, and colorectal cancers**.² The prevalence of appropriate cancer screening decreased with age, but was similar by race/ethnicity. Males (86.2%) reported a higher prevalence of appropriate cancer screening than females (60.8%), but this could be explained, in part, by the fact that men below the age of 50 years have no recommended screenings for these three cancers. Furthermore, a smaller proportion of disabled adults (65.1%) reported appropriate cancer screening than non-disabled adults (75.8%).

In 2009, 53.3% of Michigan adults reported being **exposed to secondhand smoke (SHS) within their home, their car, at work, or within a bar or restaurant** within the past seven days. SHS exposure prevalence increased with age, but was similar by race/ethnicity. Males (58.0%) reported higher prevalence than females (49.0%), while insured adults (51.9%) were less likely to have had SHS exposure in the past seven days than uninsured adults (63.2%).

In 2010, 14.1% of Michigan adults reported that they **were not able to see a doctor within the past twelve months due to cost**. The prevalence of cost prevented care decreased with age, but this is, in part, due to the increase in the prevalence of insurance coverage with age. Females (16.0%) reported higher prevalence than males (12.0%), and White, NH adults (12.1%) reported lower prevalence than Black, NH adults (21.6%). Furthermore, disabled adults (22.0%) were more likely to have experienced cost prevented care within the past twelve months than non-disabled adults (11.5%).

Management of Existing Disease

Nearly one half of Michigan adults are estimated to have a common chronic disease, although this is an underestimation due to lack of data for some conditions within available data sources.

² Appropriate screening for three cancers defined as: 1) Males 18-49 years: no recommended screenings; 2) Males 50+ years: fecal occult blood test in past year, sigmoidoscopy in past 5 years, or colonoscopy in past 10 years; 3) Females 18-39 years: pap test in past 3 years; 4) Females 40-49 years: pap test in past 3 years and mammogram in past 2 years; 5) Females 50+ years: pap test in past 3 years, mammogram in past 2 years, and fecal occult blood test in past year, sigmoidoscopy in past 5 years, or colonoscopy in past 10 years

In 2010, 47.5% of Michigan adults reported ever being told by a doctor, nurse, or other health care professional that they had **at least one of the following chronic conditions**: diabetes, cardiovascular disease, current asthma, arthritis, or major depression. The chronic condition prevalence increased with age, but was similar by race/ethnicity. Males (43.9%) reported a lower prevalence of chronic conditions than females (50.8%). A higher proportion of disabled adults (78.8%) have ever been diagnosed with at least one of these chronic conditions than non-disabled adults (37.6%).

Approximately **10% of Michigan adults have ever been told that they had diabetes**. In 2010, 43.0% of Michigan adults with diabetes reported having **received all three diabetes preventive services** within a timely manner (i.e. two hemoglobin A1c tests within the past year, at least one foot exam within the past year, and at least one eye exam within the past year). The prevalence of receiving all three preventive services decreased with age, but was similar by gender, race/ethnicity, and disability status. Insured adults with diabetes (44.5%) were more likely to have received all three preventive services than uninsured adults (28.7%).

In 2009, an estimated 79.5% of Michigan adults with **high blood pressure (HBP) reported that they were currently taking medications** for their HBP. The prevalence of HBP medication use increased with age, but was similar by race/ethnicity. Females (84.7%) reported a higher prevalence than males (74.7%), and insured adults with HBP (81.9%) reported a higher prevalence than uninsured adults with HBP (59.9%). Furthermore, disabled adults (84.0%) were more likely to be taking HBP medications than non-disabled adults (77.0%).

In 2010, 62.3% of Michigan adults who were **current smokers reported that they had attempted to quit smoking for one day or longer during the past twelve months**. The quit attempt prevalence decreased with increasing age, but was similar by gender, race/ethnicity, and insurance status.

In 2010, an estimated 32.3% of Michigan adults reported ever being told by a doctor, nurse, or other health care professional that they had some form of **arthritis**, rheumatoid arthritis, gout, lupus, or fibromyalgia. The prevalence increased with age. Females (37.3%) reported a higher prevalence than males (27.0%). White, NH adults (33.6%) reported a higher prevalence than Hispanics (16.9%). Furthermore, **adults with arthritis (29.6%) were more likely to have not participated in any leisure-time physical activity within the past month than adults without arthritis (19.5%)**.

Outcomes

Chronic disease and injury related outcomes provide evidence of the need for action in Michigan as well as the need to address disparities for particular groups. For example, **9.6% of Michigan adults have ever been told that they have cardiovascular disease** (heart attack, angina or stroke). This prevalence increases with age to a high of 32% of those 75 years or older. The prevalence is higher among men (11.0%) than women (8.3%), but does not differ by race/ethnicity. The prevalence is higher among Michigan adults with lower education and household income levels.

Michigan's age-adjusted **incidence rate for lung cancer** (72.4 per 100,000 in 2007) is higher than the rate for the population represented by the US Surveillance Epidemiology and End Results (SEER)³ (59.3 per 100,000 in 2007). Michigan exhibits racial disparities for this outcome: rates are higher among black males and females (106.6 and 68.0, respectively) than their white counterparts (83.8 and 65.0, respectively).

Similarly, the age-adjusted **incidence rate for colorectal cancer** in Michigan (47.0 per 100,000 in 2007) is higher than the rate for US SEER (44.6 per 100,000 in 2007). Rates in Michigan are higher among black males and females (66.7 and 53.8, respectively) than their white counterparts (51.5 and 40.1, respectively). Mortality due to colorectal cancer is lower, but follows a similar pattern. The age-adjusted **mortality rate for colorectal cancer** in Michigan (16.7 per 100,000 in 2008) is identical to the rate for US SEER (16.7 per 100,000 in 2007). Rates in Michigan are higher among black males and females (29.4 and 18.5, respectively) than their white counterparts (18.4 and 13.7, respectively).

The age-adjusted **mortality rates for breast cancer among women** are also higher in Michigan in 2008 (24.2 per 100,000) than the US SEER data (22.8 in 2007). Racial and geographic disparities are evident: rates are higher among Michigan black women (35.9) than black women in the US SEER group (31.4 in 2007) or white women in Michigan (22.9).

Falls are the leading cause of injury hospitalization in Michigan. In 2010, of 61,924 injury hospitalizations, 23,679 (38%) were due to falls. In 2010, the age-adjusted rate for females (228/100,000) was 21% greater than the corresponding rate for males (188/100,000). The highest rates for both sexes are among those aged 85 and older.

The **traumatic brain injury (TBI) hospitalization rate** is higher for males than females for every age group. In 2010, the age-adjusted male rate (126/100,000) for all ages exceeded the corresponding female rate (72/100,000) by 75%. For both sexes, rates are highest for those aged 65 and older (294/100,000). The second highest rate is for children less than one year of age (127/100,000).

Structural and Environmental Factors

Many social determinants influence the ability to prevent and control chronic disease and injuries. For example, living in poverty will limit a person's access to health-related resources as well limited access to healthy foods, safe recreational environments and primary care services. In Michigan, a slightly higher proportion of residents live below the federal poverty level (14.8%) than United States residents (13.8%) (2006-2010 data) (U. S. Census Bureau, 2012). The percentage living below poverty is higher among families with related children under 18 years (17.0%) and with related children under 5 years (19.8%). An even higher percentage of families with a female householder and no husband live below poverty, including 41.1% and 50.3% for families with related children under 18 years and children under 5 years old. More than 1 in 10 (11.5%) of Michigan adults over the age of 16 are unemployed (U. S. Census Bureau, 2006-2010 American Community Survey). Michigan has 200 areas designated by the

³ SEER data presented are based on data reported by MDCH, Division for Vital Records and Health Statistics (2010)

Health Resources and Services Administration as a health professional shortage area for primary care. There were 1,434,766 residents in these areas (14.5% of Michigan population) with 871,590 who were considered underserved, an estimated 8.8% of the Michigan population. (Health Resources and Service Administration [HRSA], 2012).

In summary, Michigan's prevalence of risk factors and chronic disease and injuries is similar to or higher than that for the United States. African Americans and Hispanics, adults with lower educational attainment, adults living in low income households, people living with disabilities and adults without health insurance tend to bear a disproportionate burden.

Surveillance Data Availability

Although the preceding information is very useful for targeting subpopulations and providing a baseline for evaluation, the picture of chronic disease and injuries in Michigan is incomplete. Apart from data on self-reported risk behaviors, cancer incidence, inpatient hospitalization, and mortality (reference Michigan Behavioral Risk Factor Surveillance System, state Cancer Registry, Michigan Inpatient Data Base, and Mortality statistics), reliable and timely data on the chronic disease and injury related health status of Michigan citizens is largely unavailable despite its importance to the state's fiscal and physical well-being. The development of initiatives to improve the public's health – and, thereby, reduce the cost of health care – is severely hampered by this lack of useful information. Available data do not provide the complete basis for understanding preventive behaviors, incidence and/or severity of chronic disease and injuries, or quality or episodes of care on a population level. Furthermore, data are often not available for subpopulations by racial/ethnic group, income or education, disability status, or at geographic detail needed to inform community action.

The National Prevention Strategy (NPS) includes a recommendation to "expand and increase access to health information technology and integrated data systems to promote cross-sector information exchange" (National Prevention Council [NPC], 2011, p.15) that, if implemented, would increase the ability of states to conduct surveillance of health behaviors and outcomes related to chronic diseases and injuries. Chronic diseases account for seven of the ten leading causes of death in Michigan, as well as an enormous amount of morbidity, and are estimated to be responsible for 75 percent of all health care costs (CDC, NCCDPHP, 2009). Much of the related morbidity and mortality is preventable through lifestyle changes such as healthy eating, avoiding smoking and engaging in regular physical activity. Injuries are the leading cause of death for Michigan residents aged 1-44 (MDCH Vital Records). Preventable injuries and violence exact a heavy burden on Michiganders through premature deaths and disabilities, pain and suffering, health care costs, rehabilitation costs, disruption of quality of life for families, and disruption of productivity for employers. A statewide chronic disease, injury and risk factor registry could provide this information and likely would prove to be as valuable as infectious disease registries have been in improving food safety, vaccine development, and tracking emerging infections such as HIV and West Nile virus. There is no reason why, with tools such as a robust registry, we could not see extraordinary advances in the prevention and control of chronic diseases and injuries in the 21st century.

Leveraging this new approach to health information-sharing can reduce the burden of current disease reporting on health care providers while enabling efficient population level data collection on diseases, injuries and risk factors that are not effectively monitored today. Health care can be improved if analyses are performed on a population basis to identify groupings of modifiable risk factors; evaluate care delivery, health status and disease trends; and understand behavioral, socioeconomic, occupational, and other impacts on health. Such capacity also could help assure that new emerging payment models (e.g., Accountable Care Organizations) are appropriately and efficiently saving money while improving patient health outcomes.

Section 5: Goal, Strategies, Objectives

The burden of chronic disease and injury, and prevalence of associated risk factors described above, demonstrates the need for a comprehensive, coordinated approach to chronic disease and injury prevention and control. Alignment with the three statewide initiatives described previously (Michigan 4x4 Plan, MiPCT, and Pathways/Community HUB), provides an opportunity to better coordinate and strengthen Michigan's efforts.

The goal, strategies, and objectives below center around coordination points with these three statewide initiatives. Coordination points are those arenas where chronic disease and injury prevention and control programs and partners can work together to build on existing work to achieve greater reach, impact and/or enhanced efficiency related to the three statewide initiatives.

As mentioned above, the overall vision for alignment and coordination with these initiatives is to reduce the burden of chronic disease and injury by helping to advance Michigan's health care system initially to a coordinated, seamless system of care, and ultimately to a community integrated system of care that addresses the social and economic determinants of health and moves beyond care coordination to healthy living. Consequently, the planning group has identified the following goal for Michigan's CCDPHP State Plan:

Goal

By 2020, all people living in Michigan will have access to a community integrated health care system supporting the prevention and control of chronic disease and injuries.

Strategies and Objectives

The following statewide strategies are based on recommendations outlined in the U.S. Department of Health and Human Services, National Prevention Council's (NPC) National Prevention Strategy (NPS), and have been developed to guide Michigan's coordination efforts. These strategies were selected because they are evidence-based, have the potential to significantly reduce the chronic disease and injury burden among high risk individuals as well as the broader Michigan population, include approaches to improve health equity, align with Michigan's three statewide initiatives, and address the four domain areas: 1) Epidemiology and Surveillance, 2) Environmental Approaches, 3) Health System Interventions, and 4) Strategies to Improve Community-Clinical Linkages. Additionally, these strategies are consistent with the

current work of statewide partners and provide opportunities for building upon these efforts to maximize efficiency and impact.

The strategies are organized by domain area. Each strategy is followed by corresponding short-term, intermediate, and long-term objectives.

Domain 1: Epidemiology and Surveillance - Gather, analyze and disseminate data and information and conduct evaluation to inform, prioritize, deliver and monitor programs and population health.

Michigan Strategy: Develop a chronic disease and injury surveillance system (including use of health information technology) with analysis and dissemination capacity to inform, prioritize and evaluate impact of programs and policies as well as ensure strategic focus on communities and populations of greatest risk.

Rationale/Evidence-Base: This strategy is based on the NPS Strategic Direction, *Healthy and Safe Community Environments*, Recommendation 6: “Expand and increase access to information technology and integrated data systems to promote cross-sector information exchange” (NPC 2011, p.15). As expressed in the NPS report, timely, accurate, and coordinated data and communication can strengthen planning and implement of prevention strategies, as well as efforts to detect and respond to public health threats (NPC 2011, p.15). This is also true of chronic disease and injury related data. By developing a chronic disease and injury surveillance system, and establishing mechanisms to share data and implement an electronic data exchange, Michigan will be able to increase its capacity to identify high risk populations, tailor its prevention efforts, evaluate impact, and modify its approach as necessary.

Demonstration Focus: Chronic Disease and Injury Registry and Community Health Assessment Support

State Plan Objectives:

Short-term Objectives 1-2 years	Intermediate Objectives 3-5 years Epidemiology and Surveillance	Long-term Objectives 5 years or more ALL DOMAINS
<p>EPI 1: By December 2013, develop a process to routinely share data and findings with DCDIC staff.</p> <p>EPI 2: By December 2013, provide DCDIC staff with a summary of statistics on selected chronic disease and injury indicators that can be used to develop strategic messages.</p> <p>EPI 3: By August 2013, in collaboration with health disparity</p>	<p>EPI 1: By August 2014, define public health elements of a state chronic disease and injury registry system.</p> <p>EPI 2: By August 2015, increase the number of unique visitors to the chronic disease and injury statistics page on the MDCH web site by 10% over January 2013 baseline.</p>	<p>Long-term 1 : By 2020, achieve a documented 10% improvement from 2011 baseline in the following indicators:</p> <p>A: Percent of Michigan adults reporting all four healthy behaviors (adequate fruit and vegetable consumption, adequate physical activity/muscle strengthening, routine checkup within the past year, and not using any form of tobacco)</p>

<p>reduction/minority health and chronic disease and injury staff, increase collection and analysis of chronic disease and injury indicators by race/ethnicity, geography, and disability status.</p> <p>EPI 4: By July 2013, ensure questions to support calculation of the critical chronic disease indicators are sustained on the MiBRFSS.</p> <p>EPI 5: By December 2013, develop a plan for data systems, such as a chronic disease and injury registry, that allows for calculation of critical chronic disease and injury indicators, including data from emergency departments.</p>	<p>EPI 3: By March 2016, refine data systems by initiating collection of a public health emergency department surveillance system, leveraging existing public health surveillance systems, filling in gaps in collection of race, ethnicity, sex, disability and language (RESDL) status in evaluation sets, and expanding the number of chronic disease and injury indicators that can be calculated using clinical data.</p>	<p>B: Percent of Michigan adults with timely screening for blood pressure, cholesterol and glucose level</p> <p>C: Percent of Michigan adults with timely age and gender-appropriate cancer screening</p> <p>Long-term 2: By 2020, achieve documented reduction in disparity (evidence of increased equity) for the above indicators among populations that are vulnerable due to their racial/ethnic, geographic, and/or disability status.</p>
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Domain 2: Environmental Approaches - Promote interventions that support health and reinforce healthful behaviors (statewide in schools, worksites, and communities).

Michigan Strategy: Engage and empower people and communities to plan and implement prevention policies and programs to promote tobacco-free living, healthy eating and active living.

Rationale/Evidence-Base: This strategy is based on two of the NPS Strategic Directions-- *Healthy and Safe Community Environments*--“Create, sustain, and recognize communities that promote health and wellness through prevention” (NPC, 2011, p.11), and *Empowered People*, Recommendation 3: “Engage and empower people and communities to plan and implement prevention policies and programs” (NPC, 2011, p.22). The strategy also incorporates three NPS priorities – Tobacco Free Living, Healthy Eating, and Active Living (NPC, 2011). While education and information are essential to helping people make healthy choices, they are not sufficient. Making healthy choices is a complex process influenced by a host of factors including personal, cultural, environmental, economic, and social (NPC, 2011, p22). Communities, including worksites, schools, neighborhoods and faith-based organizations can play an important part in creating healthy environments and supporting individual efforts to make healthy choices (NPC, 2011, p.22). Efforts to support tobacco-free living, healthy eating and active living are particularly important, given their influence on the prevention and control of chronic diseases. When people and communities are engaged and empowered, they are able to catalyze community change and improve health (NPC, 2011, p.22).

Demonstration Focus: Michigan Health and Wellness 4x4 Plan

State Plan Objectives:

Short-term Objectives	Intermediate Objectives Domains 2-4	Long-term Objectives ALL DOMAINS
<p>Envir. App. 1: By January 2013, in collaboration with the community hub initiative staff, establish the process to identify, gather and disseminate coordinated chronic disease prevention resources for communities to use when implementing policies and environmental changes to promote and support healthy behaviors.</p> <p>Envir. App. 2: By June 2013, create a statewide coordinated chronic disease and injury prevention media campaign to increase healthy behaviors (physical activity, healthy eating, tobacco-free lifestyle and preventive annual physicals) among Michigan residents.</p> <p>Envir. App. 3: By June 2013, increase the number of environmental and policy assessments conducted by communities, businesses and schools that support healthy behaviors among Michigan residents by 20 over baseline.</p> <p>Envir. App. 4: By August 2013, provide policy and environmental change materials and resources to a minimum of 20 community coalitions (including worksite, faith-based organizations, and schools) that have completed an assessment.</p>	<p>Intermediate 1: By August 2015, increase the number of hits to the primary care and health and wellness web sites by 10% over baseline measures.</p> <p>Intermediate 2: By August 2015, increase the number of coordinated strategic messages disseminated to media and partners by 20% over baseline.</p> <p>Intermediate 3: By August 2015 increase the number of community coalitions adopting policies and/or environmental changes by 10% over baseline.</p> <p>Intermediate 4: By August 2015, increase the number of calls to the tobacco quit line by 10% over baseline measures.</p> <p>Intermediate 5: By August 2015, increase the number of clients served by MiPCT and community hubs who participate in PATH, Diabetes PATH, DPP, DSME, and EnhanceFitness by 10% over baseline measures.</p>	<p>Same as previous</p>

Domain 3: Health System Interventions - Improve the effective delivery and use of clinical and other preventive services in order to prevent disease and injuries, detect diseases early, and reduce or eliminate risk factors and mitigate or manage complications.

Michigan Strategy: Enhance coordination and integration of clinical, behavioral, and complementary services through support and enhancement of patient-centered medical homes and coordinated care management.

Rationale/Evidence-Base: This strategy is based on the NPS Strategic Direction, *Clinical and Community Preventive Services*, Recommendation 6: “Enhance coordination and integration of clinical, behavioral, and complementary health strategies” (NPC, 2011, p.20). Implementing quality and effective care coordination models, such as the patient-centered medical home and coordinated care management, can lead to better health outcomes and lower costs (NPC, 2011, p.20). These models, when implemented effectively, provide comprehensive and continuous medical care, reduce gaps and duplication of services, and increase quality of care and patient satisfaction, especially among those with multiple chronic illnesses (NPC, 2011, p.20). Supporting and enhancing patient-centered medical homes and coordinated care management through training and referral resources are essential to helping Michigan create an organized system of care that will effectively link individuals throughout the state with needed health and social services.

Demonstration Focus: Michigan Primary Care Transformation Project (MiPCT)

State Plan Objectives:

Short-term Objectives	Intermediate Objectives	Long-term Objectives ALL DOMAINS
<p>Health Systems 1: By November 2012, identify Division and partner chronic disease and injury education and self-management programs and resources relevant for POs and PCMH practices.</p> <p>Health Systems 2: By December 2012, in support of the MiPCT Care Management Resource Center, plan a series of webinars for MiPCT healthcare teams/Care Managers on chronic disease and injury resources/services available in many communities for patients.</p> <p>Health Systems 3: By March 2013, in support of the MiPCT Care Management Resource Center, establish a process to identify additional opportunities for outreach to POs and PCMH practices to promote Division and partner programs, ongoing training opportunities, promotional and referral materials, and other resources.</p> <p>Health Systems 4: By December 2013, participate in a minimum of five</p>	<p>Intermediate #1-5 above, Plus:</p> <p>Health Systems Intermediate 1: By December 2014, participate in up to ten webinars/trainings with public health education and referral resources to 200 appropriate primary care practice staff.</p>	<p>Same as previous</p>

educational webinars or classes with public health education and referral resources to 100 Care Managers.		
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Domain 4: Strategies to Improve Community-Clinical Linkages - Ensure that communities support and clinics refer patients to programs that enable improved management of chronic conditions. Such interventions ensure those with or at high risk for chronic diseases and injuries have access to quality community resources to address their life challenges and enable them to attend to their health or disease risks.

Michigan Strategies: a) Promote and support coordinated implementation of chronic disease and injury community-based preventive services and enhance linkages with clinical care.
b) Reduce barriers to accessing clinical and community preventive services, especially among populations at greatest risk.

Rationale/Evidence-Base: This strategy is based on the NPS Strategic Direction, *Clinical and Community Preventive Services*, Recommendations 4 and 5 (respectively): “Support implementation of community-based preventive services and enhance linkages with clinical care,” and “Reduce barriers to accessing clinical and community preventive services, especially among populations at greatest risk” (NPC, 2011, p.19). The effectiveness of preventive services is strengthened when clinical and community efforts are mutually reinforcing (NPC, 2011, p.19). While it is important for people to receive appropriate and necessary preventive care, this care needs to be supported by community-based resources. For example, practitioners can refer individuals with a chronic condition to a community-based disease management program to further educate the patient and support their disease management efforts. Therefore, it is important that clinical services and community resources are aligned and coordinated. Likewise, it is important that people are able to access clinical and community preventive services. Offering these services in convenient locations and providing resources (e.g. transportation) can help to reduce barriers that can hinder care. The use of Community Health Workers can also help to facilitate access to and use of preventive services (NPC, 2011, p.20).

Demonstration Focus: Michigan Pathways/Community HUB Initiative

State Plan Objectives:

Short-term Objectives	Intermediate Objectives	Long-term Objectives ALL DOMAINS
Community-clinical 1: By January 2013, begin developing coordinated injury prevention and chronic disease prevention and management strategies or “Pathways” to improve the health of the target population in Pathways Community HUBs.	Intermediate #1-5 above, Plus: Community-clinical Intermediate 1: By August 2015, begin working with 3 new communities to integrate health and human service delivery systems.	Same as previous

<p>Community-clinical 2: By August 2013, use lessons learned from pilot HUBs to begin priming other communities for developing community integrated service delivery.</p> <p>Community-clinical 3: By July 2014, develop a plan with systems-building strategies for improving population health in communities using an integrated framework.</p>		
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Many groups and organizations throughout Michigan are already involved in work that supports the strategies and objectives outlined above. These specific strategies and objectives build on current collaborations and existing resources to create a foundation for sustainable change.

Over the next year, implementation plans will be developed to define specific internal and external partner roles, monitor progress, and further guide implementation efforts. Progress in implementation and outcomes will be assessed, and the strategies and objectives revised as needed through on-going planning efforts.

Section 6: Monitoring and Evaluation

As noted, the CCDPHP State Plan serves as a foundational plan for Michigan’s coordinated chronic disease and injury prevention and control efforts. Ongoing monitoring and evaluation of the strategies and objectives above are essential components of coordination efforts and will allow for proactive and timely modifications as the plan is being implemented.

Evaluation of the CCDPHP State Plan will be based on the program logic model (see Appendix 4). This logic model outlines plan outputs as well as process, intermediate, and long-term outcomes. In addition to evaluation, the logic model serves as a tool for assessing program design and management. Implementation and evaluation plans (to be developed during the first year of the plan) will further define evaluation methods and indicators, including measures to assess health equity, along with processes for monitoring progress in implementation of the plan and achievement of plan objectives.

Long-term reductions in health disparities will be assessed through Michigan Behavioral Risk Factor Surveillance System (MiBRFSS) data, Medicaid Claims data, the In-Hospital Data Base, and other chronic disease data systems. The epidemiology and surveillance short-term objectives outlined above address needed changes to these and other chronic disease and injury surveillance and data collection systems, which once achieved, will improve evaluation capabilities.

The Evaluation Workgroup will continue to guide the evaluation process and work with the other coordinated chronic disease prevention and health promotion workgroups to monitor plan

progress and ensure continuous quality improvement in implementation efforts. The Evaluation Workgroup will also develop procedures to document workgroup progress and assist in data collection as needed.

Partners, stakeholders, and key staff will help to inform evaluation efforts and will play an integral role in reviewing progress and modifying strategies and objectives based on evaluation findings.

Section 7: Conclusions/Next Steps

The burden of chronic disease and injury in Michigan continues to be a significant issue that affects the health and quality of life of Michigan residents. Fortunately, this burden can be reduced through a comprehensive, coordinated and strategic statewide approach. The Michigan CCDPHP State Plan has been developed by public health partners, categorical program leaders and key stakeholders who share a commitment to work together to achieve the goal and objectives outline in this plan.

This plan represents a starting point from which to move Michigan towards a community integrated system of care in which underlying population health problems are addressed and healthy community living is supported. Success will require the hard work and continued involvement of partners across the state, as well as ongoing guidance from planning and work groups taking part in coordination efforts. Implementation and evaluation plans developed over the next year will further specify action steps around each strategy, how partners will be involved in implementation, and processes for assessing progress in meeting objectives.

By aligning efforts with current, broad-based, systems-level change initiatives; creating and strengthening partnerships; increasing collaboration and coordination of statewide efforts; and utilizing existing resources; Michigan is well positioned to reduce disparities and lessen the overall burden of chronic disease and injury across the state.

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Appendix 1 Planning Participants

Ann Batdorf Barnes
Population Health, Inc.

Glenn Copeland
MDCH, Vital Records

Tina Creguer
University of Michigan Injury Center

Rebecca Cunningham
University of Michigan Injury Center

Mike Dabbs
Brain Injury Association of Michigan

Cliff Douglass
University of Michigan Tobacco Research Network

Chris Farrell
MDCH, Oral Health

Brenda Fink
MDCH, Family and Community Health

Stephanie Halfman
Michigan Public Health Institute

Rebecca Head
University of Michigan School of Public Health

Molly Kaser
Center for Family Health Jackson

Barbara LeRoy
Wayne State University Developmental Disabilities Institute

Susan Morrell Samuels
University of Michigan School of Public Health

Kevin Piggott
Marquette County Health Department

Sarah Poole
American Heart Association

Vicki Rakowski
American Cancer Society

Amy Schultz
Allegiance Health Jackson

Kim Sibilsky
Michigan Primary Care Association

Dean Sienko
Michigan State University School of Public Health

Linda Smith-Wheelock
National Kidney Foundation of Michigan

Deb Tews
MDCH, Local Health Services

Dana Watt
MDCH, Michigan Primary Care Transformation Project

Sheryl Weir
MDCH, Health Disparities Reduction and Minority Health

Appendix 2 Goals of Public Health Surveillance

Specific goals of public health surveillance are to:

Recognize cases or clusters of disease or injury to trigger investigations, trigger interventions to prevent disease transmission or to reduce morbidity and mortality, and help ensure adequacy of medical diagnosis and treatment.

Measure trends and characterize diseases, injuries, and risk factors and identify high-risk population groups or geographic areas to which needed interventions can be targeted.

Monitor effectiveness of public health programs, prevention and control measures, and intervention strategies, providing information for determining when a public health program should be modified or discontinued.

Develop hypotheses leading to analytic studies about risk factors for disease/ injury and disease propagation or progression.

Provide information to the public to enable individuals to make informed decisions regarding personal behaviors and to providers to ensure care of individual patients is based on most current surveillance information available.

Source: Excerpted from: Smith, PF, Hadler JL, Stanbury M, Rolfs RT, Hopkins RS, the CSTE Surveillance Strategy Group. **“Blueprint Version 2.0”: Updating Public Health Surveillance for the 21st Century**. J Public Health Management Practice, 2012, 00(00), 0–00 (e pub ahead of print -)

Appendix 3
Critical Indicators for Chronic Disease and Injury Control

Critical Indicators for Understanding Chronic Disease and Injury Control
CCDPHP Priority Indicators – Adults

<u>Prevention & Risk Reduction</u>	<u>Management of Existing Disease</u>	<u>Outcomes</u>
1. % with adequate fruit & vegetable consumption	1. % with diabetes receiving 3 preventive services	1. Lung cancer incidence rate
2. % with adequate physical activity/muscle strengthening	2. % with diabetes with A1c < 7	2. Colorectal cancer incidence rate
3. % with routine checkup in past year	3. % with high blood pressure taking BP medications	3. Hospitalization rate for any cardiovascular disease
4. % not using any tobacco	4. % with high cholesterol currently under control	4. Hospitalization rate for fall injuries
5. % with all 4 healthy behaviors (1-4)	5. % with asthma with action plan	5. Traumatic brain injury hospitalization rate
6. % with a BMI of ≥ 30.0	6. % with depression receiving treatment/medication for depression	6. Breast cancer mortality rate
7. % ever told by doctor had high blood pressure	7. % with BMI ≥ 25.0 receiving appropriate weight counseling	7. Colorectal cancer mortality rate
8. % ever told by doctor had high cholesterol	8. % of smokers tried to quit in past year	8. Mortality rate from common chronic diseases (combined)
9. % ever told by doctor had diabetes	9. % with arthritis with no leisure-time physical activity	
10. % with high risk profile (6-9)		<u>Structural & Environmental Factors</u>
11. % with timely blood pressure, cholesterol, & blood glucose screening		1. % living in poverty
12. % with timely, age & gender appropriate cancer screening		2. % who are unemployed
13. % with 1+ chronic condition		3. % with limited access to healthy foods
14. % ever told by doctor had arthritis		4. % with limited access to recreational facilities
15. % exposed to secondhand smoke		5. % who reside in primary care shortage areas
16. % could not see doctor in past 12 months due to cost		6. % of households with no vehicle available
17. % asked by provider about smoking status & received appropriate referral		

**Appendix 4
CCDPHP State Plan, Evaluation Logic Model**

	Plan Outputs <i>results of activities</i>	State Plan Coordinated Chronic Disease Process Outcomes <i>what we achieve</i>	Intermediate Outcomes	Long-term IMPACT
<p>Coordinated Chronic Disease</p> <p>State Plan Objectives</p>	<p>Protocols developed and implemented to improve internal and external communication</p> <p>Common messages developed and implemented; coordinated promotion of chronic disease and injury initiatives</p> <p>Processes for collecting and sharing surveillance data developed; chronic disease and injury indicators identified, and EPI Tool Box completed</p> <p>Data analyses focused on comorbidities, prevention, and analysis of race, ethnicity, geography, and disability status</p> <p>Surveillance data used consistently across the division to identify and focus attention on high-burden communities</p> <p>Processes for coordinated training, referral systems, and information dissemination established.</p> <p>Systematic evaluation processes developed and employed to collect data</p>	<p>Increases in...</p> <ul style="list-style-type: none"> • chronic disease and injury data analyses and dissemination • coordinated messages to external partners; number of partners using surveillance data • media used for program promotion • training for primary care providers, care managers, and community service agency coordinators, community health workers • communities assessing environments and policies that support healthy behaviors • resources (e.g., communication and promotional materials, policy development and implementation support), disseminated in high-burden HUB counties MiPCT, communities, and through community coalitions • chronic disease and injury programs represented and participating in community partnerships and program planning, particularly in high-burden communities • referral systems for service delivery, and evidence-based prevention and self-management programs 	<p>Increases in...</p> <ul style="list-style-type: none"> • hits to the chronic disease and injury web sites • hits to chronic disease and injury statistics sites • media airtime devoted to chronic disease and injury messages • number of trainings delivered to MiPCT practice providers and care managers • number of community agency coordinators and community health workers trained in the community hub counties • the number of communities adopting policies promoting healthy behaviors and environmental change • the number of calls to the tobacco quit line • the number of people participating in self-management, prevention, and physical activity programs 	<p>Increases in...</p> <ul style="list-style-type: none"> • percent of Michigan adults with timely screening for blood pressure, cholesterol, and blood glucose • percent of Michigan adults with timely age and gender appropriate cancer screening • percent of Michigan adults with all four healthy behaviors (adequate fruit and vegetable consumption, adequate physical activity/muscle strengthening, who have had a routine checkup within the past year, and who are not using any form of tobacco) • number of people participating in self-management programs who are from populations disparately affected by chronic disease (e.g., disabled, racial/ethnic group with higher prevalence) <p>Reductions in...</p> <ul style="list-style-type: none"> • incidence rate for lung cancer • incidence rate for colorectal cancer • prevalence of mortality for detectable cancers • prevalence of mortality from stroke • prevalence of obesity • hospitalization rate for any cardiovascular disease • hospitalization rate for fall injuries • hospitalization rate for traumatic brain injuries • disparities (by race/ethnicity, income, education, disability status) in listed indicators • percentage of adults with a BMI 30 or more • proportion of children and adolescents who are obese - the % of youth using tobacco; % exposed to SHS • percentage who engage in adequate physical activity/muscle strengthening • proportion of adults with doctor-diagnosed arthritis who engage in no leisure-time physical activity

Appendix 5 List of Acronyms

BMI – Body Mass Index
CCCLN - Community Care Coordination Learning Network
CCDPHP -- Coordinated Chronic Disease Prevention and Health Promotion
CDC – Centers for Disease Control and Prevention
CDIC – Chronic Disease and Injury Control
CMS – Centers for Medicare and Medicaid Services
DCDIC – Division of Chronic Disease and Injury Control
DPP – Diabetes Primary Prevention
DSME – Diabetes Self-Management Education
ELT – Expanded Leadership Team
EPI - Epidemiology
HBP – High Blood Pressure
HRSA – Health Resources and Service Administration
IT – Information Technology
LARA - Licensing and Regulatory Affairs
LTC – Long Term Care
MDCH – Michigan Department of Community Health
MiBRFSS – Michigan Behavioral Risk Factor Surveillance System
MiPCT – Michigan Primary Care Transformation Project
MPCC – Michigan Primary Care Consortium
MPHI – Michigan Public Health Institute
MSHDA - Michigan State Housing Development Authority
NH – Non Hispanic
NPC – National Prevention Council
NPS – National Prevention Strategy
PATH – Personal Action Towards Health
PCMH – Patient Centered Medical Home
PO – Physician Organization
RESDL – Race, Ethnicity, Sex, Disability, and Language
SDH – Social Determinants of Health
SEER – Surveillance Epidemiology and End Results
SHS – Second Hand Smoke
TBI – Traumatic Brain Injury