Working Together
Toward a Healthier Community

The District of Columbia Plan to Prevent and Control Cardiovascular Diseases, Diabetes, and Kidney Diseases 2008-2013
September 28, 2007

Dear District Resident:

Mayor Adrian M. Fenty and I are pleased to present Working Together Toward a Healthier Community: The District of Columbia Plan to Prevent and Control Cardiovascular Diseases, Diabetes, and Kidney Diseases 2008–2013, a strategic, working document that will serve as a tool for coordinating services to reduce disparities and improve the health of our residents.

Cardiovascular diseases, diabetes, and kidney diseases affect almost a third of the District’s population. Both nationwide and in the District of Columbia, there are significant disparities in the prevalence of these diseases in the African-American and economically disadvantaged communities. This document presents a roadmap to prevention and control of cardiovascular diseases, diabetes, and kidney diseases in the District of Columbia.

Many individuals and organizations in the District of Columbia are already doing excellent work in improving the health of District residents. However, much of this work occurs in isolation. To effectively combat cardiovascular diseases, diabetes, and kidney diseases the District of Columbia must coordinate the actions taken by all stakeholders: government agencies, the healthcare delivery system, community organizations and advocates, private sector employers, and residents. An integrated, partnership-driven approach will lead to improved health and well-being of our residents. This plan contains specific goals, objectives, and strategic actions that will reduce morbidity and mortality from cardiovascular diseases, diabetes, and kidney diseases.

The Department of Health gratefully acknowledges the many members of the District community who contributed to this plan. As we forge ahead, the Department of Health is confident that this partnership will reduce the burden of cardiovascular diseases, diabetes, and kidney diseases and ensure a brighter, healthier future for all District residents.

Gregg A. Pane, MD, MPA
Director and Chief Health Officer

This document was funded through a cooperative agreement with the Centers for Disease Control and Prevention (CDC). The contents are based on information gathered by the Government of the District of Columbia (DC) Department of Health and do not represent official positions of CDC.

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Foreword

Cardiovascular diseases, diabetes, and kidney diseases (CDK) constitute a healthcare crisis that directly and/or indirectly affects all residents in the District of Columbia. The incidence of these diseases has grown to epidemic proportions, and the District community is being afflicted at higher rates than the nation as a whole.

Almost one of every three District residents suffers from some form of CDK. Within the District population of approximately 579,000 residents:

- More than 160,000 residents have cardiovascular disease;
- Approximately 35,000 residents have diabetes; and
- More than 1,700 residents have kidney failure.

In the District of Columbia, CDK costs an estimated 2 billion dollars a year in medical expenditures alone. This cost is expected to rise substantially since the prevalence of CDK and related health problems is projected to continue to grow at a rapid rate. CDK exacts a tremendous physical, social, and economic toll upon those with these conditions and those who assist with their care. The District of Columbia must undertake a set of comprehensive actions to prevent and control these diseases, or the toll will grow, directly diminishing the quality of life of the members of the District community.

"The emotional, physical, and economic impact that these illnesses have on the citizens of the Nation’s Capital is truly staggering."

—Dr. Michael Williams, Medical Director
District of Columbia’s Fire and Emergency Medical Services (EMS) Department

Working Together to Change the Public Health System: To successfully reduce the epidemic prevalence of CDK in the District of Columbia, significant changes must be effected across the entire public health system, which includes all the individuals, institutions, and resources involved in health activities working to promote, restore, and/or maintain the health of District residents. The public health system consists of four sectors:

- Government
- Healthcare delivery system
- Community-based organizations/advocates
- Private sector businesses

These sectors constitute a network with occurrences in one sector affecting the others. The combined involvement of all four public health sectors in CDK prevention and control efforts is a key element of this plan, which offers specific objectives and strategic actions for each of the sectors.

Planning for Change: DC DOH prepared this plan to encourage members of the District of Columbia public health system in taking specific actions to reduce the effects of CDK. The plan links efforts to prevent and control all forms of CDK in the District of Columbia. This plan also includes approaches to addressing the specific needs of the District’s low-income, African-American, and non-English speaking populations, as well as those of children, adolescents, and their guardians.

This plan emphasizes the need for action; maintaining the status quo will negatively affect the District community. All sectors of the public health system must work together to reduce the enormous burden of CDK on the people of the District of Columbia.

To combat the CDK health crisis, the Government of the District of Columbia’s (DC’s) Department of Health (DOH) has developed this comprehensive plan. While CDK diseases are distinct from one another, preparing and implementing a combined plan is appropriate because many of the risk factors for each of the three types of diseases are the same. In fact, these conditions are often risk factors for each other. Individuals are frequently afflicted by more than one of these conditions simultaneously, and CDK often leads to the same debilitating health outcomes such as heart attacks, strokes, blindness, lower-extremity amputations, and kidney failure.
Developing the CDK Plan

In May 2007, the District of Columbia City Council, under the Community Access to Health Care Amendment Act of 2006, mandated that DOH develop a prevention and control plan for diabetes and hypertension/cardiovascular diseases. The Act specified that the plan emphasize: education; testing; outreach targeted to African-American and non-English speaking minority residents; and targeted approaches to children, adolescents and their parents/guardians.

The effort to develop a comprehensive CDK prevention and control plan was led by DOH’s Diabetes Prevention and Control Program (DPCP) and Cardiovascular Health Program (CHP). The response to any healthcare crisis must be practical, logical, and capable of success. To create a plan with these qualities, the District of Columbia used a performance improvement process and applied a public health system improvement logic model.

DPCP and CHP formed an internal workgroup whose members participated in a series of planning sessions. Because of the demonstrated strong relationship between kidney diseases and both diabetes and cardiovascular diseases, the workgroup incorporated kidney disease prevention and control efforts into the plan.

The workgroup coined the acronym CDK to represent all three diseases: cardiovascular diseases, diabetes, and kidney diseases. This approach enabled the creation of this integrated and comprehensive plan to improve the quality of life of individuals with and/or at risk for CDK.

Previous Planning Efforts: DOH’s first step was to gather representative members of the District’s public health system’s stakeholders, the people and groups who participate in and/or are affected by the health system. In 2005, DPCP established a Diabetes Steering Committee and convened more than 100 representatives from the District community and the four health system sectors. The Diabetes Steering Committee shared statistical data demonstrating the epidemic increase in prevalence, and the stakeholders provided DOH with additional information based upon their perspectives within the healthcare system.

With the input from the District’s Diabetes Steering Committee and health system stakeholders, DPCP was able to complete a system-wide assessment. DPCP then developed a strategic improvement process using a health system improvement logic model as a framework and the 10 Essential Public Health Services (EPHS) model as the foundation for planning. The EPHS was developed by the Centers for Disease Control and Prevention’s (CDC’s) Core Public Health Functions Steering Committee in 1994 to aid public health officials in identifying the key areas in which health system improvement efforts should be focused.

In early 2007, DPCP began reviewing the strategic priorities and updating its strategic plan for implementation from 2008 through 2013. This led to the creation of the DC Diabetes Coalition (DCDC), consisting of the Diabetes Steering Committee members and additional representatives from the government, healthcare delivery system, community organizations/advocates, and business sectors. DCDC members participated in two planning sessions. First, they used EPHS to identify key areas for improvement. Then, for each key area, DCDC developed objectives and, for each objective, suggested strategic actions for effecting improvements throughout the health system.

Key Areas for Change: While the initial efforts addressed diabetes prevention and control, the assessment and improvement processes developed by DPCP were readily adaptable to the combined efforts to prevent and control cardiovascular diseases and kidney diseases. In developing the CDK prevention and control plan, the DC DOH workgroup organized and prioritized the assessment and recommendation information collected during the previous planning efforts by applying the performance improvement process model. The performance improvement process serves as a road map, delineating the steps needed to achieve the desired changes.

Via this process, the workgroup identified seven essential focus areas:

- Health system coordination and capacity
- Data capacity and utilization
- Public policy guidance
- Quality of healthcare
- Community outreach and education
- Prevention and testing
- Children, adolescent, and guardian services

Developing a Plan for Change: The workgroup developed a goal for each of the seven areas using public health best practices and available scientific
evidence. This initial phase of the CDK planning process is illustrated in Figure 1.

During phase two of the performance improvement process, the DOH workgroup developed at least one objective for each of the health system sectors within each goal area. The next steps included developing strategic actions to achieve the objectives, outputs that will result from the actions, and the resultant short, medium, and long-term outcomes related to improved community health. The objectives, strategic actions, outputs, and outcomes are detailed in the CDK Action Plan section of this document. This second phase of the development process is illustrated in Figure 5 in the CDK Action Plan section.

Finally, DOH developed a series of specific measures to evaluate progress during the 5-year implementation period. With the results from regular progress measures, the District of Columbia can monitor the success (or lack thereof) of the plan and make adjustments as necessary. These key measures can be found in the Measuring Progress section.

**Route to Success:** The contributors to this CDK prevention and control plan are confident that it is logical, practical, and capable of success because it was constructed using a performance improvement process and public health system logic models and developed with contributions from all of the public health system sectors. The authors believe that, if implemented, this plan holds promise in preventing and controlling these chronic diseases in the District’s population. DOH welcomes additional comments from the public to refine the document and its applicability.

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**Figure 1.** CDK Prevention and Control Plan Development Process – Phase One
The Burden of CDK Conditions

This section provides information concerning cardiovascular diseases, diabetes, and kidney diseases and the burden that these conditions place upon the District community. The sources for the health statistics in this document are located in the References section.

Almost 70 million adults in the United States (US) have one or more forms of cardiovascular disease, diabetes, and/or kidney disease. Together, these conditions constitute the nation’s most serious public health issue. CDK is associated with premature death, decreased quality of life, and increasing health-care expenditures. In the US, CDK leads all other diseases in incidence and cause of mortality.

Cardiovascular diseases, diabetes, and kidney diseases are interrelated. They often occur at the same time and act as risk factors for one another. They also have common associations with other disorders, and they share other risk factors. For example:

- Physical inactivity, high blood cholesterol, hypertension, obesity, and smoking are common risk factors for cardiovascular diseases, diabetes, and kidney diseases.

- Cardiovascular diseases and diabetes are both risk factors for kidney diseases, which may result in end stage renal disease (ESRD).

- The risk for cardiovascular diseases is 10 to 20 times higher among individuals who develop ESRD than among the general population.

- Patients with kidney disease are at higher risk for death from cardiovascular disease than the general population.

**CDK Risk Factors:** Risk factors are traits and habits that increase the risk of a disease. The more risk factors a person has, the higher the chances that he or she will develop some form of CDK. While some risk factors, such as genetic predisposition, cannot be controlled, most risk factors, such as overweight conditions and obesity, can be modified, treated, or controlled.

With proper interventions, some risk factors may be mitigated. For instance, pre-diabetes is the major risk factor for developing diabetes. According to CDC estimates, 41 million people in the US have pre-diabetes. Using this estimate and applying it to the District of Columbia, approximately 35,000 District residents may have pre-diabetes. Interventions aimed at this population and other high-risk populations are crucial to providing effective CDK prevention and control.

“...poor nutrition and lack of exercise are significant variables contributing to the health complications that develop”

—Dr. Audrey Austin
Children’s National Medical Center
Prevalence of CDK in the District of Columbia: Nearly one in every three adult residents in the District of Columbia has one or more forms of CDK. This translates to more than 190,000 adult patients within the District’s health system requiring both CDK prevention and CDK control support. As of 2006, CDK prevalence rates for the District of Columbia were as follows:

- Myocardial infarction: 14,000 adults or 3.2% of the adult population
- Coronary heart disease: 13,000 adults or 3.0% of the adult population
- Stroke: 12,500 adults or 2.9% of the adult population
- Diabetes 35,000 adults or 8.2% of the adult population
- Hypertension: 120,000 adults or 27.1% of the adult population
- End stage renal disease: 1,700 adults or .31% of the adult population

In 2005, the number of District residents diagnosed with one or more forms of CDK was more than three times the totals of those diagnosed with cancer and AIDS combined (Figure 2).

![Figure 2. Comparative Incidence Rates of AIDS, Cancer, and CDK in the District of Columbia](image)

Trends in hospitalization fluctuate and vary for different populations. Prior to 1998, males were hospitalized more than females. After 1998, the trend reversed, and females were hospitalized more than males. More recently, the majority of hospital admissions with CDK as the primary diagnosis occurs in the 45- to 64-year old age group. Overall, as a result of CDK-related hospitalizations, an enormous burden has been placed on the District’s health system.

Mortality from CDK: Despite a slight decline in recent years, CDK has been the leading cause of death during the last decade both nationwide and in the District of Columbia. In the District, CDK claims almost as many lives as the four other leading causes of death combined (Figure 3). In terms of associated deaths, CDK imposes a massive toll on the District of Columbia and its residents.

![Figure 3. Causes of Death in the District of Columbia by Disease and Other Causes of Death](image)

Economic Burden of CDK: CDK affects a large number of individuals in the United States (US). It has created a massive burden in economic costs. Nationwide, the economic costs alone were almost $500 billion in 2004. CDK costs the District of Columbia nearly $2.5 billion each year in direct medical costs such as hospitalization, outpatient care, and laboratory expenditures. Both in the US and the District of Columbia, the incidence and associated burdens of CDK have been increasing, and they are projected to increase sharply by 2020. The increase will result from the projected change in age structure of the population (aging) and rises in incidences of risk factors such as physical inactivity, high blood cholesterol, hypertension, obesity, and smoking.
Disparities in CDK Prevalence: There are documented disparities in the prevalence of CDK and CDK risk factors, including CDK as the cause of hospitalizations and CDK mortality rates among population sub-groups. For instance, the prevalence of CDK risk factors is often highest in African-American and lower income level populations.

"We must look deeper than the usual demographic profiles (ethnicity, education level, socio-economic status, etc.) that define our vulnerable populations in order to understand the more proximal causes of health disparities"  

—Dr. Claude Cowan  
Washington VA Medical Center

The disparities in prevalence of CDK disorders and risk factors among racial and ethnic groups in the District of Columbia are of great concern to the District’s public health system sectors. The prevalence of CDK disorders and risk factors within the different ethnic groups is disproportionate, particularly in the District’s African-American population. These incidences of disparity demonstrate a lack within the District’s health system sectors that must be addressed.

<table>
<thead>
<tr>
<th>CDK Disorder or Risk Factor</th>
<th>Race</th>
<th>DC Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>African-American</td>
<td>White</td>
</tr>
<tr>
<td>Diabetes</td>
<td>12.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Hypertension</td>
<td>37.9</td>
<td>13.4</td>
</tr>
<tr>
<td>High blood cholesterol</td>
<td>34.3</td>
<td>28.2</td>
</tr>
<tr>
<td>Heart disease</td>
<td>3.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>4.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Stroke</td>
<td>4.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Kidney failure*</td>
<td>5.0</td>
<td>0.4</td>
</tr>
<tr>
<td>Overweight</td>
<td>32.5</td>
<td>27.8</td>
</tr>
<tr>
<td>Smoking</td>
<td>23.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>45.2</td>
<td>28.9</td>
</tr>
</tbody>
</table>


*Values are per 1,000 residents  
**Data not available

Table 1. —Prevalence (in percent of population) of CDK and CDK Risk Factors in the District of Columbia by Race

The disparities in CDK prevalence based on economic levels are also large among population sub-groups in the District of Columbia (Figure 4). Individuals in lower income levels are at a much higher risk than individuals in higher income levels.

Figure 4. —Prevalence of CDK by Income Level

This CDK prevention and control plan seeks to address these trends in disparity along with reducing the overall burden of CDK.
The CDK Action Plan

This section of the CDK prevention and control plan presents the action plan that resulted from the second phase of the plan development process. This phase is illustrated in Figure 5, and the elements of the action plan are outlined below. The logic model on the following page provides a comprehensive roadmap and summation of this CDK prevention and control plan (Figure 6). The objectives, strategic actions, outputs, and outcomes for each goal are presented in the remainder of this section.

**Figure 5. – CDK Prevention and Control Plan Development Process – Phase Two**

**Focus Areas/Goals:** The CDK Action Plan begins with seven focus areas determined by DC DOH and the health system stakeholders. For each focus area, the team developed the following goals:

- Improve the District health system’s capacity to coordinate and integrate CDK prevention and control services
- Enhance the District health system’s capability to collect and use local CDK data.
- Increase the District health system’s ability to develop and implement policies that support prevention and control services
- Improve the District healthcare system’s ability to deliver integrated, high-quality care
- Provide CDK outreach and education with emphasis on the African-American and non-English speaking populations
- Promote the early detection and primary prevention of CDK among high-risk individuals
- Increase the capacity of the District health system to effectively support children at-risk for and with CDK and their parents/guardians

**Objectives:** To achieve each of the seven goals, specific objectives were identified. For the CDK prevention and control plan, the team developed at least one objective for each of the four public health system sectors (i.e. government, healthcare delivery system, community organizations/advocates, and private sector/business).

**Strategic Actions:** Strategic actions are activities or steps that each sector takes to meet plan objectives.

**Outputs:** Outputs are the end result of the strategic action steps taken by the four sectors of the health system.

**Outcomes:** Outcomes are the results of health system sectors working together. Outcomes can be short-term, medium-term, or long-term.
Mission: Prevent and control CDK in the District community

Inputs
- CDK Community Coalition
  - Taskforce
  - Subcommittees
- D.C. Department of Health
  - DPCP Program
  - CHP Program
- Healthcare Delivery System
- Community Organizations/Advocates
- Private Sector Business
- Funding
  - Federal
  - State
  - Other

Goals (includes Objectives and Strategic Actions)
- Improve the District health system’s capacity to coordinate and integrate CDK prevention and control services
- Enhance the District health system’s capability to collect and use local CDK data.
- Increase the capacity of the District health system to effectively support children at risk for and with CDK and their parents/guardians
- Provide CDK outreach and education with an emphasis on the low-income, African-American, and non-English speaking populations
- Promote the early detection and primary prevention of CDK
- Improve the District healthcare system’s ability to deliver integrated, high-quality care
- Toolkit developed
- Healthcare professionals educated on the standards of care and treatment algorithms and prevention methods
- J1 visa program expanded
- Culturally competent and linguistically appropriate community health workers identified and trained
- Community-based programs implemented/expanded/evaluated
- Brochures, PSA’s, and posters disseminated
- DOH CHP online worksite assessment completed
- Primary prevention programs developed
- Youth CDK subcommittee convened
- School regulations and guidelines developed

Outputs
- Stakeholder forums convened
- Community coalitions and partnerships formed
- Online directory created
- Data collection systems modified and standardized
- Fact sheets, and surveillance documents completed
- Hot Zones identified and CDK action teams formed
- Advocacy agenda developed

Short-term Outcomes
- Increase the coordination and integration of CDK-related services and resources
- Increase the awareness of CDK-related events and services
- Increase the availability of CDK-related data
- CDK Action teams deliver services to Hot Zones
- Community implements advocacy agenda
- Increase the awareness of the burden of CDK on the District
- Increase the number of healthcare providers that prevent and treat CDK conditions using the standards and guidelines
- Increase the number of healthcare providers in CDK specialty areas who are culturally competent and linguistically appropriate for minority and non-English speaking populations
- Increase the number of adults that can recognize the signs and symptoms of heart attack and stroke
- Increase the number of individuals that are aware of CDK risk factors and complications
- Increase the number of healthcare providers that provide appropriate care for youth and adolescents with and at-risk for CDK
- Increase the availability of youth-related programs that encourage healthy behaviors

Medium-term Outcomes
- Increase participation in CDK-related events and services (i.e. DSME, smoking cessation)
- Decrease the number of diabetes-related 911 calls
- Decrease the number of diabetes-related ER visits and hospital admissions
- Increase in the number of policies that support CDK-related issues
- Increase the percentage of individuals with CDK that receive secondary prevention care (i.e. dilated eye exams, foot exams)
- Increase in the number of individuals with CDK that have controlled blood pressure, lipid levels, and A1C levels
- Increase the percentage of CVD patients on beta blockers and lipid lowering therapies when discharged from hospitals
- Increase the percentage of CVD patients on aspirin when discharged from hospitals
- Increase the percent of residents with CVD that report taking aspirin daily
- Increase the number of high-risk individuals that are screened for CDK
- Increase the number of adults at risk for CDK that engage in preventive-care behaviors
- Increase the number of youth with and/or at-risk for CDK that engage in healthy habits

Outcomes
- Improved quality of life among individuals with CDK
- Reduce healthcare cost related to CDK
- Reduce the incidence of CDK
- Decrease in CDK-related health disparities
- Decrease in CDK-related mortality
- Decrease in CDK-related morbidity such as: Blindness, Lower extremity amputation, ESRD

Influential Factors on the Socioeconomic and Physical Environments
1. System Coordination and Capacity

**Goal:** Improve the District health system’s capacity to coordinate and integrate CDK prevention and control services.

### Government Objectives and Actions

<table>
<thead>
<tr>
<th>Objective 1A: Facilitate the planning, coordination, and assessment of system resources among stakeholders throughout the District’s CDK prevention and control system.</th>
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#### Strategic Actions

- Provide Comprehensive Chronic Disease Management and Prevention program grants authorized by the Community Access to Health Care Amendment Act of 2006 to community-based organizations.
- Allocate funding and staffing resources to effectively implement the CDK prevention and control plan.
- Create and maintain technical advisory boards for CDK.
- Ensure that DC government contractors and grantees participate in planning and integration activities.
- Provide effective technical assistance (such as research, communication products, and information exchange forums on disease management and prevention issues) to stakeholders in the healthcare delivery system, community organizations/advocates, and the private sector for planning, implementation, and evaluation purposes.
- Establish an online resource directory that manages and links CDK information and resources to all sectors of the system.
- Develop recommendations for the integration of social services and community health workers into disease management teams and programs in partnership with health system and community organizations/advocates stakeholders.
- Periodically convene all sectors of the CDK prevention and control system to conduct a cross cutting, system-wide assessment to identify system strengths and weaknesses, determine future priorities, and modify interventions.
- Facilitate the development of a District Government plan that addresses nutrition and physical activities as they relate to overweight conditions, obesity, physical inactivity, and healthy nutrition for all District of Columbia residents.

### Healthcare Delivery System Objectives and Actions

<table>
<thead>
<tr>
<th>Objective 1B: Improve the healthcare delivery system’s ability to conduct joint planning, enhance CDK service integration, and conduct cross cutting, system-wide assessments.</th>
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#### Strategic Actions

- Convene and participate in neutral planning and integration forums, subcommittees, and task forces as part of the government sector planning and integration process with the purpose of developing common goals, limiting programmatic duplication, expanding needed services, and improving the quality of healthcare services and prevention efforts.
- Participate in the DOH Chronic Disease Collaborative and the DOH Chronic Disease Summit funded through the Comprehensive Chronic Disease Management and Prevention program, as authorized by the Community Access to Health Care Amendment Act of 2006.
## Community Organizations/Advocates Objectives and Actions

**Objective 1C:** Build upon existing CDK partnerships to establish and maintain a community coalition which will contain standing subcommittees and taskforces that will enhance CDK system-wide planning, implement the CDK prevention and control plan, and conduct system-wide assessments.

**Strategic Actions:**

- Identify and recruit coalition partners with a focus on low-income, African-American, and non-English speaking populations.
- Establish guidelines for participation and operation.
- Establish mission, vision, and goals that align with the CDK prevention and control plan.
- Conduct at least three meetings per year that result in specific actions related to the CDK prevention and control plan.

## Private Sector/Business Objectives and Actions

**Objective 1D:** Increase the participation of private sector businesses in coordinating and integrating CDK prevention and control services.

**Strategic Actions**

- Engage the business community in identifying key representatives for participation in the CDK coalition and to serve on advisory boards, task forces, and other forums.
- Recruit representatives from the food and beverage industry to serve on the coalition’s committees and task forces and to plan and implement public policy and community interventions.
- Educate representatives from small and large businesses to raise their awareness of CDK’s impact and leverage this awareness to increase private sector business participation in CDK advisory boards, task forces, and other forums.

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**Summary of Expected Outputs:** Funding and staffing allocated for DOH’s coordination and oversight role, online resource directory, community coalitions and partnerships, stakeholder forums, stakeholder recommendations and guidance with emphasis on low-income and hard-to-reach populations.

**Summary of Expected Outcomes:** Improved planning, resource distribution, and coordination. Integration of CDK-related services and resources. Increased public awareness of CDK-related events and services.
# 2. Data Capacity and Utilization

**Goal:** Enhance the District health system’s capability to collect and use local CDK data.

<table>
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<tr>
<th>Government Objectives and Actions</th>
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<tbody>
<tr>
<td><strong>Objective 2A:</strong> Broaden the use of innovative data and technologies to enhance the government’s ability to collect, analyze, and report CDK information.</td>
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### Strategic Actions

- Collect and analyze DC Fire and EMS 911 call data to determine resource utilization, trends, and costs.
- Collect and analyze Medicaid data to determine the number of CDK cases, quality of care, cost versus preventable cost, and other key variables.
- Collect and analyze emergency room and hospital admission data to determine cause, service delivery, and demographic information.
- Identify data sources for developing CDK “Hot Zones” (wards and areas of the city which demonstrate an above average per capita CDK rate).
- Use GIS technology to map 911-call information, Medicaid information, emergency room (ER) and hospital admission information, and BRFSS data to identify CDK Hot Zones throughout the city.
- Collect and analyze data to establish any as of yet undefined baselines and/or targets for measures and collect all other data needed for CDK outcome measures.
- Ensure that projects, such as the Medicaid transformation grant project, the DC Primary Care Administration’s (DCPCA’s) electronic medical records project, and the Regional Health Information Organization (RHIO) grant project, can collect CDK data and provide output reports.

<table>
<thead>
<tr>
<th><strong>Objective 2B:</strong> Collect and report CDK data on low-income, non-English speaking, and key ethnic minority populations.</th>
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### Strategic Actions

- Develop partnerships with non-English speaking and ethnic minority groups to raise awareness about CDK data collection challenges.
- Identify data collection systems that collect data on non-English speaking populations and minorities.
- Produce data fact sheets and report summaries in Amharic, Chinese, Korean, Spanish, and Vietnamese.

<table>
<thead>
<tr>
<th><strong>Objective 2C:</strong> Develop and disseminate CDK surveillance documents to facilitate government planning, quality of healthcare, and community health program improvement.</th>
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### Strategic Actions

- Begin using CDK prevalence, rather than mortality, as a primary health indicator.
- Produce a comprehensive 5-year CDK surveillance report.
- Produce a CDK fact sheet every other year.
- Produce CDK Hot Zone community maps.

<table>
<thead>
<tr>
<th><strong>Objective 2D:</strong> Review and modify data collection systems to collect data on youth (see Objective 7A under Children, Adolescent, and Guardian Services).</th>
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**Healthcare Delivery System Objectives and Actions**

**Objective 2E:** Require that the healthcare system providers who receive funds from the District government collect and use data for healthcare service delivery planning and quality improvement purposes.

**Strategic Actions**

- Increase the range of the Healthcare Effectiveness Data and Information Set (HEDIS) measures and other measures that the Government of the District of Columbia collects and reports for planning purposes, and increase the use of disease management metrics such as A1C and blood pressure control.
- Convene healthcare service providers under contract with DOH to inform them of CDK issues related to HEDIS data collection and use, planning, and quality improvement.
- Use data to establish benchmarks and formulate policy decisions and programmatic interventions.

**Community Organizations/Advocates Objectives and Actions**

**Objective 2F:** Ensure standardization of data collection and reporting requirements among CDK grantees.

**Strategic Actions:**

- Select a sample of CDK grantees to serve on a standardization workgroup and a larger community task force data subcommittee.
- Participate in the development of grantee data collection standards.
- Conduct training to assist community grantees with evaluation, data collection, and reporting standards.
- Submit grantee reports produced in accordance with standards.

**Private Sector/Business Objectives and Actions**

**Objective 2G:** Increase private sector business utilization of data for decision-making related to procuring CDK services.

**Strategic Actions**

- Review and use evidence-based data and national trends for structuring CDK related health benefits.
- Promote participation in the Mid-Atlantic Coalition on Business and the Health eValu8 program.
- Utilize the DOH Cardiovascular Health Program’s online worksite wellness survey.

**Summary of Expected Outputs:** GIS maps; modified and standardized data collection systems; data on low-income, non-English speaking, and priority populations; worksite wellness data; fact sheets and disease surveillance documents; and identification of Community Hot Zones.

**Summary of Expected Outcomes:** Improved ability to collect and utilize data on special populations, improved resources that are used for planning and distribution of resources, improved data standards for grantees, improved decision-making capacity of private sector business for purchasing heath care benefits, and increased availability of CDK-related data.
## 3. Public Policy Guidance

**Goal:** Increase the District health system’s ability to develop and implement policies that support prevention and control services.

### Government Objectives and Actions

**Objective 3A:** Review, assess, and report upon data-based best practice interventions and policies for CDK prevention and control.

**Strategic Actions**
- Create and disseminate a toolkit containing data-based best practice information for key CDK policy issues to system stakeholders.
- Use GIS technology to map community resources and shortages and disseminate findings to system stakeholders.

### Healthcare Delivery System Objectives and Actions

**Objective 3B:** Identify, develop, and implement strategies that address CDK policy issues.

**Strategic Actions**
- Review and assess current activities addressing key policy issues.
- Modify actions based upon current best practice information such as the best practice tool kit, federal and local government technical assistance, and community task force recommendations.
- Evaluate modified actions to assess their impact on CDK issues, organizations, and the broader community.

### Community Organizations/Advocates Objectives and Actions

**Objective 3C:** Equip and empower CDK stakeholders with the skills necessary to effect policy change.

**Strategic Actions:**
- Conduct an assessment of needed skill sets.
- Identify and provide the expertise to strengthen individual skill sets.
- Periodically assess skill set capacity and needs and implement skill building as needed.

**Objective 3D:** Implement an advocacy agenda.

**Strategic Actions:**
- Identify and use community-based organizations to organize community efforts.
- Define priorities and develop an advocacy plan for issues such as governmental CDK funding, provider reimbursement for prevention and disease management services, Medicaid reimbursement for nutrition counseling and diabetes self-management education, safe needle disposal, restaurant menu labeling, and school policies for physical education and home economics. The policies will support disease management and prevention behaviors and address the needs of residents located in CDK Hot Zones.
- Use the advocacy plan as a communication tool.
- Educate legislators and government officials on why certain policies, such as Restaurant Menu Labeling, are needed for CDK management.
- Identify community representatives to tell personal stories at key legislative events.
- Assess advocacy efforts and implement changes accordingly.

### Private Sector/Business Objectives and Actions

**Objective 3E:** Support the development and implementation of CDK policy changes.

**Strategic Actions**
- Identify key private sector business representatives who will participate in developing and implementing the community advocacy agenda and subsequent policy change efforts.

**Summary of Expected Outputs:** Best practice documents and toolkits, maps identifying community resources and shortages, training and technical assistance, identified policy issues, community advocacy agenda, and key policy advocates.

**Summary of Expected Outcomes:** Community advocacy agenda implementation, policy change or initiation for healthcare provider reimbursement, placement of nutritional information in restaurants, supportive school health and nutrition policies, needle disposal programs, and funding and staffing allocation to CDK programs.
4. Quality of Healthcare

**Goal:** Improve the District healthcare system’s ability to deliver integrated, high-quality CDK care.

<table>
<thead>
<tr>
<th>Government Objectives and Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 4A:</strong> Promote the use of evidence-based prevention and disease management models to restructure the care delivered to persons with CDK.</td>
</tr>
</tbody>
</table>

**Strategic Actions**

- Require District of Columbia government-contracted healthcare providers to use HEDIS and other validated, comparable measures for performance feedback.
- Create and disseminate CDK care management resources to include information and tools such as:
  - The Chronic Care Model
  - Team-based Care
  - Unified standards of care
  - Treatment algorithms
- Deliver technical assistance, including stakeholder summits to facilitate the implementation of best practice models.

<table>
<thead>
<tr>
<th>Healthcare Delivery System Objectives and Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 4B:</strong> Improve the CDK care capacity of healthcare providers.</td>
</tr>
</tbody>
</table>

**Strategic Actions**

- Provide HEDIS and other measures as feedback to healthcare providers (primary and specialty care).
- Increase the number of healthcare providers recognized by NCQA in the Diabetes Physician Recognition Program and the Heart/Stroke Recognition Program.
- Implement task force recommendations on social services integration into CDK care.
- Reduce or eliminate CDK disease-related pharmacy co-pays, and increase the number of pharmacists that deliver disease management services.
- Promote the input of service information into the CDK online resource directory, and promote utilization among service providers.
- Create CDK action teams, including community health workers and mobile vans staffed by hospitals, Medicaid managed care partners, the Capitol Association of Diabetes educators, primary care clinic staff, and other system partners, to deliver disease management and case management services in CDK Hot Zones.
- Increase the number of healthcare providers in CDK relevant specialty areas who are culturally and linguistically competent to interact with low-income, minority, and non-English speaking populations through the expansion of the J1 visa program and the DC Primary Care Association’s (DCPCA’s) Area Health Education Center (AHEC) program.
- Assist in the development of mechanisms that will develop and sustain community health centers, hospitals, and other provider-based locations with cadres of community health workers trained to assist with CDK management.
### Community Organizations/Advocates Objectives and Actions

**Objective 4C:** Community Organizations/Advocates coalition will promote patient autonomy.

**Strategic Actions:**

- Develop modified CDK patient-provider interaction materials that are culturally-relevant and linguistically-appropriate using resources from the:
  - National Diabetes Education Program (NDEP)
  - American Heart Association (AHA)
  - National Kidney Foundation (NKF)
  - American Stroke Association (ASA)
- Disseminate culturally-relevant and linguistically-appropriate CDK patient provider materials to:
  - CDK Hot Zones
  - Non-traditional settings
  - Special populations such as elderly, low-income, African-American, caregiver, and non-English speaking populations

### Private Sector/Business Objectives and Actions

**Objective 4D:** Encourage the adoption of evidence-based benefit programs.

**Strategic Actions**

- Use data and technical assistance from CDK partners to review and modify health benefits.
- Promote the adoption of the National Pharmacy Associations (NPA) Asheville Project and the Delmarva Foundation’s Medication Therapy Management project that utilizes pharmacists to deliver CDK management services.

### Summary of Expected Outputs:

Culturally-appropriate healthcare provider and patient education materials, evidence-based disease management models, healthcare quality improvement programs, technical assistance and training, social services for disease management, expansion of J1 visa program, CDK healthcare action teams, evidence-based pharmacy benefits and programs, and dissemination of standards of care, treatment algorithms, and primary prevention methods.

### Summary of Expected Outcomes:

Improved disease management, increased number of providers that offer appropriate primary prevention and treatment for CDK, increased number of healthcare providers in CDK specialty areas that are culturally competent and linguistically appropriate for non-English speaking populations, improved pharmaceutical adherence, improved quality of life for affected residents, and a reduction in health system costs.
5. Community Outreach & Education

**Goal:** Provide CDK outreach and education with emphasis on low-income, African-American, and non-English speaking populations.

<table>
<thead>
<tr>
<th>Government Objectives and Actions</th>
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</thead>
<tbody>
<tr>
<td><strong>Objective 5A:</strong> Develop, administer, and evaluate programs and technical assistance that meet the needs of low-income, African-American, and non-English speaking populations.</td>
</tr>
</tbody>
</table>

**Strategic Actions**

- Leverage media efforts among CDK stakeholders to create a well-coordinated multi-year media campaign that communicates risk factors, burdens, and responses to CDK (e.g. the recognition of signs and symptoms of CDK and when to dial 911).
- Develop and provide community grants to implement culturally relevant and linguistically appropriate CDK education programs, such as a newly developed “Cooking and Living Well” program that incorporates evidence-based cooking classes, grocery store tours, exercise classes, and disease management strategies.
- Support and expand existing programs such as faith-based programs from American Heart Association (AHA), the American Diabetes Association (ADA), and Divabetics.
- Expand programs sponsored by DOH, such as the Diabetes for Life Learning Center and the Chronic Disease Self Management Program (CDSMP), into all eight wards of the city.
- Develop and provide grants to community organizations that serve men with CDK. A portion of the community grants should be dedicated to organizations serving low-income and African-American men and organizations that can tailor programs specifically to non-English speaking men.
- Evaluate and assess the effectiveness of community outreach and education efforts using outcomes data as key measures of success.

<table>
<thead>
<tr>
<th>Healthcare Delivery System Objectives and Actions</th>
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</thead>
<tbody>
<tr>
<td><strong>Objective 5B:</strong> Enhance the health system’s ability to meet the needs of low-income, African-American, and non-English speaking populations in community-based locations.</td>
</tr>
</tbody>
</table>

**Strategic Actions**

- Increase the number of culturally relevant and linguistically appropriate community health workers trained in CDK prevention and control by building on recommendations in the Brookings Institute Policy Brief for the Medical Homes DC Area Education Center.
- Health system providers will refer patients to community programs, such as the “Cooking and Living Well,” and other community resources such as the online resource directory.
- CDK action teams will deliver disease management, case management, and education services in CDK Hot Zones.
- CDK action teams will use community health workers to promote action team services at the neighborhood level.
**Community Organizations/Advocates Objectives and Actions**

**Objective 5C:** Empower community residents to participate in community outreach and education efforts, adopt healthy environments, and advocate for supportive environments by participating in a CDK-centered event sponsored once a year by the government, healthcare delivery system, community organizations/advocates, and business sectors.

**Strategic Actions:**

- Participate in an assessment that identifies the root causes, barriers, and solutions related to CDK prevention and control in Hot Zone areas.
- Identify community champions to promote newly developed CDK outreach and education programs such as:
  - Cooking and Living Well
  - CDK action teams
  - Faith-based programs
  - The Diabetes for Life Learning Center
- Support the development and implementation of the CDK social marketing campaign by participating in the pre-testing of campaign materials, message development, and message dissemination.

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**Private Sector/Business Objectives and Actions**

**Objective 5D:** Support the adoption of healthy environments and behavior change programs at worksites and in the community.

**Strategic Actions**

- Encourage the use of the Tobacco Quit Line.
- Incorporate CDK risk reduction and wellness programs such as the AHA “Start” and “Fit Friendly Company” designation, NDEP’s (Diabetes at Work program), and CDC’s Worksite Wellness Toolkit.
- Food and restaurant businesses sponsor and support the “Cooking and Living Well” program.
- Support and participate in a social marketing campaign by helping to identify a national celebrity to serve as the media spokesperson and hold special events that target men at large sporting events.
- Place automatic external defibrillators (AED’s) at worksite locations, and train staff in cardiopulmonary resuscitation (CPR) and the use of AED’s.

---

**Summary of Expected Outputs:** Culturally and linguistically appropriate community disease management programs and community health workers, coordinated media efforts, community grants, culturally appropriate educational materials (brochures, PSA’s, posters, etc.), community champions, toolkits, and other business resources for benefit planning.

**Summary of Expected Outcomes:** Increased knowledge and awareness of CDK risk factors and complications, improved health disease management behaviors, and reductions in preventable costs and unnecessary healthcare utilization.
6. Prevention and Testing

**Goal:** Promote the early detection and primary prevention of CDK among high-risk* individuals.

<table>
<thead>
<tr>
<th>Government Objectives and Actions</th>
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</thead>
<tbody>
<tr>
<td><strong>Objective 6A:</strong> Coordinate the development, implementation, and evaluation of CDK primary prevention efforts.</td>
</tr>
</tbody>
</table>

**Strategic Actions**

- Develop new and strengthen existing partnerships with CDK stakeholders to identify, diagnose, treat, and refer persons at high-risk for CDK.
- Provide technical assistance and training to system partners regarding best practices for prevention, testing, and use of cost-effectiveness/cost-savings data.
- Provide grants for and support research of CDK early detection programs to focus on low-income, African-American, and non-English speaking men at high-risk for CDK.
- Provide community-based, CDK primary prevention grants.

<table>
<thead>
<tr>
<th>Healthcare Delivery System Objectives and Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 6B:</strong> Improve the health system’s capacity to deliver primary prevention services.</td>
</tr>
</tbody>
</table>

**Strategic Actions**

- Encourage medical and nursing schools to incorporate best practices into primary prevention training curriculums.
- Train medical and nursing association members to provide CDK primary prevention services.
- Provide reimbursement for CDK primary prevention services.
- Provide training to DC government contracted entities on the best practices of CDK primary prevention.
- Develop evaluation matrices, and design evidence-based primary prevention services.
- Implement and evaluate the effectiveness of CDK primary prevention services.
- Refer patients to community-based CDK primary prevention programs, and track their progress.
- Require all DC government-contracted entities to screen high-risk individuals for pre-diabetes.

*High risk for cardiovascular disease:* having experienced a vascular event, been diagnosed with one or more associated risk factors, and/or a family history of CVD.

*High risk for diabetes:* having a clinical diagnosis of pre-diabetes and/or gestational diabetes.

*High risk for kidney disease:* having a clinical diagnosis of diabetes and/or hypertension.

*High risk for pre-diabetes:* age 45 or above and a BMI of greater >=25 or age 45 or younger with a BMI of >=25 and at least one additional risk factor.
### Community Organizations/Advocates Objectives and Actions

**Objective 6C:** Increase community messages, programs, and services that raise awareness of pre-diabetes and pre-hypertension and motivate high-risk persons to take action.

**Strategic Actions:**
- Implement a community-screening program with a focus on low-income, African-American men and non-English speaking men at high risk for CDK.
- Implement CDK primary prevention programs for individuals with pre-diabetes and pre-hypertension.
- Utilize community champions to aid in the dissemination of CDK primary prevention community messages and use of CDK screening and primary prevention services.
- Utilize community health workers to engage hard-to-reach, high-risk groups.

### Private Sector/Business Objectives and Actions

**Objective 6D:** Encourage District employers to provide worksite primary prevention programs, policies, and environmental supports that promote physical activity and healthy nutrition.

**Strategic Actions**
- Work with employers regarding their health plans on reimbursement for CDK primary prevention screening and services such as physical activity, nutrition, weight management, goal setting, and related problem solving.
- Create supportive working environments that offer flextime for employees to engage in physical activity programs during the workday.

### Summary of Expected Outputs:
Guidance documents, best practice documents, training and technical assistance, community primary prevention programs, worksite prevention programs, and an increased number of trained community health workers.

### Summary of Expected Outcomes:
Supportive prevention policies, increased CDK knowledge and awareness, an increase in healthy practices among the affected population, and an increased number of high-risk residents who have a prevention-focused medical home.
7. Children, Adolescent, and Guardian Services

**Goal:** Increase the capacity of the District health system to effectively support children at-risk for and with CDK and their parents/guardians.

<table>
<thead>
<tr>
<th>Government Objectives and Actions</th>
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<tbody>
<tr>
<td><strong>Objective 7A:</strong> Review and modify data collection systems to collect data on youth.</td>
</tr>
<tr>
<td><strong>Strategic Actions</strong></td>
</tr>
<tr>
<td>▪ Modify the Children’s School Health Record Form as needed, and collect data from School Nurses Program.</td>
</tr>
<tr>
<td>▪ Modify the Early Periodic Screening Diagnosis and Treatment (EPSDT) form as needed.</td>
</tr>
<tr>
<td>▪ Educate EPSDT form users of changes to the form and how to enter new CDK information.</td>
</tr>
<tr>
<td>▪ Collect and analyze data from the Medicaid EPSDT program.</td>
</tr>
<tr>
<td>▪ Initiate a partnership with the school health program to modify as needed and utilize the Youth Behavior Risk Factor Surveillance (YBRFS) survey.</td>
</tr>
<tr>
<td>▪ Periodically add survey questions and collect data from the BRFSS survey.</td>
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<tr>
<td>▪ Use geographical information system technology to map overweight conditions and obesity in youth populations to identify youth CDK Hot Zones.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective 7B: Provide training and technical assistance on regulatory guidelines and best practices.</th>
</tr>
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<tbody>
<tr>
<td><strong>Strategic Actions</strong></td>
</tr>
<tr>
<td>▪ Convene a CDK Youth subcommittee.</td>
</tr>
<tr>
<td>▪ Develop school guidelines for diabetes and CVD care.</td>
</tr>
<tr>
<td>▪ Train school system personnel, healthcare providers, and parents/guardians on diabetes care guidelines.</td>
</tr>
<tr>
<td>▪ Disseminate relevant regulations, guidelines, and best practices to youth-related CDK system partners.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Objective 7C: Support programs and policies that encourage healthy behaviors and supportive environments within all system sectors.</th>
</tr>
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<tbody>
<tr>
<td><strong>Strategic Actions</strong></td>
</tr>
<tr>
<td>▪ Support the funding of programs that target children at high risk or with CDK and their parents/guardians/caregivers (i.e. Project Power, youth and parent support groups, diabetes camps, Project Move, and YMCA PhD programs).</td>
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<table>
<thead>
<tr>
<th>Healthcare Delivery System Objectives and Actions</th>
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</thead>
<tbody>
<tr>
<td><strong>Objective 7D:</strong> Support the adoption of evidence-based standards of care and treatment algorithms for the prevention and control of CDK in youth and adolescents.</td>
</tr>
<tr>
<td><strong>Strategic Actions</strong></td>
</tr>
<tr>
<td>▪ District-contracted entities conduct mandatory screening of youth/adolescents to determine CDK risk profiles.</td>
</tr>
<tr>
<td>▪ Ensure that each youth/adolescent at risk for and/or with CDK has a documented treatment plan.</td>
</tr>
<tr>
<td>▪ Enroll each youth/adolescent with CDK into an integrated case management and disease management program using a team-based approach.</td>
</tr>
<tr>
<td>▪ Develop and/or enhance evidence-based intensive lifestyle modification programs for youth at risk for CDK.</td>
</tr>
</tbody>
</table>
Community Organizations/Advocates Objectives and Actions

**Objective 7E:** Collaborate with partners to increase efforts on CDK issues affecting youth/adolescents and their parents/guardians.

**Strategic Actions:**
- Serve on the youth CDK subcommittee.
- Implement programs, such as Project Power, Project Move, youth and parent support groups, and diabetes camps, that target children at risk for or with CDK.
- Support the dissemination of media and social marketing efforts that target youth and adolescents at-risk for or with CDK.
- Participate in local advocacy efforts such as those led by DC Action for Healthy Kids.
- Support a parent and guardian social network resource program that provides a safe and secure outlet for parents and guardians to share experiences, lesson learned, tips for how to deal with difficult situations, and other key aspects of CDK management for youth.
- Identify a high profile, cultural icon to promote a youth CDK prevention effort/program that is tied to the parent and guardian support network in the District of Columbia.

Private Sector/Business Objectives and Actions

**Objective 7F:** Provide a working environment in support of parents and guardians of children diagnosed with CDK.

**Strategic Actions**
- Develop and implement policies that support parents and guardians caring for children with CDK.
- Encourage all employers to cover all healthcare services for children at high risk for or with CDK.

**Summary of Expected Outputs:** Modified tracking forms, school-care guidelines and regulations, case management services, youth CDK subcommittee, youth advocacy champions, and youth-related camps and programs.

**Summary of Expected Outcomes:** Increased number of healthcare providers that provide appropriate care for youth and adolescents with and at-risk for CDK; increased availability of youth-related programs that promote healthy habits; increased preventive practices for youth such as physical activity and improved nutrition; and improved management measures, such as A1C control, for youth with and at-risk for CDK.
Measuring Progress

DC DOH has developed performance measures that could be used to determine whether progress toward achieving the medium- and long-term outcomes is taking place. Measures are an essential element of all performance improvement plans because they serve as monitors of progress on the road to fulfilling the mission, which in this instance, is preventing and controlling CDK in the District’s community.

DOH will gather data from various health system sources (including the Comprehensive Needs Assessment expected in early 2008, commissioned to Rand Corporation by the DC City Council under the Community Access to Health Care Amendment Act of 2006). DOH will plot the data over specific time periods and share the results with CDK prevention and control plan contributors, including representatives from all sectors of the public health system. The rate of progress, or lack thereof, in each of the areas being measured will indicate whether the various strategic actions are effective. The CDK Prevention and Control Plan participants will use this information to adjust the plan as necessary.

DOH selected the measures using Healthy People 2010 objectives, input from public health system sector representatives, established healthcare best practices, and measures already in use by scientific associations, and federal and local health organizations. Most of the selected measures will allow progress to be measured at yearly intervals and will remain relevant throughout the multiyear plan implementation period.

The CDK workgroup identified specific measures for:

- Cardiovascular disease prevention
- Cardiovascular disease control
- Diabetes prevention
- Diabetes control
- Diabetes-related disease control
- Kidney disease prevention
- Economically-related health status disparity reduction
- African-American population’s health status disparity reduction

The specific measures and the desired outcomes for each are detailed below. DOH previously collected the baseline data and identified targets for 2013 for the majority of the desired outcomes. Some of the measures do not have baseline data sources and/or outcome targets. Strategic actions to identify data sources and develop outcome baselines and/or targets for any measures requiring baselines and/or targets were included under Goal 2 in the CDK Action Plan section.

<table>
<thead>
<tr>
<th>Measures</th>
<th>Desired Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of District residents with a mean total cholesterol level &gt;200</td>
<td>Decrease from 31.7% in 2005(^1) to 24.3% by 2013</td>
</tr>
<tr>
<td>Percent of District residents with high blood pressure whose blood pressure is under control</td>
<td>Increase from 62.9% in 2005(^1) to at least 75% by 2013</td>
</tr>
<tr>
<td>Percent of District residents with hypertension who have had their blood cholesterol checked</td>
<td>Increase from 54.8% in 2005(^1) to 62.8% by 2013</td>
</tr>
<tr>
<td>Percent of District residents with hypertension who report taking blood pressure medication</td>
<td>Increase from 79.4% in 2005(^1) to 82.2% by 2013</td>
</tr>
</tbody>
</table>

Table 2. –Measures and Desired Outcomes: Cardiovascular Disease Prevention

\(^1\) Data source: BRFSS
### Cardiovascular Disease Control

<table>
<thead>
<tr>
<th>Measures</th>
<th>Desired Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of CVD patients discharged from the hospital on beta blockers</td>
<td>Increase from the baseline to be established(^2) to the target to be established by 2013</td>
</tr>
<tr>
<td>Percent of residents with CVD who report taking an aspirin daily</td>
<td>Increase from 19.1% in 2005(^1) to 22.4% by 2013</td>
</tr>
<tr>
<td>Percent of patients with LDL &gt; 100 who receive lipid lowering therapies</td>
<td>Increase from 58.9% in 2005(^3) to 75% by 2013</td>
</tr>
<tr>
<td>Rate of residents hospitalized with CVD as a primary cause</td>
<td>Decrease from 1,672.9 per 10,000 residents in 2005(^4) to target to be established by 2013</td>
</tr>
<tr>
<td>Percent of adults that can recognize the signs and symptoms of a heart attack and stroke</td>
<td>Increase from the baseline to be established(^1) to the target to be established by 2013</td>
</tr>
<tr>
<td>Mortality rate from stroke</td>
<td>Decrease from 39.5 per 100,000 residents in 2000(^5) to 33.2 per 100,000 residents by 2013.</td>
</tr>
<tr>
<td>Mortality rate from heart disease</td>
<td>Decrease from 273.7 per 100,000 residents in 2000(^4) to 230.2 per 100,000 residents by 2013.</td>
</tr>
<tr>
<td>Percent of current smokers with CVD who receive smoking cessation counseling</td>
<td>Increase from the baseline to be established(^1) to the target to be established by 2013</td>
</tr>
</tbody>
</table>

Table 3. – Measures and Desired Outcomes: Cardiovascular Disease Control

### Diabetes Prevention

<table>
<thead>
<tr>
<th>Measure</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of adults with pre-diabetes whose condition has been diagnosed</td>
<td>Increase from the baseline to be established to the target to be established by 2013</td>
</tr>
</tbody>
</table>

Table 4. – Measure and Desired Outcome: Diabetes Prevention

### Diabetes Control

<table>
<thead>
<tr>
<th>Measures</th>
<th>Desired Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of District residents with diabetes who report at least one encounter with a healthcare provider devoted to nutrition counseling</td>
<td>Increase from the baseline to be established(^1) by 30% by 2013</td>
</tr>
<tr>
<td>Percent of District residents that report ever attending a self-management class</td>
<td>Increase from 59.7% in 2005(^1) to 65% by 2013</td>
</tr>
<tr>
<td>Percent of District residents with diabetes who report being physically active</td>
<td>Increase from 41.7% in 2005(^1) to 51% by 2013</td>
</tr>
<tr>
<td>Number of diabetes-related 911 calls</td>
<td>Decrease from the baseline to be established(^2) by 10% to the target (90% of baseline) by 2013</td>
</tr>
<tr>
<td>Rate of residents hospitalized for diabetes (as a primary or secondary cause)</td>
<td>Decrease from 1,568 per 10,000 residents in 2005(^5) to 1,200 per 10,000 residents by 2013</td>
</tr>
</tbody>
</table>

Table 5. – Measures and Desired Outcomes: Diabetes Control

\(^2\) Data source: District of Columbia Hospital Association
\(^3\) Data source: DC Medicaid and DC Health Care Alliance HEDIS Measures
\(^4\) Data source: DC State Center for Health Statistics
\(^5\) Data source: BRFSS and Medicaid and DC Health Care Alliance Managed Care Laboratory data.
\(^6\) Data source: DC Fire and EMS
### Diabetes Related Disease Control

<table>
<thead>
<tr>
<th>Measures</th>
<th>Desired Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of District residents with diabetes who report having a biannual hemoglobin A1C</td>
<td>Increase from 67.2% in 2005(^1) to 79.6% by 2013</td>
</tr>
<tr>
<td>Percent of District residents with diabetes who report having an annual dilated eye exam within the past year</td>
<td>Increase from 74.7% in 2005(^1) to 80% by 2013</td>
</tr>
<tr>
<td>Percent of District residents with diabetes who report having an annual foot exam within the past year</td>
<td>Increase from 81.3% in 2005(^1) to 85% by 2013</td>
</tr>
</tbody>
</table>

Table 6. – Measures and Desired Outcomes: Diabetes Related Disease Control

### Kidney Disease Prevention

<table>
<thead>
<tr>
<th>Measures</th>
<th>Desired Outcomes</th>
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</thead>
<tbody>
<tr>
<td>Percent of Medicaid and Alliance beneficiaries who report being screened for kidney disease</td>
<td>Increase from 60% in 2004(^3) to 70% by 2013</td>
</tr>
<tr>
<td>Incidence of end stage renal disease (ESRD) among District residents with diabetes</td>
<td>Decrease from 180 District residents in 2005(^7) to 144 District residents by 2013</td>
</tr>
</tbody>
</table>

Table 7. – Measures and Desired Outcomes: Kidney Disease Prevention

### Economically Related Health Disparity Reduction

<table>
<thead>
<tr>
<th>Measures</th>
<th>Desired Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of District residents enrolled in DC Medicaid and the DC Healthcare Alliance with diabetes who have total LDL levels that are &lt; 100mg/dl</td>
<td>Increase from 40.1% in 2004(^3) to 50% by 2013</td>
</tr>
<tr>
<td>Percent of District residents enrolled in DC Medicaid and the DC Healthcare Alliance with diabetes who have A1C levels that are &lt;7%</td>
<td>Increase from 35% in 2004(^3) to 40% by 2013</td>
</tr>
</tbody>
</table>

Table 8. – Measures and Desired Outcomes: Economically Related Health Disparity Reduction

### African-American Population Health Disparity Reduction

<table>
<thead>
<tr>
<th>Measure</th>
<th>Desired Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of African-American District residents with hypertension who report being physically active</td>
<td>Increase from 62.9% in 2005(^1) to 75% by 2013</td>
</tr>
</tbody>
</table>

Table 9. – Measure and Desired Outcome: African-American Population Health Disparity Reduction

\(^7\) Data source: ESRD Network 5
Implementing the Plan

The creation of the CDK prevention and control plan is a step towards reducing the burden of cardiovascular diseases, diabetes, and kidney diseases in the District of Columbia. The 7 goals, 34 objectives, and more than 130 strategic actions identified in the plan, calls for changes throughout the District’s public health system.

Currently, the public health system does not have the capacity to implement all of these strategic actions at once. The efforts to be undertaken first are those that will quickly strengthen the health system’s capacity and slow the increase in CDK morbidity and mortality. DOH identified priority strategic actions (summarized to the right) that are to be implemented during the first 2 years of the 5-year plan. Of particular importance is the timely and effective implementation of the $10 million Comprehensive Chronic Disease Prevention and Management program authorized by the Community Access to Health Care Amendment Act of 2006.

While the remaining strategic actions are also mission critical, each requires a longer implementation period than the priority actions and/or is dependent upon the completion of priority actions. These remaining activities would be scheduled and completed during plan years 3 through 5.

Each of the four public health sectors has vital responsibilities during the first 2 years of plan implementation. Key to the plan’s success is government involvement. The government’s provision of resources, technical assistance, and monitoring and assessment of services will lay the groundwork for the remaining priority strategic actions.

The plan’s success is also dependent on ensuring that the healthcare delivery system is invested in the efforts to prevent and control CDK. The government will have to implement policies and/or develop incentives to obtain this sector’s “investment.” Once this is accomplished, the healthcare delivery system sectors will fulfill key roles in enhancing CDK patient’s care and CDK prevention.

Enhancing the quality of care can take place in the relative near term. The healthcare delivery system has the staff and technical capacity to collect quality metrics, including HEDIS and other quality of care information, and can implement many of the plan’s quality improvement strategies by disseminating best practice resources and implementing quality improvement programs. The healthcare delivery system’s involvement in CDK prevention will require significant research and capacity building efforts. Priority strategic actions include assessing current prevention initiatives, assessing the health system’s capacity to deliver new prevention programs and implementing pilot prevention projects.

Community organizations/advocates are already fulfilling vital responsibilities in controlling CDK and have shown a willingness to work with government sector partners to expand current programs or implement new programs. A number of community organizations have implemented programs that can be expanded quickly as resources become available. The programs targeted for expansion are those that have demonstrated positive outcomes.

The business sector must also participate in the initial CDK prevention and control plan activities. Strategic priorities for business include identifying key representatives to serve on the community organizations/advocates coalition and promoting and using the online worksite survey.

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<table>
<thead>
<tr>
<th>Priority Strategic Actions</th>
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</thead>
<tbody>
<tr>
<td>• Assist in implementing the Comprehensive Chronic Disease Prevention and Management program.</td>
</tr>
<tr>
<td>• Define and establish DOH’s coordinating role for plan implementation and allocate staffing resources accordingly.</td>
</tr>
<tr>
<td>• Initiate a health system-wide CDK community coalition.</td>
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<tr>
<td>• Create an online CDK resources directory.</td>
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<tr>
<td>• Identify neighborhood CDK Hot Zones.</td>
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<tr>
<td>• Utilize the online worksite wellness survey.</td>
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<tr>
<td>• Create &amp; disseminate CDK best practice toolkits.</td>
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<tr>
<td>• Develop &amp; implement CDK prevention &amp; control policy agenda.</td>
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<tr>
<td>• Launch CDK Action Teams into the community.</td>
</tr>
<tr>
<td>• Develop &amp; launch “Cooking and Living Well” community programs.</td>
</tr>
<tr>
<td>• Provide technical assistance &amp; training regarding best practices for prevention, testing, &amp; use of data.</td>
</tr>
<tr>
<td>• Modify the YBRFS survey &amp; collect CDK data relating to youth.</td>
</tr>
</tbody>
</table>
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Government of the District of Columbia, Fire and Emergency Medical Services (EMS) Department, Washington, DC

Government of the District of Columbia, HealthCare Alliance, Washington, DC

Healthcare Effectiveness Data and Information Set (HEDIS), National Committee on Quality Assurance (NCQA)


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Organizations, Businesses, and Agencies in the CDK Coalition

American Diabetes Association
American Heart Association
American Kidney Fund
AMERIGROUP Corporation
Ascensia Healthcare
Chartered Health Plan, Inc.
Children’s National Medical Center
Council of Latino Agencies
CVS Health Connection
DC Department of Health
DC Fire and Emergency Medical Services Department
DC Primary Care Association
Delmarva Foundation
Diabetes Research and Wellness Foundation
Ethiopian Community Development Council
Georgetown University
George Washington University
Greater Washington Urban League
Healthmark Multimedia
Health Rite, Inc.
Howard University
Howard University Hospital
Kitchen Table Health Associates
La Clinica del Pueblo
MedStar Diabetes Institute

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