GOVERNMENT OF THE DISTRICT OF COLUMBIA

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DEPARTMENT OF HEALTH
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WASHINGTON
DC

DISTRICT OF COLUMBIA

HEALTH SYSTEMS PLAN

2017

NOTICE OF NON-DISCRIMINATION

Dear Residents:

Upon taking office in 2015, my Administration focused on improving health outcomes for all residents, recognizing that all government policies—from education and housing, to economic development and transportation—impact the health and wellness of our communities. Every Washingtonian, regardless of where they live, should have the ability to live a healthy and fulfilling life in our nation's capital. This Health Systems Plan will serve as a guide for all stakeholders as they implement initiatives aimed at strengthening Washington DC's health system to improve the overall health status of residents by addressing social determinants of health and promoting health equity. Through this plan, we will ensure that public and private agencies throughout DC have the direction they need to make sound investments and implement initiatives that will improve the health and well-being of residents across all eight wards.

I am proud of the work we have done thus far. In 2016, the number of newly diagnosed HIV cases in Washington, DC decreased by 52 percent to 347. In addition, to maintain our overall fitness, we have made all District-operated fitness centers free for DC residents, helping to make DC the 2nd Fittest City in the country and a leading city for policies that improve the health and wellness of our residents.

This plan lays out a clear strategy to ensure that residents are appropriately engaged in care and have access to comprehensive, high quality, and well-coordinated services. We will also continue to ensure that efforts are made the address the underlying social determinants of health and achieve inclusive prosperity by access to safe, affordable housing; sound educational opportunities; a robust transportation system; safer and stronger neighborhoods; and pathways to the middle class. Investments in new facilities and our health system infrastructure will be required, but care will be taken to ensure that these investments are targeted and well-integrated within DC's already rich and robust health care system. Finally, the public and private sectors must continue to align their efforts and work collaboratively to ensure their efforts are integrated and coordinated in ways that build healthy, vibrant, and cohesive communities.

One of my top priorities as your Mayor is to improve the health and well-being of all residents and this Health Systems Plan is a critical next step to that commitment. As we envision a future that is brighter, bolder, greener, healthier, smarter, safer, and stronger, we will continue focusing on bringing health resources to all Washingtonians and ensuring that health care dollars and jobs stay in DC.

Sincerely,

Muriel Bowser

Dear District Residents and Partners:

The Department of Health is pleased to present the District of Columbia's Health Systems Plan (HSP), a tool to **strengthen** the health and healthcare systems in the District of Columbia in pursuit of our goal to become the healthiest city in America!

The HSP will serve as a guide for public and private investments in public health and healthcare delivery systems and will help promote the health and wellbeing of residents across the District.

The HSP is fully aligned with the Department's five strategic priorities:

- Promote a culture of health and wellness

- Address the social determinants of health

- Strengthen public-private partnerships

- Close the chasm between clinical medicine and public health

- Data-driven, outcome-oriented approach to program and policy development.

The HSP is based on the qualitative and quantitative analysis of a wealth of local data that has identified a range of opportunities related to patient and community engagement, service integration, care coordination, care transition, as well as gaps in the District's health infrastructure, and recommendations on how to address the challenges identified.

One such opportunity identified in the HSP is creating environments in which every District resident has the ability to attain the highest level of health. In other words, to create conditions that will ensure health equity for all by eliminating disparities. In order to achieve health equity, we must make investments in our healthcare infrastructure and adopt a "health in all policies" approach to improving health where healthcare providers and healthcare administrators work collaboratively with partners in education, planning, economic development, transportation, and public safety to advance the health of our communities.

Finally, I would like to thank all of those who were involved in the development of the HSP through interviews, community forums, and planning meetings. The Department of Health is committed to engaging the community and the HSP would not have been possible without the time and effort of the more than one-hundred community stakeholders and residents that were involved in this process.

This Health Systems Plan is a living document and I look forward to your continued engagement as we work collaboratively to create a patient-centered, high quality, equitable, accessible health system that enables all DC residents to live happy, healthy, and fulfilling lives.

Sincerely,

LaQuandra S. Nesbitt MD, MPH
Director

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Background and Approach

BACKGROUND AND OVERVIEW

Background and Purpose of HSP

The District of Columbia's (DC) State Health Planning and Development Agency (SHPDA) is responsible for developing a comprehensive Health Systems Plan (HSP). The primary purpose of the HSP is to serve as a roadmap for the development of a comprehensive, accessible, equitable health care system capable of providing the highest quality services in a cost effective manner to those who live and work in DC. The HSP is informed by a comprehensive needs assessment that clarifies community need, barriers to care, unmet service need, provider capacity, and service gaps across all health service categories. Per DC Official Code § 44-403 and § 44-404, the HSP is developed under the auspices of the SHPDA and the Statewide Health Coordinating Council (SHCC)—a representative body of community stakeholders appointed by the Mayor with the advice and consent of the Council of the District of Columbia.

The SHPDA and the SHCC will use the HSP to recommend specific strategic action and to facilitate cooperation between the Department of Health and other public and private sector entities. The SHPDA and the SHCC will also use the HSP to guide the District of Columbia's Certificate of Need (CON) program; the HSP will be a source of information and guidance to help determine if CON applications show public health value and support the priorities identified. More specifically, the HSP will be used to: (1) prioritize and promote certain community need- or service-related issues for investment, (2) clarify issues related to community characteristics, community need, barriers to care, existing service gaps, unmet need, and other health-related factors, and (3) guide a more refined, data driven, and objective CON application review process.

Over the past decade, there has been an increased understanding among policy-makers, public officials, and providers of the importance of developing broad system wide plans that guide how public and private agencies and service providers should work collectively to strengthen regional health systems. To be effective, these plans, along with their associated assessments and recommendations, must be:

- Comprehensive, involving the full range of health, social service, and public health providers;

- Data-driven, applying quantitative and qualitative data from primary and secondary sources in ways that allow for sound decision making;

- Collaborative, engaging all relevant stakeholders – including policy-makers, public agencies, service providers, and the community at-large – in a transparent, inclusive process;

- Action-oriented, measurable, and justifiable, providing a clear path or roadmap that guides action in clear, specific, measurable ways and allows for the implementation of short-term and long-term strategies; and

- Evidence-based, implementing projects and strategies that are proven, rooted in clinical or service provider experience, and take into consideration the interests and needs of the target population.

PRIMARY HSP SERVICE DOMAINS

The HSP articulated in this report was developed with these principles in mind. Each service domain has a series of associated goals and objectives which illustrate the types of evidence-based initiatives or service-related investments that are called for to address service gaps, areas of unmet need, barriers to care, or other health service related issues based on the HSP's assessment. The SHPDA will use this information to promote investments in particular service sectors, or to justify initiatives geared towards specific communities or segments of the population.

Data compiled and analyzed to develop the HSP will be used to guide the CON development and review process. More specifically, the HSP will inform the process of identifying objective benchmarks related to unmet need, service gaps, and/or service capacity. These benchmarks will be used by the SHPDA to provide guidance to potential CON applicants and will be used to ensure an objective, data-driven, and transparent CON approval process.

ACUTE HOSPITAL SERVICES   **PRIMARY & SPECIALTY CARE SERVICES**   **BEHAVIORAL HEALTH SERVICES**   **POST-ACUTE SERVICES**

Broader Context of the HSP

The HSP will provide vital information that will be used to help drive the SHPDA approval process, and determine if CON applications address community need and can show demonstrable "public health value." Despite the clear focus on the health service delivery system, the overall goals of the SHPDA, the SHCC and the DOH are much broader and more inclusive. The mission of the DC DOH is as follows:

*"The District of Columbia Department of Health **promotes health, wellness, and equity across the District** and protects the safety of residents, visitors, and those doing business in the nation's Capital."*

There is a growing appreciation for the idea that health system improvements related to access and quality have limited impact on overall population health status; research shows that only 10-15% of one's preventable mortality is attributable to medical care; the remainder is linked to genetics, behavior, social determinants of health, and physical environment.[1] In order to have a real and sustained impact on overall well-being and the health disparities that exist in DC, the SHPDA, SHCC, DOH, and the District government must also address the underlying social determinants, inequities, and injustices that are at the root of existing health status issues.

In providing guidance related to the development of the HSP, the SHPDA and SHCC were clear that the core analyses should focus on assessing health service gaps, capacity, utilization, and the distribution of health services. The SHPDA and SHCC were also clear that the assessment should be aligned with DOH's broader mission and should consider an extensive array of quantitative and qualitative data points related to health risk factors, morbidity, mortality, health equity, and the underlying social determinants of health; these issues needed to be considered when identifying HSP priorities and developing strategic action plans. This information will be used to direct improvements to DC's CON

CONCEPTUAL FRAMEWORK FOR DETERMINANTS OF HEALTH

HEALTH OUTCOMES
- Length of Life (50%)
- Quality of Life (50%)

HEALTH FACTORS
- Health Behaviors (30%)
  - Tobacco Use
  - Diet & Exercise
  - Alcohol & Drug Use
  - Sexual Activity
- Clinical Care (20%)
  - Access to Care
  - Quality of Care
- Social & Economic Factors (40%)
  - Education
  - Employment
  - Income
  - Community Safety
- Physical Environment (10%)
  - Air & Water Quality
  - Housing & Transit

POLICIES & PROGRAMS
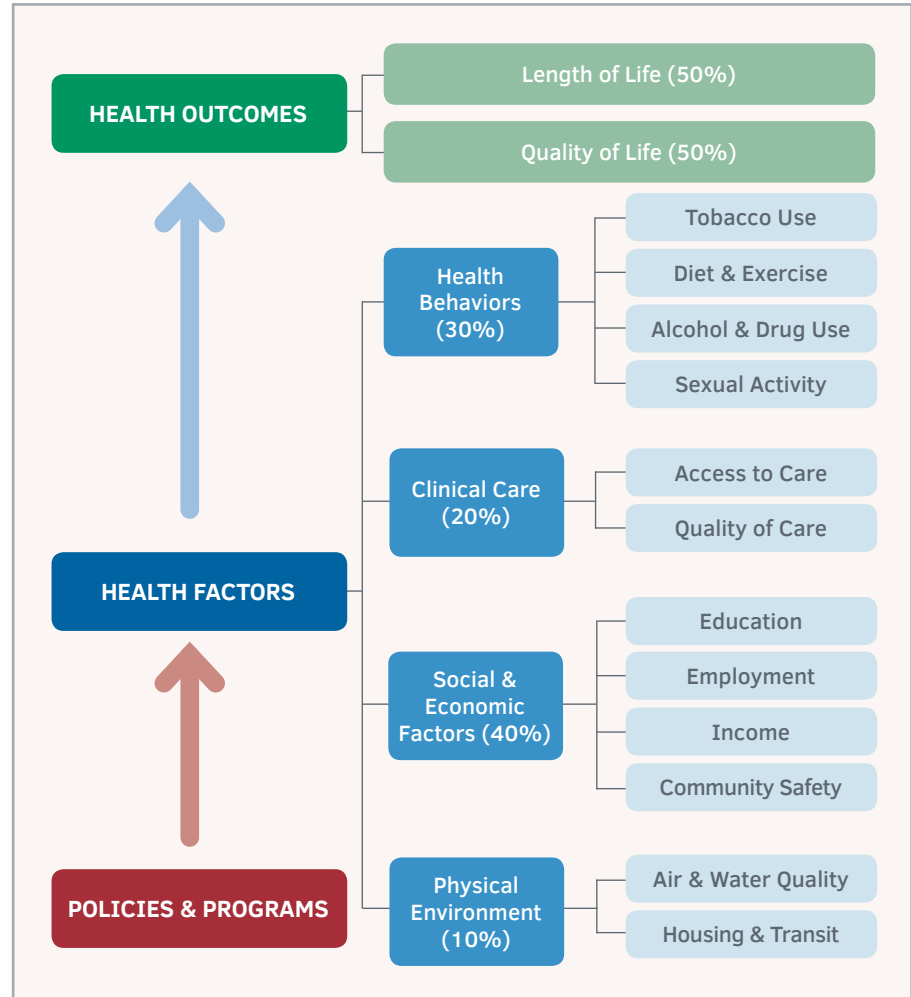
application review process in ways that promote activities and investments that are most likely to impact health status and existing health disparities.

In order for the HSP to be aligned with the DOH's broader agenda, the HSP was developed in the context of health equity. Health equity is the attainment of the highest level of health for all people. Achieving health equity requires ongoing and focused societal efforts to address avoidable inequalities, underlying socioeconomic factors, and historical and contemporary injustices that prevent all people from being valued equally. Ultimately, the goal of achieving health equity is the elimination of health and health care disparities. In 2015, the DOH hired a Director of Health Equity to spearhead an effort to create a District-wide Health Equity Plan. The HSP will augment this work and will be fully aligned with these efforts.

Finally, it is important to note that DOH, and the DC government as a whole, has adopted a health in all policies approach – a collaborative method for improving the health of all people and ensuring health equity by incorporating health considerations into decision-making across DC departments, policy areas, and private service sectors. The DOH Office of Health Equity is working in collaboration with the DC Office of Planning to incorporate health considerations into the District's Comprehensive Plan; the SHPDA, the SHCC,

HEALTH EQUITY

EQUALITY DOESN'T MEAN **EQUITY**
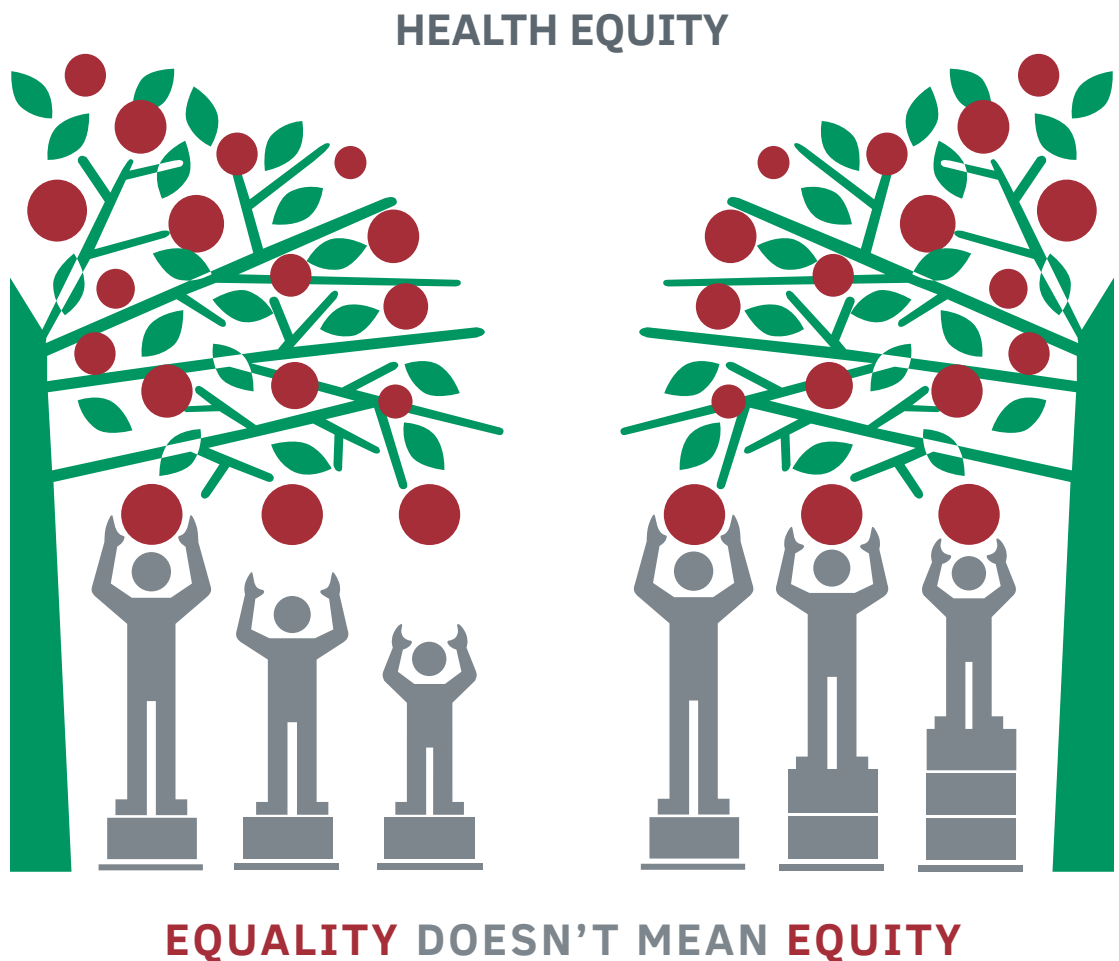
Image adapted from Craig Froehle, University of Cincinnati.

and DOH will work closely with the DC Office of Planning to ensure that the HSP is aligned with these efforts. The image below illustrates six domains that are to be considered when developing a health equity and health in all policies approach.

HEALTH IN ALL POLICIES

Image adapted from City of Richmond, California's Health in All Policies Report, 2015

Finally, the HSP's assessment efforts were not designed to catalogue or fully recognize the tremendous breadth of evidence-informed and collaborative programming and strategic work that is currently taking place in DC's public and private spheres. In many ways, the District is at the very forefront of national movements to reform population health and the delivery of health care services. The DC Department of Health, the DC Department of Health Care Finance, the DC Department of Behavioral Health, and the DC Office of Planning are just a few of the public agencies that have developed, or are in the process of developing, foward-thinking strategic plans that will have a tremendous impact on health in the District. Countless other health care providers, social service agencies, health-related community-baed organizations, and community health coalitions in the private sector are also engaged in work to address the issues identified by the HSP's assessment. If the HSP identifies a weakness or recommends action in a specific area, it does not mean that there are not organizations or agencies currently engaged in efforts to address those issues, but rather that continued, more targeted, or intensive efforts are needed.

APPROACH AND METHODS

Overview of Approach

The DC Health Systems Plan was developed through a three-phased process designed to:

1) Clarify community characteristics, community health need, health status, social determinants, and other health-related priorities for the District overall and for specific geographic (i.e., wards and zip codes), demographic (i.e., race/ethnicity, age, gender, family composition), and socioeconomic (i.e., income, poverty-level, and education) segments of the population.

2) Characterize and assess the capacity and strength of the existing health system, particularly the safety net.

3) Assess unmet need, service gaps, and barriers to access.

4) Explore a number of emerging service delivery categories in more depth to ensure that they are appropriately addressed in the HSP.

5) Engage community residents, a full range of service providers, and other key stakeholders.

6) Present primary and secondary data findings (quantitative and qualitative) in ways that guide the SHPDA and the SHCC to approve a sound HSP.

7) Conduct strategic planning exercises with key stakeholders, either one-on-one or in small group sessions, to identify key priorities and evidence-informed interventions that address identified priorities.

8) Develop a clear and visually appealing final report.

Phase I: Assessment

The assessment compiles, analyzes, and presents quantitative and qualitative information in two major areas:

- **Assessment of Community Characteristics, Health Status, and Social Determinants of Health:**

  With respect to assessing community characteristics, health status and social determinants, a broad range of quantitative data was compiled to characterize the population (demographically, socioeconomically, and geographically),

identify the leading health-related risk factors and causes of morbidity/mortality, and identify the most significant barriers to care and social determinants of health facing DC residents. This information was compiled primarily from existing quantitative secondary data sources, including data from Healthy People 2020, the B ehavioral Risk Factor Survey System (BRFSS), a recent community health needs assessment (CHNA) conducted by the DC Healthy Communities Collaborative, and a range of other existing secondary sources.

- **Assessment of Health System Strength, Service Distribution, and Utilization Trends:**

  With respect to assessing the strength of DC's health system, a broad array of health service utilization, capacity, and claims data was compiled and analyzed to assess service gaps or shortages, unmet need, and distribution of services across the district. In addition, utilization and claims data was analyzed to assess utilization trends and in particularly in- and out-migration of services within DC across wards, as well as out-migration of services by DC residents. More specifically, this portion of the assessment has involved an analysis of Medicaid claims, commercial insurance claims, emergency department data, hospital discharge data, and capacity data from primary care providers, hospitals, and other service areas (e.g., long-term care, specialty care, behavioral health).

QUANTITATIVE DATA SOURCES

I.   DEMOGRAPHIC DATA

- **U.S. Census Data.** American Community Survey (ACS) Data, 1-Year Estimates and 5-Year Estimates. These datasets includes demographic, family composition, poverty, income, housing, and other data variable for DC residents overall, by census tract and by ward.

II.   EPIDEMIOLOGIC DATA

- **Healthy People 2020.** The District of Columbia Healthy People 2020 Framework is a shared community health agenda that monitors 150 objectives and targets for the year 2020, and recommends over 85 strategies to improve population health. Data was pulled on selected variables to assess current health status.

- **BRFSS.** The Behavioral Risk Factor Surveillance Survey is a monthly telephone survey conducted in every state in the U.S., DC, and three U.S. territories. The survey collects data on chronic diseases and related health behaviors from a randomly selected adult in each household that participates. Data was pulled on selected variables to assess current health status.

- **DC Healthy Communities Collaborative Community Health Needs Assessment.** The DC Healthy Communities Collaborative is group of community health leaders and organizations, formed in 2012, to assess and address community health needs in the DC area. In 2015-2016, the collaborative conducted a community health assessment identifying health needs within the District.

- **Range of Data from DC Government Sources.** Data was compiled from a broad range of sources from across DC Government including the Department of Health, the Office of Planning, the Department of Housing and Community Development, the Department of Health Care Finance, the Department of Behavioral Health, and others.

III. UTILIZATION AND CLAIMS DATA

- **Hospital Discharge.** The inpatient discharge data reflects all hospitalizations taking place at short-term medical hospitals located within DC. This data provides information about the patients' location (zip code only), age, gender, and other personal characteristics, as well as the facility to which they were admitted, the length of stay, diagnoses, procedures, and likelihood of complications, etc. The data permits the examination of access patterns for hospital services by DC residents, as well as the reliance of DC facilities by residents of surrounding states. The diagnoses can be used to examine Ambulatory Care Sensitive (ACS) conditions as well as 'marker' or reference condition hospitalizations.

- **Hospital Outpatient and Emergency Department (ED).** Similar to the hospitalization data, this data set provides the ability to look at activity within the other services that hospitals provide through their facilities and networks. The ED data shows the degree to which primary care and ambulatory-care sensitive conditions are being provided through the ED and where patients using the ED are coming from. Similar origin-destination matrices are developed to examine patient flow from within a community for both ED and outpatient department services.

- **Medicaid Claims**. Medicaid claims information was received based on a structured data request that was submitted near the beginning of the project. This data set covers all Medicaid billed office visits for medical, psychiatric, and dental services.

- **Private Claims Data.** While care access for the Medicaid population is a point of analysis of primary care and health care resources availability, Medicaid does not typically constitute the majority of care for the population, many more of whom have private insurance. Furthermore, without a comparably defined data set for those with commercial insurance, it is difficult to interpret the degree to which those on Medicaid may experience the system differently than those with private coverage. Utilization rates, differential flow patterns, average/fractional distance and time to receive care, and per capita utilization rates are all calculations possible using this data. The new federal Shortage Designation Submission System (SDMS) asks that each state identify capacity across all provider groups, not just in requested designation areas. While private data will not be fully representative of the privately insured population, it will likely highlight all providers in the area based on the acceptance of major carrier insurance, feeding directly into the shortage designation and Primary Care Needs Assessment planning.

IV. CAPACITY DATA

- **Primary Care Survey.** Primary care clinical staffing data is compiled from the DC DOH Community Health Administration (CHA) to help assess the capacity of DC's primary care network. With assistance from CHA, a primary care assessment survey was created and distributed to over 20 District providers.

- **FQHC Uniform Data System (UDS).** Capacity and other health-related data is compiled from HRSA's Bureau of Primary Health Care, the DC Primary Care Association, and DC's Federally Qualified Health Centers.

- **DC Department of Behavioral Health.** Capacity and other health-related data is compiled from DC's Department of Behavioral Health.

- **Other Health System Capacity Data.** Other data detailing the capacity (e.g., hospital beds, long-term care beds, nursing home beds, and assisted living slots, etc.) is compiled from various sources, including the DC Hospital Association and the DC Home Health Association.

QUALITATIVE DATA SOURCES

I. **KEY INFORMANT INTERVIEWS.** Face-to-face interviews were conducted with nearly 40 individuals from August to December of 2016. HSP key informants include health and public officials, service providers, representatives from advocacy groups, consumers, and other community leaders. The purpose of the interviews was to collect qualitative information that would allow for confirmation and refinement of quantitative data findings. This information provided important context and clarified the needs and priorities of the community. Finally, the interviews identified a series of core initiatives, tied to community need and health system capacity, that were likely to have broad buy-in for the HSP. A list of HSP key informant interviews can be found in Appendix A.

II. **PRIMARY CARE KEY INFORMANT INTERVIEWS.** Approximately 20 primary care providers were interviewed to inform the HSP and the Primary Care Needs Assessment (PCNA). Interviews explored the underlying root causes of access barriers, no-show rates, limited acceptance of Medicaid insured patients by private providers, and related health system issues.

III. **COMMUNITY FORUMS.** Three community forums, one in Wards 7/8 (December 7, 2016), one in Ward 5 (December 10, 2016), and one in Ward 4 (January 14, 2017), were held to gather information directly from community residents, particularly in the wards that were experiencing the greatest health disparities.

A review of data limitations is included in Appendix B.

Phase II: Priority Setting, Planning, and HSP Development

Based on review of quantitative and qualitative findings, a menu of priority areas related to community health status, health system strengths, and health system structures was developed. These strategic priorities were presented to the SHPDA, the SHCC, and senior leadership at DOH to begin the process of identifying priority areas and strategic recommendations.

The HSP includes narrative sections that clearly articulate key findings from the HSP assessment. The HSP also includes a Strategic Recommendations Section that articulates a broad range of goals and objectives, which provide guidance on what stakeholders should focus on to strengthen DC's health system, address disparities, and improve the overall health and well-being of District residents. The Strategic Recommendations Section also provides guidance on the "Term" (short-, medium-, and long-term) and "Priority" (medium- and high-priority) for each objective to guide the SHCC, SHPDA, DC DOH, and other stakeholders in its efforts.

Phase III: Reporting and Dissemination of Findings

The HSP (1) succinctly summarizes findings, priorities, and strategic plans, (2) provides the full range of detailed data that was compiled for the HSP, and (3) includes a set of recommendations that serve as a guide to the SHPDA, the SHCC, DOH, and service providers in their efforts to address unmet need, service gaps, barriers to care, and social determinants of health, as well as strengthen the DC health system overall.

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Community Characteristics, Underlying Determinants, and Health Status

The assessment captured quantitative and qualitative data related to demographics, social determinants of health, morbidity and mortality, and access to health-related resources. This data provided valuable information that characterized the population and provided insights into barriers to care, leading determinants of health, and health inequities. Qualitative information gathered through stakeholder interviews and community forums was critical to assessing health status, clarifying health-related disparities and determinants of health, identifying community health priorities, and identifying health system strengths and weaknesses.

Population characteristics such as age, gender identity, race, ethnicity, sexual orientation, and language were examined to characterize community composition, needs, and health status. Social, economic and environmental factors that impact health status and health equity, like income, education, housing, and mobility, were also examined. Finally, epidemiologic and morbidity/mortality related data was used to characterize disease burden and health inequities, identify target populations and health-related priorities, and to target strategic responses.

This document outlines a summary of key findings related to community characteristics, the social determinants of health for DC, and the leading health disparities. For additional information, please see Data Placemats in Appendix C.

COMMUNITY CHARACTERISTICS

Age and Gender

Age and gender are fundamental factors to consider when assessing individual and community health status. Men tend to have a shorter life expectancy and more chronic illnesses than women; older individuals typically have more physical and mental health vulnerabilities and are more likely to rely on immediate community resources for support compared to young people.[2,3]

As is the case in most urban areas, median age of residents in the District is younger than the U.S. average (33.7 vs. 37.6, respectively).[4] DC also has a slightly higher percentage of females (53% vs. 51%) than the U.S. average.[5]

AGE DISTRIBUTION BY WARD, 2015
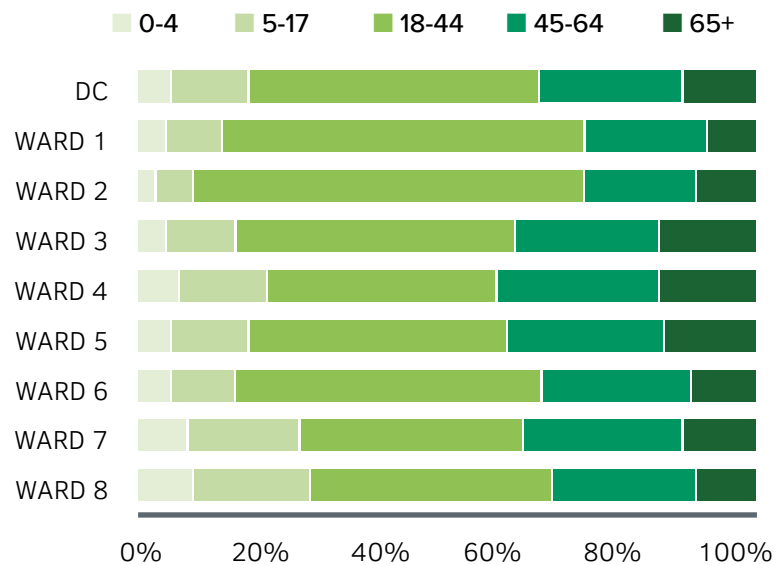
U.S. Census Bureau American Community Survey. From the DC Office of Planning: DC Healthy Communities Collaborative Community Health Needs Assessment Appendices, 2016

- Ward 2 has the lowest proportion of children age 0-4 years at 3%, compared to Wards 7 and 8 which had the highest proportion at 8-9%.[6]

- Wards 3, 4, and 5 have the highest proportion of older adults (65 years and older) at over 15%.[7]

- Wards 3, 5, 7, and 8 have significantly more females than males, at 56%, 53%, 55%, and 54% respectively.[8]

Race, Ethnicity, and Language

There is an extensive body of research that illustrates the health disparities that exist for racial/ethnic minorities, foreign-born populations, and individuals with limited English language proficiency (LEP).[9] According to the Centers for Disease Control and Prevention (CDC), non-Hispanic blacks have a higher rate of premature death, a higher infant mortality rate, and higher preventable hospitalization rates than non-Hispanic whites.[10] Individuals with LEP have lower levels of medical comprehension, which lead to higher rates of medical issues and complications, such as adverse reactions to medication.[11] These disparities illustrate the unfair, disproportionate, and often avoidable inequities that exist within communities and reinforce why it is important to understand the demographic makeup of a community to identify population segments that are more likely to experience adverse health outcomes.

In 2015, the racial makeup of DC was majority non-white; 47% of the population was black, 11% was Hispanic/Latinx, and 36% was white.[12] In the District, 5.4% of the population whose primary language is not English report that they speak English less than "very well;" this is significantly lower than the U.S. average (8.6%).[13]

MEDIAN HOUSEHOLD INCOME IN DC BY RACE , 2011-2013
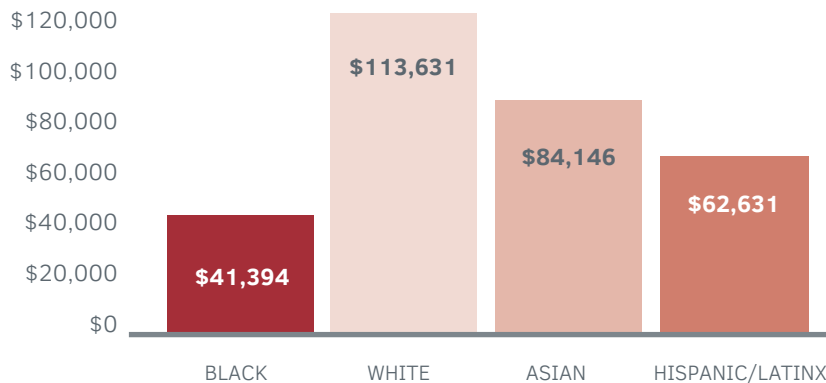
American Community Survey 2011-2013. From DC Healthy Communities Collaborative's Community Health Needs Assessment, 2016

- Wards 1, 2, and 3 have a disproportionately higher white population than other wards in the District, at 48%, 63% and 76% respectively.[14] In these wards, blacks make up 24%, 14%, and 5% of the population, and Hispanic/Latinx make up 21%, 12%, and 9% of the population, respectively.[15]

- The racial makeup of Wards 7 and 8 is disproportionately black, at 93% and 92%, respectively. In these wards, whites make up 2-3% of the population and Hispanic/Latinx make up 3%.[16]

Stakeholders reported that race, ethnicity, and language are key predictors and drivers of major health disparities in the District. Stakeholders noted particular inequities for residents living in Wards 5, 7, and 8, all of which have majority racial/ethnic minority populations. The impact of racism and the linkages to geographic disparities and where one lives, or their "place," is clear; these concepts are well documented in literature on race- and ethnicity- related disparities. Interviewees and community forum participants alluded to issues of overt and discreet racism, prejudice, and discrimination.

Broader issues of language and culture were not major themes in interviews or community forums, though a number of interviewees identified DC's large immigrant population as a cohort that requires specialized health care services and resources; Hispanic/Latinx and Ethiopian immigrants were referenced specifically, and they are the largest immigrant groups in DC. There is evidence that immigrants are less likely to visit doctor's offices and emergency rooms than low-income native residents.[17] Prejudice, discrimination, and cultural differences deter many immigrants and refugees from seeking health services, and it is common for immigrants and refugees to self-isolate due to stress.[18] Approximately 1 in 7 people in the District are immigrants; roughly 3.9% of the District's population is classified as unauthorized.[19]

LGBTQ Community

Lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) individuals face a number of health disparities linked to discrimination and stigma, though the severity of these disparities is often difficult to quantify since questions around gender identity and sexual orientation are left off of most population-based surveys. Though there are no LGBTQ-specific diseases, members of this community are more likely to experience barriers in accessing and maintaining care than heterosexuals and cis-gendered individuals. For some segments of the LGBTQ population, sexually transmitted infections, like HIV, are a major concern. LGBTQ individuals are more likely to experience behavioral health issues, such as depression and substance abuse, which may be tied to high rates of stress.[20]

In 2013, DC had the largest percentage of residents (10%) who identified as LGBTQ among all states.[21] According to the Human Rights Campaign, government leadership in DC supports all of their top nine priority areas, including marriage equality and other relationship recognition laws, statewide school anti-bullying laws and policies, transgender healthcare, and gender marker change on identification documents.[22]

- Fifteen percent of DC high school students identify as LGBTQ.

- DC's transgender population, particularly transgender women of color, face significant income disparity. Nearly 50% of the transgender population earn less than $10,000 a year, compared to 11% of DC residents overall. Transgender women of color tend to earn even less.

SOCIAL DETERMINANTS OF HEALTH AND BARRIERS TO CARE

Quantitative and qualitative data showed clear geographic and demographic disparities related to the leading social determinants of health (e.g., economic stability, housing, education, and community/social context). These issues influence and define quality of life for many segments of DC's population. A dominant theme from key informant interviews and community forums was the tremendous impact that the underlying social determinants, particularly housing, poverty, transportation and food access, have on DC residents. The following is a brief discussion of the major domains; they are listed in order of concern or priority based on the frequency in which these issues arose during interviews and in the community forums.

Poverty, Income, and Employment

Socioeconomic status, as measured by income, employment status, occupation, education, and the extent to which one lives in areas of economic disadvantage, is closely linked to morbidity, mortality, and overall well-being. According to research, lower than average life expectancy is highly correlated with low-income status.[23] A recent study showed that residents of Arlington County, Virginia have a median household income of nearly $106,000 and an average life expectancy of 86 years. In Montgomery County, Maryland, which has a median household income of over $99,000, residents have an average life expectancy

of 84 years. Residents in DC, however, have a median household income of $70,848 and a life expectancy of only 78 years.[24] While data on life expectancy is not available at the ward level, a review of epidemiologic data suggests that individuals living in DC's more affluent communities likely have a life expectancy consistent with these counties in Maryland and Virginia. Nearly all interviewees and forum participants cited poverty, lack of employment opportunities, and the high cost of living as a barrier to health and well-being, especially for those living in Wards 7 and 8. Furthermore, children born to low-income families are, as they move into adulthood, less likely to be formally educated, less likely to have job security, more likely to have poor health status, and less likely to rise to higher socioeconomic levels.[25] DC faces major economic and education discrepancies between its wards and racial/ethnic groups.

- In 2015, 14% of DC families lived in poverty. Wards 7 and 8 have over 75% more families living in poverty, at 25% and 29% respectively, compared to the District benchmark.[26]

- The median household income for DC's white population is 86% higher than the median household income for the Hispanic/Latinx population, and 175% higher than the black population.[27]

- DC's unemployment rate has decreased since 2011; however, major discrepancies in unemployment between wards persist. Compared to the national average, unemployment is two times higher in Ward 7 and three times higher in Ward 8 as of June 2016. High unemployment rates also affect Wards 4 and 5.[28]

Education

Higher education is associated with improved health outcomes and social development at the individual and community level.[29] Compared to individuals with more education, people with lower educational attainment are more likely to experience a number of health issues, including obesity, substance misuse, and injury.[30] The health benefits of higher education typically include better access to resources, healthier and more stable housing, and better engagement with providers. Proximate factors associated with low education that affect health outcomes include the ability to navigate the health care system, educational disparities in personal health behaviors, and exposure to chronic stress.[31] It is important to note that while education affects health, poor health status may also be a barrier to education.

Research shows that student attendance is correlated with student achievement.[32] For the 2014-2015 school year, DC had 90% overall school attendance, falling short of its 95% target.[33] Education is an important factor of employment status; in 2014, college graduates were two times more likely to be employed than individuals with less than a high school diploma.[34] It is estimated that by 2020, 76% of jobs in DC will require some form of postsecondary education.[35] As there are clear relationships between education, employment, and health, it is evident that educational attainment is an important determinant of health outcomes. In DC, the average public school high school graduation rate for all students was 69% for the 2014–15 school year, which was lower than the national average of 83%.[36]

EDUCATION BY WARD, ADULTS 25+, 2015
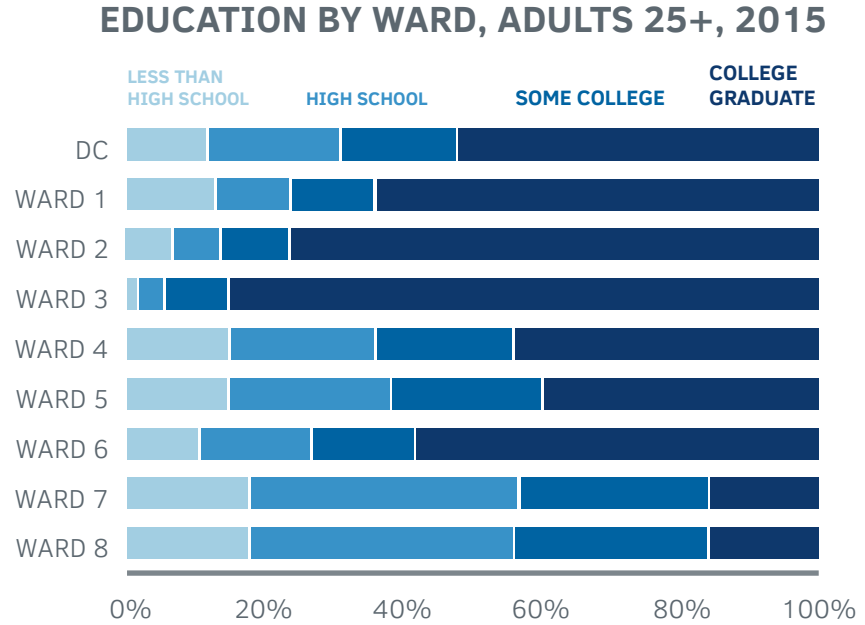
U.S. Census Bureau American Community Survey. From DC Office of Planning, in the DC Healthy Communities Collaborative Community Health Needs Assessment Appendices, 2016.

- Educational disparities exist between racial and ethnic groups. In 2015, the highest high school graduation rate by race was for white students (86%), compared to 62% for black students.[37]

- In wards with higher percentages of minorities, residents tend to have lower levels of educational attainment.[38]

Although the quantitative data shows clear disparities in educational attainment for different racial groups, and an overall lower graduation rate for DC compared to the U.S., lack of education or access to education did not arise as a major priority in qualitative findings. Some interviewees and forum participants did mention the need for early childhood support for low-income families, as well as the need for afterschool activities for children and youth, though these were not dominant themes.

Housing and Homelessness

A large body of evidence suggests that poor housing is associated with a range of health conditions, including asthma and other respiratory conditions, exposure to environmental toxins, injury, and the spread of communicable diseases.[39] These health issues are more common among low-income segments of the population who struggle to find safe and healthy housing.

Over the past decade, DC has experienced rapidly rising housing costs, which has led to a significant loss of low-cost units in the District. This lack of affordable housing, compounded by limited increase in wages and high cost of living, has made housing a critical concern for people in the District, especially for those most vulnerable.[40] When individuals and families are forced to spend more on housing and shelter, they have less to spend on other necessities such as food, medical prescriptions, and health care.

MEDIAN PRICE OF A SINGLE FAMILY HOME IN DC

2015
$670,000

2000
$209,000

2000   2005   2010   2015
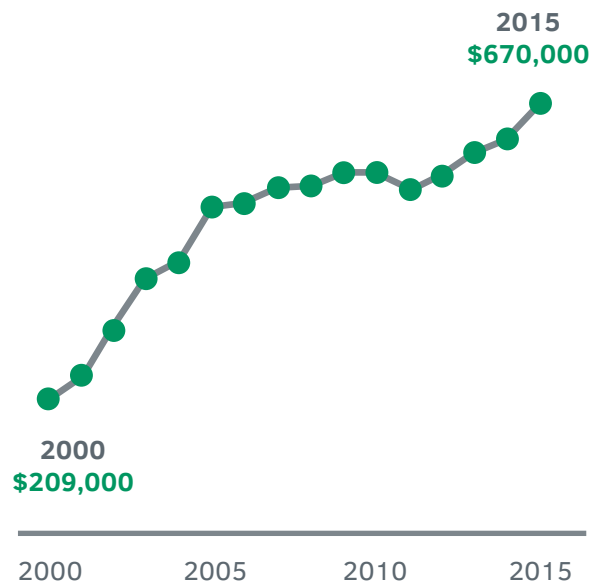
Neighborhood Info DC: DC City Profile - Median sales price of single family homes, 2000 and 2015.

- The median price of a single family house in DC has more than tripled in the last 15 years; in 2000, the median price was $209,000, whereas in 2015 the median price was $670,000.[41]

- The number of rental units priced $800 per month or less has declined by 42% in the past decade. In 2002, there were 57,700 units and only 33,400 units in 2013.[42]

As home prices rise disproportionately to standard economic growth, so do the rates of homelessness. Compared to other states, DC had the largest change in the number of homeless people in families—an increase of 137% of homeless individuals between 2007 and 2014.[43]

- Between 2007 and 2016, the number of homeless individuals in DC increased from 5,320 to 8,350.[44] However, the number of homeless veterans decreased between 2012 and 2016, from 531 to 350.[45]

Despite being one of the most diverse places in the nation, race-based residential segregation is a major concern amongst community residents and stakeholders. Key informants identified gentrification, or the transition of a neighborhood from low value to high value, as a reason for displacement of older and low-income residents. Research has shown that the poor, older adults, women and children, and racial/ethnicity minorities often suffer disproportionate health consequences as a result of gentrification, as it limits access to affordable housing, transportation, quality schools, and social networks.

Safety and Violence

Crime and violence can have major impacts on health status, from death and injury to emotional trauma, anxiety, isolation, and absence of community cohesion. Residents of low-income neighborhoods are less likely to report adequate pedestrian and biking infrastructure, safety from traffic, and favorable neighborhood appearance compared to people in higher-income areas.[46] Furthermore, living in a neighborhood with pervasive violence is likely to increase chronic stress, thus leading to poorer health outcomes.[47] These impacts often have a ripple effect on families, schools, and entire communities.

Individuals living in certain areas of DC are more likely to face issues related to crime and violence. Overall, DC's homicide rate remains consistently higher than that of the United States; though DC's rate declined between 2010 and 2012, it increased to 14 homicides per 100,000 population in 2014 (compared to 5.1 for the U.S. overall).[48,49]

- Between 2014 and 2015, the homicide rate increased in most wards throughout DC. Ward 8 had the greatest increase.[50]

- Racial and gender disparities are reflected in the homicide rate: 85% of homicide victims were black males in 2015.[51]

- Between 2015 and 2016 the number of hate crimes reported in the District increased by 64%. The greatest numbers of hate crimes reported were in regards to sexual orientation, followed by race.[52]

Research shows that individuals with criminal records are more likely to be excluded from housing and employment opportunities, which impacts mental and physical health.[53]

HOMICIDE RATE BY WARD

2014   2015   *Homicides per 100,000 pop.*

DC Crime Map, 2014 and 2015.
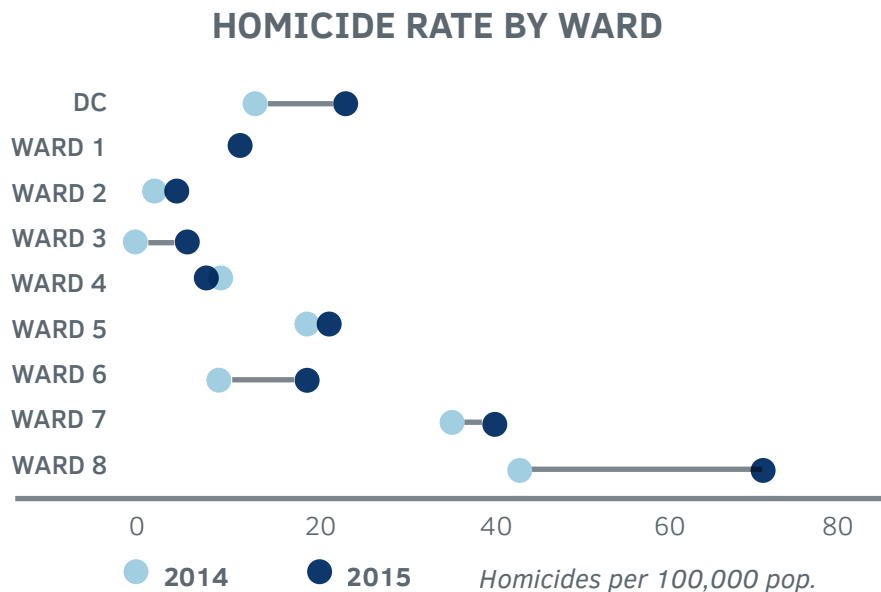
- The U.S. has the highest incarceration rate compared to all other countries. DC's incarceration rate per 100,000 is the highest in the world, at 1,196 incarcerated individuals per 100,000 population.[54]

- Since 2011, however, the number of incarcerated individuals in a DC Department of Corrections (DOC) facility has steadily decreased, though there was a slight uptick in 2016 (3,093 incarcerated individuals in 2011 compared to 1,845 in 2016).[55]

- Racial inequities persist: 89% of DC inmates are black, 5% are Hispanic/Latinx, and only 3.4% are white.[56]

While these issues were not cited explicitly in interviews and forums, crime and violence is a pervasive issue among certain populations in the District. When crime and violence did come up in interviews, it was primarily in the context of youth and domestic violence.

Transportation

Lack of transportation was a theme from the assessment's key informant interviews and community forums. Lack of transportation was cited not only for having a significant impact on access to health care services, but also as a determinant of whether an individual or family had the ability to access the basic resources that allowed them to live productive and fulfilling lives; access to affordable and reliable transportation widens opportunity and is essential to addressing poverty, unemployment, and goals such as access to work, school,

DISTRIBUTION OF METRO TRAIN STATIONS, 2015
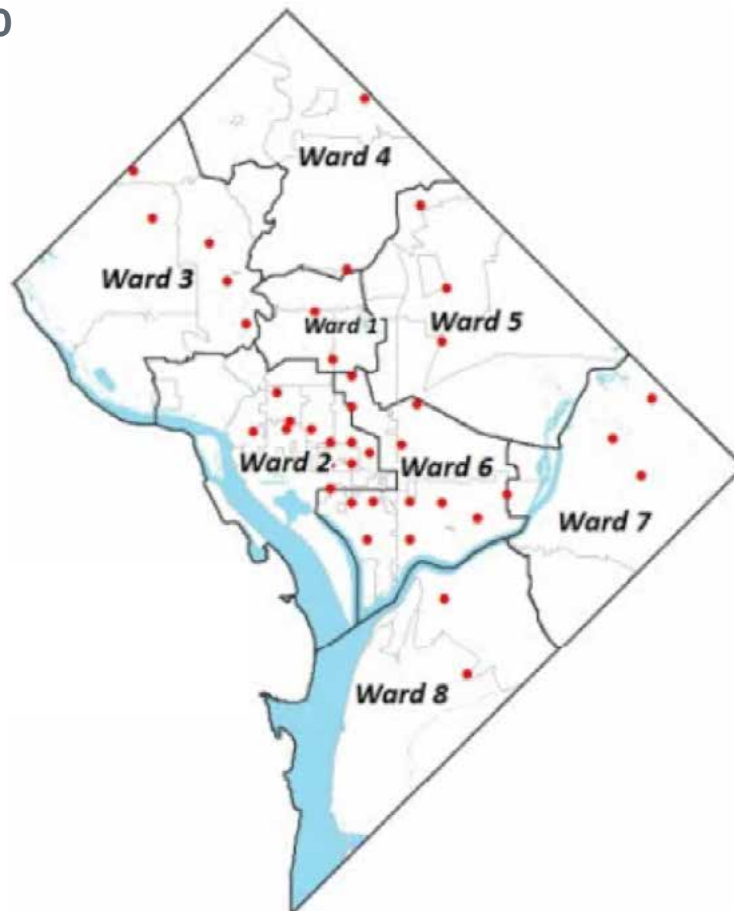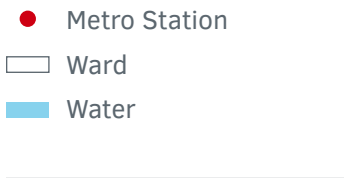
- ● Metro Station
- ▭ Ward
- ▬ Water

DC Healthy Communities Collaborative Community Health Needs Assessment Appendices, 2016.

healthy foods, recreational facilities and a myriad of other community resources, including health care services. Many forum participants and interviewees identified transportation issues for those living in Wards 4, 5, 7, and 8; the primary issue being the expense of public transportation, followed by the system's inefficiency. A number of forum participants reported using the DC public bus system as a low-cost alternative to the Metro, but described the system as time-consuming, unreliable, and inflexible.As seen in the map on the previous page, the metro stations in DC are concentrated in the central region (Wards 2 and 6) and are lacking especially in Wards 4, 7, and 8.

Food Access

Issues related to food insecurity, food scarcity, hunger and the prevalence and impact of obesity are at the heart of the public health discourse in urban and rural communities across the United States. While there is limited quantitative data on food access, lack of access to healthy foods was a common theme in interviews and community forums, particularly for low-income individuals and families, and those living in Wards 5, 7, and 8. Many Ward 7 and 8 forum participants reported that they not only struggled to afford the cost of fresh produce, but that they often had difficulty locating stores that stocked a decent selection. Despite these comments, a number of interviewees referenced the numerous and well-organized farmers markets offered throughout the District; however, it seems, at least

DISTRIBUTION OF GROCERY STORES AND FARMERS' MARKETS, 2015

- ● Metro Station
- ● Farmers Market
- ▭ Ward
- ▬ Water

DC Healthy Communities Collaborative Community Health Needs Assessment Appendices, 2016
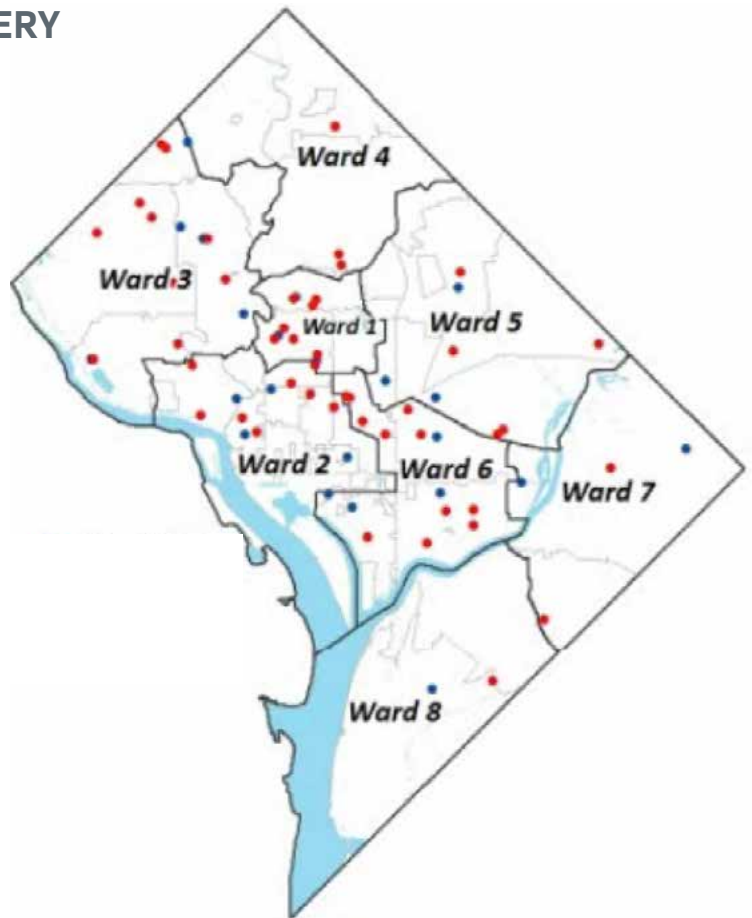
anecdotally, that these markets do not address the breadth of the District's food access issues, specifically for those living in Wards 5, 7, and 8. The map on the previous page shows the lack of grocery stores and farmers markets in Wards 4, 5, 7, and 8, consistent with information gathered from key informants about food scarcity in these areas.

Health Literacy

Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information needed to make appropriate health decisions.[57] Low health literacy can have a major impact on one's health, as patients can have difficulty locating providers, following doctors' instructions, understanding medication directions, managing chronic conditions, among other issues. Health literacy is more prevalent among older adults, individuals of low socioeconomic status, and minority populations.[58]

- Nationally, Hispanic/Latinx individuals have lower health literacy compared to other races; in 2003, 41% of Hispanics had below basic health literacy, compared to 25% of American Indians/ Alaskan Natives, 24% of blacks, 13% of Asian/Pacific Islanders, 9% of multiracial individuals, and 9% of whites.[59]

- Nationally, in 2003, 29% of individuals older than age 65 had health literacy levels that were below basic, whereas no more than 13% of people younger than 65 had below basic health literacy.[60]

- In DC, more than 20% of individuals in Wards 1, 2, 3, and 4 speak a second language at home.[61] When English is not the primary language, the health care system may be particularly difficult to navigate.

During community forums and interviews the need for improved health literacy arose as a key priority; informants identified low health literacy as a key driver of inappropriate hospital utilization.

HEALTH STATUS AND DISPARITIES

At the core of the assessment process is an understanding of access-to-care issues, the leading causes of morbidity and mortality, and the extent to which population segments and communities participate in certain risky behaviors. This information is critical to assessing health status, clarifying health-related disparities, and identifying health priorities. This assessment captures a wide range of quantitative data from federal and municipal data sources. Qualitative information gathered from key informant interviews and community forums informed this section by providing perceptions on the confounding and contributing factors of illness, health priorities, barriers to care, service gaps, and possible strategic responses to the issues identified. Furthermore, this data augmented the quantitative data and allowed for the identification of demographic and socioeconomic population segments most at-risk. Traditionally, barriers to care often disproportionately impact minority groups and result in disparities in health outcomes.[62]

The following are key findings related to health insurance coverage, health risk factors, mortality, chronic disease, cancer, infectious disease, behavioral health (mental health and substance use), elder health, and maternal and child health.

Health Insurance Coverage and Access to Care

The extent to which a person has insurance that helps to pay for needed acute services, as well as access to a full continuum of high-quality, timely and accessible preventive and disease management or follow-up services, has shown to be critical to overall health and well-being.[63] Access to a usual source of primary care is particularly important as it greatly impacts one's ability to receive regular preventive, routine and urgent care, and chronic disease management services for those in need. Under the Affordable Care Act, DC implemented early expansion of Medicaid, leading to health insurance coverage for 93% of adult residents and 96% of children. Although this is the second highest coverage rate in the nation, DC residents, particularly residents of color, continue to face barriers to accessing care.

- Health insurance coverage was lowest among Hispanic/Latinx residents (78%) compared to 91% coverage among black residents and 97% coverage among white residents.[64]

- Residents in Ward 7 and Ward 8 had the lowest coverage amongst all wards (90% and 91%, respectively).[65]

- Districtwide, 10% of adults reported that they had delayed getting medical care because they could not get an appointment soon enough. Rates were highest in Ward 1 (14%), Ward 6 (12%), and Ward 2 (11%).[66]

PERCENT OF ADULTS IN DC WITH HEALTH INSURANCE BY RACE, 2014

WHITE	HISPANIC/LATINX	BLACK
97%	78%	91%

American Community Survey, 2014
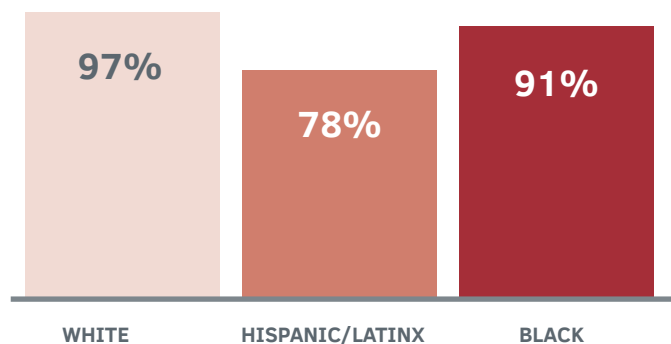
Health Risk Factors

There is a growing appreciation for the effects that certain health risk factors—such as obesity, lack of physical exercise, poor nutrition, tobacco use and alcohol abuse—have on health status, the burden of physical chronic and complex conditions, and issues related to mental health and substance use. While there was some recognition amongst interviewees and forum participants that DC's population was healthy and fared well across many risk factors, there was strong sentiment that racial/ethnic minorities and low-income populations were more likely to experience poor outcomes related to health risk factors. Issues such as obesity, fitness, nutrition, and tobacco use were rarely, if ever, at the very top of informants lists of health priorities, but were clearly considered to be fundamental building blocks of good health. The map below suggests there is a relatively even distribution of recreation and community centers around DC; however, the map does not speak to their accessibility, utilization, or quality, which may vary by ward.

- **Obesity:** Over the past two decades, obesity rates in the United States have doubled for adults and tripled for children. Overall, these trends have spanned all segments of the population, regardless of age, sex, race, ethnicity, education, income or geographic region. Districtwide, approximately 33% of adults are overweight, while 22% are obese.[67]

  - Rates of obesity were highest in Wards 8 (37%), 7 (34%), and 5 (26%).[68]

  - By race/ethnicity, 34% of black residents were obese, compared to 20% of Hispanic residents and 10% of white residents.[69]

DISTRIBUTION OF RECREATION AND AQUATIC CENTERS, 2015

- Recreation Center
- Aquatic Center & Spray Park
- Ward
- Water
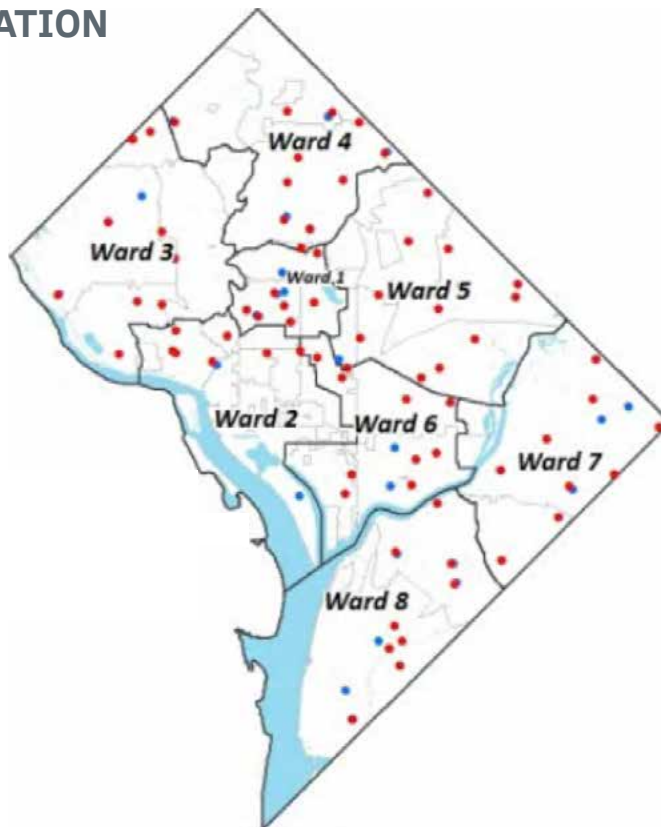
DC CHNA Appendices, 2016

- **Physical Fitness and Nutrition:** Lack of physical fitness and poor nutrition are among the leading risk factors associated with obesity and chronic health issues.[70] Adequate nutrition helps prevent disease and is essential for the healthy growth and development of children and adolescents, while overall fitness and the extent to which people are physically active reduce the risk for many chronic conditions and are linked to good emotional health.

  - Black residents reported the least amount of exercise: 33% reported that they had not been physically active within the past 30 days, compared to 28% of Hispanic/ Latinx residents and 7% of white residents.[71]

- **Tobacco Use:** Tobacco use is the single most preventable cause of death and disease in the United States.[72] Each year, more than 480,000 Americans die from tobacco-related illnesses.[73] For every person who dies from tobacco use, 30 more people suffer with at least one serious tobacco-related illness, such as chronic airway obstruction, heart disease, stroke or cancer.[74]

  - The percent of adults reporting as current smokers varied significantly by race/ ethnicity and by ward; 26% of black residents are smokers compared to 7% of white residents.[75]

  - In Ward 8, 33% of adults reported as current smokers, more than double the Districtwide average (16%), while only 7% of residents in Ward 3 smoke.[76]

Chronic and Complex Conditions

Throughout the United States, chronic and complex diseases such as heart disease, stroke, cancer, respiratory diseases, and diabetes are responsible for approximately 7 of 10 deaths each year; treating people with chronic conditions accounts for 86% of our nation's health care costs.[77] Half of all American adults (18+) have at least one chronic condition, and almost 1 in 3 have multiple chronic conditions.[78] Perhaps most significantly, despite their high prevalence and dramatic impact, chronic diseases are largely preventable, which underscores the need to focus on the health risk factors, primary care engagement, and evidence-based chronic disease management. There was broad, if not universal, awareness of these pervasive health issues amongst interviewees and most forum participants.

- Nearly 12% of DC residents currently have asthma; percentages are significantly high in Ward 8 (18%), Ward 7 (17%), and Ward 5 (14%).[79]

- While 8% of DC adults have ever been diagnosed with diabetes, the percent was more than double in Ward 8 (20%) and very high in Ward 7 (13%).[80]

- Besides asthma and diabetes, chronic disease rates were highest in Ward 8 across multiple other conditions: COPD, depression, arthritis, HIV/AIDS, and stroke.[81]

While experts have an idea of the risk factors and causal factors associated with cancer, more research is needed as there are still many unknowns. The majority of cancers occur in people who do not have any known risk factors, though the most common risk factors are well known: age, family history of cancer, smoking, overweight/obesity, excessive alcohol consumption, unprotected exposure to the sun, unsafe sex, and exposure to airborne environmental and occupational pollutants. As with other health conditions, there are major disparities in outcomes and death rates across all forms of cancer, which are directly associated with race, ethnicity, income and whether one has comprehensive medical health insurance coverage.

- In 2012, the top four cancers diagnosed among District residents were breast, prostate, lung bronchus, and colorectal.[82]

- From 2011 to 2012, there was a 5% decrease in the number of new cancers diagnosed, and a 1% decrease in the number of cancer deaths.[83]

- By race, the cancer incidence among black residents was 546 per 100,000 residents compared to 379 per 100,000 for white residents.[84]

- Breast cancer incidence was highest in Ward 8. Lung cancer incidence was highest in Ward 7. Prostate cancer and colorectal cancer incidence was highest in Ward 5.[85]

Behavioral Health

Mental illness and substance use have a profound impact on the health of people living throughout the United States. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), an estimated 44 million adults (18%) in the United States have experienced some form of mental illness, and over 20 million adults (8.4%) had a substance use disorder in the past year.[86] Depression, anxiety and alcohol abuse are directly associated with chronic disease, and a high proportion of those living with these issues also have a chronic medical condition.[87]

In 2014, approximately 18% of DC adults had ever been told they had a depressive disorder. Rates were highest in Ward 8 (30%), Ward 1 (22%) and Ward 7 (18%).[88] As seen in the map on the next page, areas of Wards 7 and 8 were designated by the Health Resources and Services Administration (HRSA) as mental health professional shortage areas in 2015.

- In 2014, the second most common inpatient hospital discharge among all DC residents was for Mood disorders (3.9%).[89] Mood disorders were the third most common inpatient discharge for residents' ages 0–17 (2.1%) and the second most common inpatient discharge for patients ages 18–44 (6.1%) and 45-64 (5.2%).[90]

- Among black residents, mood disorders were the second most common inpatient hospital discharge (4.1%).[91] Among Hispanic/ Latinx residents, schizophrenia and other psychotic disorders were the second most common inpatient discharge (6.1%), followed by mood disorders (4.5%).[92]

MENTAL HEALTH PROFESSIONAL SHORTAGE AREAS, 2015

■ Mental Health HPSAs
▢ Ward
■ Water

Health Research and Services Administration (HRSA). From DC Healthy Communities Collaborative, Community Health Needs Assessment Appendices 2016.

- Among white residents, mood disorders were the fourth most common condition.[93]

- White adults were more than twice as likely to report as binge-drinkers compared to black adults (35% and 14%, respectively). Furthermore, the percent of adults reporting as binge drinkers varied significantly by ward: percentages were highest in Ward 1 (42%) and Ward 2 (30%) and were lowest in Ward 4 (16%) and Ward 7 (18%).[94]

  - From 2010 to 2012, the Mental Health Rehabilitation Services (MHRS) were accessed the most by black children and youth, those living in Wards 6, 7, and 8, and those between the ages of 6-13 years.[95]

  - In 2012, the most commonly diagnosed mental health conditions among children and youth in DC ages 0-17 years receiving MHRS were Bipolar Disorder and Manic, Depressive, and Other Episodic Mood Disorders.[96]

Second to sentiments related to social determinants and racial health disparities, the leading theme from the assessment's interviews and community forums was the impact and burden of behavioral health issues. Service providers reported that the burden of behavioral health issues on hospital inpatient and emergency department services was extreme, and this was reflected in quantitative data: psychoses as a diagnosis was the

leading diagnosis as a proportion of all hospital discharges across every zip code in the District. Interviewees from nearly every health service sector talked at length about the burdens of behavioral health related to (1) the level of generalized stress and anxiety felt by the general public, (2) the prevalence of mild and moderate depression and anxiety, (3) the prevalence of co-morbidity among those with physical chronic conditions, (4) the burden of those with serious mental illness, (5) the behavioral health challenges faced by the homeless population, (6) behavioral health issues in children and adolescents (e.g., ADHD, autism, substance misuse, bullying, and suicide), (6) the prevalence of depression and social isolation in the elderly, (7) the burden of alcohol and opioid abuse on adults overall, and (8) the need for transitional or supportive housing for those with behavioral health challenges to support them in their recovery. Although lengthy, these issues do not constitute a complete list of behavioral health related issues and challenges that came up interviews.

Community forum participants discussed the lack of access to behavioral health education and cited limited awareness of mental health resources as a barrier to seeking care. A small number of participants said there were a limited number of service sites, while others expressed that they were aware of behavioral health services being run out of community centers, elder service agencies, and community health centers. There was consensus among forum participants that they had limited knowledge of tailored behavioral health services, such as substance abuse treatment.

Oral Health

Poor oral health not only causes pain and discomfort, but also contributes to various diseases and conditions including cardiovascular disease, diabetes, infectious disease, and Alzheimer's disease.[97] Maintaining good oral health is especially important for children; untreated dental conditions may lead to issues with speech, eating, and learning.[98] Although oral health was not discussed as a primary area of concern amongst interviewees of forum participants, the map on the next page showing dental health professional shortage areas, as designated by HRSA, indicates oral health services are lacking in Wards 2, 7, and 8.

- In 2012, white residents were more likely to have visited a dental clinic within the past year (79%) compared to Hispanic/Latinx (69%) and black residents (65%).[99]

- From 2011–2012, 82% of children (ages 1–17) in DC had 1 or more preventive dental care visit. This rate was highest amongst black children (87%) compared to 79% of white children and 68% of Hispanic/Latinx children.[100]

DENTAL CARE HEALTH PROFESSIONAL, 2015

■ Dental Health HPSAs
☐ Ward
■ Water
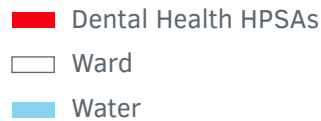
Health Research and Services Administration. From DC Healthy Communities Collaborative, Community Health Needs Assessment Appendices 2016.

Maternal and Child Health

Maternal and child issues are of critical importance to the overall health and well-being of a geographic region and are at the core of what it means to have a healthy, vibrant community. While maternal and child health was not discussed as an area of major concern amongst interviewees or forum participants, the quantitative data suggests there are disparities in this area.

Statistics indicate that low birth weight, prematurity, and lack of adequate prenatal care are some of the factors associated with the critical indicators of maternal and child health, such as infant mortality. In 2014, the District's infant mortality rate was 7.6 per 1,000 live births, an 11.7% decrease since 2013.[101] Despite this improvement, there are significant disparities in birth outcomes by race/ethnicity and ward.

- The infant mortality rate to Hispanic/Latinx mothers decreased by 27% between 2013 and 2014, from 6.4 per 1,000 live births to 4.7. In the same years, infant mortality increased 9% amongst black mothers and 105% amongst white mothers.[102]

- Wards 8 (12.5), 5 (10.7) and 7 (9.6) had the highest infant mortality rates in 2014, compared to 6.8 in the District overall.[103]

- Births to young mothers (ages 15-19) decreased 11% between 2013 and 2014.[104]

Health System Strengths, Service Distribution, and Utilization Trends

HOSPITAL SERVICES

Hospitals are critical components of a strong health system, as they provide essential services for those with acute, often life-threatening conditions that require immediate, highly coordinated, and specialized expertise and equipment. In addition to providing inpatient and emergency services (including maternity services), hospitals are often the hub for a broad range of other specialized outpatient medical, behavioral health, and oral health services for those with highly acute, chronic, or complex illnesses or injuries. Hospitals are also often the source of specialized laboratory and diagnostic services, such as cytology, radiology, MRI, and CT services. These specialized outpatient and diagnostic services are generally provided directly on hospital campuses or in close proximity to hospitals.

In 2014, the United States expended nearly $3 trillion on health services and supplies, and approximately one-third (33.8%) of these expenditures were for hospital care (Figure 1).[105] Historically, the role of hospitals has been narrowly focused on the treatment of acute illness or life threatening injury. However, in response to an increased understanding of the importance of patient-centered primary care, a more holistic approach to health and wellness, and the underlying determinants of health, hospitals are evolving into much more integrated, multi-dimensional institutions that provide a range of post-acute care, preventive care, primary care, urgent care, and wellness services either on their own or through collaborative relationships. These trends have also increased the emphasis on care coordination and service integration, particularly as patients leave the hospital, as a way of promoting higher quality, patient-centered, and lower cost services.

FIGURE 1: NATIONAL EXPENDITURES FOR HEALTH SERVICES AND SUPPLIES BY CATEGORY, 1980 AND 2014

1980

2014

42.7%

33.8%

20.3%

21.0%

7.1%
1.0%
5.1%

6.9%
2.9%
10.3%

5.9%
6.5%

3.6%
5.4%

11.4%

16.1%

$236 BILLION

$2,877 BILLION

- Hospital Care
- Physician Services
- Other Professions
- Home Health Care
- Prescription Drugs
- Other Medical Durables and Non-durables
- Nursing Home Care
- Other

TrendWatch Charbook 2016, "Trends Affecting Hospitals and Health Systems." American Hospital Association, 2016
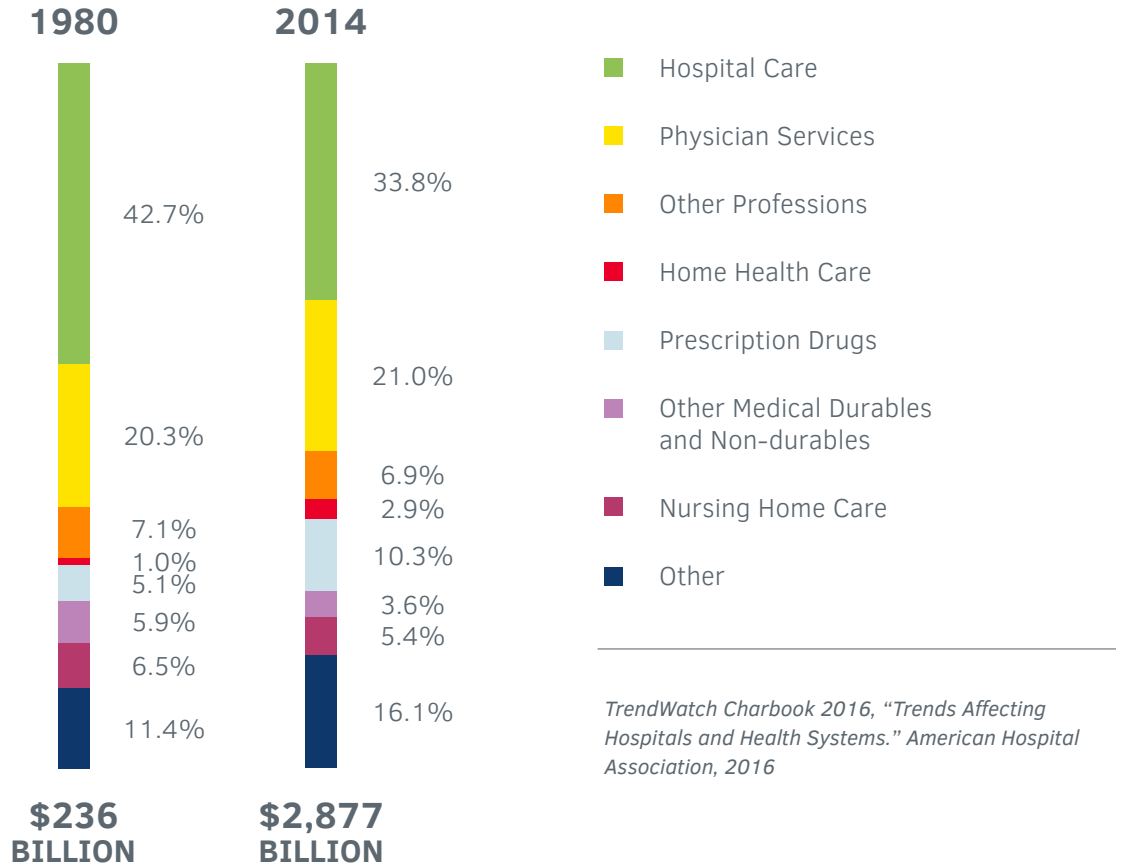
Characteristics of DC's Hospital Service System

In DC, there are eight acute care hospitals (ACHs) or medical centers that provide services to DC residents: Children's National, George Washington University Hospital, Howard University Hospital, MedStar Georgetown University Hospital, MedStar Washington Hospital Center, Providence Hospital, Sibley Memorial Hospital, and United Medical Center (UMC) (See Appendix D for Service Area Maps). In addition to these core hospitals, there are also two psychiatric hospitals: Psychiatric Institute of Washington and St. Elizabeth's Hospital that provide services for those with severe mental health or substance use conditions. Walter Reed Army Medical Center and the Washington DC VA Medical Center are not included in this assessment due to the specialized nature of the services these facilities provide, and Walter Reed's location in Bethesda, Maryland. Finally, while there are ambulatory surgical centers located throughout the District, there is limited data showing the capacity or need associated with these services. These facilities are distributed throughout DC, but are predominantly located in the central downtown area of DC. The distribution of DC hospitals and ambulatory surgical centers can be seen in Figure 2.

FIGURE 2: DISTRIBUTION OF DC HOSPITAL AND SURGICAL SERVICES

DC Department of Health
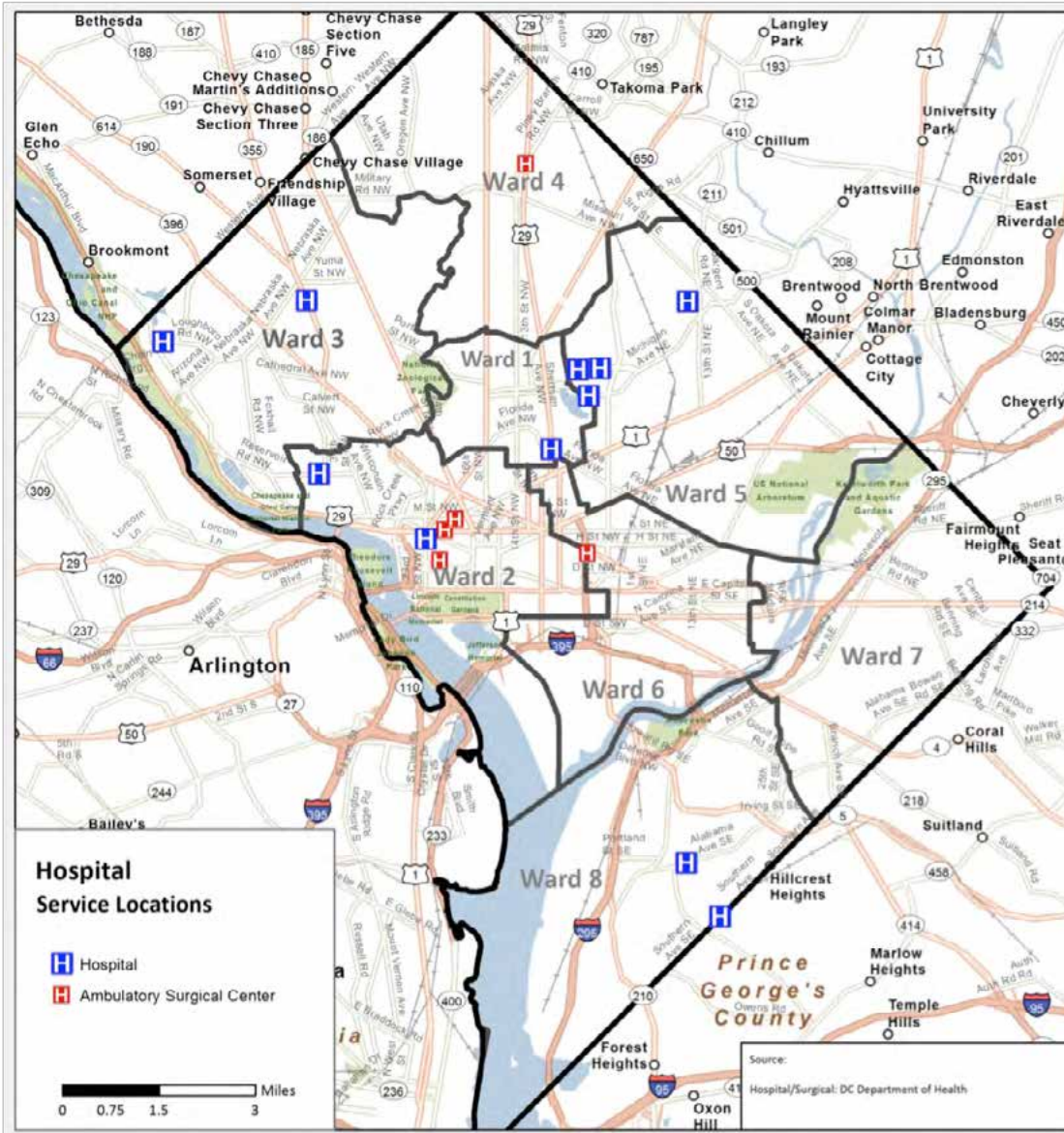
FIGURE 3: TOTAL DISCHARGES BY HOSPITAL, 2014

Inpatient Discharge Database, DC Hospital Association.
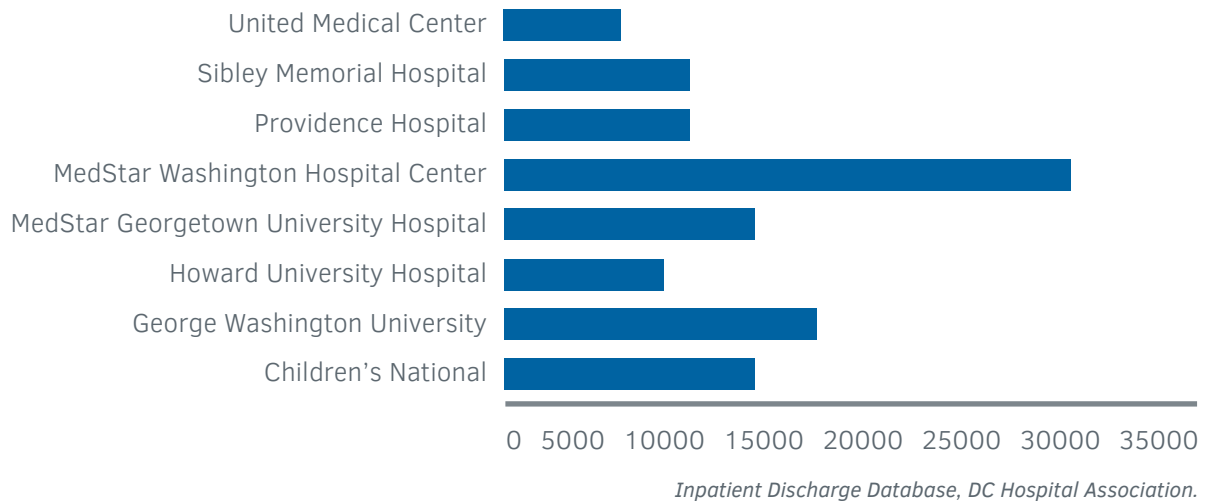
This assessment utilizes data from the 2014 hospital discharge data set obtained from the DC Hospital Association (DCHA), which describes the DC inpatient hospital volume during the 2014 calendar year. Figure 3 shows the total number of hospital discharges in 2014 by hospital. One important finding is that there is significant variation in total volume by hospital. In 2014, the largest hospital, MedStar Washington Hospital Center, had nearly twice the volume of discharges as the next largest hospital in DC, George Washington University Hospital. Not only does the number of discharges vary by facility, but each hospital's geographic draw differs significantly, as seen in Figure 4. There are several hospitals within DC for which District residents make up less than half of the total admissions; differences are somewhat correlated to the size of the facility, such as MedStar Washington Hospital Center, or the specialized nature of the services provided, such as Children's National, where DC residents account for only 29% of total discharges. The physical location of facilities relative to neighboring states is also a factor, though this has notable exceptions: two hospitals located near the border boundaries, UMC and Providence Hospital, exhibit some of the lowest rates of admissions from neighboring states, serving 82% and 75% DC residents, respectively.

Like hospitals nationally, DC's hospitals provide a broad range of services to those with acute injuries or illnesses. All eight of DC's ACHs provide inpatient services, emergency services, comprehensive outpatient medical specialty and surgical services, with inpatient care being the core service provided. Based on current licensure data provided by the DC Department of Health, the eight ACHs combined have 3,298 licensed inpatient beds. Of these licensed beds, 86% (2,788) are medical/surgical beds, 9% (302) are obstetrics/gynecology beds, and 208 are psychiatric beds. The average number of licensed beds per hospital is 471 beds. The largest of the ACHs has 873 beds and the smallest has 234 beds. With respect to emergency services, Children's National, MedStar George Washington University Hospital, MedStar Washington Hospital Center, and Howard University Hospital are all verified Level I trauma centers. In 2014, all ACH emergency departments (excluding UMC, whose data was unavailable) provided 449,197 emergency room visits in 2014. DC is home to one of the leading pediatric hospitals in the nation, Children's National,

which provides specialized inpatient and outpatient services to children. MedStar Georgetown University Medical Center also serves this population. Overall, DC's hospital system is nationally renowned for the breadth and quality of care it provides. DC is a source of care not only for local residents, but for the greater Mid-Atlantic region and beyond; as referenced above, more than 40% of all hospital discharges in DC in 2014 were for patients living outside the District.

FIGURE 4: PERCENT OF DC HOSPITAL PATIENT ORIGINS BY STATE, 2014
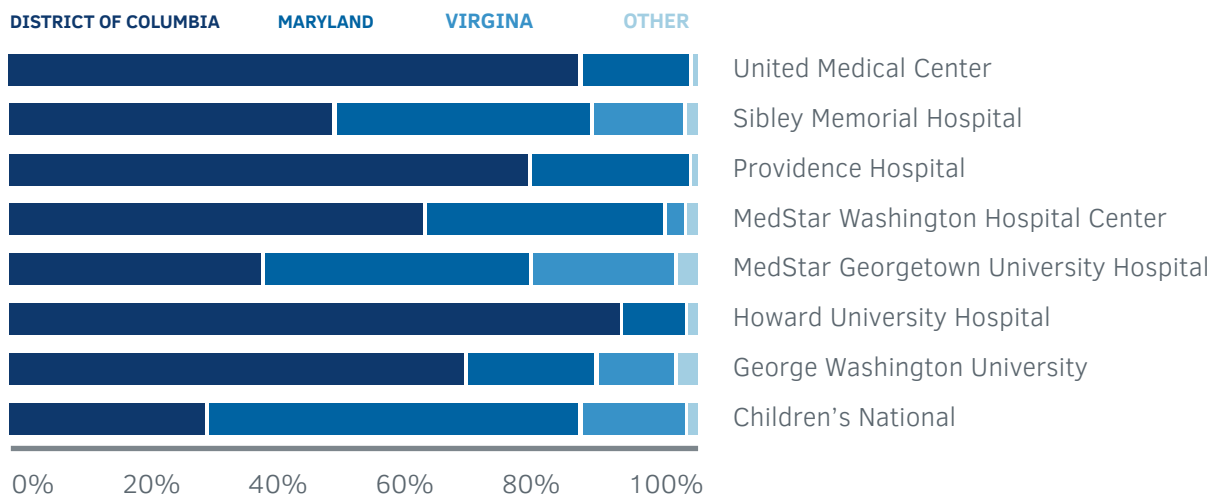
Inpatient Discharge Database, DC Hospital Association.

Characteristics of Hospital Utilization and Insurance Coverage

Figure 5 shows the mix of payers of total hospital admissions at each facility (not adjusted for level of service or level of charges). Figure 6 shows the number of 'marker condition' discharges by hospital, while Figure 7 shows the percentage of 'marker conditions' by payer type by hospital. While total admissions represent the true revenue mix, the 'marker conditions,' also known as reference admissions, are a narrow set of diagnoses (appendicitis, acute myocardial infarction, gastrointestinal obstruction, and fracture of the hip or femur) that are thought to be largely insensitive to factors such as socioeconomic status and access to primary/outpatient services, as well as the service mix within the facility and elective procedures. As such, they may better represent the community that might naturally rely on that facility. One notes that Medicare represents a larger portion of admissions when examined on this basis, likely owing to the age at which some of the included conditions are experienced.

FIGURE 5: PERCENT OF HOSPITAL TOTAL ADMISSIONS BY PAYER, 2014
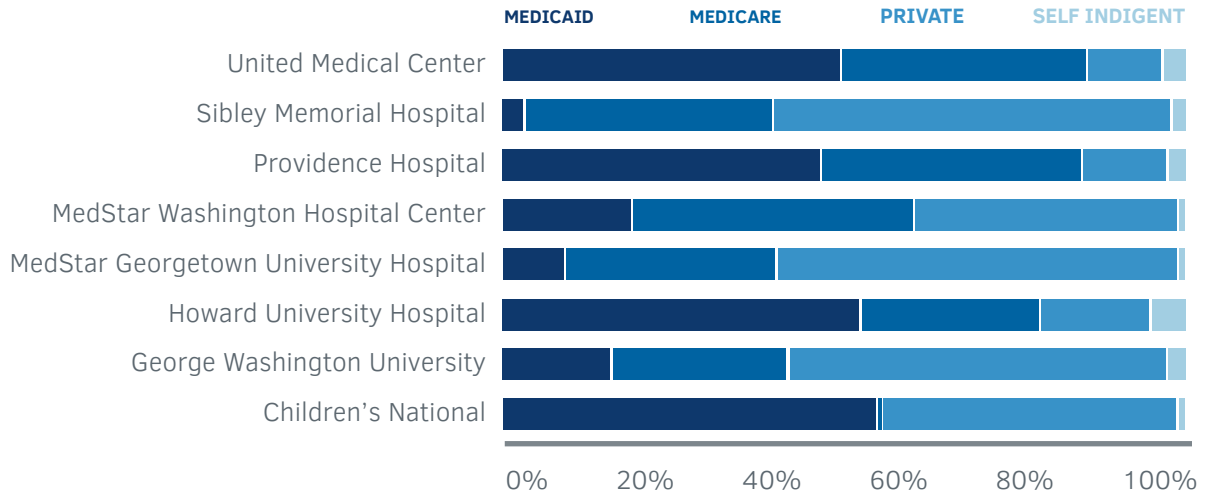
Inpatient Discharge Database, DC Hospital Association.

FIGURE 6: 'MARKER DISCHARGES' BY HOSPITAL, 2014
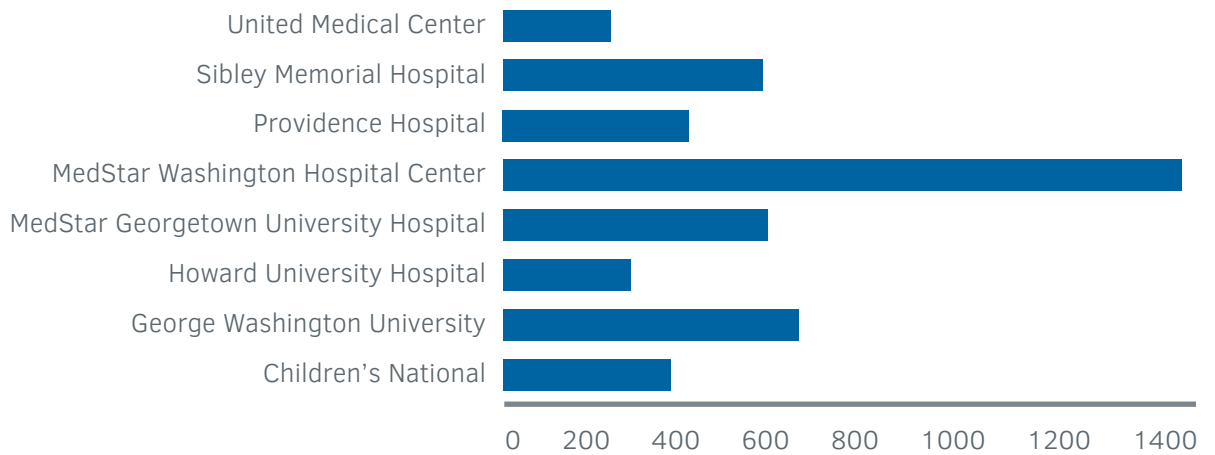
Inpatient Discharge Database, DC Hospital Association.

A review of this data shows that there is considerable variation by institution in the proportional service to populations with different coverage types. Children's National serves the highest portion of Medicaid patients, as one would expect based on the historical eligibility of Medicaid for children. It will be interesting to monitor this pattern as the impact of the Affordable Care Act implementation, which began in 2014, is reflected in future years of data. Several other facilities also see Medicaid as their largest payer, including Howard, Providence, and UMC. Medicare is the dominant overall payer, marginally, for admissions at MedStar Washington Hospital Center, while private insurance covers the

FIGURE 7: PERCENT OF DC HOSPITAL 'MARKER DISCHARGES' BY PAYER TYPE, 2014

MEDICAID   **MEDICARE**   **PRIVATE**   **SELF INDIGENT**

United Medical Center

Sibley Memorial Hospital

Providence Hospital

MedStar Washington Hospital Center

MedStar Georgetown University Hospital

Howard University Hospital

George Washington University

Children's National

0%   20%   40%   60%   80%   100%
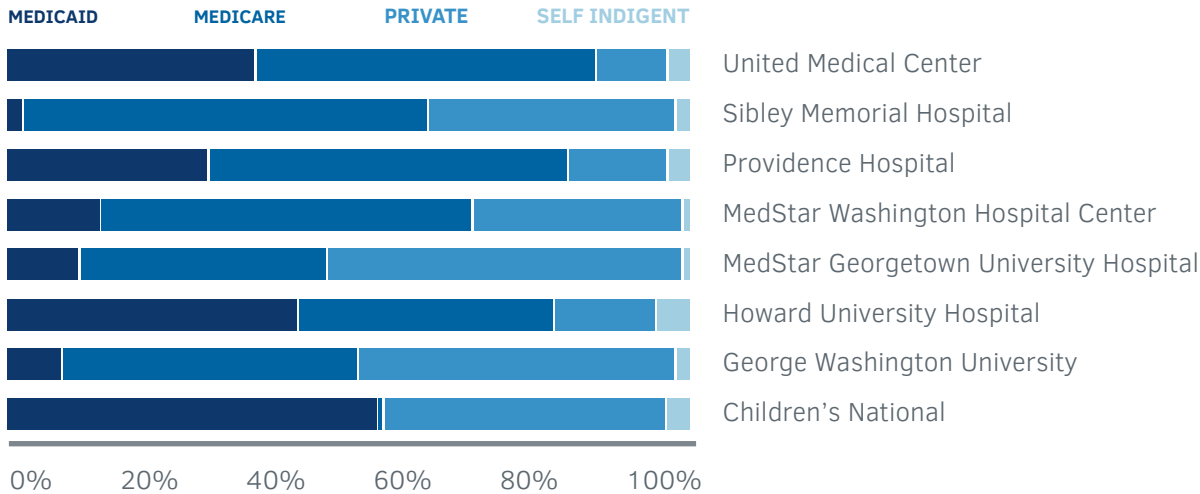
Inpatient Discharge Database, DC Hospital Association.

plurality of admissions at George Washington, MedStar Georgetown, and Sibley. Rates of self-pay/indigent care are relatively low at all facilities, though Howard sees a higher proportion, at 5% of their total.

The variation in payers by facility raises the question as to whether the differences are mediated largely by the nature of the communities served by each hospital, or whether other factors, such as insurance coverage, managed care organization (MCO) contracting, or provider panel networks may be directing care. To examine this, a group of admissions that could be relatively cleanly compared between Private and Medicaid insured patients were selected (Figure 8); females age 18–34 were selected, as they are a group naturally represented in Medicaid for basic coverage. Children were excluded because of the children's hospital, men had low representation in Medicaid, and older women may be more enrolled due to disabilities that can drive the care needed. The maps in Figure 8 show the dominant destination for hospitalizations of women 18–34 depending on their coverage. Zip codes shaded in yellow exhibit different hospital destination patterns of residents based on Private vs. Medicaid coverage. Note that nearly all zip codes where there were sufficient Medicaid admissions to examine (>10) exhibited a different hospital destination pattern between those with Private vs. Medicaid coverage. This suggests that these patterns are not primarily dictated by community characteristics, but rather by other factors related to patient or provider preference and network patterns. Interestingly, while one might assume that Medicaid patients might travel further for care, the results show that privately insured women travel further from their zip code of residence to receive care, primarily at MedStar Washington, Sibley, and George Washington. Medicaid-insured women from the same communities tend to be admitted to Howard, Providence, and UMC. A similar map (Figure 9) shows the destination for self-pay/indigent patients—covering both men and women 18–64 in order to include sufficient numbers. Again, Howard, Providence, and UMC are more prevalent destinations, though George Washington also has an area of dominance.

FIGURE 8: HOSPITAL PATIENT DISCHARGE, MEDICAID VS. PRIVATE INSURANCE, FEMALES AGE 18-34

Inpatient Discharge Database, DC Hospital Association.
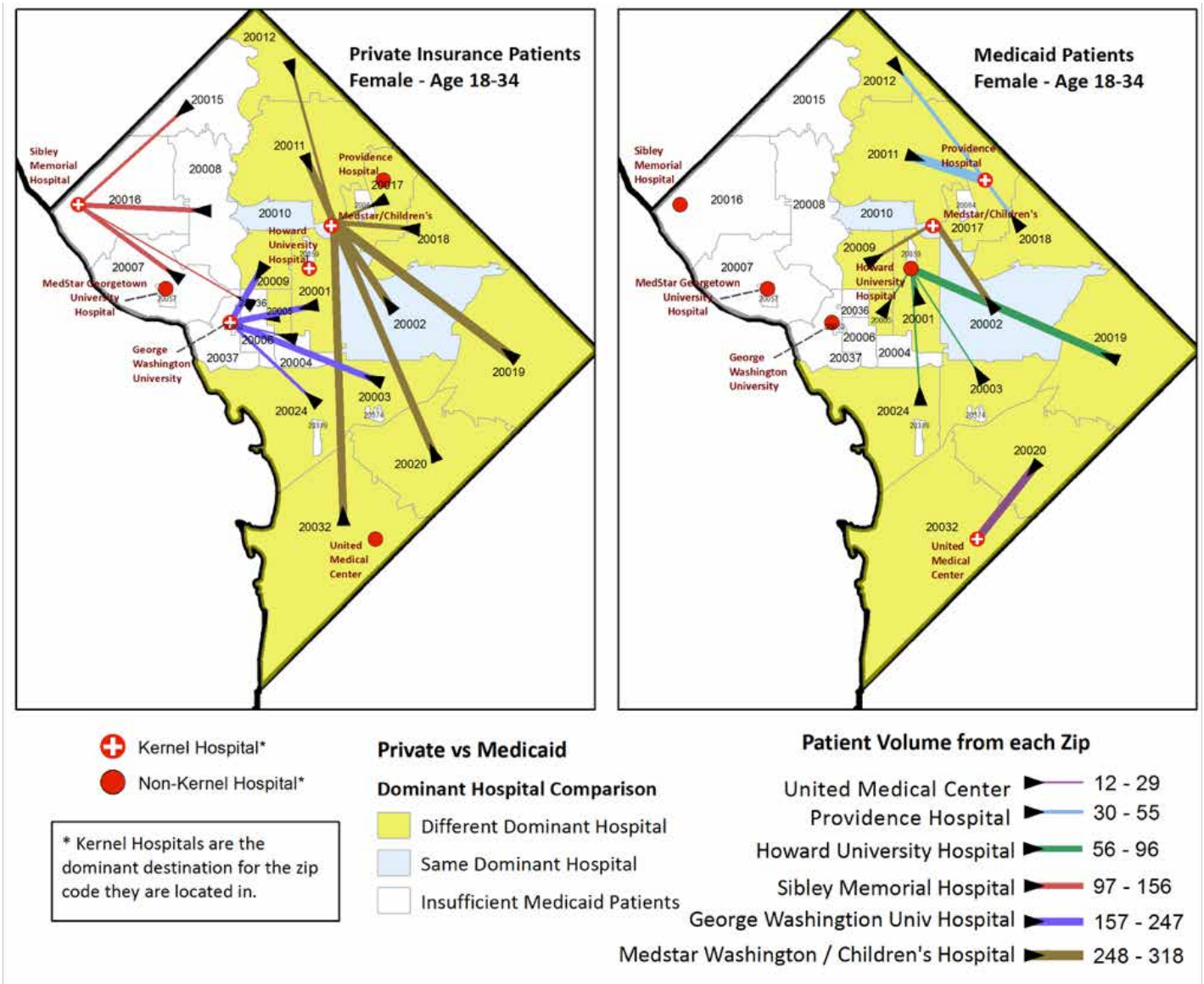
FIGURE 9: HOSPITAL PATIENT DISCHARGE, SELF-PAY/ INDIGENT PATIENTS, MALES AND FEMALES AGE 18-34
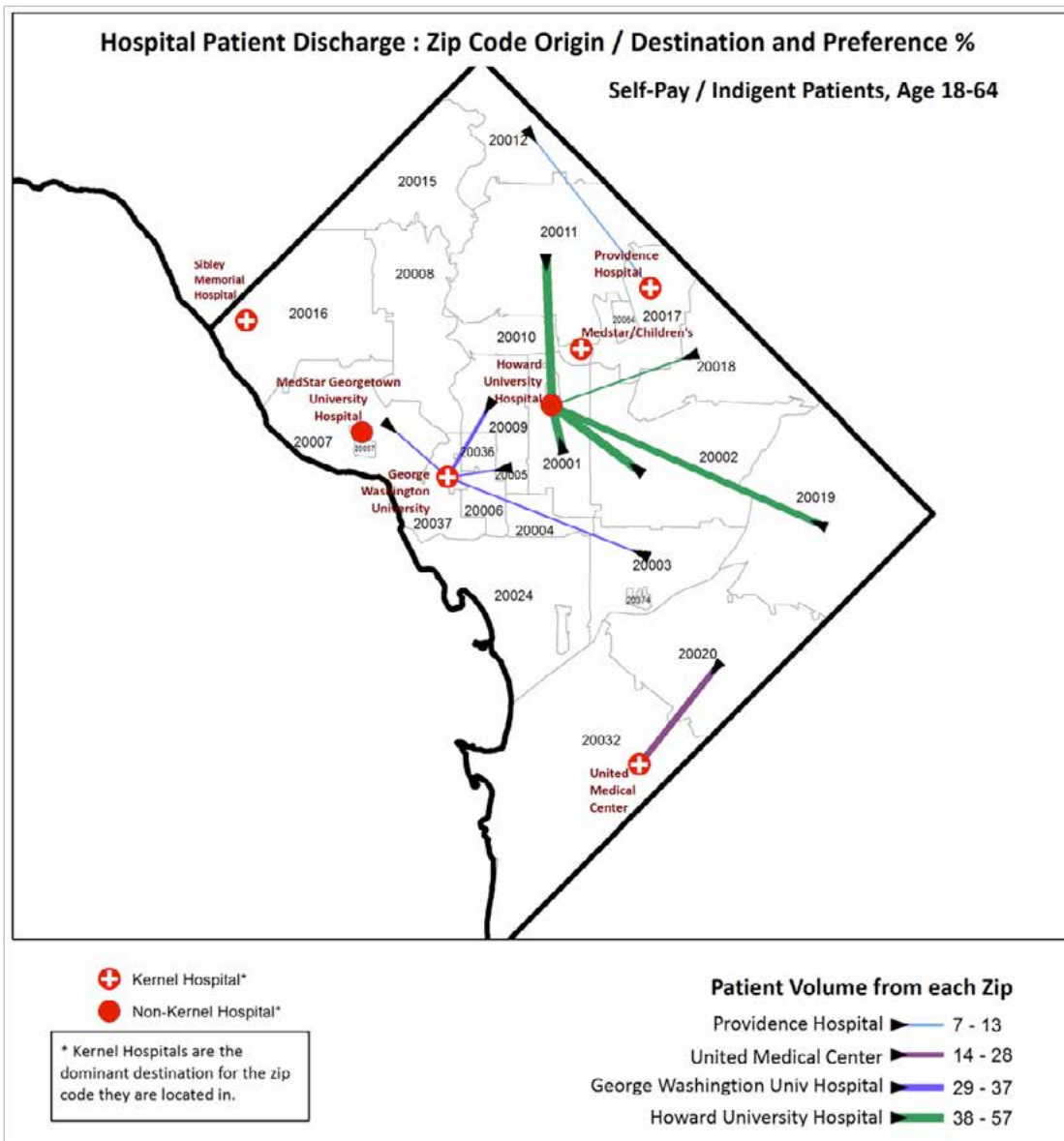
Inpatient Discharge Database, DC Hospital Association.

Ambulatory Care Sensitive Admissions

Figure 10 shows the proportion of total admissions for Ambulatory Care Sensitive (ACS) diagnoses on an age/gender adjusted basis using the DC population overall as the reference population. ACS admissions are less a reflection of inpatient services, and more a representation of admissions that are partially preventable with access to quality primary and outpatient care. Although population based rates are often used to study total and ACS

FIGURE 10: AMBULATORY CARE SENSITIVE HOSPITALIZATIONS

Inpatient Discharge Database, DC Hospital Association.
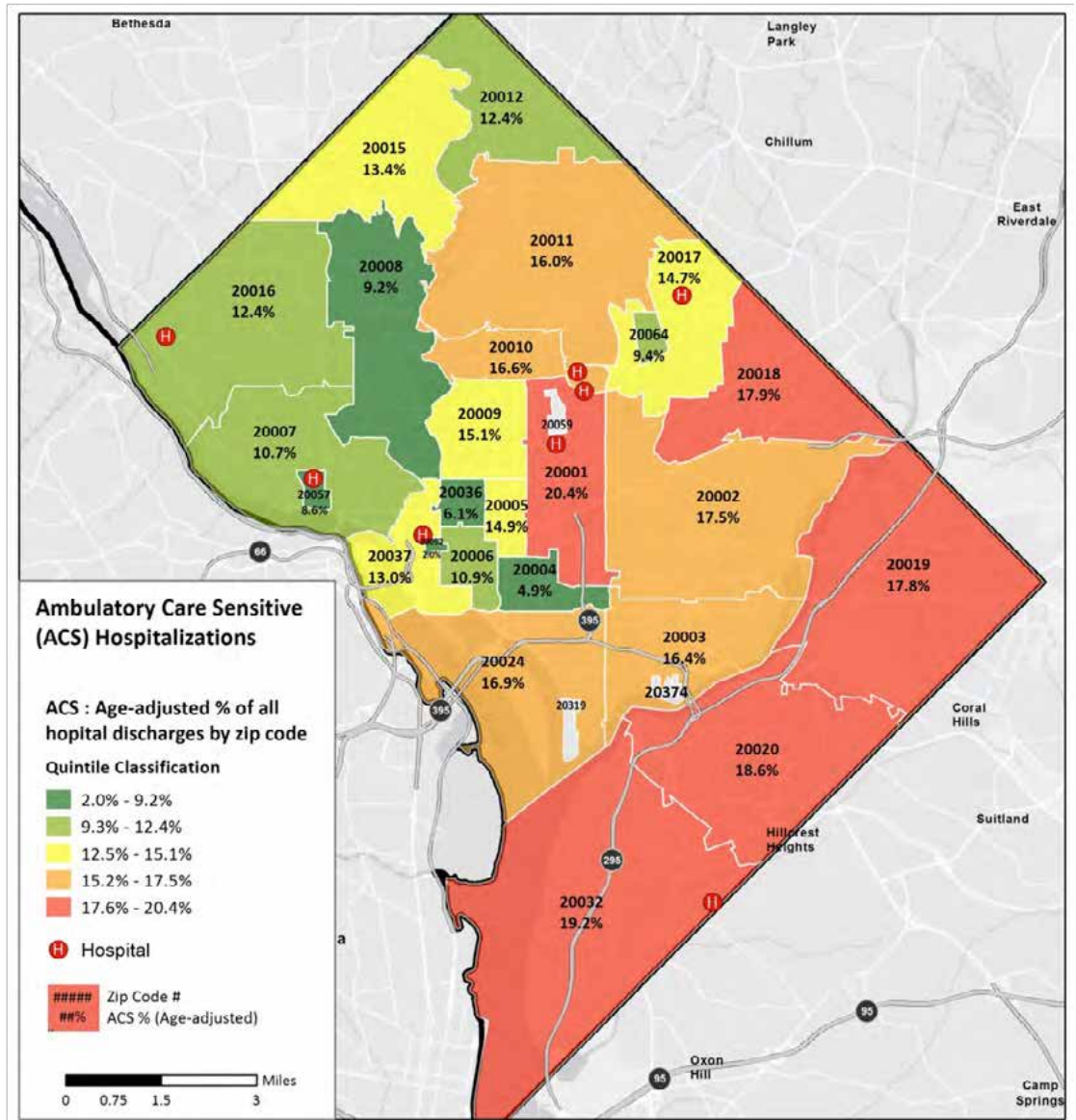
admissions, the rates calculated based on DC hospitalization data cannot be used directly, as they do not reflect admissions to facilities outside the District. As such, a proportional rate between total admissions and ACS admissions is the best indicator.

The results show a fairly distinct pattern: the lowest ACS rates are in the core of the city and areas to the northwest, including Georgetown, Palisades, Cleveland Park and Tenley-town. There are notably higher rates encircling the core to the east, with the highest ACS proportions in the communities to the east of the Anacostia River and from the Shaw area surrounding Howard University Hospital and east. The differences in the ACS proportions between the lowest and highest areas of the District are more than double. This reinforces the idea that there is a general lack of engagement in appropriate primary care services, possibly as a result of a lack of understanding or awareness of its importance or the impacts of the underlying social determinants of health.

Hospital Patient Diagnoses and Service Lines

Looking at the diagnosis and service categories, as provided in the hospital discharge dataset for each zip code area, can help determine the major reasons for inpatient visits and explore how they differ between communities. There are several approaches to examining the discharge data in this way. While individual diagnoses and diagnosis-related groupings are available, they are highly fragmented views of the broader patterns. As such, this section examines the Major Diagnostic Categories (MDCs) and Lines of Service to elicit the overall patterns in the data. Additionally, the analysis ranks the MDCs and Lines of Service within each zip code based on the frequency of admissions and the total number of days admitted, which can produce different ranking results. Below are tables showing the top MDCs and Lines of Service, ordered according to the average of that category's ranking by discharges among DC zip codes (each zip code equally weighted). The rank and count based on patient days is also shown for each line and highlights the degree to which the prevalence of each category/service changes according to that metric.

In terms of MDC, admissions related to Pregnancy and Childbirth are the most common reasons for admission. These services rank an average of fifth in terms of total days, however, due to a shorter average length of stay (Table 1). Diseases of the Circulatory System account for the most days and rank second in the list of most common cause of admissions. These two diagnostic categories rank as the first two diagnostic categories in nearly every zip code in DC. Regarding the top diagnostic categories by hospital days, Mental Diseases and Disorders are the highest in several zip codes and rank nearly equally with Diseases of the Respiratory System for the second most common category by days.

Similarly, Medicine and Obstetrics make up the top two lines of service in most of the zip codes in DC based on admission frequency (Table 2). These are followed by Cardiac Care, Respiratory, and Psychiatry. Looking at total days, Medicine ranks first in most zip codes, but the second ranked service varies significantly between Psychiatry (second ranked overall by days), Obstetrics, and Surgery. These top five service lines typically represent approximately two-thirds of admissions in each zip code in the DC area.

TABLE 1: DC HOSPITALS, MAJOR DIAGNOSTIC CATEGORIES, AVERAGE RANK BY DISCHARGES, 2014

Major Diagnostic Category	Avg. Rank by Discharge	Discharges	Avg. Rank by Days	Days
Pregnancy, childbirth, and the puerperium	1	9,325	5	27,040
Diseases and disorders of the circulatory system	2	8,199	1	48,181
Diseases and disorders of the respiratory system	3	6,177	3	34,210
Diseases and disorders of the digestive system	4	5,295	4	29,759
Mental diseases and disorders	5	5,094	3	35,332
Diseases and disorders of the musculosketal system and connective tissue	6	4,507	6	24,894
Diseases and disorders of the nervous system	6	4,310	5	27,356
Diseases and disorders of the kidney and urinary tract	8	3,289	9	18,767
Endocrine, nutritional and metabolic diseases and disorders	9	2,917	10	13,782
Diseases and disorders of the hepatobiliary system and pancreas	11	1,867	11	10,893
Infectious and parasitic diseases (systemic or unspecified sites)	11	2,157	8	20,866
Diseases and disorders of the skin, subcutaneous tissue and breast	11	1,847	11	9,467
Diseases and disorders of the blood, blood forming organs and immunological disorders	13	1,603	14	6,215
Injuries, poisonings and toxic effects of drugs	14	1,103	15	5,373
Alcohol/drug use and alcohol/drug induced organic mental disorders	14	1,091	16	4,396
Diseases and disorders of the ear, nose, mouth and throat	15	951	18	3,082
Diseases and disorders of the female reproductive system	17	651	19	2,478
Myeloproliferative diseases and disorders, and poorly differentiated neoplasms	18	435	16	3,622
Factors influencing health status and other contacts with health services	19	417	20	1,838
Human Immunodeficiency Virus nfections	19	492	15	4,944
Diseases and disorders of the male reproductive system	21	247	22	1,063
Newborns and other neonates with conditions originating in the perinatal period	20	302	17	3,210
Diseases and disorders of the eye	23	141	24	558
Multiple significant trauma	24	118	22	1,038
Burns	24	92	20	1,122

Inpatient Discharge Database, DC Hospital Association

TABLE 2: DC HOSPITALS, LINES OF SERVICE, AVERAGE RANK BY DISCHARGES, 2014

Service Line	Avg. Rank by Discharge	Discharges	Avg. Rank by Days	Days
Medicine	1	15,019	1	74,551
Obstetrics	2	9,322	5	26,963
Cardiac Care (m)	3	5,894	4	27,958
Respiratory	4	5,531	4.3	27,376
Psychiatry	5	5,087	2.5	35,002
Neurological (m)	6	3,549	7.6	20,220
Renal / Urology (m)	8	2,874	9	15,179
Diseases and disorders of the kidney and urinary tract	8	3,289	9	18,767
General Surgery	7	3,094	5	26,836
Other Surgery	10	2,027	6	24,755
Orthopedics (s)	8	2,392	9	12,494
Cancer Care (m)	12	1,190	11	8,927
Substance Abuse	12	1,086	14	4,300
Neurological (s)	12	1,126	12	7,963
Cardiac Care (s)	13	997	12	7,657
Women's Health	17	513	20	1,561
Trauma (m)	15	743	16.9	2,602
Orthopedics (m)	16.5	522	17	2,696
Renal / Urology (s)	17	509	16	3,309
Cancer Care (s)	19	313	17	2,360
Trauma (s)	19.5	309	16	2,928
Newborn	20	301	16	3,067
Ophthamlmology	22	139	22	539
Dental	22	90	23	243

Inpatient Discharge Database, DC Hospital Association

Hospital Service Capacity, Distribution, and Barriers to Care

The question of whether there are hospital service gaps or a maldistribution of hospital services in DC is complicated and depends on the type of hospital service. According to the assessment's key informants and community forum participants as well as the hospital discharge data discussed above, this question is also complicated by patient perceptions of quality and other factors related to insurance coverage, managed care contracting, narrow provider panels, and administrative barriers that can dictate where a patient can or cannot access hospital services. These factors, while unrelated to absolute service capacity, can present barriers that limit access and/or prevent patients from accessing services at their preferred service location in a timely manner.

Another factor to consider when answering questions related to service gaps, unmet need, or service maldistributions is travel time or distance. When exploring these issues in DC, it is important to note that relative to national standards and benchmarks, it is difficult to make the case that travel distance or travel times presents an absolute barrier to care. DC is a relatively small geographic area, covering approximately 70 sq. miles. It is approximately 10 miles from north to south and 7 miles from east to west, which means that the longest anyone is required to travel for hospital services is 4–5 miles or less, including travel to one of the downtown DC hospitals.

While there may not be any absolute barriers to inpatient hospital services, it is important to note that not everyone in DC is equally affected by travel times and distance. Interviewees and community forum participants stated that those living on the perimeter of DC, particularly in southeast, face more significant barriers to care than those living in other areas of DC. Many of these barriers are related to travel distances, transportation barriers (particularly at rush hour), cost, and cultural/linguistic barriers. For example, residents in the Ward 8 community forum reported that it can take more than an hour on multiple bus lines to travel the 3–5 mile distance between their home and their preferred hospital in the downtown area.

Further evidence of the distances that DC residents travel to access hospital services and the potential barriers that exist is provided in Figure 11, which analyzes DC hospital discharge data by patient origin. This map shows where residents in any given DC zip code are most likely to go for hospital services. The lines on the map show where the plurality (or the largest percent) of residents in a given zip code are most likely to go for their hospital services. A thicker line indicates a higher percentage of patients going to a particular hospital. The shaded blue areas on the map represent zip codes; the darker shades of blue signify high preference rates for residents. High preference rates mean there is a relatively high percentage of patients' going to the dominant hospital in a given zip code. Lighter shades of blue signify a low preference rate. This means that preference is more spread and that there is a relatively low percentage of patients from that zip code going to the dominant hospital. Note that there is considerable variation in the degree of preference, with the communities surrounding UMC, Howard, Providence, and Georgetown showing lower preference for their primary destination hospital. These patterns may be explained by geography and the availability of nearby facilities, but may also be driven by other factors as discussed below.

FIGURE 11: DC HOSPITAL DISCHARGES – DESTINATION AND PREFERENCE % BY ZIP CODE ORIGIN
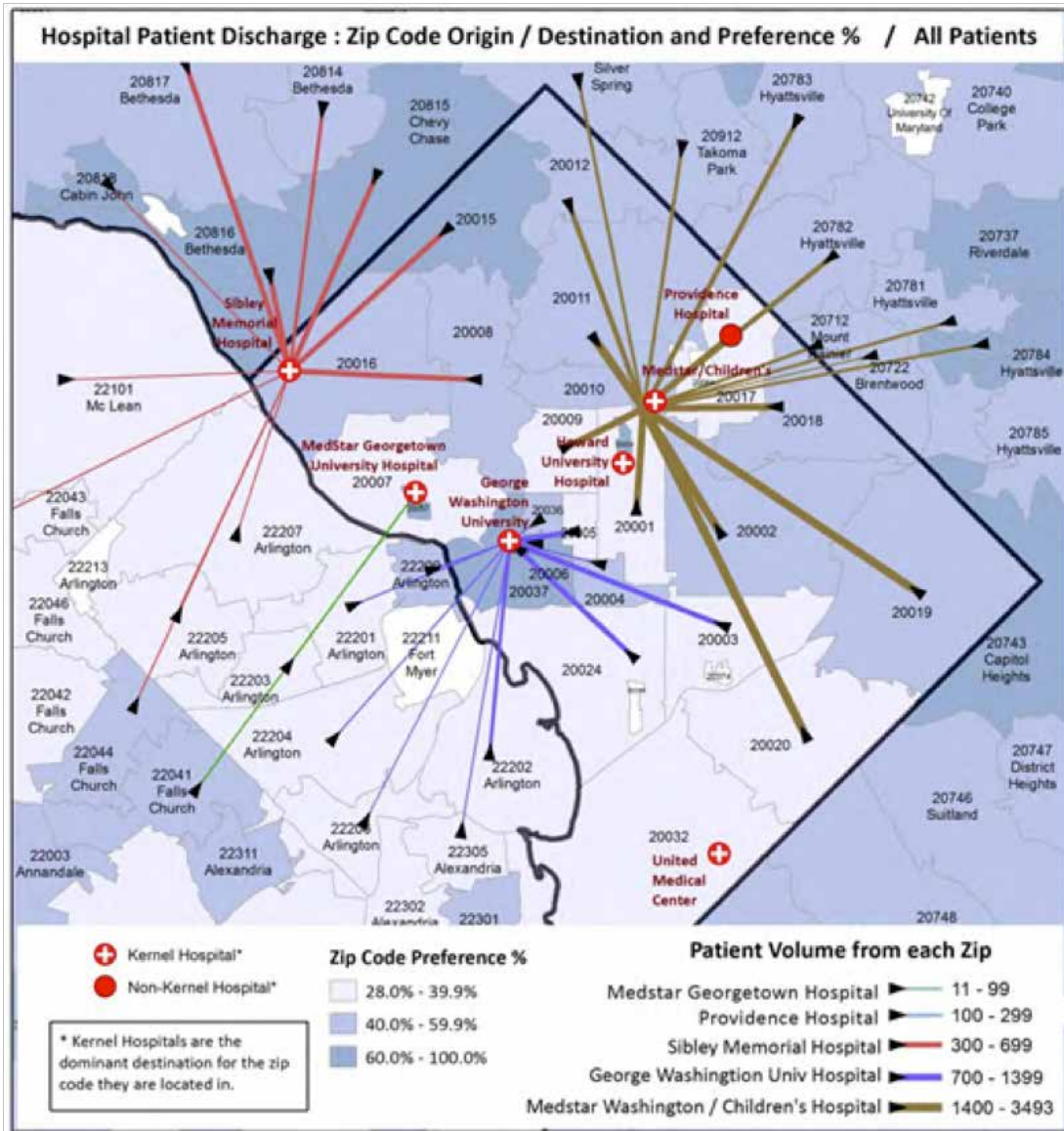
Inpatient Discharge Database, DC Hospital Association

Also of note is the fact that 'kernel' hospitals, symbolized as ✚, are facilities where the residents of the zip code that the hospital is in use it as their primary admission destination. As one would expect, this is true for most hospitals, with the exception of Providence Hospital, where residents of zip code 20017 travel in slightly greater numbers to the larger MedStar Washington Hospital Center facility nearby. This analysis shows overwhelmingly that hospitals in the central downtown part of DC are the preferred hospitals for residents in most zip codes, even when residents have hospitals that are significantly closer to them or lie between them and the downtown area.

The following is a more focused discussion drawing from the quantitative and qualitative data gathered for this assessment that clarifies the extent to which there are service gaps, maldistributions, or barriers to access with respect to hospital services in DC. This discussion is organized into three categories of service: inpatient, emergency, and outpatient services.

Inpatient Services

With respect to hospital inpatient services, there is considerable evidence to suggest that for DC overall there are no outright gaps in capacity or unmet needs for inpatient hospital services, at least when compared to national standards and benchmarks. In fact, data would suggest that there is a considerable oversupply of licensed hospital beds. In 2014, DC had the highest rate of hospital beds per 1,000 population in the nation, with a rate of 5.38.[106] DC's rate was more than twice the national rate of approximately 2.47 beds per 1,000 population.

Some might say that this analysis is confounded by the fact that DC is a medical hub that serves a much broader population than those living in DC. In 2014, according to DC hospital discharge data, approximately 40% of hospital discharges were related to patients who lived outside of DC. However, the high beds per 1,000 population rate combined with very low hospital occupancy rates seems to mitigate this factor and support an overall conclusion that currently DC does not face a shortage of hospital beds or unmet need in the District.

In 2014, the overall occupancy rates in DC, as articulated in average bed years, was only 53%.* This means that at any given time in 2014 only slightly over half of DC's licensed beds were being used. More specifically, hospital discharge data showed that in 2014 on average only 1,743 of DC's 3,298 hospital beds were being used at any given time. Note that licensed beds do not necessarily equate to beds in operation, but the licensed capacity is the established service limit and the parameter under the control of the DC DOH.

Occupancy rates were calculated by comparing the licensed bed counts to bed utilization as reflected in the 2014 DC hospital discharge data set. This comparison is based on the most recent hospital licensing certificates from 2016, compared to bed years (inpatient days/365) from the 2014 inpatient data. According to the DC DOH, licensed bed capacity has not changed significantly between 2014 and 2016. To permit comparability between licensed bed categories and the hospital lines of service in the discharge data, crosswalk tables were created that assigned beds and discharges to common categories that would likely reflect the bed utilization to the degree possible across all institutions. See Appendix E for the crosswalk tables and Appendix F for charts of licensed beds and bed years utilized for each facility.

Also, the occupancy rate in the bed years calculation represents the minimum possible measure of bed utilization, as it assumes no 'down time' in between admissions to that bed. Similarly, 100% utilization of licensed capacity is not a practical expectation. While there is no clear national standard, typically one assumes that a cushion representing 10–15% of total occupancy is necessary and that if a hospital's occupancy rate is 85–90% then the hospital is operating at or near full capacity with respect to inpatient services. The current occupancy rate of 53% is well below this standard, thus adding to the idea that, at least overall, absolute bed capacity for DC is not the primary issue.

It is important to note that three hospitals in the District appear to be operating close to capacity at approximately 75% of licensed Med/Surg classified capacity. Interestingly, the largest facility in DC, MedStar Washington Hospital Center with 775 Med/Surg classified beds, and adjacent Children's National Medical Center, are among these, along with the George Washington University Hospital. Together these three hospitals represent 45% of the total Med/Surg classified beds in the District. MedStar's Georgetown University Hospital (533 Med/Surg classified beds) is the next most heavily utilized at 56%. All of the remaining facilities show Med/Surg utilization below 50% of licensed beds, including UMC (43% utilized), Providence (36% utilized), Sibley (31% utilized), and Howard (27% utilized). Overall, 55% of the Med/Surg classified licensed beds were utilized based on the direct calculations.

Ob/Gyn licensed beds showed similarly large variation in utilization. MedStar Washington and George Washington University Hospital both had utilization over 75% (78% and 76%, respectively). Sibley had 63% utilization, Providence and UMC both showed utilization in the low 30% range, and MedStar Georgetown and Howard were both at 19% utilization. Overall the Ob/Gyn bed utilization rate was 44%. Psychiatry beds showed considerably higher utilization across nearly all hospitals in DC. Overall psych beds showed 64% utilization of licensed capacity. The exception is Howard University Hospital, where utilization of its 26 licensed beds was 25%. All other hospitals had utilization above 60%, with MedStar Georgetown and Children's hospitals exceeding 70% utilization and George Washington University Hospital at 80% utilization. While MedStar Washington had the largest licensed psych bed capacity (57 beds), the psych bed capacity was generally distributed more evenly across hospitals than capacity for other services.

There are only two hospitals with Alcohol/Chemical dependency beds licensed, with Providence the largest at 31 beds and MedStar Washington Hospital Center at 22 beds. Interestingly, both facilities showed low utilization rates for these beds (16% and 14%, respectively). It is important to note, however, that other facilities showed low levels of admissions under the Substance Abuse line of service. Sibley, UMC, Georgetown, and Howard each showed one bed year of utilization for Substance Abuse, and George Washington showed two years of utilization. As a result, overall utilization of Alcohol/Chemical Dependency licensed beds in DC was 26%.

Despite the conclusion that there are no absolute service gaps in hospital services, there is evidence that suggests hospital beds are maldistributed, which presents barriers to access for certain segments of DC's population. These barriers, along with other administrative

factors, hinder patients from accessing their preferred service provider in a timely manner. It is clear these factors and many of the core findings from this segment of the assessment augment the underlying idea that major inequities exist depending on where one lives in DC. However, it is not clear that merely redistributing hospital inpatient services will address these barriers or that the relatively incremental benefit that may result from redistributing access will add enough value to justify the expense and possible implications on the overall health system. Additional research is required to explore the specific types of investments that should be made to address the maldistribution and existing barriers.

Outpatient Medical and Surgical Services

In addition to providing inpatient and emergency services, hospitals are often the hub for a broad range of other specialized outpatient specialty and diagnostic services for those with acute, chronic, or complex illnesses or injuries. These specialized outpatient and diagnostic services are often provided directly on hospital campuses or in close proximity to hospitals. The quantitative and qualitative data collected and analyzed for the primary care and hospital inpatient analyses have clearly shown that large numbers of patients are traveling from DC's outlying areas into central DC for care. As a result, large proportions of the population travel significant, time-consuming distances, which for many cause a barrier to care and lower engagement.

A clear finding from this assessment is the need to improve access to outpatient medical specialty care and possibly outpatient surgical services for those in DC's outlying areas, such as Wards 7 and 8. Primary care services, as well as behavioral health and post-acute services, seem well distributed and available. However, the data suggests that when it comes to services that are typically provided by hospitals, patients are opting to travel into central DC for care. Hospitals and community-based primary care providers need to work together to explore how to best enhance access to these services in more accessible community settings.

Hospital Emergency Services

Hospital emergency departments play a critical role in the U.S. health care system. Their primary role is to serve those with acute conditions that are either life threatening or that could lead to permanent impairment. However, hospitals also play a critical role as a provider of last resort for those who need non-emergent primary care services and either do not have a usual source of primary care in the community or are unable to access their regular primary care provider because the practice is full, not open when needed, (e.g., after-hours or weekends), or otherwise inaccessible. Recent research has also shown that emergency departments are being used increasingly as an advanced diagnostic center for primary care physicians who are not able to provide these services on their own.[107] Finally, some research has shown that emergency departments play an important role preventing unnecessary hospital admissions or readmission, particularly for patients with ambulatory care sensitive conditions that are typically better addressed in the primary care setting. Most emergency departments, including those in DC, are in the process or have already rolled out emergency department triage or diversion programs aimed at linking patients who are seen in the emergency department to a regular primary care provider, if they do

ers across all sectors but arguably affect hospitals more than most due to the breadth of hospital services, which increases the need to integrate and coordinate care. Hospitals can have a greater ability to impact the system and their patients, which can present both risks and opportunities. This is particularly true in light of the service delivery and payment reforms underway, which increasingly reward or penalize hospitals depending on how well they perform relative to patient outcomes and care processes.

Hospitals have made significant progress in recent years with respect to coordinating their efforts with other providers and stakeholders. For example, hospitals have worked with primary care providers to control inappropriate emergency department utilization. They have also worked with managed care organizations to manage care for high utilizers of hospital inpatient and emergency services utilization. Furthermore, hospitals have worked with various post-acute care providers to facilitate smooth care transitions. Finally, there is evidence that hospitals have worked with community-based organizations, such as homeless organizations, to address food access and other underlying determinants through various community benefit efforts. However, there are still numerous opportunities to reduce fragmentation and better coordinate and integrate services.

Hospital Care Transitions and the Reduction of Inappropriate Hospital Readmissions

As will be discussed in greater depth in the next section, reducing inappropriate hospital readmissions is a critical component of improving quality of care and lowering health care spending. Improving care transitions and the ways that hospitals, patients, families or caregivers, post-acute service (PAC) providers, and other community partners work together is critical to this effort. Hospitals, in partnership with other providers, have made great strides to identify triggers of inappropriate readmissions as well as to implement initiatives that have improved care transition. Despite these efforts, transitions can be challenging. There is considerable variation regionally with respect to the rates of discharge to different PAC settings and there is even more variation with respect to discharge patterns by payer class, demographic characteristics, and other factors. Efforts need to be made to improve the care transitions process and develop data-informed pathways that promote recovery and reduce costly, debilitating, or inappropriate hospital readmissions.

Inappropriate Emergency Department Use and Engagement in Primary Care

Hospital emergency departments play a critical role in our health system by providing life-saving treatment to those with emergent needs. They also provide a significant amount of non-emergent primary care services to those who either do not have a regular primary care provider or who, for a variety of reasons, are unable to get the care they need. In this way, hospital emergency departments also play a critical role as part of the primary care safety net. Data from the assessment shows that DC residents use hospital inpatient and emergency department services for conditions that are better served in the primary care setting at very high rates. Continued efforts need to be made to reduce this inappropriate utilization so as to reduce the overall costs of care and promote patient engagement with a primary care medical home.

Access to Outpatient Medical Specialty Care Services

There is evidence of service gaps and provider shortages in medical specialty care services and possibly outpatient surgical services, particularly for low-income residents living in DC's most underserved communities. Low-income residents in these communities face barriers to care that limit their access and prevent them from engaging in the care they need in a timely manner. Hospitals need to work collaboratively with other service providers to expand access, better distribute services in DC's underserved communities, and reduce existing barriers to care.

Continued Focus on Population Health, Preventive Services, and Wellness

Hospitals are evolving rapidly into broad, integrated delivery systems that are increasingly focused on preventing illness, promoting wellness, and better managing those with chronic or complex conditions rather than being focused on simply treating those who are ill. This shift in approach should continue, and hospitals in DC need to explore ways to expedite this shift by partnering with service providers, community organizations, managed care providers, and other stakeholders on efforts aimed at addressing social determinants of health, preventing illness, and managing chronic disease.

Administrative Barriers to Care

There is both quantitative and qualitative data to suggest that some patients are unable to access the care they need with their preferred providers due to administrative barriers related to insurance coverage, managed care contracting, insurance enrollment, or insurance renewal practices, among other factors. Efforts should be made to better understand these issues and develop policies or other initiatives that allow residents, to the greatest extent possible, to access the care they need in the right time and place.

Continued Participation in Health Service Delivery and Payment Reform Initiatives

Hospitals and integrated delivery systems are at the heart of health reform and the development of innovative models of care that promote quality, improve the patient experience, reduce health care costs, and lessen the burden currently experienced by service providers. DC's hospitals participate in numerous innovative service delivery and payment reform initiatives that are promoting collaboration, improving how care is delivered, and facilitating more effective ways to pay for care. However, if DC is going to improve overall health status and address the disparities and inequities that exist for many people, then hospitals need to collaborate with necessary stakeholders to continue to participate in nationally implemented initiatives.

Multi-sector Collaboration and Service Coordination

There is a growing appreciation and emerging evidence that shows the importance of multi-sector collaboration and community partnerships. These evidence-based programs rely on multi-sector collaboration and thoughtful coordination of a range of services. As has been discussed in past section and will be discussed in future sections, it is essential that multi-sector coalitions be developed and sustained to provide a forum to explore and implement evidence-informed strategies that improve care coordination, reduce

fragmentation of services, support patient/provider communication, enhance primary care and specialty care follow-up, and promote smoother care transitions. These forums already exist to some extent in DC, but they are often isolated by sector or service provider type. These coalitions and professional organizations need to be formally brought together and encouraged to work more collaboratively.

PRIMARY CARE AND SPECIALTY CARE SERVICES

The DC Department of Health's Primary Care Bureau (PCB) oversaw a Primary Care Needs Assessment (PCNA), which was completed in July 2017. The PCNA characterizes DC's primary care system in significant detail, including in-depth information regarding the overall strengths of the system and the extent to which there are service gaps and barriers to care for DC residents. The following is a detailed but initial review of key findings from the leading datasets. More nuanced findings and conclusions are included in the PCNA.

Overview

There is increasing awareness of the importance of a strong, patient-centered health system that is able to provide comprehensive primary care – preventive, acute care, and chronic disease management – services to all segments of a region's population. Over the past 20 years, dozens of service delivery and payment reform initiatives have been implemented to strengthen primary care; these efforts aim to ensure that primary care systems are capable of fully engaging all population segments and provide high quality, integrated, well-coordinated, patient-centered care.

There is ample research that shows the effects of primary care and its ability to prevent or manage illnesses before they become severe and impair health status. The availability of high quality, patient-centered, and accessible primary care has been shown to reduce preventable hospital emergency department visits and inpatient stays, as well as reduce the need for costly tests and specialty care services. Those with a regular primary care provider are more likely to receive vital health education and the preventive services that are necessary to preventing and managing illness. Finally, research shows that a strong primary care system enhances the overall performance of health systems with respect to outcomes and costs.[108]

Another indicator of a strong primary care system is the extent to which practices that are part of a system work collaboratively amongst themselves and with other clinical and non-clinical stakeholders across the service continuum, including public health, community health, hospitals, behavioral health providers, and post-acute providers. While collaboration is critical regardless of the type of health service provided, the fundamental nature of primary care makes it even more important that there are efforts made to allow for communication, collaboration, and coordination of their services across the health system, defined broadly. This is especially important in the context of a region's "safety net" system, given the needs and challenges facing low-income, underserved, and vulnerable populations who are more likely to face barriers to access and disparities in health-related outcomes.

Finally, an indicator of a strong primary care system is the extent to which practice sites are recognized as "medical homes," and deemed capable of providing care that is high

quality, patient-centered, comprehensive, well-coordinated, and accessible. The "medical home" model encourages close partnerships between patients, primary care providers, and the full breadth of health-related stakeholders to ensure that individuals and families are able to navigate an increasingly complex health care system.[109] Concepts that are at the core of a primary care medical home are:

- Including patients in treatment decisions.

- Making care available after regular office hours, such as evenings and weekends.

- Following up with patients after an office visit to ensure patients are able to act upon and follow the guidance of their primary care provider, such as book follow-up appointments and understand prescription drug refills.

- Supporting patients with complex/chronic conditions to manage their health and reduce risk factors.

- Coordinating and integrating the full breadth of services that patients need to stay healthy and/or manage their health and well-being.

Characteristics of the District of Columbia's Primary Care System

As is the case with most components of DC's health system, there is a diverse and geographically well-distributed network of primary care practice sites that provide a comprehensive array of high quality, well-integrated, and coordinated services to residents of DC and beyond. DC is recognized as a regional hub for health care services and has one of the strongest and most comprehensive primary care safety net systems in the nation; however, not all DC residents are fully engaged in appropriate primary care or have unfettered access to services. On the contrary, as will be discussed in-depth below, large portions of DC's population are not engaged in needed primary care services, struggle to access care when and where they want it, and face startling disparities in health-related outcomes despite the availability of health resources.

While there may be isolated gaps or shortages for certain geographic, demographic, and socioeconomic segments of the population—discussed in more detail below and in much greater detail in the PCNA —these shortages are not the most glaring or dominant health system issues. Based on the assessments findings, factors such as lack of engagement in appropriate care, coordination of care across service providers, integration of clinical, behavioral health, and non-clinical services across the system, administrative barriers related to insurance coverage, health literacy, and a general lack of awareness of prevention and other health risk factors have a greater impact on overall community health. Perhaps even more influential is the impact that social determinants of health such as poverty, food access, poor/unsafe housing, transportation, crime and violence, and access to recreational assets have on a communities ability to maintain their health.

DC's primary care network can be segmented into four major categories: (1) federally qualified health centers (FQHCs), (2) hospital-operated or affiliated practices, (3) private sector practices, and (4) specialized, multi-service organizations that provide primary care services to specific vulnerable subsets of the population. A primary care provider survey was conducted as part of the PCNA. This survey compiled extensive quantitative and

qualitative information from 20-25 primary care practice organizations that are considered to be the core of DC's primary care system. The list of survey respondents was not meant to be all-inclusive, and the survey effort was not able to capture detailed information consistently from all survey participants. However, important information was gathered to characterize the primary care system and identify the system's strengths, weaknesses, and challenges. Information from this survey is described in detail in the PCNA. Below are brief descriptions of each of the four core components of the District's primary care system, referenced above, as well as discussions of the strengths and major challenges with respect to primary care in DC.

Federally Qualified Health Centers

DC has a network of eight FQHC grantees that operate 56 approved service delivery locations (52 located within the District). Figure 12 shows the location of FQHC grantees and their network of service delivery locations. Collectively, DC FQHCs provided services to approximately 170,683 unduplicated patients in calendar year 2015, which represents 26% of DC's population overall.

Table 3 shows the demographic profile of DC's FQHC patients by organization. These providers are at the core of the safety net system and are well distributed throughout the District, particularly in communities with high proportions of low-income residents. The majority of FQHC patients are low- income, with most grantees reporting that 90-95% of their patients live in low-income households earning less than 200% of the federal poverty level (FPL). Most are insured through Medicaid, the DC Healthcare Alliance, or are uninsured. In many of DC's wards, FQHCs provide care to more than 50% of the ward's population, and more than 80% of a ward's low-income population. Maps 1-4, located in Appendix G, show the degree to which the FQHCs collectively served various segments of the population in 2015.

FQHCs are required to provide a broad range of on-site preventive, acute, and care management services, and oral health, behavioral health, and obstetrics/gynecological services either on-site or via referral arrangements. They are also required to provide case management services and coordinate care for individuals with chronic diseases. Many of DC's FQHC grantees also provide a broad range of social and community health services that address many of the underlying determinants of health that are at the heart of the disparities that exist in DC.

One of the strengths of DC's primary care system is the extent to which certain providers are able to tailor their services to specific segments of the population in ways that promote engagement, enhance access, and improve the quality of care. For example, La Clinica del Pueblo and Mary's Center provide bi-lingual and bi-cultural services that are specifically tailored to meet the needs of Spanish-speaking populations, and thus, see a large portion of DC's Hispanic/Latinx community. Mary's Center also serves a large share of DC's other immigrant populations, such as those from Ethiopia. Most of the other FQHCs serve predominately Black/African Americans and have developed services and operations geared to this population. Whitman-Walker, while it does provide an array of services for

all segments of the population, has particular expertise in providing services to the LGBTQ population, and those with HIV/AIDS. FQHCs are required, per federal statute, to provide services to all patients regardless of their ability to pay, and typically target low-income populations and segments of the population who are typically underserved and face disparities, such as racial/ethnic minorities, refugees, and recent immigrants.

FIGURE 12: FQHC GRANTEES AND SERVICE DELIVERY SITES, 2015
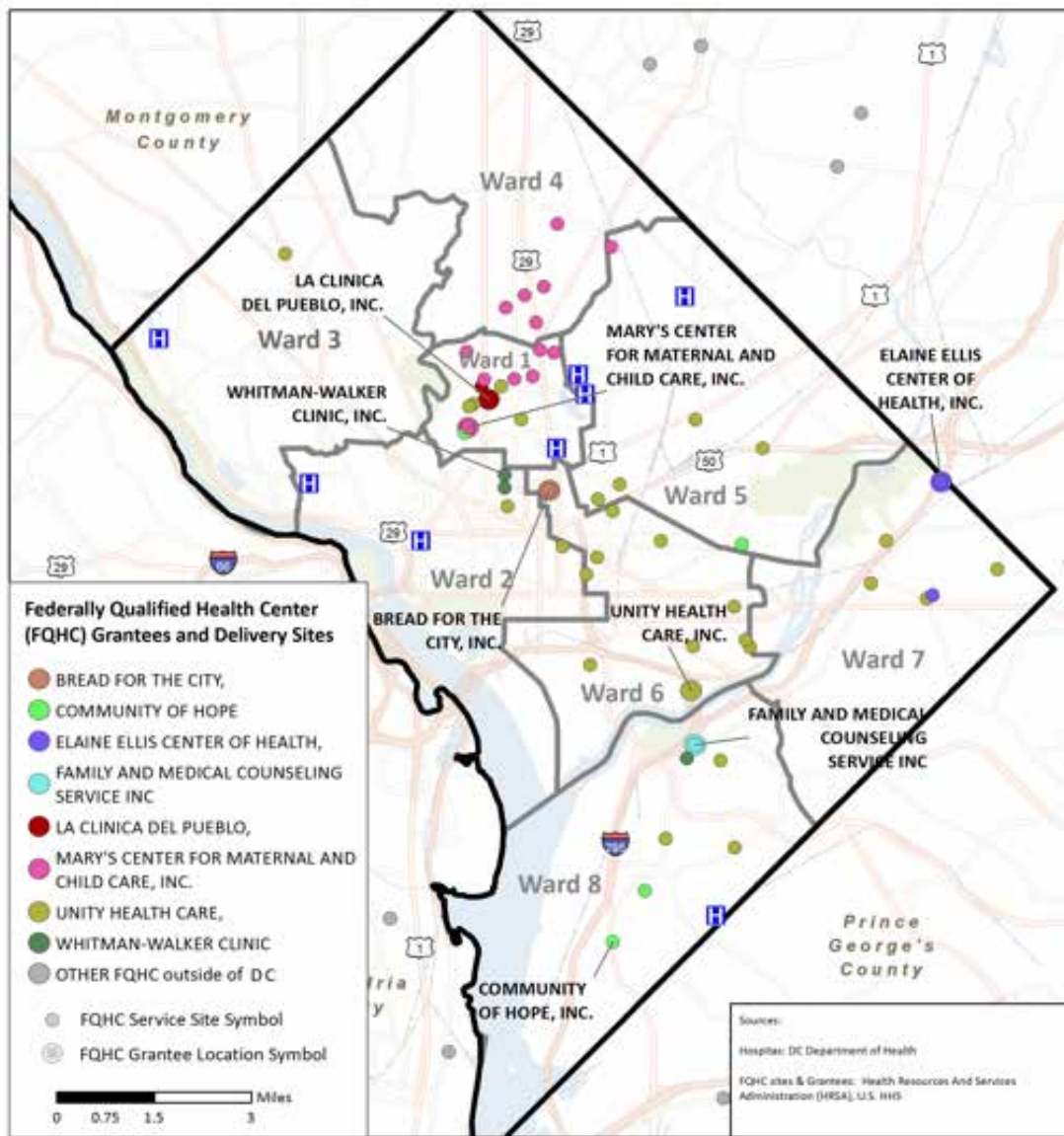
DC Department of Health (Hospital locations); US Department of Health and Human Services, Health Resources and Services Administration (FQHC sites and grantee locations)

TABLE 3: DEMOGRAPHIC PROFILE OF DC FQHC PATIENTS BY ORGANIZATION, 2015

Health Center Name	Total Patients	% Low Income	% Below Poverty	% Uninsured	% Medicaid/ CHIP	% Medicare	% Other Third Party	Racial and/or Ethnic Minority	Hispanic/ Latinx Ethnicity	Black/ African American
Bread for The City	2,488	95.17%	77.92%	21.14%	49.92%	15.80%	13.14%	96.04%	15.78%	83.26%
Community of Hope	9,825	91.38%	75.10%	7.79%	70.36%	4.04%	17.81%	93.92%	11.27%	82.76%
Elaine Ellis Center of Health	1,280	87.30%	67.45%	4.45%	87.81%	3.13%	4.61%	96.67%	1.49%	95.53%
Family and Medical Counseling Services	2,326	96.13%	86.45%	26.61%	57.22%	11.74%	4.43%	98.31%	2.16%	93.54%
La Clincia del Pubelo	3,304	94.07%	47.21%	28.57%	31.42%	7.11%	32.90%	98.88%	92.25%	38.46%
Mary's Center for Maternal & Child Care	36,636	98.00%	64.94%	39.10%	44.27%	1.09%	15.55%	95.04%	70.67%	22.50%
Unity Health Care	106,469	92.91%	74.05%	13.83%	58.78%	7.61%	19.77%	97.43%	19.40%	85.31%
Whitman-Walker Clinic	8,310	66.98%	50.84%	14.87%	33.89%	11.31%	39.93%	66.85%	15.35%	50.41%

HRSA/BPHC Health Center Program Grantee Data, 2015.

Hospital-based Outpatient Primary Care Practices

All eight of the DC's acute care hospitals offer primary care services either through hospital-owned and operated practice sites (and in some cases a mobile van), or through practice sites that are closely affiliated with hospitals. These practices serve primarily those that are Medicare or commercially insured. However, a number of hospitals operate practices that serve large numbers of Medicaid enrollees and play an important role in DC's primary care safety net. DC is a regional hub for health care services and, as such, a large number of residents from outside DC are served by these practices. These sites are predominantly located in central DC, as most of DC's hospitals are located in this area. More extensive information on the exact capacity of these outpatient clinics is provided in the PCNA.

Private Solo and Group Primary Care Practices

There are hundreds of private solo and group practices in DC that provide primary care services to residents. Like the hospital-operated or affiliated practices, these sites primarily serve those who are Medicare or commercially insured, and serve a large number of

residents from outside of the District. These practices are widely distributed but are more likely to operate in DC's more affluent communities. There are a small number of private practices that serve significant numbers of Medicaid insured patients and play an important role as part of DC's safety net. More extensive information on the capacity of these clinics is provided in the DC PCNA.

Categorical Service Providers

Finally, a small number of organizations provide primary care services to targeted subsets of DC's population. As mentioned above, Whitman-Walker Health provides specialized services to those with HIV/AIDS in DC, Maryland, and Virginia. Other organizations that provide primary care services to specific components of the population include: (1) Planned Parenthood of DC, which has a practice site in DC as well as practice sites in Maryland and Virginia, and (2) DC Health Care for the Homeless program, which operates through a network of practice sites throughout the District.

Primary Care Capacity

Based on data collected by the American Medical Association and provided by the American Association of Medical Colleges (AAMC), DC's rate of physicians (of all types) per 100,000 was the highest in the nation.[110] In fact, at 849 physicians per 100,000 population, DC's rate is more than three times the national rate of 266. Maryland's and Virginia's rates were comparable to the national rate with Maryland's rate being slightly higher than the national rate at 371 and Virginia's rate being slightly lower than the national rate at 256. Looking specifically at primary care physicians, the patterns are very similar, though not quite as extreme: in 2014, DC's rate of primary care physicians per 100,000 population was 235 compared to the national rate of 91. In comparison, Maryland's rate of primary care physicians per 100,000 population was 114 and Virginia's was 90. When considering this information, it is critical to note that DC is unique given that is a small, urban, metropolitan area that serves as a health care hub for the region. As discussed above, more than 40% of DC's hospital discharges are for those that live outside the District. DC also has many non-practicing physicians who are health care advocates, researchers, policy makers, and/ or academics. Nonetheless, the magnitude of the difference in rates are striking and worth noting.

The PCNA draws information from a far more comprehensive and more rigorously cleaned dataset of DC's primary care clinicians (MDs, NPs, and PAs) compiled through a survey of licensed clinical providers. As such, the PCNA is able to provide more detailed information on the demand and capacity for primary care services in DC. This data does not dispute the idea stated above regarding the overall capacity of primary care services in the District. Namely, while there may be isolated gaps or shortages for certain geographic, demographic, and socioeconomic segments of the population in DC, these isolated gaps or shortages are not the most glaring or dominant health system issues.

Determining whether there are isolated geographic gaps or gaps for certain demographic segments of the population is challenging and somewhat imprecise; perhaps even more challenging is determining the most appropriate course of action for the District to take

in addressing the isolated gaps identified by the PCNA as part of a comprehensive and long-term strategy for promoting community health improvement and health equity. A number of organizations have considered or are currently planning expansion projects that would increase access to primary care in certain communities, with the aim of addressing barriers and promoting engagement in care. While these efforts might improve access incrementally, one might argue that it does so at the expense of other organizations, or that expansion efforts create redundancies that are not necessary, or that the efforts may, in fact, undermine long-term efforts to create a diverse, comprehensive system of care. Information gathered and presented in the PCNA provides additional information to guide these decisions. What seems clear is that while adding additional primary care capacity in DC may have a beneficial impact on access and promote engagement in care, there are a range of other factors that, collectively, may have an even greater impact on primary care access, on the strength of DC's primary care system, and on the overall well-being of individuals and families in DC.

Primary Care Engagement

One clear finding from both the assessment's quantitative and qualitative data is that large portions of DC residents struggle to engage in appropriate care. The strongest evidence of this can be gleaned from a review of Medicaid data related to primary care visits. Figure 13 shows the percent of Medicaid enrollees from each zip code that had at least one primary care visit in 2014. More specifically, Figure 13 shows that in the DC communities that face the most significant disparities in health-related outcomes, as many as 50% of Medicaid enrollees are not accessing appropriate primary care and preventive services in a given year. Interestingly, and somewhat counter-intuitively, the engagement rates for Medicaid enrollees in Southeast DC (Wards 5, 6, 7, and 8), where the most significant disparities in outcomes exist, are among the highest rates in DC. In these wards, 50–57% of Medicaid enrollees have at least 1 primary care visit. Alternatively, the engagement rates for Medicaid enrollees in Northwest DC (Wards 1, 2, 3, and 4), where there is more affluence, are generally lower, ranging from 33–58%. This shows that Medicaid enrollees living in more affluent communities in Northwest DC are less likely to access care than those living in Southeast DC. This variation could be due to the relative lack of Medicaid providers in the Northwest region, to the extensive outreach efforts that occur in in the Southeast, or to the lack of outreach and messaging to the thinly dispersed group of Medicaid enrollees in the Northwest. It may also be influenced by the shorter enrollment periods for those that live in Northwest DC, assuming that they might be less persistently reliant on Medicaid. Regardless, the fact that 40-66% of Medicaid enrollees living in some wards are not engaged in care is striking.

This finding was corroborated by those were interviewed for the assessment and those who participated in community forums. Nearly everyone that was interviewed for the HSP and the PCNA cited the challenges that DC's most disadvantaged residents faced when trying to access care; the challenges cited most often were not related to capacity of services, but were linked to social determinants and barriers that hindered access and/or prevented low-income residents from making their health or the health of their family a priority.

FIGURE 13: DC MEDICAID ENROLLEES, PERCENT WITH 1+ PRIMARY CARE VISITS, 2015-2016
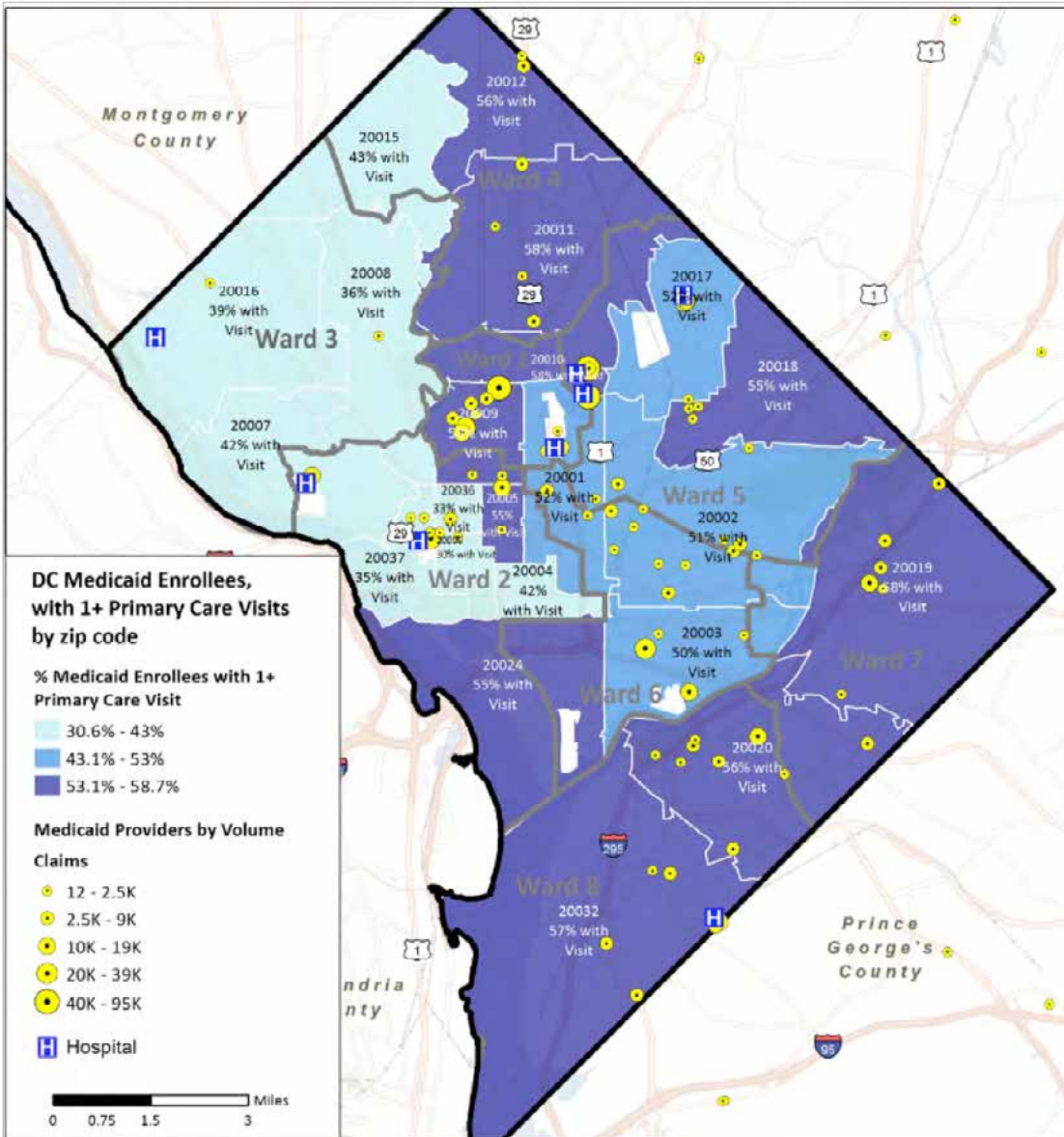
DC Department of Health Care Finance - Medicaid Claims Data Extract, June 2015 to May 2016.

Figure 14 shows the average number of annual primary care visits per Medicaid enrollee, by zip code, in 2014. Here again, there is consistency in the utilization patterns of Medicaid patients coming from the Southeastern areas of the District where the bulk of the Medicaid population resides. The number of primary care visits per patient were reasonably high,

falling between 3.6 to 4.0 primary care visits per Medicaid enrollee who had at least 1 visit. Similar to the portion of Medicaid enrollees that were not engaged in care at all (See Figure 13), the frequency of visits for Medicaid users of services in Northwest DC were marginally lower, ranging from 3.4 to 3.5 visits per enrollee. The reasons noted above may also apply here.

FIGURE 14: DC MEDICAID ENROLLEES, PRIMARY CARE VISITS PER PATIENT
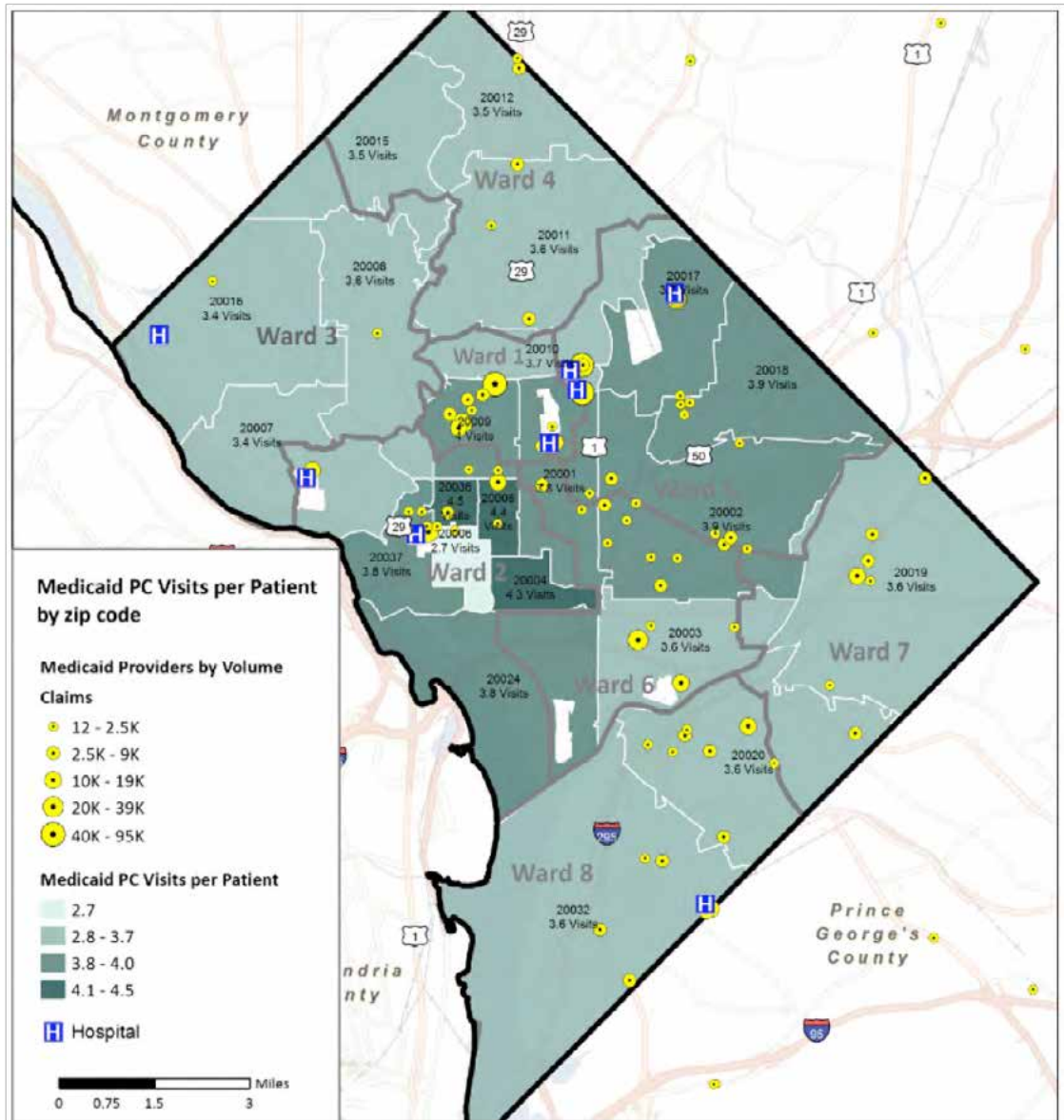
DC Department of Health Care Finance - Medicaid Claims Data Extract, June 2015 to May 2016.
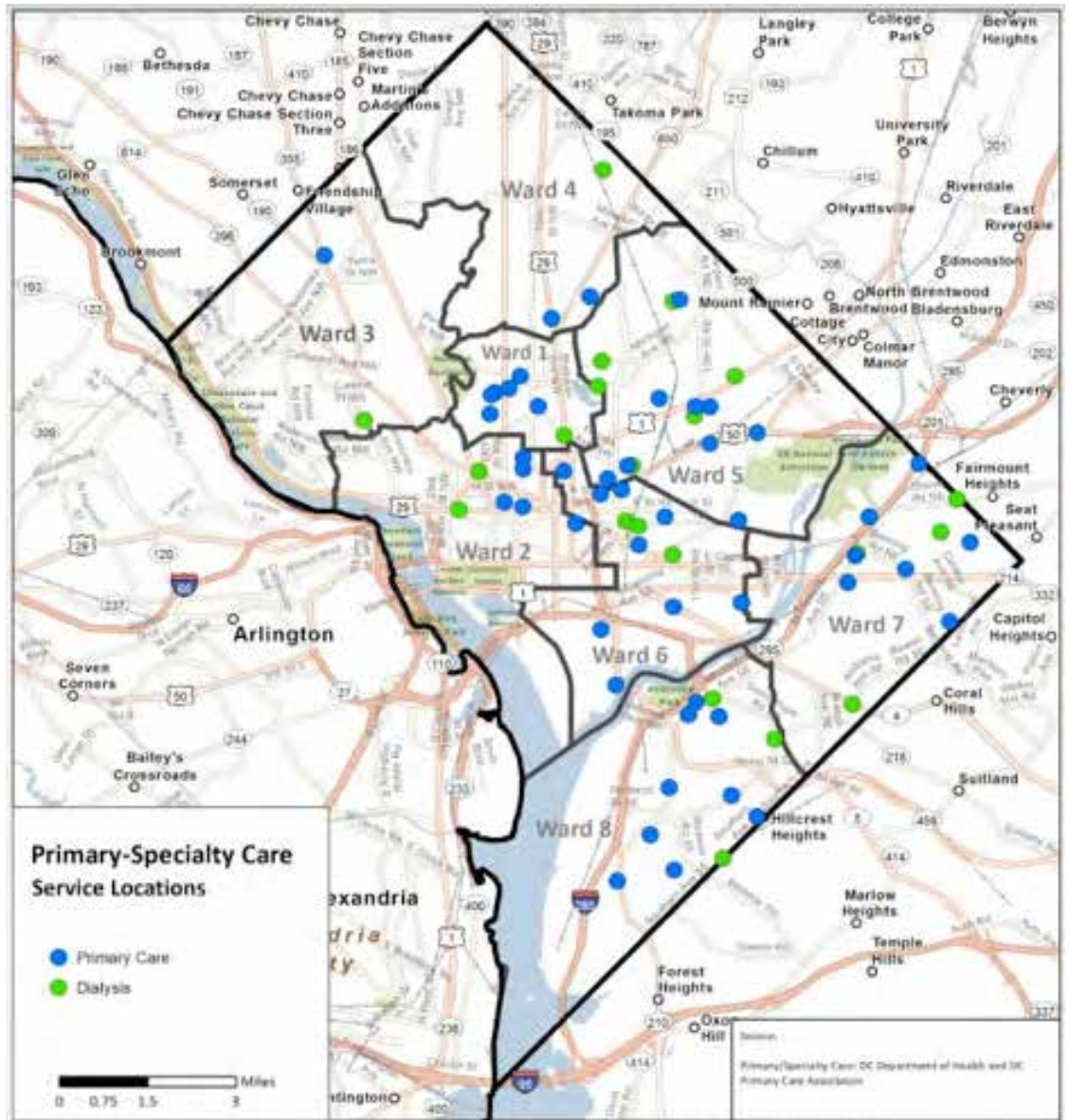
Primary Care Utilization Trends

The extent to which services are geographically well distributed is an important factor in assessing health system strength. This is especially true when assessing primary care given the relative frequency that individuals are expected to, or may need to, access preventive, acute, or follow-up services. This is particularly true if one has a chronic or complex condition, which is important for residents of DC, given the high rates of chronic disease in many communities. Research shows that those who are engaged in primary care on a regular and periodic basis are healthier and more apt to have control over chronic or complex conditions. With this in mind, it seems clear that the closer one lives or works to their primary care provider, the more likely they are to engage in care.

As discussed, primary care services in DC are geographically well-distributed and there is capacity in all wards, evidenced by the broad distribution of core service providers (FQHCs, hospital-outpatient practices, and selected private practices) (Figure 15). Relative to national standards, it would be challenging to make a strong case that there were over-whelming barriers to care related to travel time or travel distance. What the qualitative data suggests, however, is a more complex story; many of the key informant interviewees and a large portion of community forum participants spoke about the tremendous burden of distance and travel time experienced when attempting to access care. Many conveyed passionate stories about having to travel more than an hour to see their preferred provider. What is abundantly clear after reviewing Medicaid primary care claims data is that despite having access to care where one lives or works, residents of DC are likely to choose to travel long distances for care at a preferred location, often traveling from communities near DC's external boundaries into central or downtown DC (Wards 1 and 2). These residents will often travel directly past existing primary care access points to reach their preferred provider, despite the additional time and distance. Once again, it is difficult to determine what drives these utilization trends.

Figure 16 illustrates the primary zip code origin-destination (O-D) pattern seen in the data, based on the most frequent zip code in which the residents of every zip code in the district received care (the plurality destination for primary care visits from each zip code). The red star symbols indicate "kernel" zip codes where the most frequent destination for primary care visits by residents are with providers in that same zip code. The arrowed lines indicate the zip code that residents of a given zip code are most likely to travel to for primary care services, with the thickness of the line representing the volume of visits following that pattern (the thicker the line, the more likely that residents are living that zip code and traveling to another zip code for primary care services).

A careful review of Figure 16 shows that in only three of DC's zip codes do residents choose practice sites that operate in their own community more than practices that operate in other communities. In the rest of DC, residents are more likely to travel outside of their residential zip code for care. Furthermore, the map shows that residents are most likely to travel to central DC (zip codes 20009 and 20010), despite the barriers that travel may present. Zip code 20009 contains large volume service delivery sites for several prominent health centers, including Unity, Mary's Center, Community of Hope, and La Clinica del Pueblo. Zip code 20010 contains large outpatient service sites for the MedStar Washington Hospital Physicians Group and the Children's National Medical Association practice of Children's Hospital.

FIGURE 15: PRIMARY AND SPECIALTY CARE SERVICE LOCATIONS

DC Department of Health and DC Department of Behavioral Health.

FIGURE 16: DC MEDICAID PRIMARY CARE VISITS WITH VOLUME AND PREFERENCE BY ZIP CODE, 2014
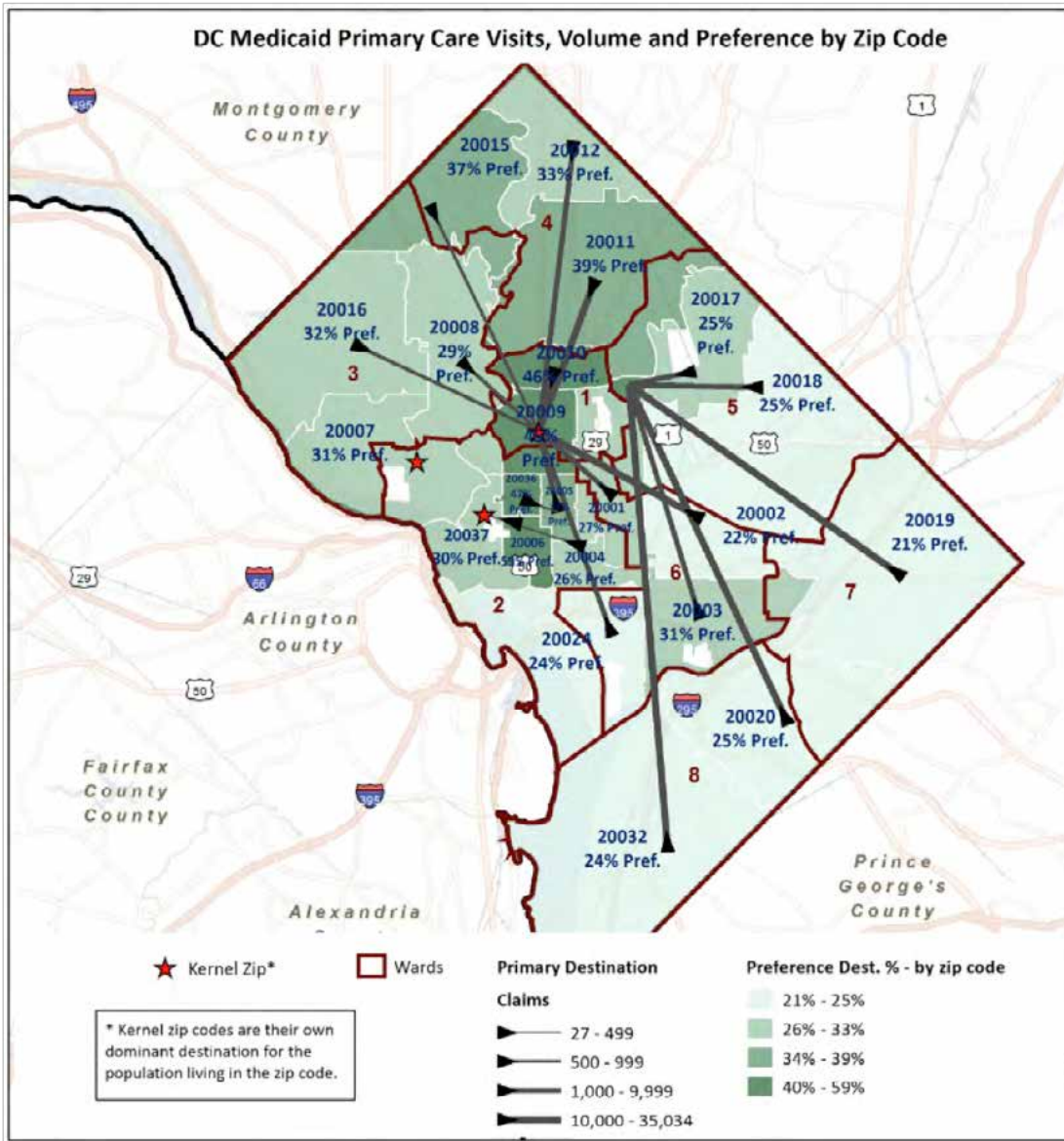
DC Department of Health Care Finance - Medicaid Claims Data Extract, June 2015 to May 2016.

Emergency Department Utilization

Hospital emergency departments play a critical role in the U.S. health care system and provide acute services to those with emergent, life-threatening injuries. In 2014, DC's hospitals reported more than 400,000 visits to their hospital emergency departments, approximately 320,000 of which were for emergent, life threatening conditions. While the hospital emergency departments in DC are obviously resources for DC residents, the data shows that they also serve a wider population beyond DC. Figure 17 shows the volume of visits and the relative portion of patients that come from out of state to each of DC's emergency department facilities. With out of state volume included, Children's Hospital's ED serves the largest volume of visits, and also the highest portion of out-of-state patients with 43% (nearly 50,000 admissions) coming from MD and VA. MedStar Washington Hospital Center, George Washington University hospital, and Howard University hospital follow behind Children's National.

FIGURE 17: EMERGENCY DEPARTMENT VOLUME BY PATIENT STATE, 2014
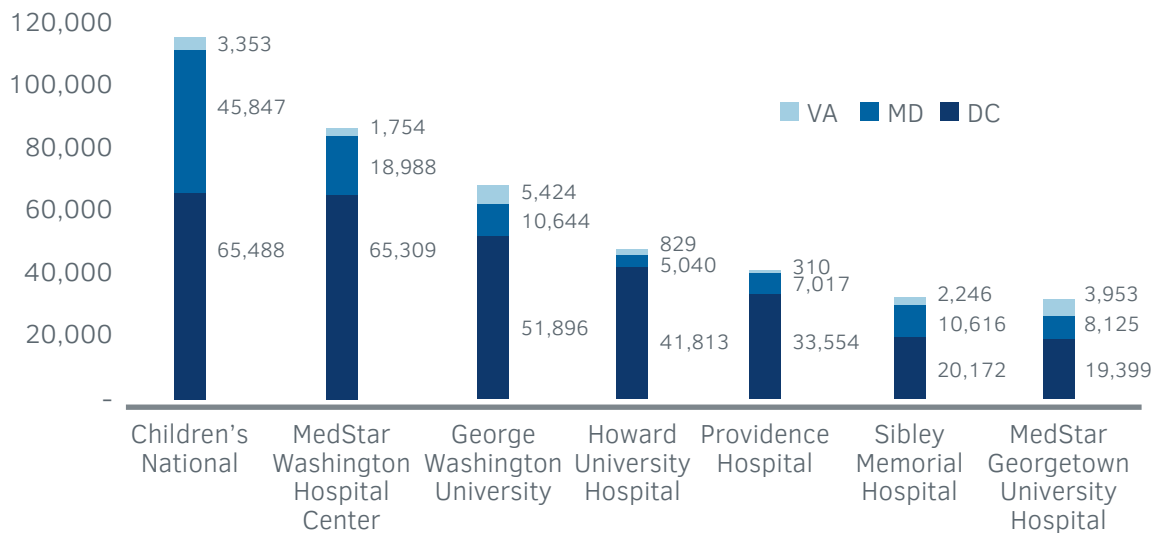
Outpatient and Emergency Department Discharge Database, DC Hospital Association.

Hospital emergency departments play an important role as part of a region's primary care system; they are in some ways the safety net for the region's primary care safety net. Numerous studies have shown that upwards of 20% of all hospital emergency department visits in the nation are for non-emergent issues that could be more effectively and efficiently treated in primary care or specialty care outpatient settings. Our assessments findings show that DC's rate in this regard is comparable to the nation. Certainly efforts should be made to reduce the rate of emergency department utilization for non-emergent conditions, but everyone would agree that it is better that those in need of care have some place to go rather than have their illnesses or injuries progress to something that is emergent and/or life threatening, and potentially even more costly in the long-run.

As stated above, analysis of DC emergency department visits shows that there are very high rates of ambulatory care sensitive conditions (ACSs) being seen in DC's hospital emergency departments. ACSs are conditions that are generally considered avoidable or preventable with appropriate primary care services (e.g., hypertension, asthma, diabetes, COPD. This fact reinforces the idea that DC residents are inappropriately engaged in primary care. One of the hallmarks of a strong primary care system is its ability to engage and provide services to patients in ways that allow them to prevent acute illness or manage their chronic or complex conditions. Figures 18 and 19 illustrate that residents living in DC are seen in hospital inpatient settings and emergency departments at high rates. It is particularly important to note that the residents in communities that face the highest disparities in health outcomes (Wards 5, 6, 7, and 8) are more likely to receive hospital and emergency department services for ACS conditions than those in other parts of DC. In Wards 7 and 8, roughly 20% of all hospital discharges and 21% of ED visits are for ACS conditions. These percentages are considerably higher than the percentages reported from those from Wards 1, 2, 3, and 4.

Finally, according to a study sponsored by the Emergency Medicine Action Fund hospital emergency departments are serving increasingly as an advanced diagnostic centers for primary care physicians and may actually be slowing the cost of care in some cases.

FIGURE 18: PERCENT OF ALL HOSPITALIZATIONS THAT WERE FOR AMBULATORY CARE SENSITIVE CONDITIONS, BY ZIP CODE
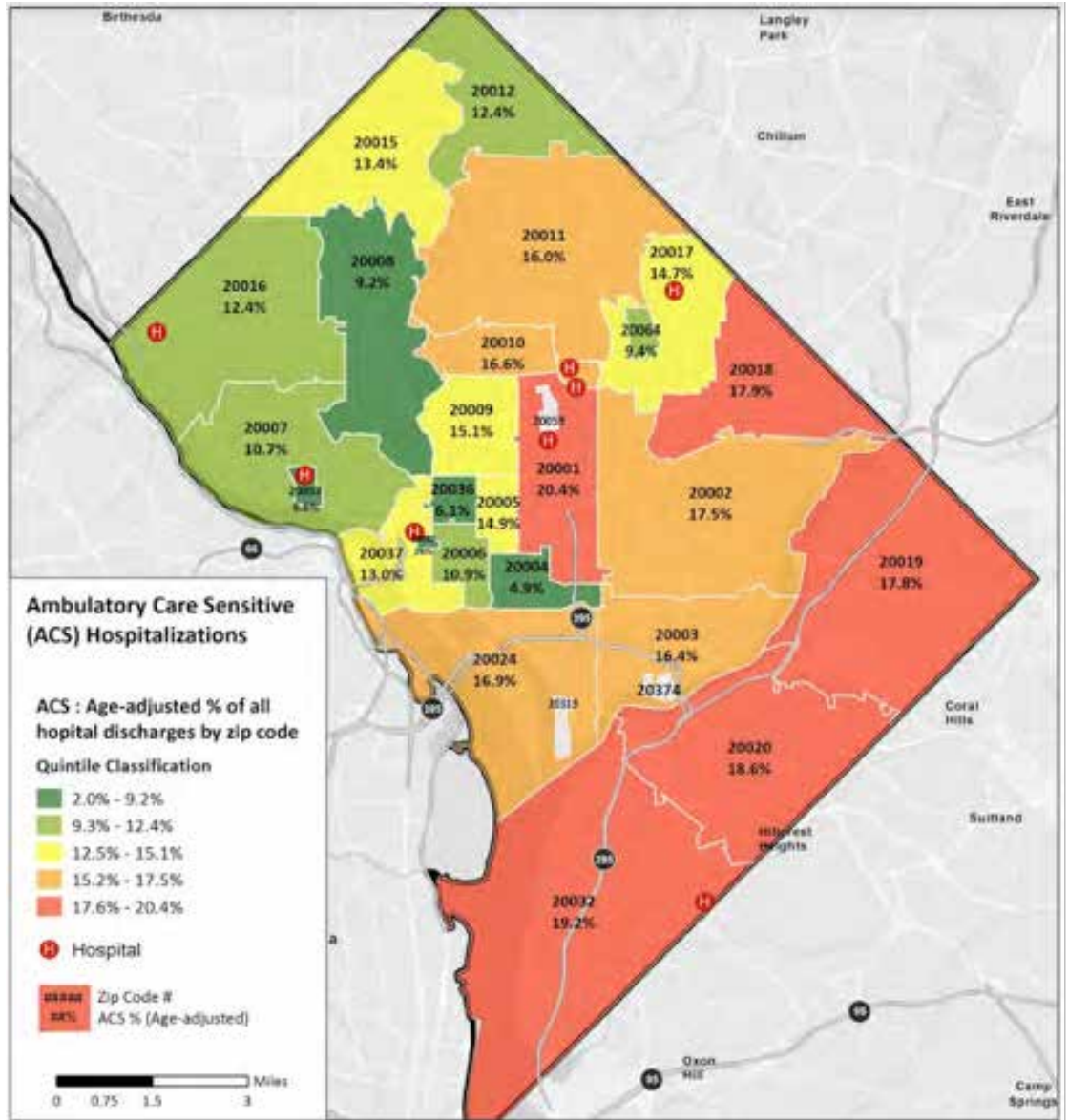
Inpatient Discharge Database, DC Hospital Association.

FIGURE 19: PERCENT OF ALL HOSPITAL EMERGENCY DEPARTMENT VISITS THAT WERE FOR AMBULATORY CARE SENSITIVE CONDITIONS, BY ZIP CODE
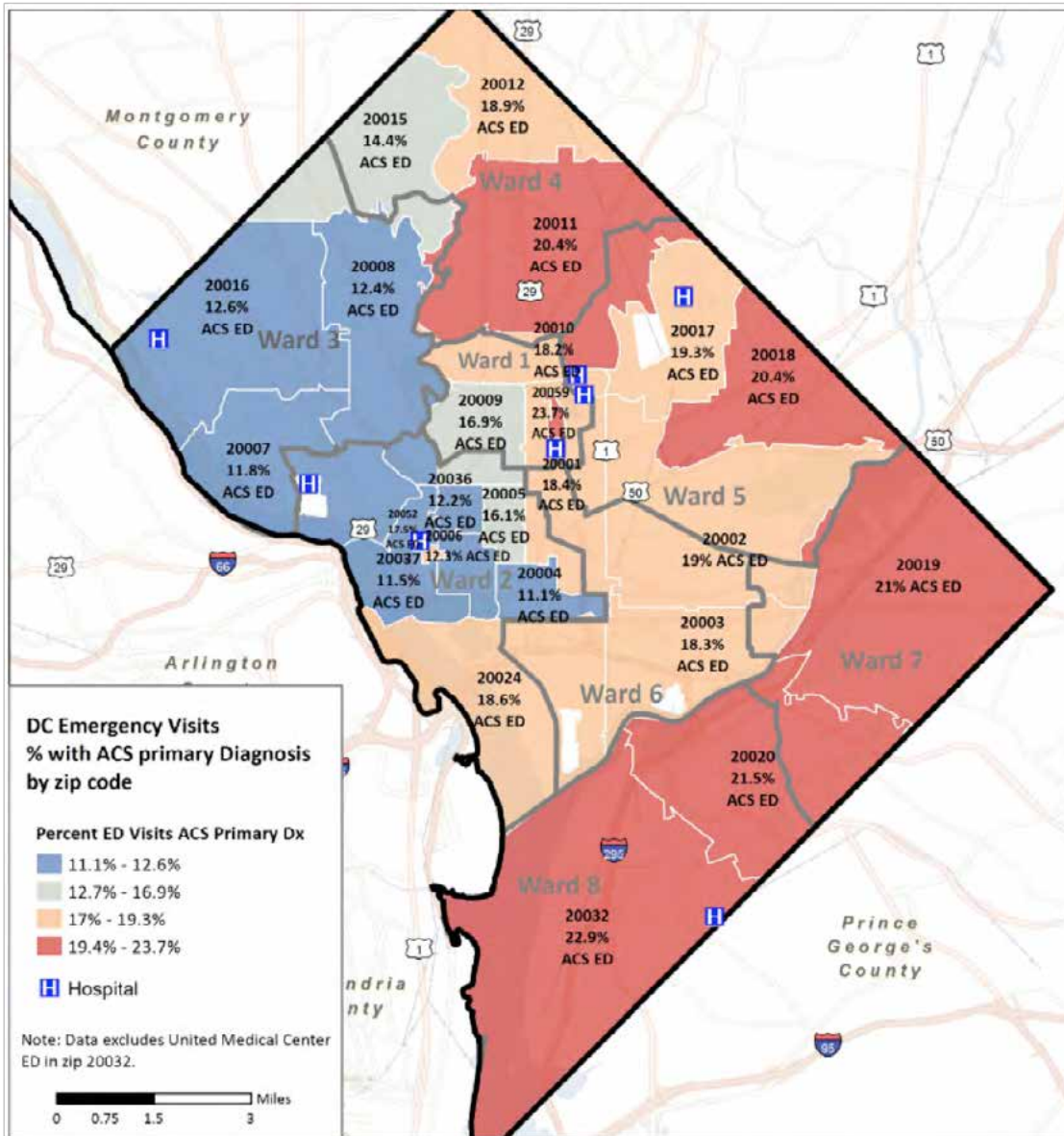
Outpatient and Emergency Department Discharge Database, DC Hospital Association.

Primary Care System Challenges and Opportunities

The following is a brief review of the leading primary care system challenges and opportunities that impact consumer engagement, access to care, cost, and quality. This list was compiled based on a review of the quantitative and qualitative findings from this assessment and a review of relevant academic and gray literature.

Barriers to Care

As discussed above, DC has a robust and well-distributed primary care network. Though there is some evidence of targeted geographic and/or demographic gaps, there is strong evidence to suggest that absolute capacity is not the leading factor influencing access and engagement in primary care. There is considerable evidence to suggest that barriers exist, particularly for those in DC's most underserved communities, that limit access and engagement in care. Some of the leading barriers based on the assessment conducted for the HSP relate to the cost of care itself or other costs related to accessing care (e.g., transportation, child-care, lost wages), linguistic and cultural barriers, lack of appointments in the evening or on weekends, perceptions of quality, and administrative barriers related to insurance coverage and MCO contracting.

Lack of Engagement in Care (Need for Outreach and Education)

One of the leading findings from this assessment is that there is a lack of engagement in primary care among District residents. As noted above, approximately 50% of Medicaid enrollees in DC did not have a primary care visit between June 2015 and May 2016. This is further evidenced by the high rates of chronic disease and ambulatory care sensitive conditions that are seen in DC hospital inpatient and hospital emergency department settings that could potentially be mitigated through engagement in regular, routine primary care services. In DC's underserved communities, the rates of diabetes and other chronic diseases are two to three times higher compared to the population overall. Furthermore, more than 20% of the inpatient stays for residents of Ward 7 and 8 are for ambulatory care sensitive conditions. Considerable efforts need to be made to engage residents throughout DC, and especially in many of DC's most underserved communities.

Lack of Coordination and Service Integration

As discussed in other sections of the HSP, there is both quantitative and qualitative evidence to suggest that there is a need for improved care coordination and service integration. Despite the tremendous amount of healthcare resources that exist in DC, rates of mortality and morbidity are still high, and there are disparities in access and health outcomes. Community forum participants cited fragmentation of services and challenges in navigating the health system as a barrier to care. Considerable efforts have been made by DC providers across the spectrum, the DC Hospital and Primary Care Associations, as well as DC public agencies such as the DC Department of Health Care Finance and the DC Department of Behavioral Health to: (1) coordinate care transition (including primary care follow-up) when patients leave the hospital for post-acute settings, (2) integrate behavioral health and other specialized services into primary care settings, (3) coordinate care for those with complex/chronic conditions that are frequent users of hospital services, and (4)

provide navigation and other case management services in hospital emergency department settings. However, these efforts need to continue and be enhanced so that all of the available resources can be fully leveraged.

Lack of Education and Awareness of Risk Factors, Barriers to Care, and Underlying Social Determinants of Health

One of the leading findings from the key informant interviews and community forums conducted for this assessment was the need for a comprehensive Districtwide educational and awareness campaign regarding: (1) DC's major health issues, (2) key risk factors that contribute to chronic disease and impede wellness, (3) the importance of appropriate engagement in primary care, (4) the impact of behavioral health, and (5) the impact of social determinants of health. Evidence has shown that when people have a greater under-standing of these issues they are more likely to engage in appropriate care and lead healthi-er lives. Primary care providers must also take steps to better understand the issues their patients face in terms of barriers to care, risk factors, and social determinants of health.

Health Literacy and Communication

There is extensive research showing the challenges associated with low health literacy and the opportunities that can be realized when patients are able to understand and act on the information communicated by physicians, nurses, care managers, and other clinical and non-clinical providers. Too often information is provided using language that contains medical jargon and is too complex for most patients to understand. Furthermore, informa-tion is sometimes communicated in ways that are untimely, rushed, culturally inappropri-ate, intimidating, or disorganized. Participants in a community forum for Spanish-speakers discussed the particular challenges they face when accessing services without bilingual and culturally competent providers. It is clear that low health literacy is strongly correlated with adverse health outcomes, especially during transitions of care.

Gaps or Barriers Related to Medical Specialty Care Services

One of the only areas where the assessment identified a shortage or capacity gap is with respect to medical specialty care services, particularly for low-income residents insured by Medicaid, the DC Healthcare Alliance, or who are uninsured. Efforts need to be made to explore how FQHCs and other primary care practices can work collaboratively with hospitals and other medical specialty providers to expand access to medical specialty services. It is especially important that those who have complex or chronic conditions or who live in areas that face the greatest disparities have access to specialty care services.

Overutilization of Hospital Emergency Department Services and High Rates of Ambulatory Care Sensitive Condition in Hospital Inpatient Settings

As referenced earlier in this section and in the Hospital section of the HSP, there are very high rates of ambulatory care sensitive conditions in hospital emergency department and inpatient settings. This means that a large proportion of patients are seen in hospital settings for conditions that could be avoided or prevented if patients were better engaged and served in the primary care setting.

Implementation of Evidence-based Programming and Service Provider Training/Capacity Building

Most of the District's core primary care providers have received primary care medical home (PCMH) recognition from various accrediting agencies such as the National Council for Quality Assurance (NCQA) and The Joint Commission. In general, the care provided through DC's primary care network is considered to be very high quality. Nonetheless, efforts need to be made to ensure that primary care practice sites are implementing evidence-informed strategies and protocols related to patient engagement, behavioral health integration, chronic disease self-management support, and the treatment of chronic disease.

Collaboration and Service Coordination Within and Across Sectors

There is a growing appreciation and emerging evidence that shows the importance of multi-sector collaboration and community partnerships. Strengthening DC's primary care system will require the thoughtful coordination and integration of services. Evidence from the key informant interviews conducted for this assessment points to a need for collaboration within and across sectors. The high levels of competition among organizations must be addressed so that services can be properly planned and coordinated. It is essential that multi-sector coalitions be developed and sustained to provide a forum to explore and implement evidence-informed strategies that improve care coordination, reduce fragmentation of services, support patient/provider communication, enhance primary care medical and specialty care follow-up, and promote smoother care transitions. These forums already exist to some extent, but they are often isolated by sector or service provider type. These coalitions and professional organizations need to be formally united and encouraged to work more collaboratively. For example, the DC Healthy Communities Collaborative should be encouraged to expand its membership to include all of DC's hospitals and the leading community based community health and social service agencies. Another possibility is that efforts could be made to form health improvement zones in targeted communities and facilitate collaboration and coordination of activities geared to promoting engagement and addressing disparities in these communities.

BEHAVIORAL HEALTH SERVICES (MENTAL HEALTH AND SUBSTANCE USE)

According to the federal Substance Abuse and Mental Health Services Administration (SAMHSA), an estimated 18% of United States residents have experienced some form of mental illness in their lifetime, and an estimated 8% have had a substance use disorder in the past year.[111] In adults, anxiety disorders, major depression, bipolar disorder, and schizophrenia are the leading mental health issues.[112] In children and youth, anxiety disorders, adjustment or disruptive disorders (e.g. attention-deficit/hyperactivity disorder [ADHD]), and mood disorders are significant issues.[113] With respect to substance use, alcohol, opioid and prescription drug abuse, and marijuana use are the leading issues for both adults and children.[114] One may refer to the Behavioral Health section in Chapter 2 for greater clarification on the burden of behavioral health on DC residents.

The quantitative data compiled for this assessment was corroborated by input gathered from the assessment's key informant interviews and community forums. Interview and community forum participants were emphatic that the burden of behavioral health was one of the leading, if not the single leading, health issues affecting DC residents.

This section will review existing quantitative data and findings from the assessment's interviews and community forums to assess overall behavioral health capacity, and will explore the strengths and weaknesses of the existing behavioral health service system. This section will first characterize the behavioral health system in DC and explore whether the broad range of services provided by the public and private sectors are adequately distributed and have the capacity to address the existing burden of behavioral health. Included in this section will be a review of service utilization data from the DC Department of Behavioral Health (DC DBH) that characterizes who is being served, as well as data on expenditures by payer, and services provided. These data will facilitate discussions on issues related to the burden of behavioral health, consumer engagement, and capacity. Finally, this section will review quantitative and qualitative findings to identify and clarify the impact that a broad range of health systems issues have on consumer engagement, access to care, and the quality of care.

Characteristics of DC's Public and Private Behavioral Health System

The full public and private system of care that exists to address the burden of mental health and substance use in DC is expansive, complex, and difficult to delineate. Fundamental to understanding the make-up and complexity of the system, as well as many of the health system challenges that will be discussed in this section, is the fact that the provision of behavioral health care services has been historically seen as the responsibility of state and local governments. Accordingly, there is a large and robust behavioral health service system in DC that is largely funded through public insurance expenditures and other local funds. This public system is operated or heavily subsidized by the DC DBH. It provides a broad range of preventive, acute, long-term, and intensive services and serves as a safety net for many of DC's most vulnerable residents. This system serves primarily (1) low-income populations who are either uninsured or insured by Medicaid, and (2) older adults insured

either solely by Medicare, or by Medicare and Medicaid (dually insured). The DC DBH service sites and programs, described in detail below, serve patients with mild to moderate acute and often intermittent issues, but the bulk of the services provided to these populations are to those with serious and persistent mental illness or those with chronic substance abuse issues.

There is an expansive and fragmented private system of care made up of hundreds of individual and small group practices that provide a range of assessment and treatment services. These programs and services are funded by private insurance plans or directly by consumers with out-of-pocket-funds. Historically, due to concerns stemming from stigma associated with behavioral health, the high cost of care, and the perceived lack of effective, evidence-informed programs, insurance benefits and coverage for behavioral health issues have been less comprehensive than the benefits or coverage policies for physical illnesses. In 1996, the Mental Health Parity Act (MHPA) was signed into United States law, which required that annual or lifetime dollar limits on mental health benefits be no lower than any such dollar limits for medical and surgical benefits offered by a group health plan or health insurer. As a result, states and other jurisdictions like DC have insti-tuted behavioral health "parity laws" that have improved access to care, but do not ensure full and adequate access, particularly in the private market where many providers do not accept any form of health insurance. For those who are not eligible for public sector assistance programs, there are often uneven benefits and a shortage of providers willing to accept insurance, which limits access and engagement in appropriate care, as only a limited portion of consumers have the means to independently engage in and sustain care over time.

In 2014, 62% of mental health service expenditures in the United States were paid for by public funders. Medicaid programs accounted for the largest percentage, covering 30% of all expenditures, followed by Medicare (15%), and other state/local funding (13%) (Figure 19). These proportions are expected to remain stable through 2020.[115] The remaining 38% of mental health expenditures were paid for by private payers. In this case, private insurance plans accounted for 25% of total expenditures, followed by consumer out-of- pocket spending (10%), and other private contractual payments (3%).

FIGURE 19: DISTRIBUTION OF MENTAL HEALTH SPENDING BY PAYER
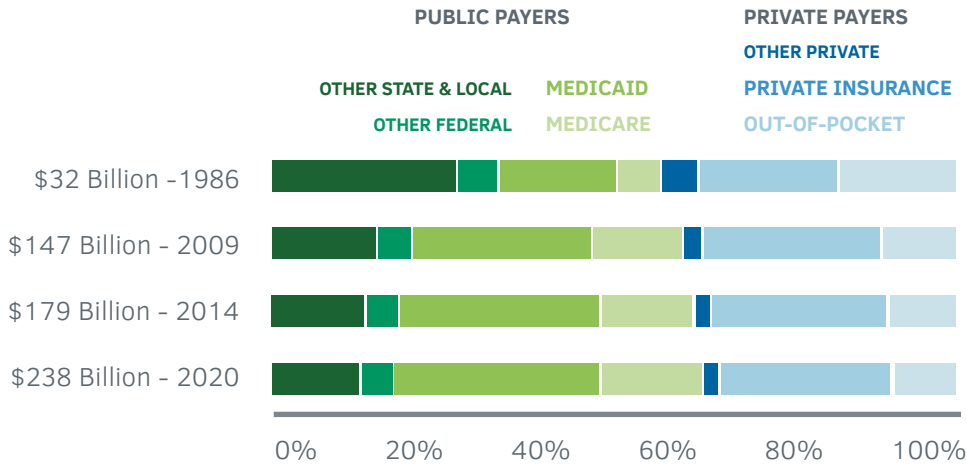
While DC-specific data was not available, there is no reason to expect that DC would differ largely from the national distribution.

DC Department of Behavioral Health

DC Department of Behavioral Health System

The DC DBH delivers a broad range of behavioral health services that promote recovery, respect cultural and linguistic diversity, and are choice-driven, meaning that services are carefully tailored to consumer needs and desires. These services are provided through an extensive system of community-based service sites that provide diagnostic/assessment services, counseling, medication, intensive day treatment, and crisis/emergency services. These individualized behavioral health services are supported through rehabilitation programs, peer support and recovery networks, supportive employment opportunities, housing assistance, and a range of community housing alternatives that link consumers to systems of care and promote recovery.

Mental Health Rehabilitation Service (MHRS) System

Mental health services are provided through the DC Mental Health Rehabilitation Services (MHRS) system, which in 2016 included 46 provider sites distributed throughout DC (Figure 20). These service sites provided a broad array of services including:

- **Diagnostic/ Assessment:** Intensive clinical and functional evaluation of a consumer's mental health condition that results in the issuance of a Diagnostic Assessment Report with recommendation for service delivery. This provides the basis for the development of an Individualized Recovery Plan (IRP) for adults or an Individualized Plan of Care (IPC) for children and youth.

- **Medication/ Somatic Treatment:** Treatment services through medical interventions, including physical examinations; prescription, supervision, or administration of mental health-related medications; monitoring and interpreting results of laboratory diagnostic procedures related to mental health-related medications; and medical interventions needed for effective mental health treatment provided through individual or group intervention.

- **Counseling:** Individual, group, or family face-to-face services for symptom and behavior management; development, restoration, or enhancement of adaptive behaviors and skills; and enhancement or maintenance of daily living skills.

- **Community Support:** Rehabilitation supports considered essential to assist the consumer in achieving rehabilitation and recovery goals.

- **Crisis/ Emergency:** Face-to-face or telephone immediate response to an emergency situation involving a consumer with mental illness or emotional disturbance that is available twenty-four hours a day, seven days a week.

- **Day Services:** Structured clinical program intended to develop skills and foster social role integration through a range of social, psycho educational, behavioral, and cognitive mental health interventions.

- **Intensive Day Treatment:** Structured, intensive, and coordinated acute treatment program that serves as an alternative to acute inpatient treatment or as a step-down service from inpatient care, rendered by an interdisciplinary team to provide stabilization of psychiatric impairments.

- **Community-Based Intervention:** Time-limited intensive mental health intervention services delivered to children, youth, and adults and intended to prevent the utilization of an out-of-home therapeutic resource by the Consumer (i.e., psychiatric hospital or residential treatment facility).

- **Assertive Community Treatment (ACT):** An intensive, community-based mobile clinical service for adults with serious and persistent mental illness who have histories of non-compliance with traditional outpatient services.

FIGURE 20: DISTRIBUTION OF MENTAL HEALTH REHABILITATION SERVICE PROVIDERS
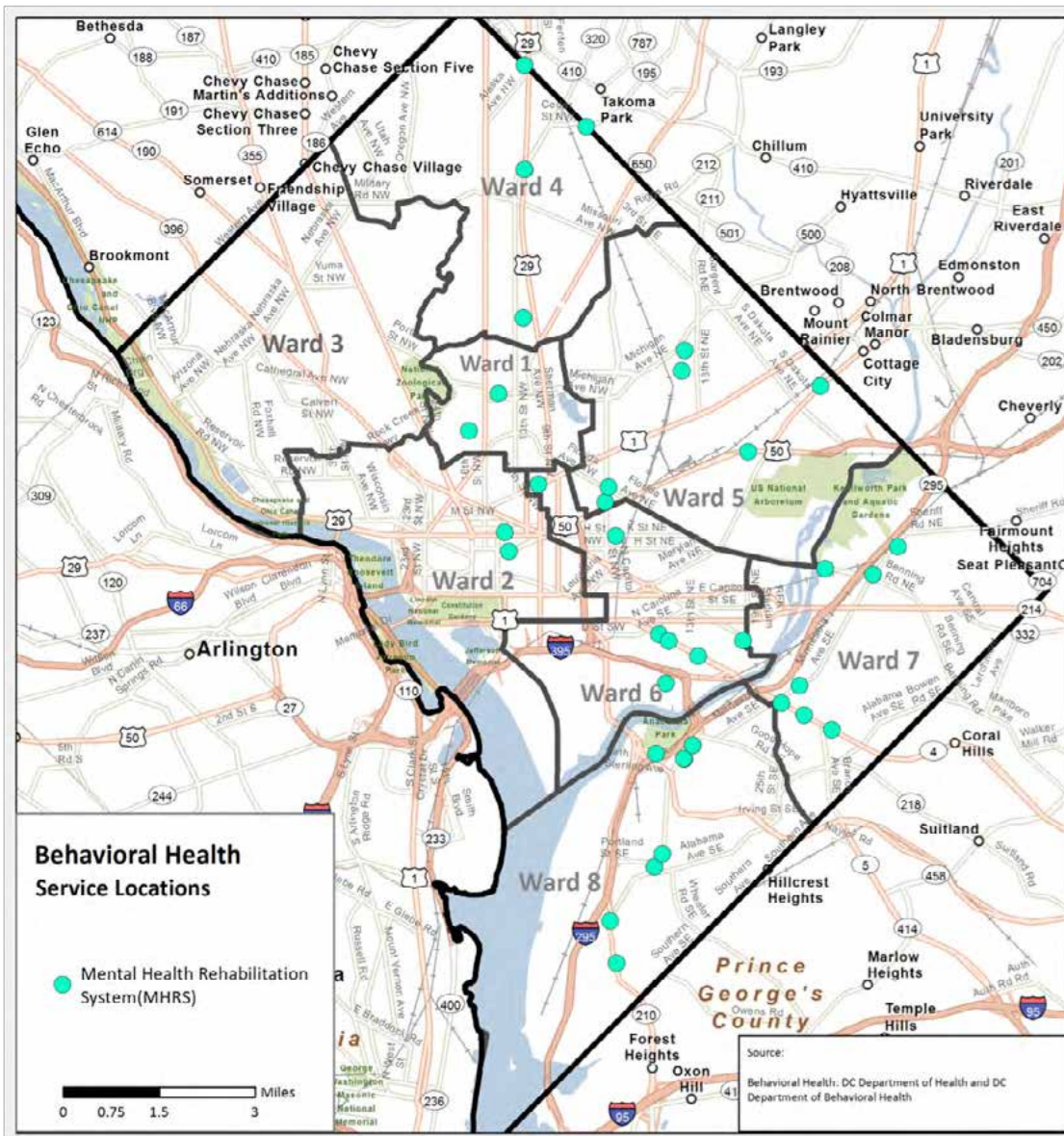
DC Department of Health and DC Department of Behavioral Health.

FIGURE 21: DISTRIBUTION OF SUBSTANCE USE DISORDER PROVIDERS
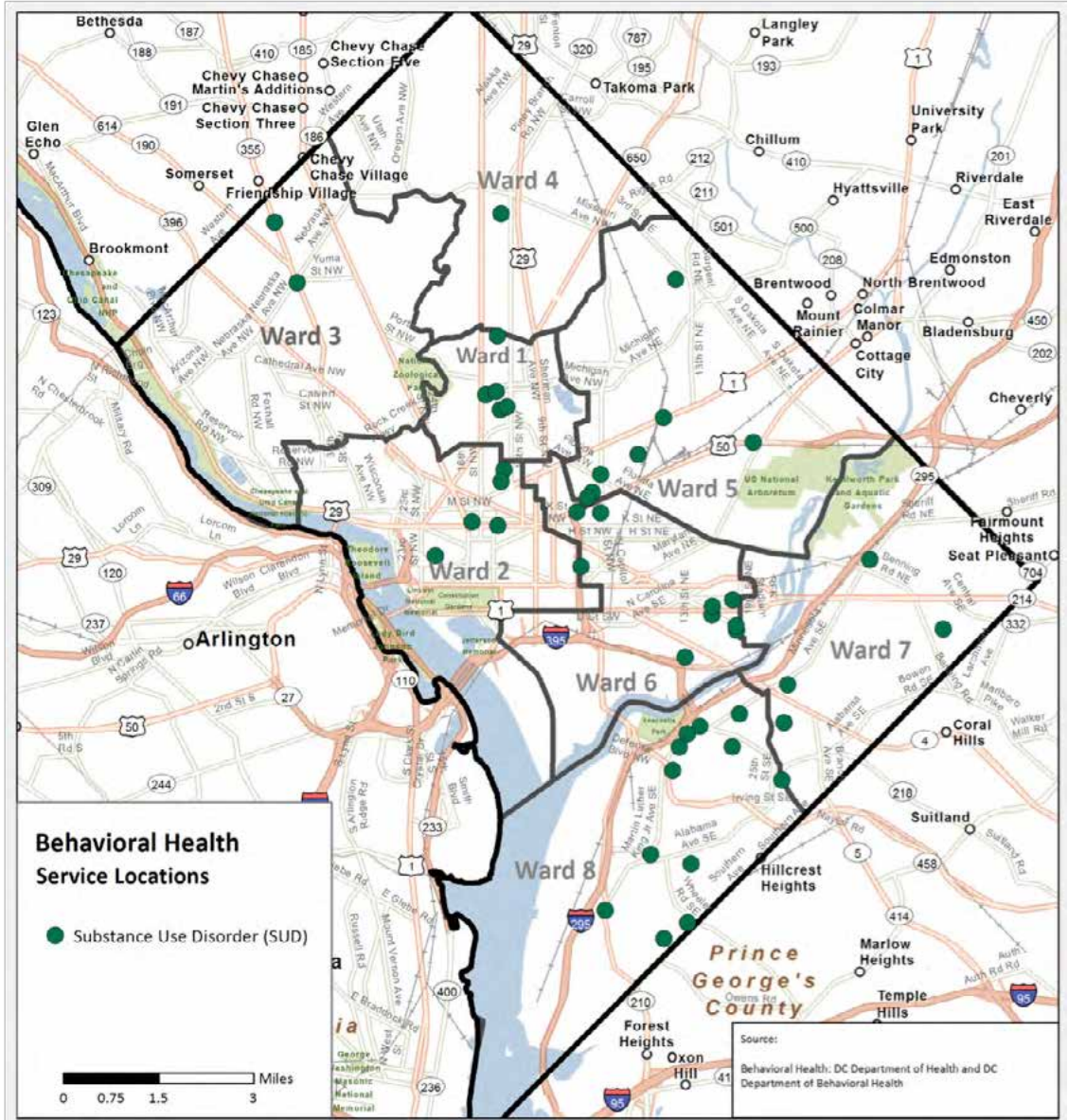
DC Department of Health and DC Department of Behavioral Health.

Substance Use Disorder (SUD) Service System

Substance use services are provided through the DC Substance Use Disorder Services system, which in 2016 included 57 provider sites distributed throughout DC (Figure 21). These service sites provide a continuum of quality substance abuse prevention, treatment, and recovery support services, including:

- **Prevention Services:** Educating consumers and providing critical information to reduce factors that increase the risk of alcohol, tobacco, and other drug use and abuse among children and youth, as well as promoting the likelihood of healthy, drug-free youth and their families.

- **Treatment Services**: Outpatient, intensive outpatient, residential, detoxification, and stabilization, and medication assisted therapy.

- **Recovery Support Services:** Wrap-around services, such as care coordination, mentoring, coaching, educational support, job readiness, and training, public transportation, and other services to support recovery.

The following are key characteristics of the patients served by DC DBH's services sites and programs. This data is drawn from the DC DBH MHEASURES Report, which is a report developed by DC DBH twice a year. The January 2016 MHEASURES Report can be found on the DC DBH website.

Mental Health Rehabilitation Services

- In 2015, DC DBH provided mental health services to a total of 23,390 consumers; 3,562 patients received both mental health and substance use services.

- Of the 23,390 consumers who received mental health services, 19,117 (82%) were adults (18+ years old) and 4,273 (18%) were children/ adolescents (0-17 years old).

- Of the 23,390 consumers who received mental health services, 20,930 (89%) received initial and ongoing assessment and treatment services, 3,149 (13%) received specialty services, 2,862 (12%) received intensive community-based services, 2,690 (12%) received crisis and emergency services, and 1,028 (4%) received transitional support services. (Please note: Many patients received multiple types of services, so percentages exceed 100%.)

- In 2015, a total of $102,630,716 in mental health claims expenditures were made; approximately 91% of these claims were submitted to Medicaid, while the remaining was to other public and private payers.

- In 2015, of the 19,117 adults (18+ years old) that were provided mental health services, 17,378 (91%) of these consumers had a severe and persistent mental illness (SPMI) and 1,739 (9%) had a non-SPMI. Similarly, of the 4,273 children/youth (0-17 years old) that were provided mental health services.

Substance Use Disorder Services

- In 2015, DC DBH provided substance use services to 8,853 consumers.

- Of the 8,853 consumers who received substance use services, 8,499 (96%) were adults (21+ years old) and 354 (4%) were children/adolescents (0-20 years old).

- In 2015, the DC DBH has substance use service expenditures totaling $20,506,287. A total of $19,437,616 of these expenditures was for adults (21+ years old) and $1,068,671 of these expenditures was for children/youth (0-20 years old).

- Of the $20,506,287 in expenditures, 36% went to fund intensive residential programs, 26% went to fund medication-assisted programs, and 21%went to fund other outpatient services. The remaining 17% of funds went to support withdrawal management (7%), adolescent treatment (5%), and other undisclosed services (5%).

Behavioral Health System Challenges and Opportunities

The following is a brief review of the leading behavioral health system challenges that are impacting consumer engagement, access to care, cost, and quality. This list was compiled based on a review of the quantitative and qualitative findings from this assessment as well as a review of the recent, relevant academic and gray literature.

Service Capacity and Barriers to Care

Those with behavioral health conditions face unique and often extreme barriers that limit access and hinder engagement in care. Evidence of these barriers is clear, as numerous national studies show that more than 50% of those who have mental health and substance use problem are not engaged in needed services.[116] The leading factor associated with access to care is the capacity and distribution of providers and service sites. As detailed above, the DC DBH operates and supports robust networks of mental health and substance abuse service sites that are well distributed throughout DC, including in wards where there is the highest need, that provide a comprehensive array of assessment, treatment,

and supportive services. This sentiment is corroborated by 2014 data compiled by Mental Health America, which reports on population to mental health provider rates in the United States overall and by State and other jurisdictions, including DC. In 2014, DC had the second best population to mental health provider ratio among all 50 states and jurisdictions; the term mental health provider includes psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists and advanced practice nurses specializing in mental health care.[117] Nationally, there is one mental health provider for every 529 individuals. The state rate of mental health workforce rates range from 200 to 1 in Massachusetts to 1,200 to 1 in Alabama; in comparison, DC's rate is 230 to 1. Similar data for substance use providers is not available, but Figure 21 shows that substance use disorder service sites are well distributed. Based on discussions with behavioral health experts in the District, there was a clear sentiment that capacity and service distribution were not the leading challenges and barriers to care with respect to behavioral health.

Other barriers cited by interview and community forum participants as well as the bodies of literature are: (1) provider/service capacity and shortages, (2) financial barriers, (3) transportation, (4) behavioral health education and awareness, (5) social stigma associated with behavioral health, (6) lack of health literacy, and (7) racial/ethnic, linguistic, and cultural barriers. Many of these barriers are broader system-level challenges and are discussed in-depth below. Others, including transportation, lack of health literacy, and racial/ethnic, linguistic, and cultural barriers, are associated with the social determinants of health that were discussed in detail in Chapter 2.

Fragmentation of Services, Care Coordination, and Service Integration

One of the most common themes from the interviews and community forums was the extent to which the heath system in DC was fragmented and challenging to navigate; however, this issue is not unique to DC, and there are many examples of well-coordinated programs and services that operate within the health system. Nonetheless, there was a clear sentiment that health care services of all types need more streamlined integration and coordination. Key informants stated that service providers often focus on addressing individual components of a person's illness over addressing the whole-person in an integrated and coordinated fashion. This issue is particularly challenging for those with chronic and/or complex medical and behavioral health conditions, as they are more likely to need to juggle multiple services and providers across a number of different service sectors (medical services, behavioral health services, social services, etc.).

Interview and community forum participants spoke of their and/or their patient's challenges accessing care, and timely and accessible follow-up services. Discussion related to care coordination and service integration were wide ranging and included conversation around the need for: (1) care transitions programs to promote more coordinated care for patients after discharge from the hospital inpatient setting or emergency department, particularly for older adults and those with chronic/complex conditions, (2) enhanced targeted efforts, combined with intensive care management programs, for frequent flyers in the hospital or those with chronic/complex conditions, (3) behavioral health integration in primary care and other settings to improve access and care coordination, (4) supportive or transitional

housing initiatives for those with behavioral health issues or chronic/complex conditions, particularly those who are homeless or unstably housed, (5) intensive primary care-based chronic disease programs, focused on self-management support, and (6) patient navigator or community health worker programs that provide outreach, social service case management, and other supportive services to assist consumers to address barriers and promote engagement in care.

Behavioral Health Stigma

There is a growing understanding of and appreciation for the impact that the stigma associated with behavioral health (mental illness and substance use) has on consumers, which prevents them from seeking and accessing treatment. In some cases, stigma may affect an individual's beliefs about their own mental health and may hinder them from recognizing their illness, seeking help or support, and fully engaging in needed assessment, treatment, and supportive services. In other cases, consumers who are open about their behavioral health issues may face discrimination, ridicule, and adverse treatment from family, friends, and employers. Public and provider education campaigns that reduce the social stigma associated with behavioral health must be developed and implemented to combat these issues.

Lack of Education and Awareness of Behavioral Health Issues

As discussed previously, for those with mental health and substance abuse issues, lack of engagement in care is a major issue when discussing the burden of behavioral health. More than 50% or more of those with a mental health diagnosis or substance use disorder do not receive the treatment they need. One of the primary reasons for this is the lack of education, awareness, and understanding about the signs, symptoms, risk factors, underlying determinants, causal factors, and consequences of behavioral health issues. Physical injuries and illnesses are generally well-understood and socially acceptable; this is not often the case for those with behavioral health issues, which are often harder to recognize, easily dismissed, misinterpreted, and stigmatized. Behavioral health issues may not be recognized by the individual - a person may assume for years that their emotional or mental status is "normal" and grow increasingly more isolated. If one does not know the signs and symptoms of their condition, they are unlikely to seek treatment or other supportive services.

Workforce Shortages, Training, & Implementation of Evidence-based Programming

Throughout the United States, including DC, there are major shortages of clinical providers across all service types and specialties. Specific shortages vary by specialty and by region, but behavioral health provider shortages are often particularly extreme, especially with respect to psychiatrists and substance use specialists (e.g., Suboxone providers, developmental psychologists, etc.) due to low wages, heavy caseloads, and the stigma associated with both having behavioral health issues, and working with people who do. As discussed above, DC has one of the best population to behavioral health provider ratios in the country.

Despite the favorable behavioral health provider ratios, key informants stated that there is a shortage of psychiatrists, particularly child psychiatrists. According to the Health Resources and Services Administration, in 2012, approximately 100 million Americans lived in federally designated Mental Health Professional Shortage Areas; in contrast, approximately 50 million Americans lived in similarly-designated primary-care medical shortage areas. [118,119]

Ensuring that service providers receive regular training to maintain or update their skills and to ensure that they are practicing evidence-based medicine and current protocols is also essential and challenging. In DC, there are major challenges with respect to recruiting bi-lingual and bi-cultural providers capable of providing linguistically and culturally sensitive services to DC's large foreign born populations, many of whom are recent immigrants.

Finally, agencies must be vigilant in their efforts to update their programming to incorporate evidence-based interventions and ideas that promote engagement, patient-centeredness, efficiency, and overall quality and the effectiveness of care. In the realm of behavioral health, some of the leading trends in evidence-based care include (1) peer support programs, (2) primary care and behavioral health integration, (3) supportive/transitional housing programs, (4) community health worker programs, (5) hospital-based care transition and emergency department triage programs, (6) intensive care management, patient navigator, and chronic-disease self-management support programs, (7) community health worker programs, and (8) crisis support services.

Health Information Technology, Health Information Exchange, and Information Sharing

Behavioral health providers face unique challenges as they seek to adopt electronic health records systems (EHRs) and participate in health information exchanges (HIE) and "Meaningful Use."[120] The challenges may be extreme but the necessity is clear - better care coordination and seamless integration of services require that clinical and patient information flow freely across sectors and between service providers. According to a recent study by the Commonwealth Foundation, 97% of U.S. hospitals and 74% of U.S. physicians have implemented interoperable electronic health records, but only 30% of behavioral health providers have done so.[121]

The major challenges in this area include (1) the inability of health information technology (HIT) systems to effectively capture clinical behavioral health information in a structured and standardized format, (2) the limited use of clinical decision support tools, and (3) the "siloed" nature of physical health, mental health, and substance abuse care. These issues hinder care coordination, service integration, quality, cost reductions, and advances in patient satisfaction.

Behavioral Health Parity

There is a great deal of literature that shows that those who are uninsured or underinsured are more likely to face barriers to care and disparities in health outcomes. Historically, coverage for behavioral health services has been much less comprehensive for mental health and substance abuse issues than it has been for physical health.[122] In 1996, The Mental Health Parity Act (MHPA) was signed into law, which requires annual or lifetime dollar limits on mental health benefits to be no lower than any such dollar limits for medical and surgical benefits offered by a group health plan or health insurance issuer offering coverage in connection with a group health plan.[123] Prior to MHPA and similar legislation, insurers were not required to cover mental health care, which limited access to behavioral health services. When parity is achieved, it means that if a plan's benefits cover unlimited doctor visits for a chronic condition, like diabetes, then they must also offer unlimited visits for mental health conditions, such as depression or schizophrenia. It is important to note that parity does not guarantee that one will get good mental health coverage; if the health insurance plan is limited, then mental health coverage will be similarly limited, even in jurisdictions with strong parity laws, or in plans that are subject to federal parity.[124] Great strides have been made to ensure parity in health care coverage when it comes to behavioral health services, but work is still needed to ensure that the law is applied to maximize impact.

Financial Barriers

Barriers that impact access, quality, and consumer engagement in care fall into two major categories; one is related to the financial costs of accessing behavioral health services, which can be a major deterrent for consumers and contribute to limited access and engagement in appropriate care. The other is more systemic and is related to how behavioral health services are funded and paid for in the United States. Both types of barriers have tremendous impacts on how likely individuals are to have access to the care they need in a timely, coordinated, and sustainable manner.

- **Barriers Related to Cost of Care.** Those who live in poverty or in low-income brackets are often eligible for heavily subsidized services that may alleviate significant portions of the cost of care or ease financial burdens. However, the cost of co-pays, transportation, child care, and medications, combined with lost wages and other employment concerns, can present as overwhelming barriers to care. If an individual is not eligible for free or discounted services, the costs associated with care may be even more extreme, as many private providers do not accept insurance and require cash payments.

- **Barriers Related to Financing, Funding, and Billing.** As discussed above, the siloed nature of physical health, mental health, and substance abuse care has been a major barrier to coordination and integration of services, and has effects on program success and efficiency. Great efforts have been made to better integrate services and to blend funding streams, but the nature of the sub-systems of care are deeply entrenched. In October 2013, DC government

created the Department of Behavioral Health and merged the agencies that provided mental health and substance use services into a single agency. Research shows that integrated treatment leads to reduced substance use, improved psychiatric symptoms and functioning, decreased hospitalization and overall improved quality of life. Without integrated treatment, one or both disorders may not be addressed properly.

Another significant financial barrier to providing behavioral health services is the inability for many providers to bill for services due to licensure and credentialing issues and other administrative burdens. Value-based payment models may alleviate this issue, to some extent, as health reform efforts continue to roll out. In the meantime, it can be very difficult to navigate insurance company billing policies and establish the practice-level processes and systems that facilitate billing and payment. A recent study examining delivery of behavioral health care in Patient Centered Medical Homes reported that lack of reimbursement was the greatest barrier to mental health and substance use care. Current fee-for-service (FFS) codes are inadequate for reimbursing providers utilizing integrated behavioral health specialist consultation.

Multi-Sector Collaboration and Service Coordination

Increasingly, cross or multi-sector collaborations and community partnerships are being used to address deeply-entrenched and complex social problems like behavioral health. Although there are numerous examples of organizations making singular bold actions that have had major impacts on complex community problems, there is increasing acceptance of the idea that no single organization, government department, or program can solve these issues. There are many examples in the sphere of behavioral health where these multi-sector collaborations have been shown to be essential and extremely effective, especially in (1) the integration of primary care medical and behavioral health services, either within a primary care clinic or behavioral health clinic, (2) community-based care transitions program models, particularly those focusing on transitioning those behavioral health conditions, (3) intensive care management services, (4) transitional housing programs, and (5) Health Care for the Homeless programs. These evidence-based programs rely on multi-sector collaboration and thoughtful coordination or integration of a range of services.

Monitoring, Evaluation, and Measurement

In order to maximize the strength and impact of any health system, one must develop mechanisms that allow for examination and prioritization of quality prevention, treatment, and recovery elements at all levels (system, provider/practice, and consumer/ patient). These monitoring, evaluation, and performance improvement tasks allow policy makers and program administrators to assess and plan for the triple aim of improved quality, reduced cost, and better engagement in care. These efforts include (1) the selection of a series of process and outcome measures, (2) tracking systems to monitor and evaluate the data collected, (3) performance improvement processes that apply the data to improve program operations, and (4) reporting and dissemination efforts that allow one to dissemi-nate results, share lessons learned, inspire improvements. DC DBH's MHEASURES Report provides a wealth of data on patients served and service utilization to describe the services

that are provided by its network of mental health and substance use providers. The DC Department of Health also does a good job at tracking health outcomes, risk factors, and broader claims and utilization data. However, generally speaking, there is a limited amount of population-based behavioral health data that can be used by service providers, program administrators, and policy makers to track the burden of behavioral health and improve system outcomes and performance.
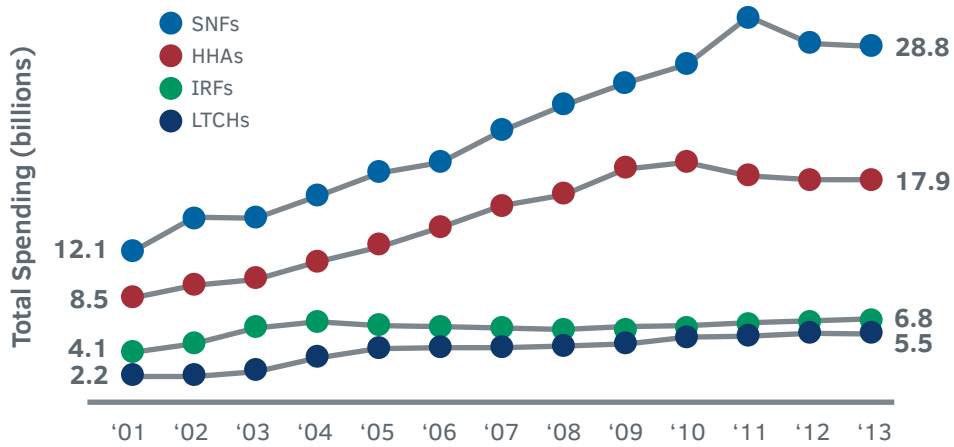
POST-ACUTE CARE SERVICES

Post-acute care (PAC) providers—including long-term care hospitals (LTCHs), inpatient rehabilitation facilities (IRFs), skilled nursing facilities (SNFs), and home health agencies (HHAs)—play a critical role in the health system. This core set of PAC providers helps to ensure that patients receive the care they need to recover from illness, injury, or surgical procedures and transition back to either their own home or to another community setting, typically after being discharged from the hospital. Furthermore, PAC services play a critical role in helping patients who are ill or face trauma maximize their independence; maintain connection with their family, friends, or community; facilitate their physical and emotional recovery; and allow them the chance to lead healthy and fulfilling lives. Ensuring an adequate supply of high quality PAC services that span the full spectrum of services and settings is a critical aspect of a strong, patient-centered health system, and these services are instrumental in controlling health care costs.[125] The importance of focusing on care transitions and ensuring a strong continuum of community-based services to promote post-acute recovery and prevent acute inpatient hospitalizations, including hospital readmissions, was one of the leading discussion points and priorities cited by service providers and other stakeholders interviewed for this assessment.

Nationally, spending on PAC services accounts for a large proportion of total spending. In 2013, Medicare spending on PAC services totaled $59 billion and accounted for 11% of total Medicare spending.[126] Spending at SNFs accounted for nearly half of all spending (49%), followed by spending from HHAs, IRFs, and LTCHs (Figure 22). Furthermore, in 2013, 22% (approximately 8 million discharges) of all inpatient hospital discharges were discharged to the four leading PAC settings mentioned above (HHA, SNF, IRF, and LTCH), 70% of these discharges were discharged to patients' homes, and the remaining 8% were discharged to other settings.[127]

The most common discharge setting was HHAs, accounting for 50% of all U.S. PAC discharges in 2013.[128] Discharges to SNFs was the second most common discharge setting with 40%, followed by discharges to IRFs (7%) and those to LTCHs (2%) (Figure 23).

FIGURE 22: MEDICARE SPENDING ON PAC BY SECTOR

American Hospital Association, http://www.aha.org/research/reports/tw/15dec-tw-postacute-adden.pdf

FIGURE 23: U.S. HOSPITAL DISCHARGES BY DISCHARGE SETTING, 2013

HCUP, https://www.hcup-us.ahrq.gov/reports/ statbriefs/sb205-Hospital-Discharge-Postacute-Care.pdf
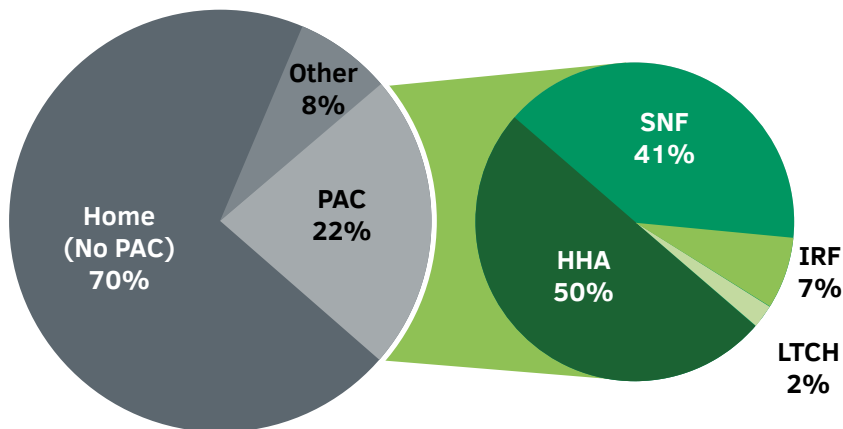
In 2014, DC's discharge patterns differed from the U.S. distribution: approximately 17% of all DC hospital discharges were discharged to the four leading PAC settings, and approximately 75% of these discharges were discharged to the home. The remaining 8% were discharged to other settings. Similar to national data, the most common discharge setting for DC patients was HHAs, which accounted for 44% of all hospital discharges, followed by SNFs (41%), IRFs (13%), and LTCH facilities (2%) (Figure 24).[129] The key differences between the U.S. and DC hospital PAC discharge patterns were that (1) DC hospitals discharged a larger percentage of patients to home without PAC services compared to hospitals nationally, and (2) of those patients discharged to PAC settings, fewer were discharged to HHA settings and more patients were discharged to IRF settings. The percentages of PAC patients discharged to SNFs and LTCHs were the same for DC and the United States.

FIGURE 24: DC HOSPITAL DISCHARGES BY DISCHARGE SETTING, 2014
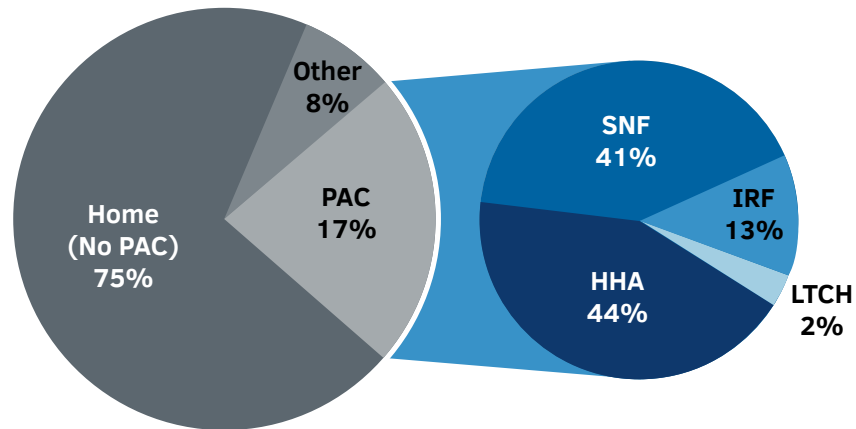
DC Hospital Discharge Data, 2014. From the DC Hospital Association

With respect to severity of illness for the patient's hospital stay just prior to PAC discharge, nationally, those discharged to LTCHs had the highest severity scores, followed by SNFs and IRFs, and then HHAs (Figure 25). The leading conditions that resulted in PAC discharges were total hip/knee replacement, septicemia or severe sepsis, heart failure, stroke, and pneumonia.

FIGURE 25: NATIONAL HOSPITAL AND PAC SEVERITY OF ILLNESS IN PRIOR HOSPITAL STAY

American Hospital Association, http://www.aha.org/research/reports/tw/15dec-tw-postacute-adden.pdf.
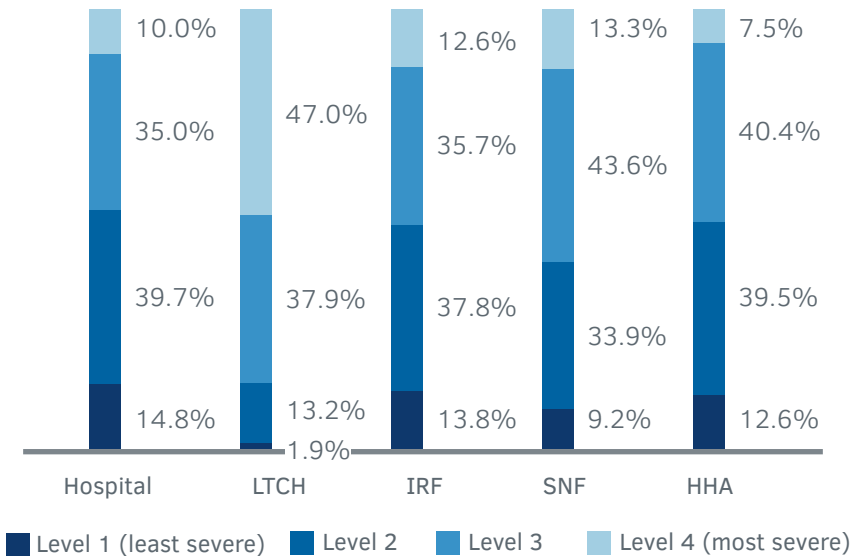
Between 2001 and 2013, Medicare PAC spending more than doubled from $26.9 billion in 2001 to $59 billion in 2013, as referenced above.[130] One of the leading consequences of poor, uncoordinated PAC services is inappropriate hospital readmissions within 30 days of an initial hospital discharge. These readmissions have been identified as one of the leading reasons for the increasing cost of health care in the United States. Taking steps to ensure that patients and caregivers have the information they need to manage the recovery process and coordinate PAC services, including primary care and other specialty care follow-up services, is critical to smoothing care transitions and reducing inappropriate readmissions. These factors illustrate why managing PAC services and hospital care transitions, including the costs associated with this care, have become so central to health reform efforts. The following are other PAC-related highlights nationally.

- **Medicare is the dominant payer, illustrating the reality that older adults are leading drivers when it comes to PAC services.**
  Approximately 70% of those discharged to PAC settings were 65 years old or older. Discharges are reported as either routine, other, or to PAC settings and there is considerable variation by payer; Medicare has the highest percentage of patients discharged to PAC settings than any payer. The rates of discharge to PAC were 41.7% for Medicare, 11.7% for private insurance, 8.1% for Medicaid, and only 4.8% for uninsured stays.[131] In DC, the impact of older adults is slightly less but they still account for the vast majority of PAC referrals. The average age of a nursing home admission in DC is 77, which is comparable to the U.S. average of 78.

- **Home health agency services are becoming increasingly important when exploring changes and improvements to the PAC system.** In 2013, HHA discharges accounted for 50% of all discharges nationally but only 30% of total PAC expenditures. Alternatively, 40% of all PAC discharges were to SNFs and yet these discharges accounted for 50% of total expenditures.[132]

- **Improving care transitions from the hospital to PAC settings is critical to health reform, as these transitions represent a key cost and quality driver.** Twenty-two percent of all hospital discharges nationally were discharged to PAC settings. Hospital stays discharged to PAC settings were much longer and more costly than those with routine discharges (7.0 days vs. 3.6 days; $16,900 vs. $8,300, on average). Furthermore, in 2013 the Institute of Medicine study identified PAC utilization and spending patterns as being responsible for 73% of the variation in national Medicare spending.[133]

- **Rates of discharge to PAC varied considerably across nine census divisions. The Mid-Atlantic region had the second highest rate of discharge to PAC settings.** However, DC's rate was considerably lower than the Mid-Atlantic rate. New England had the highest rate of discharge to PAC. Approximately 33% of all inpatient stays were discharged to PAC settings in 2013. The Mid-Atlantic region, which includes DC, had the second highest rate of discharge to PAC with 28% of inpatient stays. However, DC's rate was only 17%.[134]

- **The top 10 conditions and procedures accounted for 37% of all stays with discharges to PAC, highlighting the importance of managing some conditions that are the key drivers.** The 10 most common conditions and procedures had a high rate of discharge to PAC, most between 40-70%.[135]

Characteristics of the District of Columbia's Post-Acute Care System

Much like the behavioral health system, there is an expansive and complex network of providers that provides a range of acute rehabilitation and long-term care services throughout the nation as well as in DC. These providers are diverse in size and setting and serve patients in hospital, community-based, and home-based settings. As discussed above, the PAC system is made up of four types of core service providers—HHAs, SNFs, IRFs, and LTCHs—and in DC there is a robust, well-distributed, and relatively stable set of service providers across these categories. DC's core service providers are supported by a series of additional PAC service providers, including adult day centers, home care agencies, assisted living facilities, palliative care providers, and other community-based providers that provide a broad range of long-term services and supports. The following is a summary of the core PAC services as well as the other longer-term supportive services.

Core PAC Service Providers

Throughout the United States, SNFs, IRFs, and LTCHs, along with HHAs, provide a varied range of skilled nursing, rehabilitation, and long-term care services and are the primary recipients of PAC referrals from hospitals, other clinical settings, or in some cases directly from the community. The number of nursing homes at the state and national level has remained relatively stable over the past 10 years. In 2004 there were 16,032 licensed nursing homes in the United States. In 2014, this number declined to 15,640, only a slight 2.4% decline.[136] The number of available nursing home beds is well-controlled by market forces and local referral rates, evidenced by stable, relatively predictable referral and occupancy rates on a state by state basis. Occupancy rates range from 64% to 92%, with the majority around 85%. Nationally, the average nursing home bed occupancy rate decreased slightly from 83% in 2010 to 82% in 2014.[137] The number of nursing home beds per 1,000 population in 2014 was 5.3 beds for all ages, 37.8 beds for the over 65 year old population, and 284.3 beds for the over 85 year old population. With respect to the distribution of these facilities, according to Medicare Payment Advisory Commission (MedPAC), in 2015 over 88% of Medicare beneficiaries lived in counties with three or more SNFs and less than 1% of beneficiaries lived in counties without a SNF.[138]

SNFs, IRF, and LTCH services in DC are provided by a relatively stable, well distributed system of nursing homes and other types of providers that collectively provide a range of skilled nursing, inpatient rehabilitation, and long-term care services. Most of these organizations provide a broad range of services but the specific scope and service capacity depends on the organization. More specifically, the core PAC service system in DC includes two licensed freestanding LTCH facilities, 18 nursing homes (more accurately termed as SNFs), one inpatient acute rehabilitation hospital (MedStar National Rehabilitation Hospital), inpatient and outpatient physical rehabilitation networks, and 38 HHAs. The following is a more detailed description of DC's PAC service system, along with information on services provided, capacity, and distribution. A map showing the distribution of components of DC's PAC providers by category is included in Figure 26.

- **Long-Term Care Hospitals (LTCHs)**. LTCHs treat a patient population that is typically more ill than patients treated in other short-term acute-care settings. Patients served in LTCHs may require care due to a terminal condition, a severe disability, an illness or injury, or the infirmity of old age. Many LTCH patients are transferred there from an intensive or critical care unit. LTCHs specialize in treating patients who may have multiple chronic or complex conditions, but who may improve with time and care, and may eventually return home. LTCHs provide services such as respiratory therapy, head trauma treatment, and pain management. These facilities may be freestanding, co-located on the campuses of acute care hospitals (ACHs), or may be hospitals within hospitals (e.g., specialized hospital units or SNFs). To qualify as an LTCH, a facility must meet the same conditions as a regular ACH. Since most LTCH patients are more ill than patients discharged to other post-acute venues,

FIGURE 26: DISTRIBUTION OF DC POST-ACUTE CARE PROVIDERS

DC Department of Health
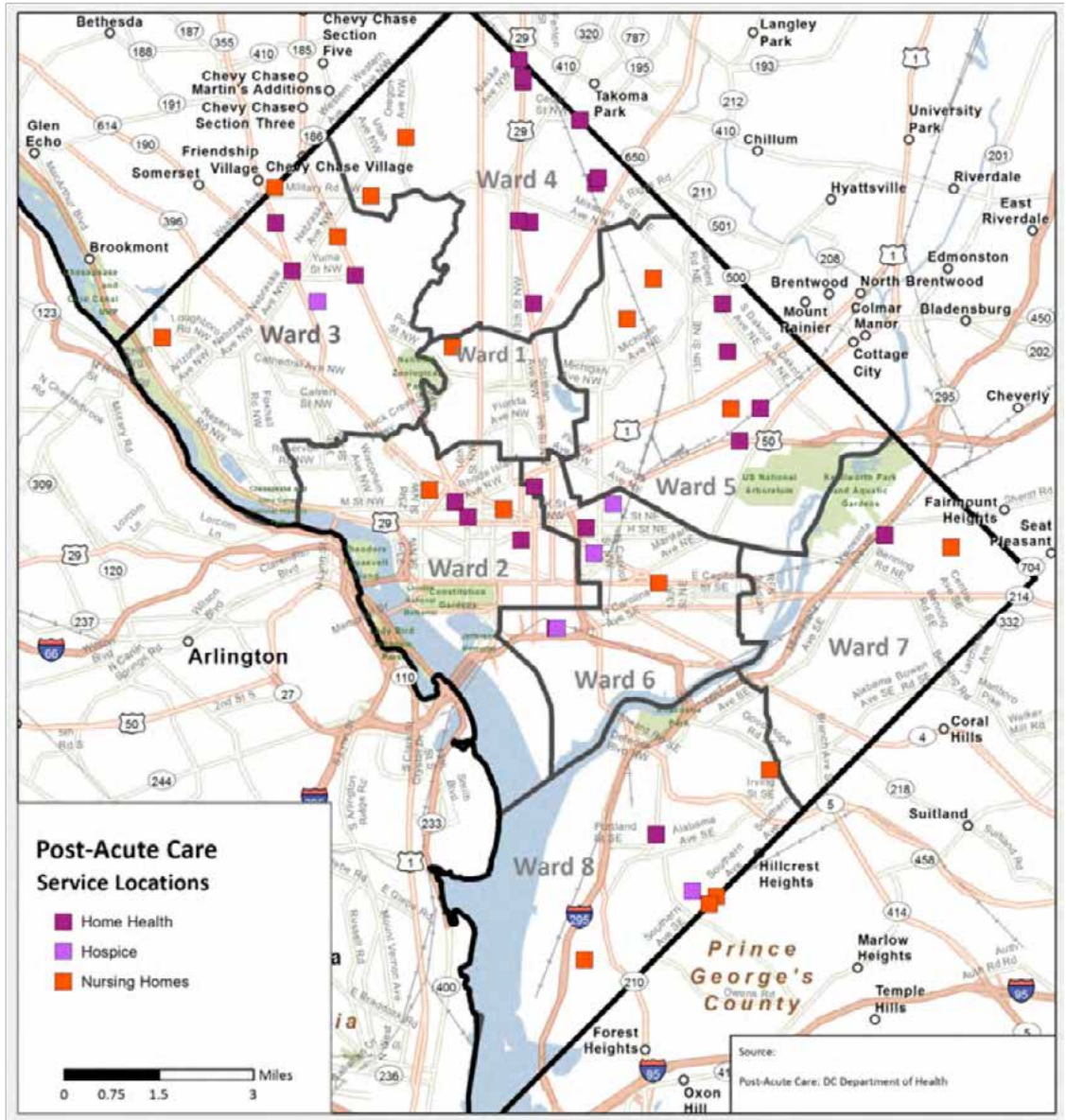
their average length of stay is longer, averaging 26.5 days for Medicare FFS beneficiaries nationally in 2013.[139] In DC, Bridgepoint Healthcare is the only LTCH provider and currently operates out of two freestanding facilities. As discussed above, approximately 2% of PAC discharges are discharged to LTCH settings in DC.

- **Inpatient Rehabilitation Facilities (IRFs) and Skilled Nursing Facilities (SNFs)**. IRFs and SNFs are freestanding community-based facilities that provide a range of acute rehabilitation and long-term care services to patients recovering from an acute illness, injury, or a surgical procedure. SNFs and IRFs furnish short-term skilled nursing or rehabilitation care services, typically for those who have been discharged from the hospital with an injury (e.g., hip and knee replacements) or from medical conditions (e.g., stroke and pneumonia). The most common services provided in SNFs and IRFs are physical and occupational therapy and speech-language pathology, as well as provision of prosthetic and orthotic devices. There are currently 18 nursing homes (SNFs) in the District, and they are well distributed geographically. As discussed above, 41% of PAC discharges in DC are discharged to SNFs and 13% are discharged to IRFs. MedStar National Rehabilitation Hospital is the District's only inpatient rehabilitation hospital, though there are other acute inpatient rehabilitation facilities throughout the District.

- **Home Health Agencies (HHAs)**. HHAs provide post-acute services to persons who are homebound and need skilled nursing or therapy. Services provided by HHAs mirror those provided in SNFs and include skilled nursing, physical therapy, occupational therapy, speech therapy, aide services, and medical social work. Other custodial care or supportive services may be provided by personal care attendants (PCAs) that are not required to have clinical training. These staff members assist patients with activities of daily living (ADLs) such as bathing, dressing, eating, and mobility. Patients discharged to HHAs tend to have lower severity scores than those discharged to SNFs, IRFs, or LTCHs. As discussed above, in 2014, 43% of DC's PAC discharges were discharged to HHAs. For most payers, HHA services do not need to be preceded by a recent hospital stay to qualify for payment; in 2013, only 33% of national home health episodes were preceded by a hospital or other post-acute stay in a SNF, IRF, or LTCH. HHAs are increasingly being used by primary care providers, other clinical providers, and caregivers to encourage patients to maintain independence in the home, avoid institutional care, and prevent more costly inpatient and nursing home stays. In DC, there are 38 HHAs that provide services throughout the city.

As of 2016, there were 18 nursing home facilities that are well distributed and collectively operate 2,578 beds.[140] According to CMS's 2015 Nursing Home Data Compendium, which includes data for the 19 facilities that were operating at the time, the average occupancy rate for DC's nursing home beds was 89%. This rate was slightly higher than the national rate of 82% and very similar to the rates in Maryland (88%) and Virginia (87%). With respect to nursing home beds per 1,000 population, DC's nursing home bed capacity was comparable to national and regional rates: there were approximately 4.3 nursing home beds per 1,000 population (all ages), compared to 5.3 beds per 1,000 for the nation, 4.7 for Maryland, and 6.2 for Virginia. For District's 65+ population, there were approximately 37.8 nursing home beds per 1,000, which mirrored the national rate (37.8) and was slightly higher than the rates in Maryland (35.4) and Virginia (29.5). For the population 85 years and older, there were approximately 263.9 nursing home beds per 1,000 population, matching the rate in Maryland, slightly higher than that of Virginia (239.8), and slightly lower than the national rate (284.3).

In 2014, the re-hospitalization rate for those served in DC's nursing homes was 18.2%, which was slightly higher but comparable to the national rate of 17.5%. This rate was also comparable to rehospitalization rates for Maryland and Virginia, which were reported at 17.7% and 17.6% respectively. With respect to the rate of "discharge to the community" and the "use of off-label antipsychotics," two other quality measures regularly tracked by the American Healthcare Association, DC's rates were comparable to rates nationally and in Maryland and Virginia. With respect to patient characteristics, the 19 nursing homes operating in DC in 2014 served 5,938 patients through 4,375 admissions. The average patient age was 77, compared to 78 nationally, 76 in Maryland, and 78 in Virginia. Fifty-six percent of patients in DC nursing homes had dementia, compared to 55% of patients nationally. The average number of ADL dependencies in DC (7.2) was comparable to the national average (7.8) and averages in Maryland (7.6) and Virginia (7.3). Finally, there was considerable variation with respect to the percentage of admissions that were greater than 100 days; in DC, 79% of nursing home admissions were greater than 100 days, compared to 51% nationally, 41% in Maryland, and 43% in Virginia, making DC's rate 50% higher than the national rate. See Figure 27 for data.

FIGURE 27: NURSING HOME CHARACTERISTICS

2014		District of Columbia	Maryland	Virginia	United States
Nursing Home Facility Characteristics					
# of Nursing Home Facilities		18±	228	288	15634
Average Bed Size		146	123	113	108
Total # of Nursing Home Beds		2,774±	28,044	32,544	1,688,472
Average Occupancy Rate		89%	88%	88%	82%
# of Nursing Home beds per 1,000 population	Total	4.3	4.7	6.2	5.3
	65+	37.8	35.4	29.5	37.8
	85+	263.9	263.9	239.8	284.3
Nursing Home Employee Characteristics					
Total Employees		3,772	34,141	36,578	1,817,738
Direct Care Staff		2124	18,523	20,063	1,008,655
Registered Nurses		390	3,025	2,000	128,806
Licensed Practical Nurses		398	4,217	5,639	226,322
Nurses Aides		1,336	11,281	12,424	653,527
Selected Quality Measures*					
Rehospitalization Rate		18.2	17.7	17.6	17.5
Discharge to Community Rate		60.5	66.5	66.2	64.0
Off-Label Antipsychotic Use		14.5	14.0	17.0	17.1
Nursing Home Patient Characteristics					
Total # of Patients		5,958	80,541	91,269	4,004,317
Total # of Admissions		4,375	78,128	85,477	3,607,376
Average Age of Admission		76.8	76.2	77.7	77.6
Average # of ADL Dependence for Admissions**		7.2	7.6	7.3	7.8
% with Dementia		56.2	53.6	54.6	54.7
Nursing Home Patient Payer Mix					
Medicare		12.5	19.4	17.8	14.1
Medicaid		79.9	61.1	59.1	61.7
Other		7.7	19.5	23.1	24.2

±These figures represent the number of DC facilities and nursing home beds as of 2017.
All other figures in the table represent data from 2014.
*Quality data represents the mean performance for the latest available quarter: PointRight Pro30 Rehospitalization (Short Stay) – 2015Q3, Discharge to Community (Short Stay) – 2015Q2, Antipsychotic (Long Stay) – 2015Q3
**Activities of Daily Living (ADL) score is based upon the four "late loss" ADLs (bed mobility, transfer, toilet use, and eating). Individual ADL scores range from 0 (least dependent) through 16 (most dependent). This calculation is a component for placement in all RUG-IV groups.

Other PAC Service Providers

In addition to this core set of providers, there are other facilities that provide long-term custodial care and supportive services to those who are no longer in need of intense skilled nursing or rehabilitation. These agencies provide integrated services within the home or in home-like settings in ways that promote independence and encourage the involvement of a resident's family, neighbors, and friends. There is a network of palliative care providers that serve those who are coping with chronic or complex illnesses, injuries, or surgical procedures and need long-term services and support to manage their symptoms, coordinate treatments, and navigate the complexities of their care. Additionally, there are five hospice agencies that provide palliative care services to patients who are terminally ill and their families and caregivers. Finally, there is a broad network of clinical and non-clinical providers and community-based organizations that support the core PAC service organizations and provide an array of social service, case management, recreational, and other community health services that are integral to the care transition and PAC process. A more detailed description of these providers is included below.

- **Assisted-Living Facilities or Communities.** Assisted living facilities or communities provide a housing option for older adults who want to live in a home-like setting but may need help with dressing, bathing, eating, or other activities of daily living. They also may need basic nursing or medical supports but do not require the intensive medical and nursing care provided in a nursing home. Assisted living facilities provide a broad range of personalized, integrated services depending on an individual's needs, ranging from housing, custodial/supportive services, health care, and other personal assistance services. These services are provided in an integrated way that promotes independence and encourages the involvement of a resident's family, neighbors, and friends. There are currently 10 licensed assisted living facilities in DC that combined have 700 beds. At any given time approximately 480 of these beds are occupied for an average occupancy rate of 69%.

  It is important to note that assisted living facilities tend to serve those who are more affluent. Nationally, the average monthly cost for a one-bedroom unit is over $4,000 per month. In DC the average monthly cost for a one-bedroom unit is considerably higher than the national rate and the rates for surrounding states. In DC, only 7% of residents rely on Medicaid for their long-term care. Fifty-two percent are over the age of 85 and the remaining 48% range from roughly 60 to 84 years old.[141]

- **Hospice and Palliative Care**. While palliative care and hospice care have similar goals, it is important to note that they are different. Hospice care is a form of comfort care that is geared specifically to those who are terminally ill. Like palliative care, hospice care is geared towards supporting patients and caregivers by coordinating services and managing a patient's symptoms, but is not meant to be curative. Hospice care is tailored to those who are at the end of life and is meant to guide patients and their families, friends, and caregivers through the death, dying, and grieving process.

Palliative care is emerging as a key component of the PAC continuum, either as a direct PAC referral or as a critical component of services provided in different settings. It focuses on the symptoms of a disease and its associated treatments and helps patients to manage a broad range of issues including pain, depression, anxiety, fatigue, nausea, and loss of appetite. Other services may include medication management, triage services to prevent unnecessary hospitalization, and practical navigation support. Palliative services are typically managed by a team of providers who work in collaboration; the team often includes physicians, nurses, and other medical and non-medical service providers. Unlike hospice care, palliative care services are not provided only to those who are chronically ill or who have limited life expectancy; some of the most common recipients of palliative care services are those recovering from difficult medical treatments or surgeries, such as spinal cord trauma victims or cancer patients.

Conclusions

Findings from this assessment suggest that the current PAC service capacity is adequate to meet the current market demand, which is generated by both the population and the hospital sector through its discharge patterns. According to key informants interviewed, hospital discharge planners may occasionally not be able to meet a patient's exact desires with respect to a specific location; however, this was not common and overall, capacity was not considered to be a problem. Key informants further suggested that the leading challenges with respect to PAC services were primarily related to care coordination, integration of services, information sharing, and other system issues.

Nationally, the population of older adults (65 years old or older) is projected to more than double between 2010 and 2050 from 40.2 million to 88.5 million. Moreover, the "oldest old" population, those who are 85 years old or older, is expected to triple during roughly this same period, from 6.3 million in 2015 to 17.9 million in 2050.[142] Older adults, particularly those who are 85 years old or older, have the highest disability rate and therefore the highest need for PAC services. Given these demographic trends and the intense efforts currently underway to refine the care transition process and reduce inappropriate hospital readmissions, it is possible that PAC utilization trends may change, and SHPDA should carefully monitor demand and capacity moving forward.

Post-Acute Care System Challenges and Opportunities

While current supply and capacity issues are not the leading concerns in DC, there are a range of issues that need to be addressed to increase the quality and efficiency of PAC services. The following are the leading challenges and opportunities drawn from the quantitative and qualitative data from this assessment.

Fragmentation of Services, Care Coordination, and Service Integration

One of the most common themes from the interviews and community forums was the extent to which the heath system in DC was often fragmented and challenging to navigate. Interviewees and forum participants noted this especially for PAC services and the management of those with chronic or complex conditions, particularly after an acute episode of service.

Hospitals and other PAC settings have made great strides with respect to care transitions and are implementing or taking steps to implement evidence-based programs that have and will likely continue to enhance discharge and care planning processes (e.g., detailed care plans, coaches/navigators, behavioral health specialists, etc.), improve primary care and specialty care follow-up (e.g., enhanced primary care follow-up, home-visits, telehealth, etc.), facilitate better communication between patients and clinicians regarding medication and other aspects of treatment (e.g., Re-Engineered Discharge (RED) Initiative, online patient portal, peer-to-peer counselors, navigators, etc.), avoid unnecessary visits to the emergency department after discharge (e.g., after-hours nurse call lines, nurse practitioner coverage/triage in nursing home settings, enhanced protocols for ambulance/EMS transfers, etc.), and allow patients to better anticipate and manage possible complications during the transition process (e.g., identification of red flags, detailed care plans, telehealth, etc.).

In 2013, as reported by the Centers for Medicare and Medicaid Services (CMS), the national hospital readmission rate fell by 10%, from approximately 19.5% to 17.5%.[143] Current data is likely to suggest further declines. Despite these efforts, discharge processes are still often poorly coordinated, proper follow-up is not well-facilitated, and patients struggle to interpret and act upon the guidance provided by their clinicians. These efforts must include PAC service providers and other community-based organizations, and hospitals need to increase their efforts in establishing cross-sector partnerships and collaborations in order to continue to improve care coordination and service integration.

Patient, Family, and Caregiver Engagement

There is a robust body of research and experience detailing the impact of systematically including patients, families, and caregivers in the PAC transition process. This involvement is critical to facilitating quality and patient-centered care, ensuring smooth care transitions, and reducing inappropriate hospital readmissions.[144] As mentioned above, focusing on care transitions and ensuring a strong continuum of community-based services to promote care coordination was one of the leading discussion points and priorities cited by community residents, service providers, and other stakeholders interviewed for this assessment. A clear part of this feedback was the importance of engaging the community and involving patients, family members, and caregivers in care planning activities.

Hospitals, health systems, and their partners need to focus on adopting best practices with respect to patient, family, and caregiver engagement, including (1) incorporating patient and family engagement into the mission/vision statements and overall strategic plans of those involved in the care transition process, (2) incorporating patient, family, and caregiver stories into staff training and patient/family education materials, (3) engaging Patient

and Family Advisory Councils (PFACs) in a discussion about care transitions and best practices with respect to patient/family engagement, (4) conducting training at all levels (leadership, operational, and clinical staff) on the importance of patient and family engagement, and (5) developing clinical protocols and motivational interviewing practices that promote self-management support and family/caregiver involvement. Numerous studies have shown the positive impact that family/caregiver involvement and patient-centered care has on patient satisfaction, patient engagement, length of stay, and cost.[145]

Health Literacy and Communication

There is extensive research showing the challenges associated with low health literacy and the opportunities that can be realized when patients are able to understand and act on the information communicated by physicians, nurses, care managers, and other clinical and non-clinical providers. Too often information is provided using language that contains medical jargon and is too complex for most patients to understand. Furthermore, it is often communicated in an untimely, rushed, culturally inappropriate, intimidating, and disorganized manner. Participants in the Spanish-speakers forum discussed the particular challenges they face when accessing services without bi-lingual and culturally competent providers. It is clear that low health literacy is strongly correlated with adverse health outcomes, especially during transitions of care.[146]

These issues highlight the importance of implementing evidence-informed strategies across settings that are culturally and linguistically appropriate; that provide clear, actionable information at the outset of the inpatient stay and throughout the PAC service continuum; and that promote trust and two-way communication between the patient and provider. Best practices addressing health literacy and cultural challenges include clear communication techniques like using simple familiar language, segmenting information into small sections, and confirming understanding using the "Teach-back" method. There are also systemic strategies that incorporate health literacy principles into their design and have been shown to decrease readmissions, such as the Re-Engineered Discharge (RED) toolkit.[147]

The Agency for Healthcare Research and Quality (AHRQ) has developed a document titled Ten Attributes of Health Literate Healthcare Organizations. These are standards and strategies that can enable health care organizations to provide truly patient-centered care by making it easier for patients to access the services, engage with their providers, understand the information given to them, and take action to improve and maintain their health.

Evidence-Based Pathways and Referral Patterns

There is considerable variation regionally with respect to the rates of discharge to different PAC settings and there is even more variation with respect to discharge patterns by payer class, demographic characteristics, and other factors. These referral and discharge patterns to specific facility types are not well understood and this assessment was not designed to fully explore the implications and consequences of these patterns in DC. However, nationally, the literature suggests that PAC referral and discharge patterns to specific types of service providers are often associated with factors that are not necessarily related to

quality, cost, and patient preference, but rather by factors associated with provider experience, contractual relationships, informal relationships between discharge planners and PAC providers, and facility expertise with certain types of diagnoses. An analysis by MedPAC suggests that similar patients are treated in different settings with varying degrees of impact or quality and at widely varying costs to the Medicare program.[148] Hospitals, Accountable Care Organizations (ACOs), and PAC providers have developed and/or are in the process of developing protocols, guidelines, and tools to better guide the discharge and care transition process to improve quality and patient satisfaction as well as reduce inappropriate hospital readmissions and overall cost. These efforts should continue and could have an impact on PAC supply and capacity.

Root Causes for Poor Care Transitions and Hospital Readmission

There are a range of factors that contribute to poorly coordinated, ineffective care transitions and ultimately high inappropriate hospital readmission rates. These factors vary considerably from market to market, hospital to hospital, and even community to community. It is critical that hospitals and PAC providers across the continuum understand the range of factors and, to the extent possible, the root causes of these poor care transitions. The root causes that are most often identified are (1) poor communication between patients, family members, caregivers, and patients' clinical and non-clinical service providers, (2) poor coordination, lack of teamwork, and lack of direct accountability for who is responsible for managing the care transition process, (3) inadequate amount of time and lack of standardized procedures regarding the initial care transition hand-off, (5) lack of patient education and health literacy, (6) conflicting or confusing medication regimens, and (7) unclear instructions about follow-up care. Efforts need to be made to identify the underlying issues related to poor care transitions. A Districtwide assessment conducted collaboratively could promote a collective understanding of these issues and promote collaboration.

Multi-Sector Collaboration and Service Coordination

As discussed previously, there is a growing appreciation and emerging evidence that shows the importance of multi-sector collaborations and community partnerships. With respect to PAC services, these partnerships are critical to coordinating the broad array of services that are required to ensure that patients are well-supported during their recovery from injury or illness as they transition from the hospital to various PAC setting and eventually back to their homes. Once back in their homes, patients often continue to need a broad range of supportive and community services as well as assistance from family and friends. Furthermore, evidence suggests that patient follow-up with their primary care provider and other specialty medical care providers are critical to a full recovery and to avoiding inappropriate hospital readmissions. These evidence-based programs rely on multi-sector collaboration and thoughtful coordination or integration of a range of services. It is essential that multi-sector coalitions be developed to implement evidence-informed strategies that improve care coordination, reduce fragmentation of services, support patient/provider communication, enhance primary care medical and specialty care follow-up, and promote smoother care transitions. These forums already exist to some extent in DC but they are often isolated by sector or service provider type. These coalitions and/or professional organizations need to be formally brought together and encouraged to work more collaboratively.

Health Information Technology, Health Information Exchange, and Information Sharing

Like behavioral health providers, PAC providers often face unique challenges as they seek to adopt electronic health records systems (EHRs) and participate in health information exchange (HIE). Research has shown that better care coordination and seamless integration of services require that clinical and patient information flow freely across sectors and between service providers.

It is clear that better care coordination and seamless integration of services require that clinical and patient information flow freely between service providers and across sectors. The major challenges include (1) the inability of HIT systems to effectively capture and share clinical and non-clinical information in a structured and standardized format, (2) the limited use of clinical decision support tools, and (3) the "siloed" nature of physical health, behavioral health, and oral health data as well as other clinical and non-clinical data. These issues and others hinder care coordination, service integration, quality, cost reductions, and advances in patient satisfaction.

Monitoring, Evaluation, and Measurement

In order to maximize the strength and impact of any health system, including DC's PAC service system, one must develop mechanisms that allow one to examine and prioritize quality prevention, treatment, and recovery elements at all levels. These monitoring, evaluation, and performance improvement tasks allow policy makers and program administrators to assess and plan for the triple aim of improved quality, reduced cost, and better engagement in care. These efforts include (1) the selection of a series of process and outcome measures, (2) tracking systems to monitor and evaluate the data collected, (3) performance improvement processes that apply the data to improve program operations, and (4) reporting and dissemination efforts that allow one to disseminate results, share lessons learned, and develop improvements. CMS captures a wealth of data on PAC facilities, patients served, and service utilization. However, similar to the behavioral health system, there is a need to more carefully use and analyze this data to track outcomes and identify evidence-based practices that lead to greater independence, improve health status and quality of life, and reduce costs.

Reduction of Inappropriate Hospital Readmissions

Reducing inappropriate hospital readmissions is a critical component of improving the quality of care and lowering health care spending. Improving care transitions and the ways that hospitals, patients, families and caregivers, PAC service providers, and other community partners work together is critical to this effort. Hospitals and PAC service providers have made great strides to identify triggers of inappropriate readmissions as well as the strategies for improvement, but continued efforts are needed. Many of the challenges referenced above in this section are at the heart of reducing inappropriate readmissions.[149]

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Strategic Recommendations

The following strategic recommendations are derived from the analysis of data pertaining to DC's health system and the health status of residents. The recommendations focus on three priority areas: health system strengthening (by service sector), health systems and structures, and community health improvement. For each priority area, key evidence is summarized and objectives and strategies to address the identified weaknesses and gaps are suggested. These recommendations inform the work of the DC DOH, as well as other public and private stakeholders, to improve the health of DC's residents and visitors and to promote health equity. Furthermore, these recommendations will serve as guidelines for decisions on Certificate of Need applications.

In the table below, the objectives for each goal area have been assigned an expected planning and implementation timeframe, i.e., potentially short-term, medium-term, or long-term. Each has also been assigned a preliminary ranking. High priority objectives are those likely to have the greatest impact on health status and health equity given the findings from the assessment. This guidance regarding the lead-time required and the relative priority for each objective is provided to assist the SHPDA and the SHCC to develop a detailed action plan—the next step in the HSP process. The SHPDA and the SHCC considers the HSP to be a dynamic document. Each of the objectives is expected to serve as the basis for further work by SHPDA, SHCC, stakeholders, and the community to identify next steps toward achieving the goal. In addition, addressing many of the goals in Priority Area 3 (Community Health Improvement) will require coordination between DOH and other District government entities, reflecting the Health in All Policies approach. Where appropriate, engagement of representatives of the private sector will be encouraged.

PRIORITY AREA 1: HEALTH SERVICES STRENGTHENING

PRIMARY CARE	
Key Evidence	• Distribution, capacity, and quality are not the leading concerns for primary care services. • Social determinants of health represent the most critical barrier to care and engagement in primary care services. There is a need for greater outreach, education, and screening to address this. • Care coordination and service integration are lacking. • More than 20% of all hospital discharges in Wards 5, 7, and 8 are for ambulatory care sensitive conditions that are preventable through timely and appropriate primary care.

PRIMARY CARE		
Goals	**Term/Priority**	**Objectives**
1. Promote engagement in appropriate, quality, and timely primary care services, including preventive, acute, and chronic disease management services.	Medium-term/ High Priority	a. Develop a community education and awareness campaign that promotes awareness of the leading social determinants of health and risk factors.
	Medium-term/ High Priority	b. Implement screening for social determinants of health in community-based settings (e.g., poverty, housing, transportation, education, food insecurity).
	Short-term/ High Priority	c. Reduce barriers to care related to scheduling and availability of appointments (e.g., open access scheduling, evening/weekend hours, patient navigator programs).
	Medium-term/ Moderate Priority	d. Expand primary care capacity in targeted ways based on findings from on-going primary care assessment.
	Medium-term/ Moderate Priority	e. Promote the use of community health workers, patient navigators, and/or community health educators who can engage community members, address risk factors, and promote healthy living.
	Short-term/ Moderate Priority	f. Enhance primary care operations to improve patient satisfaction.
2. Promote a comprehensive approach to integrating medical and behavioral health services in primary care medical and behavioral health outpatient clinics.	Long-term/ High Priority	a. Promote universal education and screening activities in primary care medical settings for mental health and substance abuse issues.
	Medium-term/ High Priority	b. Promote the bi-directional integration of medical and behavioral health services in outpatient settings through co-located and enhanced referral models.
3. Promote evidence-informed and place-based strategies to support individuals with the leading chronic and/or complex conditions (e.g., cancer, cardiovascular disease).	Short-term/ High Priority	a. Support evidence-informed service integration, care coordination, and self-management support programs.

PRIMARY CARE		
Goals	**Term/Priority**	**Objectives**
4. Reduce inappropriate emergency department utilization.	Medium-term/ Moderate Priority	a. Support evidence-informed programs in ED and primary care settings that raise awareness and educate patients on appropriate use of ED services and link patients to a medical home (e.g., ED navigators, triage programs).
5. Increase availability of high-quality medical specialty and oral health services for low-income individuals and families.	Long-term/ High Priority	a. Promote collaborations between DC's hospitals and safety net providers that address barriers and service gaps to medical specialty care services.
	Medium-term/ High Priority	b. Support evidence-informed programs that enhance access to high-quality medical specialty care services for uninsured and Medicaid insured residents.
	Medium-term/ High Priority	c. Expand access to oral health services for at-risk target populations (e.g., low-income individuals and families, uninsured, older adults).
6. Reduce barriers for private practitioners to serve Medicaid patients.	Medium-term/ High Priority	a. Address billing and payment policies that discourage private primary care practices to serve patients who are Medicaid insured.

BEHAVIORAL HEALTH		
Key Evidence	• Distribution and capacity of services are not the leading concerns for mental health or substance use sectors. • There is a critical need for outreach, education, and universal screening to promote engagement in care. • A range of system and structural challenges limit access and impact of services. • Mental health and substance use services are siloed, thus leading to barriers to care and poor care coordination. • There is a need for education on impacts, risk factors, signs, and symptoms of leading behavioral health issues. • Evidence-informed multi-sector strategies for individuals with chronic and complex conditions are needed to support recovery and independence.	
Goals	**Term/Priority**	**Objectives**
1. Reduce stigma around behavioral health issues.	Medium-term/ High Priority	a. Implement a broad awareness/education campaign addressing the impacts risk factors signs and symptoms of the leading behavioral health issues (depression, anxiety, alcohol, and opioids).

BEHAVIORAL HEALTH		
Goals	**Term/Priority**	**Objectives**
2. Promote engagement in care for those with mental health and substance use issues.	Long-term/ High Priority	a. Promote universal education and screening activities in primary care medical settings for mental health and substance abuse issues.
	Medium-term/ Moderate Priority	b. Support initiatives that identify and link those with mental health and substance use issues to high-quality and appropriate services regardless of where they enter the health system (e.g., single-point of entry, 2-1-1, case management, universal screening initiatives).
	Short-term/ High Priority	c. Promote engagement by enhancing cross-sector collaboration among community-based behavioral health, medical, social service, and community health organizations.
3. Strengthen DC's behavioral health service system.	Short-term/ High Priority	a. Strengthen existing collaborative efforts between DC Department of Health, DC Department of Behavioral Health, and DC Department of Health Care Finance to address behavioral health issues.
	Medium-term/ High Priority	b. Promote bi-directional integration of primary care (PC) medical and behavioral health (BH) services in outpatient settings (PC medical services into BH clinics and BH services into PC medical clinics).
	Medium-term/ High Priority	c. Address barriers between DC's core primary care providers and the DC Department of Behavioral Health's Mental Health Rehabilitation Service (MHRS) and Substance Use Disorder (SUD) sites.
	Medium-term/ High Priority	d. Develop and support program and policy initiatives that address silos and fully integrate DC's behavioral health and substance use service delivery and payment systems.
	Medium-term/ High Priority	e. Strengthen recruitment of high-quality psychiatrists and psychiatric nurse practitioners.
	Medium-term/ Moderate Priority	f. Support evidence-informed, place-based strategies that address leading behavioral health issues (alcohol, depression, anxiety, and opioids) among high-risk target populations (e.g., racial/ethnic minorities, adolescents and youth, older adults).
4. Promote evidence-informed, place-based multi-sector strategies for people with chronic/ complex behavioral health issues to support recovery and independent living.	Medium-term/ High Priority	a. Support evidence-informed, multi-sector collaboratives that expand access to transitional/supportive housing for people most at-risk (e.g., homeless, mentally ill, individuals recovering from substance use, disabled adults).

HOSPITAL AND SURGICAL SERVICES

Key Evidence	• Distribution and capacity are not the leading concerns for hospital services; distances are not extreme relative to national standards. • Quality of services provided is not a concern, except in targeted cases. • Hospitals in downtown DC are the preferred hospitals for people in most wards and zip codes. • There are differential patterns of hospital utilization for privately insured and Medicaid insured patients. • Chronic/complex medical issues (e.g. heart disease, respiratory disease) and mental health disorders are the leading hospital conditions.

Goals	Term/Priority	Objectives
1. Enhance access and address barriers to hospital inpatient, medical specialty, and outpatient surgical services for residents in targeted communities.	Medium-term/ High Priority	a. Explore ways to address barriers to care or utilization patterns related to insurance coverage, MCO contracting, provider networks, and other administrative barriers.
	Long-term/ Moderate Priority	b. Explore the possibility of establishing emergency services, urgent care, surgical center, and/or outpatient medical facility in targeted communities that face barriers to access.
	Short-term/ High Priority	c. Continue to analyze hospital inpatient capacity and service utilization data to determine the extent to which there are (or will be) service gaps or maldistributions that hinder timely, appropriate access to quality care.
2. Reduce inappropriate ED utilization.	Medium-term/ Moderate Priority	a. Support evidence-informed programs in ED and primary care settings that raise awareness/educate patients on appropriate use of ED services and that link patients to a medical home (e.g., ED navigators, triage programs.)
3. Promote well-coordinated, patient-centered care transitions that enhance patients' recovery, increase independence, and reduce inappropriate hospital readmissions.	Short-term/ High Priority	a. Conduct a District-wide root cause analysis for inappropriate readmissions and poor care transitions.
	Medium-term/ High Priority	b. Support evidence-informed, place-based multi-sector collaboratives that expand access to transitional/ supportive housing for those most at-risk (e.g., homeless, mentally ill, recovering substance users, disabled adults.)
	Medium-term/ High Priority	c. Promote multi-sector collaboration among post-acute providers and other related community-based providers to improve care coordination and enhance care transitions.
	Medium-term/ High Priority	d. Identify and implement evidence-based, data-informed post-acute care pathways that enhance recovery, increase independence, and reduce inappropriate hospital readmissions.

POST-ACUTE CARE SERVICES		
Key Evidence	• Distribution and capacity are not the leading concerns for post-acute care services. • The discharge distribution of DC hospitals mirrors national and state trends; most patients are discharged to the home with no post-acute services. • Medicare is the dominant payer, illustrating that older adults are the leading utilizers when it comes to post-acute care services. • Rates of discharge to post-acute care varied considerably across nine census divisions; the Mid-Atlantic region has the second highest rate of discharge to post-acute care settings. • The top 10 conditions and procedures accounted for 37% of all post-acute care stays, highlighting the importance of care management.	
Goals	**Term/Priority**	**Objectives**
1. Promote well-coordinated, patient-centered care transitions that enhance patients' recovery, increase independence, and reduce inappropriate hospital readmissions.	Short-term/ High Priority	a. Conduct a District-wide root cause analysis for inappropriate readmissions and poor care transitions.
	Short-term/ High Priority	b. Promote multi-sector collaboration to improve care coordination and care transitions.
	Medium-term/ High Priority	c. Identify and implement evidence-based, data-informed post-acute care pathways that enhance recovery, increase independence, and reduce inappropriate hospital readmissions.
	Medium-term/ High Priority	d. Enhance care coordination between hospital discharge planners, primary care providers, and outpatient medical providers to promote better follow-up after discharge.
	Medium-term/ Moderate Priority	e. Strengthen recruitment and retention of geriatric primary care specialists.
	Medium-term/ High Priority	f. Promote evidence-informed initiatives that enhance communication and address health literacy barriers for patients during the discharge process.

PRIORITY AREA 2: HEALTH SYSTEMS AND STRUCTURES

HEALTH SYSTEMS AND STRUCTURES		
Key Evidence	• DC has a robust health care service system that would benefit from multi-sector collaboration and an alignment of strategic priorities. • Continuous and systematic collection and analysis of health-related data will refine District- and sector-wide planning, implementation, and evaluation efforts. • Informants identified low health literacy as a key driver of inappropriate hospital utilization. • The siloed nature of physical health, behavioral health, and other forms of clinical and non-clinical data hinders care coordination, service integration, cost reductions, and advances in patient satisfaction.	
Goals	**Term/Priority**	**Objectives**
1. Promote multi-sector collaboration within and across service systems and sectors.	Short-term/ High Priority	a. Support and facilitate strategies that promote multi-sector collaborative planning.
	Short-term/ High Priority	b. Establish multi-sector, District-wide priorities and develop detailed action plans.
	Medium-term/ Moderate Priority	c. Drive accountability by tracking and monitoring impact.
2. Enhance population health surveillance.	Short-term/ Moderate Priority	a. Promote efforts that compile and disseminate quantitative population health-related data (e.g., HP2020, DC Health Matters, YRBS, BRFSS).
	Short-term/ High Priority	b. Facilitate a comprehensive collaborative needs assessment involving public and private partners.
	Medium-term/ Moderate Priority	c. Adopt specific measures to track the progress and impact of community health strategies.
3. Promote health literacy "universal precautions" to improve health outcomes.	Medium-term/ High Priority	a. Support initiatives that improve supportive systems (e.g., transportation, scheduling, insurance enrollment).
	Medium-term/ High Priority	b. Support initiatives that improve spoken and written communication between patients and providers.
	Medium-term/ High Priority	c. Support initiatives that empower system navigation and self-management.

HEALTH SYSTEMS AND STRUCTURES		
Goals	**Term/Priority**	**Objectives**
4 Enhance health information exchange and technology systems in the District and surrounding region.	Medium-term/ High Priority	a. Promote the implementation and use of electronic health records and other HIT systems for clinical and non-clinical partners to promote practice-level out-reach, care management, and follow up.
	Medium-term/ High Priority	b. Continue to promote and expand health information exchange capacity for clinical and non-clinical partners to promote information sharing, care coordination, and overall population health management, especially in behavioral health settings.
5. Support workforce training and capacity building efforts.	Medium-term/ Moderate Priority	a. Promote initiatives that raise aware-ness and build capacity among health care, social service, and other community-based health organizations with particular focus on the impact and importance of social determinants of health, evolving service delivery and payment reform efforts, the impact of behavioral health, and evidence-in-formed place-based strategies.
6. Explore sustainable financing structures to address SDOH, barriers to access and engagement, care coordination, and service integration.	Medium-term/ High Priority	a. Promote funding streams such as community benefit funding, alignment of government programs and invest-ments, payment reform/value-based payment, private foundation or corpo-rate support, and CON-related require-ments or conditions.
	Medium-term/ High Priority	b. Given the need to maximize and align community health investments in DC and in recognition of DC's high insur-ance rates, there is a need to review DC's uncompensated care and hospital community benefit programs and poli-cies, including a review of best practice from other states and jurisdictions, with the goal of (1) improving program tracking and oversight, (2) exploring how to best utilize available resources, and (3) maximizing the impact of DC's community health, social determinant, and community benefit investments.

PRIORITY AREA 3: COMMUNITY HEALTH IMPROVEMENT

COMMUNITY HEALTH IMPROVEMENT		
Key Evidence	• The social determinants of health (housing, income, education, and access to affordable and nutritious foods) are root causes of disparities in health outcomes. • There are specific inequities and disparities for residents in particular communities. • Issues of racism (overt and perceived), prejudice, discrimination, and cultural differences deter many individuals from engaging in care. • Major opportunities exist within community engagement, service coordination, multi-sector collaboration, and care transitions.	
Goals	**Term/Priority**	**Objectives**
1. Promote health equity by implementing policies and practices across all sectors that aim to address social determinants of health, improve health outcomes, and reduce disparities.	Medium-term/ High Priority	a. Develop community education and awareness campaigns that promote awareness of the leading social determinants of health and risk factors.
	Medium-term/ High Priority	b. Implement screening for social determinants of health in community-based settings.
	Medium-term/ High Priority	c. Develop a diverse multi-sector collaborative of residents, providers, and community organizations—building on existing structures—to address social determinants, guide community health improvement efforts, and promote cross-sector collaboration.
	Short-term/ High Priority	d. Promote collaboration and integration of cross-sector activities by supporting a "Health in All Policies" approach.
	Medium-term/ High Priority	e. Create health improvement zones in targeted communities that foster community engagement, coordination of community health investment, and the development of evidence-informed programming in targeted communities.
	Short-term/ High Priority	f. Support targeted evidence-informed, place-based strategies for special populations with chronic and/or complex conditions to encourage self-management, support, and effective engagement in appropriate care.
	Short-term/ High Priority	g. Support initiatives that reduce transportation barriers and promote transportation equity.

COMMUNITY HEALTH IMPROVEMENT		
Goals	**Term/Priority**	**Objectives**
2. Support initiatives to expand affordable and safe housing.	Short-term/ High Priority	a. Support existing initiatives that advocate for the production and/or preservation of affordable housing for low- and moderate-income individuals and families.
	Medium-term/ High Priority	b. Promote policies and programs that develop, maintain, and/or enhance supportive/transitional housing for special populations (e.g., homeless, mentally ill, individuals in substance use recovery, persons with disabilities).
	Short-term/ High Priority	c. Support new and existing initiatives that improve and protect existing housing stock to prevent unhealthy housing conditions.
3. Promote economic prosperity for low-income individuals and families.	Medium-term/ High Priority	a. Support initiatives that promote high quality public education across the spectrum (elementary school, middle school, high school, vocational, and college settings).
	Medium-term/ High Priority	b. Support initiatives that expand opportunities for job training.
	Medium-term/ High Priority	c. Diversify employment opportunities.
4. Expand access to affordable and nutritious foods to promote healthy eating and reduce food insecurity.	Short-term/ High Priority	a. Promote integration and collaboration across existing community programs to maximize resources.
	Short-term/ High Priority	b. Support existing and new evidence-informed programs that promote healthy eating and enhance access to nutritious food.
	Short-term/ High Priority	c. Support food banks in efforts to provide food and education to residents in need.
5. Promote healthy aging.	Medium-term/ High Priority	a. Support community education and awareness campaigns that foster healthy aging and independent living.
	Short-term/ High Priority	b. Promote cross-sector collaboration and coordination across the older adult service network.
	Medium-term/ Moderate Priority	c. Support evidence-informed programs that address leading health issues for older adults (e.g., fall prevention, depression/social isolation, substance use, cardiovascular disease, diabetes).
	Short-term/ High Priority	d. Support evidence-informed programs and policies that improve care transitions from the hospital and other acute care settings to the home.

Certificate of Need

Certificate of Need Legislative Provisions

D.C. Official Code § 44-406 establishes the Certificate of Need (CON) process, requiring that

…all persons proposing to offer or develop in the District a new institutional health service, or to obligate a capital expenditure to obtain an asset to be located in the District shall, prior to proceeding with that offering, development, or obligation, obtain from the SHPDA a certificate of need that demonstrates a public need for the new service of expenditure. Only those institutional health services or capital expenditures that are granted a certificate of need shall be offered, developed, or obligated within the District.

In addition, a Certificate of Need is required before there is a capital expenditure to acquire, either by purchase or under a lease or comparable arrangements, an existing health care facility.

The State Health Planning and Development Agency (SHPDA), established by D.C. Official Code § 44-401 et.seq, is responsible for the administration, operation and enforcement of the Certificate of Need (CON) program. The goal of the SHPDA is to ensure the availability of quality, affordable and accessible health care services to all residents, and the CON process gives the SHPDA the opportunity to consider the needs, interests, and concerns of stakeholders and the community at large.

D.C. Official Code § 44-403 establishes an advisory council, known as the Statewide Health Coordinating Council (SHCC), and comprised of volunteer consumers and public and private sector health providers. In its dual role as both an advisory and policymaking body, the SHCC works closely with the SHPDA to develop the Health Systems Plan (HSP) and make recommendations on applications for Certificates of Need . The SHCC meetings serve as a public forum by which widespread citizen participation is promoted and solicited for input into the health planning process.

Working in collaboration, the SHPDA and the SHCC strive to:

- Improve the health of District of Columbia residents;

- Increase the accessibility, acceptability, continuity, and quality of health services;

- Restrain increases in health care costs;

- Prevent unnecessary duplication of health resources; and

- Maintain and enhance competition in the health service area.

The CON review process is a public process that involves input and participation by the general public. Members of the public are afforded the opportunity to comment on CON applications in support of or in opposition to proposed projects. Prior to submitting the CON application, Applicants are required to inform the Advisory Neighborhood Commissions in their service area about the proposed project. Applicants are also required to inform the general public of the CON review process by publishing a notice in a newspaper of general circulation, so members of the public are made aware of services that will be established in their neighborhood. The process gives the SHPDA the opportunity to consider the needs, interests, and concerns of stakeholders and the community at large.

Use of Health Systems Plan in Defining CON Health Priorities

The District's CON program serves not only to guide capital and service-related investments, but also to promote health equity, improve population health, and strengthen the health system. As part of the HSP development process, the SHPDA gathered and synthesized quantitative and qualitative data related to (1) community characteristics, including identification of at-risk or vulnerable population segments, (2) social determinants of health and barriers to care, (3) health status and morbidity/mortality trends (including health-related disparities and inequities), and (4) service capacity and the extent to which there are gaps across the spectrum of health-related services. This data has been vital to the development of the District of Columbia's Health Systems Plan and its Primary Care Needs Assessment (PCNA).

Using the HSP and PCNA as guides, Applicants should demonstrate how proposed projects will address the priorities articulated in the HSP and show how their proposals will promote health equity, improve health status, reduce inequities in health outcomes, address barriers to care, promote engagement, improve quality, and strengthen DC's Health System. Furthermore, Applicants should demonstrate how projects will achieve these aims while leveraging existing resources and not unduly burdening the components of the health system that are critical to its strength.

It is important to note that one of the central themes from the HSP assessment is that DC is rich in health-related resources. The assessment that was conducted to develop the HSP explored service capacity across DC's core health system components (e.g., community health/social service, primary care, hospital services, behavioral health service, and post-acute services). The assessment found limited evidence to suggest that service capacity was a leading health system challenge in the District. This, however, does not mean that residents are fully engaged in care, are utilizing all available health services, or have unfettered access to quality care. On the contrary, the assessment found that although DC is rich in health care resources, not all residents are engaged in appropriate care and many struggle to access services when and where they want or need them.

While it is certainly possible that targeted efforts to expand capacity for certain geographic or demographic segments could enhance access and address some of the challenges that DC's residents face, service capacity is not the dominant health system challenge. Instead, the assessment identified the following challenges as those most strongly tied to promoting

health equity, improving population health, and strengthening the health system. Applicants seeking to establish or expand access to health services will need to demonstrate how the services and/or facilities proposed will operate within the District's existing health system. Applicants must address challenges deemed to be central to strengthening DC's health care system, such as:

- Underlying social determinants of health

- Engagement in appropriate care

- Coordination of care across service providers

- Integration of clinical and non-clinical services (particularly to address the burden of behavioral health)

- Organizational collaboration/partnership

- Implementation of evidence-informed protocols/services to address disparities (particularly related to the management of chronic or complex health conditions)

- Administrative barriers related to insurance coverage and access to care/services

- Health literacy, health education, and prevention

In reviewing CON applications, the SHPDA has to balance the needs and interests of residents and various stakeholders, and is entrusted with the task of deciding among many competing Applicants and projects. While CON reviews by their nature involve specific proposals, the decisions must take into account broader issues and considerations. In other words, SHPDA must consider not only the interests of the Applicant but also of patients, existing providers, residents, and affected parties as well as the overall health care delivery system.

Certificate of Need Criteria and Corresponding Requirements

The SHPDA and SHCC shall determine that an Applicant has sufficiently demonstrated the need for proposed projects when applications contain clear and convincing evidence that the proposed project meets each of the six criteria defined in this section, including:

1. Need

2. Accessibility

3. Quality

4. Acceptability

5. Continuity and Coordination of Care

6. Financial Impact

The burden of demonstrating ability to achieve each of these criteria rests on the Applicants. In order to provide clear and convincing evidence, Applicants should submit detailed documentation and descriptions of proposed projects. Applicants should use benchmarks and performance measures that: 1) are of importance to consumers, providers, and health

officials; 2) are endorsed by a local or nationally recognized organization engaged in health care, and 3) are appropriate for the proposed project.

Where appropriate, Applicants are encouraged to use the following recognized standards by:

1. Clearly identifying the standard that applies to the proposed project;

2. Describing how and why the standard is applicable to the proposed project; and

3. Describing how the Applicant plans to meet or exceed the standard.

- **Agency for Healthcare Research and Quality (AHRQ)**. Under the Department of Health and Human Services, AHRQ is charged with improving the safety and quality of America's healthcare system. AHRQ has developed and continues to develop numerous standards. The following are notable examples.

   o National Guideline Clearinghouse: Evidence-based clinical practice guidelines.

   o Quality Indicators: Indicators that use readily available hospital data including Inpatient Quality Indicators (IQI), Prevention Quality Indicators (PQI), Patient Safety Indicators (PSI) and Pediatric Quality Indicators (PDI).

   o Consumer Assessment of Healthcare Providers and Systems (CAHPS): Patient surveys and tools rating healthcare experience and to advance patient-centered care.

- **Centers for Medicare & Medicaid Services (CMS)**. CMS has worked with leaders and stakeholders across sectors to develop quality measures that are meaningful to patients, consumers, and physicians, and reduce collection burden and cost, while moving toward more consistent data collection across the health care system.

- **National Committee for Quality Assurance (NCQA)**. An independent non-profit, NCQA has developed a series of measures and standards to promote high quality care.

   o Patient-Centered Medical Home (PCMH): a primary care model that focuses on care coordination and communication.

   o Accreditation and Certification: standards and guidelines including physician evaluation and a review oversight committee. Examples of Accreditation and Certification programs include Disease Management, Care Management, Multicultural Health Care, and Wellness and Health Promotion.

- **National Quality Forum (NQF)**. A non-profit membership based organization, convincing public and private experts to establish national health care priorities and goals to ensure that care is safe, effective, patient-centered, timely, efficient, and equitable. NQF measures can be used by Applicants to demonstrate quality. Measures range from type of service (e.g. All-Cause Admissions and Readmissions)

to diagnosis (e.g. Behavioral Health, Cancer, Cardiovascular) and system-level impact (e.g. Cost and Resource Use

- **Institute for Clinical and Economic Review (ICER) Value Assessment Framework**. The ICER framework incorporates "Long-Term Value" and "Short-Term Affordability" domains. Long-term value is based on clinical comparative effectiveness, incremental costs for improvement in clinical outcomes over the long-term, other advantages and benefits that may not have been considered in comparative effectiveness studies, and contextual considerations such as ethical or legal issues. The short-term affordability domain assesses the impact on total health care expenditures and provides an algorithm for establishing value-based price benchmark. Applicants are encouraged to use ICER Evidence Reports and Proven Best Choices Guides.

- **Choosing Wisely**. This initiative promotes discussions between providers and patients to ensure the right care is delivered at the right time, avoiding wasteful or unnecessary medical tests, treatments, and procedures. Choosing Wisely® produces evidence-based standards identifying inappropriate treatment.

The process for reviewing applications and appropriate criteria will vary based on the specific type of project proposed. All applications will be assessed for their contribution to meeting the goals and priorities established in the HSP. Where appropriate, the SHPDA and SHCC will differentially weigh criteria and will incorporate assessment methods developed by other states in regulating CON. When conducting batched reviews or otherwise simultaneously reviewing similar projects, applications addressing health priority areas described in the Health Systems Plan will be given preference.

The following are definitions and requirements of the six criteria the SHCC and SHPDA will use to assess applications.

Need

The District of Columbia should have available adequate health services and resources, and these should be equitably distributed throughout the District. The need for health services and resources is not based on economic demand or personal desire, as these can lead to potentially unnecessary or inappropriate care. Need is defined as the insufficient supply of specific health services and resources given the health status and corresponding healthcare needs of a population.

Availability of health services is defined as the existence of health resources and services in relation to the needs or demands of a given population or community. The definition components of availability include: (1) the supply of services – existing service capacity and utilized capacity, and (2) the supply of resources that comprise service – personnel, equipment, facilities, and financial resources. Simply stated, availability is the adequacy or inadequacy of the supply of services, as well as the comprehensiveness of the services that are provided.

A service or resource is considered adequately available if the supply meets the aggregate need. It is available to an individual or community when it can be obtained at the time and place that it is needed, and from appropriate personnel at affordable costs. For example, emergency care services are available if they can be obtained at any hour of the day, in a setting that is equipped to handle emergency situations, and performed by personnel who are trained to provide emergency care.

To determine the types, amounts, and levels of services that should be available to a given community, three different factors can be utilized: need, demand, and want. Need for health services are derived from an assessment of the health status of the community, or by utilization of population/service ratios. Once need has been determined, health experts decide what services, in their belief, ought to be consumed over a relevant period of time for the population to remain or become as healthy as possible, given existing medical knowledge. Demand for health services is that quantity of health services which the population is willing and able to purchase over a relevant period of time. Want is that quantity of health services which the members of the community believe that they ought to consume over a period of time, based on their perceptions of their health needs. Planning must be based primarily on need while taking into consideration demand and want. The burden of demonstrating need for services, and the appropriate model of care, rests on the Applicants.

Requirements

CON Applicants shall demonstrate unmet need among the proposed target population by identifying the following in their application:

1. Describe the target population and estimate the total number of patients who need the service. Detail the sources, methodology and assumptions used.

2. Describe the unmet need of the target population.

3. Explain why current providers cannot meet the need for services by:

   a. Describing the existing service landscape for the proposed service area, including existing providers, capacity, and services provided.

   b. Demonstrating that existing availability of such services does not adequately meet the need for services.

4. Explain how the proposed service plans to meet the identified need, while also avoiding unnecessary duplication of services.

5. CON Applicants requesting expansion of services should demonstrate that current utilization of services meets or exceeds system-wide capacity, and that there is a need for additional capacity within the targeted service area.

6. Demonstrate the impact of proposed services on existing providers and the health care delivery system. An Applicant shall provide information and analysis with respect to the impact on geographic and demographic access to services, on occupancy, quality, on costs and charges of other providers, and on costs to the health care delivery system.

When reviewing comparative applications during batched review, Applicants who propose

to locate their services in underserved areas of the District will be given priority over other Applicants.

Accessibility

Accessibility is defined as the ability of an individual or group to access specific healthcare services or resources. Accessibility is characterized by factors that either enhance or inhibit the individual's ability to get to the site where care is provided, and to receive appropriate services once there. Accessibility includes financial, spatial, physical, temporal and accommodative factors. Barriers to accessibility include, but are not limited to, the following examples:

- Financial barriers – provider's lack of insurance participation, affordability and cost of services.

- Spatial barriers – location of available services, lack of reasonable transportation options, and proximity to the target population.

- Physical barriers – ADA non-compliant buildings, surrounding streets and grounds that hinder ease in reaching available services (e.g. highway or busy freeway, hills, railroad tracks).

- Temporal barriers – hours of operation that are not appropriate for a given population, travel times via various transportation modes to reach the location of services, and patient wait times for rendering services,.

- Accommodative barriers – cultural or linguistically inappropriate/inadequate administrative systems, care provision, facilities, or patient/provider relationships.

Requirements

Applicants must demonstrate how the proposed project will lower barriers to accessibility by including the following in their application:

1. Identify common or specific barriers to accessibility for the population to be served and demonstrate how the proposed project will reduce barriers to accessibility. Applicants should demonstrate strategies to address barriers, such as:

    a. Demonstrating that financial requirements will not be a barrier to services for persons that are uninsured or underinsured (e.g. providing alternative payment methods, referring patients to resources for financial assistance, and providing charity care).

    b. Locating services in areas that are conveniently accessible by multiple modes of transportation.

    c. Designing facilities to meet ADA requirements.

    d. Demonstrating the patient intake and registration process do not place an undue burden on individuals seeking care and do not discourage individuals from obtaining care.

    e. Providing hours of operation and wait times that are convenient to the target population.

f. Describing procedures for providing translation, sign language interpretation, and/or interpreter capabilities for the major languages of non-English-speaking patient populations and ensure staff is aware of the cultural mores of the population.

2. For projects, including construction, that could impact the delivery of existing health care services, provide evidence that the Applicant has adequately planned for any temporary move or relocation of any facility or service and a construction mitigation plan demonstrating how Applicant will assure patient safety and protection from noise, dust, etc., and to the extent possible, continuation of services during any proposed construction period.

3. Demonstrate that processes are in place to ensure that services are not denied and individuals are not discouraged from receiving care based on age, sex, race, creed, religion, sexual orientation, color, national origin, socioeconomic status, legal status, disability, prior hospitalization, diagnosis, prognosis, organizational affiliation, ability to pay, or payer source.

4. Demonstrate that services are accessible regardless of payer type, including:

a. A written commitment to serve individuals covered by Medicare and Medicaid. Existing health care providers should also include documentation demonstrating that services have, in fact, been provided to individuals covered by Medicare and Medicaid.

b. Meeting Medicaid and Medicare standards for services that are reimbursable and secure and maintain Medicare and Medicaid certification at all times.

c. Maintaining written policies governing provision of services without charge for indigent patients in accordance with the uncompensated care obligation under D.C. Official Code § 44-405 (a).

d. Providing a written commitment that services will be offered at a standard that meets or exceeds the District requirements for uncompensated care. In considering applications batched for review, the SHPDA may give favorable consideration to whichever of the Applicants historically has provided the higher annual percentage of uncompensated care and the higher annual percentage of services to Medicare and Medicaid patients.

To demonstrate accessibility, Applicants should include clear and convincing evidence for each of the requirements above.

Quality

Quality is defined as the degree or level of excellence of health care. It is measured by gradations or levels of existence, rather than by its presence or absence; and can be determined in terms of technical competency, need for the service provided, and appropriateness. In other words, quality is the degree to which the services provided are properly matched to the needs of the population, are technically correct, and achieve beneficial impact. The higher the quality of health care services, the better the associated health outcomes.

Not to be overlooked is the trade-off between quality and the other characteristics of the health system, costs for improving quality in terms of adopting costly equipment, utilizing or implementing new techniques, and increased use of health manpower. These are examples of increasing costs, while at the same time attempting to improve the quality of care. On the other hand, quality may be increased by decreasing the overuse of technical equipment and certain medical procedures, for example, unneeded surgery. The impact of higher quality costs is therefore dependent on the nature of the action designed to improve quality. For instance, decreasing the incidence of unnecessary surgery would increase quality while decreasing total costs of surgical services.

Quality must be demonstrated in three domains: 1) infrastructure and resources, 2) the process of delivering services, and 3) the outcomes resulting from service delivery. CON Applicants shall demonstrate how the proposed project will provide quality care to patients by:

1. Infrastructure and resources:

    a. Qualifications of the organization applying for CON

        i.   Demonstrate, with clear evidence, the qualifications, experience and track record of the organization in providing the proposed services.

        ii.   iIdentify the standards and requirements the Applicant plans to meet.

    b. Qualifications of staff for proposed project

        i.   Provide a written policy for appropriate medical supervision of patients and the prescription of a planned regimen for total patient care. A Medical Director, or designated supervisor, must oversee and coordinate the provision of medical care in the facility or service.

        ii.   Demonstrate that staff is certified by the appropriate licensing authorities and professional bodies and that policy is in place to provide continuing education programs for staff and volunteers to keep pace with health care advancements.

        iii. Demonstrate that adequate staffing patterns are in place to meet locally and/or nationally recognized standards for quality care.

        iv.   Provide evidence of malpractice insurance consistent with industry standards.

        v.   Existing providers shall identify any outstanding health care licensure deficiencies, citations or accreditation problems as well as mitigation plans.

        vi.   Demonstrate that qualifications for practice will be continuously updated to keep pace with advancements in health care knowledge and techniques.

    c. Physical infrastructure and clinical equipment

        i.   Demonstrate that proposed projects include appropriate infrastructure and equipment to deliver high quality care.

    d. Volume of relevant services

        i.   Demonstrate the ability to achieve the volume necessary to provide quality services. For many surgical procedures and medical conditions, higher volume (either at the clinical or entity level) is associated with high quality and better outcomes.

    e. Implementation of health information technology

        i.   Demonstrate the adoption of appropriate health information technology (HIT). Research has shown that adoption of HIT can reduce medical errors and adverse events, improve patient engagement, improve coordination of care, and facilitate treatment protocols.

2. Process of delivery services:

    a. Individual care plans

        i.   Describe process for developing and maintaining individualized care plan for all patients that is reviewed and revised on a regular basis by all providers of care.

        ii.   Demonstrate that care plans are consistent with required licensure and certification standards to ensure the provision of an entire range of services, including services required after discharge.

        iii.   Describe policy for providing or formally arranging for any service deemed as a necessary component of the individualized care plan.

    b. Quality assurance mechanisms

        i.   Demonstrate development of a quality improvement plan that clearly indicates responsibility and accountability and defines a process for ongoing evaluation and assessment.

        ii.   Describe policy for implementing a Continuous Quality Improvement (CQI) process into the organizational structure and service delivery system that:

            1. Establishes a quality improvement plan and staff to coordinate and implement the CQI process.

            2. Involves interdisciplinary teams of treatment staff and management to monitor administrative and patient records to ensure compliance with key quality indicators of care and provide appropriate training of all personnel.

            3. Monitors utilization of services and treatment outcomes.

            4. Documents all findings and corrective actions.

    c. Consistency and accuracy of services provided.

        i.   Demonstrate compliance with all federal and District health and safety regulations, applicable Joint Commission and other appropriate national

accrediting organization standards, and applicable local certification standards.

    d.   Implementation of evidence-informed standards of care.

        i.   Services will incorporate effective, evidence-based, care and treatment models. Such as projects and strategies that are proven, rooted in clinical or service provider experience, and take into consideration the interests and needs of the target population.

2.   Health outcomes

    a.   Health status indicators

        i.   Demonstrate how the proposed project will improve health outcomes such as morbidity, mortality, rate of infections, medical errors and readmission rates.

To demonstrate quality, Applicants should include clear and convincing evidence for each of the requirements above.

Acceptability

Acceptability is patient's experience of and satisfaction with their health care. Unlike other CON standards, acceptability includes individual and group perceptions. For example, accessibility might address whether a building is on a transit route or that there are ADA-compliant ramps, but acceptability addresses whether the population served perceives that they can easily travel to receive services. Acceptability includes equity across patient characteristics (e.g., age, sex, race, insurance provider).

Acceptability focuses upon perceptions of the health system rather than upon the system itself. For instance, the difference between acceptability and cost is that actual expenses incurred by the community for health care services are a component of the cost characteristics, whereas acceptability addresses societal and consumer perceptions of whether these services are worth their costs, and whether costs are justly distributed. From the consumer's perspective, acceptability can be defined as the consumer's overall assessment of available medical care. Providers' attitudes and perceptions of the health care system and of the consumer also affect acceptability. The provider's view of the consumer in terms of race, sex, age, socioeconomic status, place of residence, payment source, and ethnicity may affect the way care is delivered. Acceptability deals with both consumer and provider perceptions of each other with regard to admission, utilization, and satisfaction with services.

The payers of health care must also be considered. Care may be rendered which is acceptable to consumers and providers, but not acceptable to third party payers for reasons ranging from type of service provided to the way in which payment forms are completed. The policy of payers can result in care that is acceptable to them, but unacceptable to consumers and providers.

Requirements

Applicants must demonstrate how the proposed project will be acceptable to the proposed target population and the public by:

1. Demonstration of how rights and dignity of patients are respected, including activities such as:

    a. Provide an adopted Patient's Bill of Rights, and describe how patients and family/caregivers will be informed about their Patient's Bill of Rights, including providing individual copies and posting the information in visible locations.

    b. Demonstrate how policies and services enhance the privacy and dignity of patients.

    c. Demonstrate procedures to ensure patient confidentiality.

    d. Demonstrate that the Applicant has adequate knowledge and understanding of the cultural, religious and linguistic preferences of the target population and that it has the capacity to provide needed services.

    e. Demonstrate that the selection of treatment and the availability of support services should be conducive to patient cooperation and participation, such as how the religious needs of each patient and their caregiver are accommodated.

2. Demonstration of a process for patient engagement, describing activities such as:

    a. How patients and family/caregivers will be informed about their condition and care, and how patients and family/caregivers can participate in care planning, review and evaluation of services, and the selection of treatment.

    b. How patients and family/caregivers should be provided with simple, understandable information about fees, billing procedures, scheduling of appointments, contacting the unit after hours, and grievance procedures.

    c. How community participation is encouraged and achieved.

3. Demonstration of how patient and community satisfaction is solicited, gained and assessed, describing activities such as:

    a. Publicized grievance procedures for patients, caregivers and staff that permits expression of concern without fear of reprisal and procedures to monitor the effectiveness and timely resolution of grievances

    b. Established procedures for the assessment of service acceptability as viewed by patients and the community.

    c. Applicants are required solicit community feedback by informing the general public by publishing a notice in a newspaper of general circulation, and by writing letters to the Advisory Neighborhood Commissions (ANCs) in their service area about the proposed project before they submit their CON applications.

To demonstrate acceptability, Applicants should include clear and convincing evidence for each of the requirements above.

Continuity and Coordination of Care

Continuity is the structuring, coordination and delivery of services to ensure appropriate care is provided on a continuous basis across one or more settings. It is measured by the ease in which individuals move between required elements of the system and the degree to which the elements are integrated. Continuity of care should not be obstructed because of the source of care or method of payment.

Requirements

In order to show that Applicants are consistent with the criteria and standards of continuity and coordination of care, Applicants shall demonstrate:

1. Care coordination

    a. That policies and procedures for internal communication and service coordination have been developed.

    b. That staffing patterns are consistent with the Department of Health or national standards to ensure continuity and quality of care for all patients at optimal levels.

    c. That it has adequate resources and procedures to monitor patient progress, and as necessary, provide or arrange for follow-up care.

    d. That services are coordinated and interlinked with other clinical and non-clinical providers and human service delivery systems in the community to promote holistic care.

2. Referral process

    a. Referral agreements to connect patients with appropriate services, and include provisions for linkages to primary, secondary, and tertiary levels of care as needed.

    b. Written policies and guidelines for making referrals.

3. Discharge planning and safe transitions

    a. Written policies and procedures for discharge planning and follow-up care, including how patients and families are educated prior to discharge on the practices to be followed for patients at home.

    b. Medical records and information systems enable transfer of health information, physically and/or electronically, from one service provider to another, and procedures for confirmation of receipt. Records should include, at minimum, written summaries of care rendered as well as current patient care data.

    c. Procedures for follow-up with patients after discharge including phone calls, visits, and medical reconciliation as appropriate.

    d. Hospitals shall demonstrate that they have developed formal agreements with providers who see uninsured patients in order to ensure that patients will receive a continuum of care.

To demonstrate continuity of care, Applicants should give clear and convincing evidence for each of the requirements above.

Financial Impact

Financial impact is defined as the full breadth of financial and economic consequences resulting from the provision of health care services. For the purpose of CON application review, there are three areas of financial impact to consider:

• The financial feasibility of the proposed project. The SHPDA aims to ensure that D.C. residents have consistent and predictable access to high quality services, from providers that are financially sound and can thrive in the healthcare market. Providers that cannot achieve long-term viability will lead to disruptions in patient care and reduce stability of the health system. However, financial feasibility should not be at the expense of the District' underserved residents, and viability should be demonstrated in conjunction with the financial capacity and commitment to serving Medicaid patients as described in the Accessibility criteria.

• The financial viability of the D.C. health system as a whole. The growth or entrance of a new health care provider can also have a significant impact on existing providers in the market, either by duplicating or disrupting existing services or resources. While the SHPDA encourages innovation in the market that can lead to lower cost, better quality care, these benefits must justify and compensate for any negative impact on existing providers. A primary goal of CON oversight is to avoid unnecessary duplication of services.

• The total cost of health care. In order to contain the rising health care costs and to ensure the long-term sustainability of the health care system, it is important to reduce costs and health care price inflation.

Requirements

Applicants shall demonstrate:

1. Financial feasibility

   a. Submit a detailed explanation of the capital expenditure associated with the project.

   b. Demonstrate the availability of funds for capital expenditures and operating needs as well as the immediate and long-term financial projections of the costs of and charges for providing health services of the project.

   c. Demonstrate the sources and amounts of funding for proposed projects which may include borrowing details; lease and purchase arrangements, and other financial requirements as may be requested by the SHPDA.

   d. Provide information on the financial viability of the Applicant, such as audited financial statements.

   e. Provide information on the anticipated effects, consequences, as well as benefits of the proposed project on the financial viability of the Applicant going forward.

   f. Submit a projected manpower budget specifying the personnel required for the staffing of the proposed project and a plan for the recruitment and training of personnel.

g.   Provide full disclosure of all entities, subsidiaries, or persons within a legal chain of control and such other relevant information as may be deemed

2.   Impact on other providers

a.   Describe the projected impact of the proposed project on existing providers and the health care delivery system as a whole. Address the potential for adverse consequences including duplication of services, fragmentation of the delivery system, and the financial viability of other healthcare providers.

3.   Cost containment and reasonableness of expenditures and costs

a.   Demonstrate an active intent to contain costs of construction, equipment, expansion, or renovation of a facility. At a minimum, costs should be consistent with similar facilities and services in the D.C. metropolitan area.

b.   Demonstrate that less costly alternatives are not feasible or appropriate for the target population.

c.   Demonstrate that investment in the proposed project will contribute to the SHPDA's goal of improving quality while reducing costs. Address the likely opportunity costs of investing in this project and demonstrate how benefits outweigh costs.

d.   For large capital expenditures, Applicants are encouraged to develop a consortia approach or other resource sharing arrangements in the provision of costly new services.

4.   Payer Source

a.   Provide a written commitment that services for uncompensated care will be offered at a standard that meets or exceeds the District requirements.

b.   Provide a written commitment to participate in the Medicare and Medicaid programs.

Compliance

The Applicant shall provide sufficient evidence of compliance and good standing with federal, state, and local laws and regulations, including, but not limited to all terms and conditions of each previous Certificate of Need granted to the Applicant, and with all commitments made that earned preferences in obtaining each previous Certificate of Need. If Applicant is out of compliance, Applicant will provide the SHPDA with a written notice and explanation as to why the conditions or commitments were not met. SHPDA will review demonstration of compliance in consultation with all Government Agencies with relevant licensure, certification, or other regulatory oversight of the Applicant or the proposed project.

Service Definitions and Guidance

In conducting Certificate of Need oversight and planning, the SHPDA and SHCC are faced with the challenge of updating guidance to meet both the health priorities of the District

and to adapt to the evolving health care delivery system. The SHPDA has identified the need to develop guidance for emerging and existing services that will inform CON application review and enable the SHPDA and SHCC to meet health objectives for the District in this changing landscape.

This guidance will provide clarity for CON application and review, particularly as evolving services blur the lines of how care is provided across the care continuum. Emerging models of care offer great promise in addressing health care disparities. To ensure health priorities and goals are met, including fostering health equity, the SHPDA may convene service-specific work groups and develop detailed service-specific guidance to be incorporated into future updates to the Health Systems Plan. Many states convene workgroups or task forces, which are often comprised of key stakeholders, such as representatives of regional health planning agencies, payers, industry experts, and healthcare providers, academic medical community, and government agencies. These workgroups develop, update, and validate CON criteria; provide technical knowledge and expertise to develop service-specific guidance to inform a CON Applicant's process; and develop guidelines and standards to facilitate the review of proposed projects. Developing similar workgroups in DC could ensure that stakeholders are fully engaged and that guidance is aligned with best practice and the District's service system context. The SHPDA and SHCC have developed the following guidance as a starting point. In the future, the SHPDA and SHCC may convene corresponding workgroups to develop more detailed guidance.

Primary Care

There is increasing awareness of the importance of a strong, patient-centered health system that is able to provide comprehensive primary care—preventive, acute care, and chronic disease management—services to all segments of a region's population. Furthermore, to achieve its goals, primary care must be provided in ways that effectively reach out to and engage the populations they serve and provide high quality, integrated, well-coordinated, patient-centered care. Primary care providers are considered the first line of defense in the diagnosis and treatment of common illnesses and health problems and must be able to provide timely, accessible acute care services in ways that help ensure that care is available when, where, and how the patients need it. Primary care providers also play a critical role with respect to prevention and the identification of disease. As such, they must be able to provide health education and counseling on risk and protective factors as well as periodic preventive services such as screenings, immunizations, and periodic lab tests. These preventive services help patients to understand how to maintain their health and identify health issues or potential issues before they become serious. These activities also include making necessary referrals and helping patients to coordinate needed care across the continuum. Finally, primary care practices play a critical role in assisting their patients to monitor and control their chronic or complex conditions so that they can avoid complications and live productive, fulfilling, independent lives. With this in mind, they must provide education, counseling, self-management support, and follow-up services, as well as help their patients to manage and coordinate referrals to specialists. All of these services need to be provided in an integrated way and in ways that are fully in-tune with a patient's needs and interests. The burden is on Applicants to show how the primary care practices that they are proposing are aligned with these expectations.

Between 2009 and 2015, the DC Department of Health managed the investment of $79 million of the District's Tobacco Settlement Funds to build new or expand existing health facilities throughout the city. A total of nine construction projects, termed the Capital Health Projects, were ultimately carried out with the Tobacco funds in Wards 2, 4, 5, 7, and 8. These projects included seven community health center projects, which greatly expanded access to primary care, and two hospital projects, which expanded access to a broad range of hospital inpatient, emergency, and outpatient services. Completed projects ranged from renovations within hospital emergency departments to construction of multi-floor multi-purpose stand-alone facilities. Taken together, the Capital Health Projects generated a combined total of 1,276,033 visits between 2010 and 2015, including emergency medical, routine primary care, dental care, specialty care, and ancillary and social services.

As stated above, in part due to the expansion efforts described above, the HSP has not identified primary care capacity as a dominant challenge to strengthening DC's health system. While it is certainly possible that targeted efforts to expand capacity for certain geographic or demographic segments could enhance access and address some of the challenges that DC's residents face, service capacity is not the dominant health system challenge. Applicants seeking to expand access to health services will need to demonstrate how the new services and/or facilities will operate within the District's existing health system to address the following challenges deemed to be central to strengthening DC's health system.

- Underlying social determinants of health

- Engagement in appropriate care

- Coordination of care across service providers

- Integration of clinical and non-clinical services (particularly to address the burden of behavioral health)

- Organizational collaboration/partnership

- Implementation of evidence-informed protocols/services to address disparities (particularly related to the management of chronic or complex health conditions)

- Administrative barriers related to insurance coverage and access to care/services

- Health literacy, health education, and prevention

Requirements
In addition to meeting the general CON criteria stated above, Applicants seeking to start or expand primary care services should:

- Demonstrate that patients will be screened for social determinants of health (e.g. poverty, housing, transportation, education, food insecurity) and describe services to be provided or referrals to be made to address these factors.

- Describe strategies for mitigating barriers to care related to scheduling and availability of appointments (e.g. open access scheduling, evening/weekend hours, patient navigator programs).

- Demonstrate the use of a nationally recognized primary care model such as Patient Centered Medical Home (PCMH) certification.

- Demonstrate how the practice will provide evidence-informed care for those with chronic and complex conditions, including the provision of self-management support.

- Describe the process for screening for mental health and substance abuse issues and integrating behavioral health services into care delivery.

- Submit a plan for integrating primary care with the full continuum of care through the use of trained, specialized staff such as navigators, community health workers, and care managers.

- Demonstrate tools and procedures used to raise awareness and educate patients on appropriate use of ED services and provide link to appropriate services.

Urgent Care Centers

Urgent care practices are having an increasingly significant impact on the U.S. healthcare system. They have shown that they can be an important, if not critical, component of the health care continuum, helping to ensure that communities have access to cost-effective episodic, acute primary care services when and where they need them. They have been shown to play a particularly important role in ensuring access to acute primary care services afterhours, on weekends, or when people are otherwise unable to access services through their regular primary care provider. In this way, urgent care practices have shown to take some of the burden off of full-service primary care practices and ultimately help to prevent inappropriate use of hospital emergency department services.[150, 151, 152]

Despite these positive impacts, there has also been concern that urgent care practices can disrupt the care continuum by preventing people from engaging in more comprehensive, primary care medical home services, including important preventive and disease management services. Also, in many cases, urgent care practices have been shown to be selective about the insurance products they accept and typically require payment at the time of service; this dynamic may have a detrimental impact on primary care systems, particularly on primary care safety nets, as urgent care practices have been shown to disproportionately draw patients who are relatively healthy and commercially insured, and/or have the ability to pay for care. This places burden on the full-service primary care network to care for those who are publically insured, with more chronic and complex conditions, with less ability to pay for services. There is also evidence to suggest that urgent care is being inappropriately marketed as a replacement for hospital emergency department services, when individuals are truly in need of emergent services.[155,156]

To date, urgent care practices face limited regulation. There are states that, like DC, require CON approval, and there are also states that have passed naming rights laws to ensure that urgent care practices are not mistaken for practice sites that can provide full-service, emergency services. In most states, urgent care practices are seen as extensions of physician's office, and therefore are only subject to physician licensure requirements. Unless

an urgent care center provides radiology services or laboratory testing, most states do not regulate them at all.

After a review of the literature and discussions with national experts, it appears that there are limited to no clear standards or benchmark research on clinical parameters with respect to urgent care practice. The Urgent Care Association of America (UCAOA) has developed guidelines and has been working in conjunction with the Joint Commission to develop urgent care accreditation protocols that will detail standards relative to general operations, staffing, scope of service, and clinical quality. However, there are no clear quality metrics and outcomes to guide the field. There is also important research underway that is helping to clarify how urgent care practices should operate and best be integrated into health systems. However, this research has not been completed yet. The SHPDA and the SHCC will follow this research and incorporate the findings as appropriate into the urgent care review requirements.

Whether the intent of urgent care centers is to: (1) increase access to acute, episodic primary care services in underserved areas, (2) reduce inappropriate use of hospital emergency department services, or (3) relieve the burden on regular full-service primary care practices afterhours or on weekends, urgent care centers in the District should be required to:

- Provide high quality, well-coordinated care that is thoughtfully integrated into the broader health system.

- Make services available to all, regardless of insurance status or a patients ability to pay.

- Develop mechanisms for ensuring continuity of care with full-service primary care medical homes

- Refer patients to specialty care providers and to other levels of care based on acuity.

- Show how the Applicant will respond to community need, augment the health care delivery system, and not unduly burden components of the health system that are critical to its strength.

There are fundamental questions that must be answered when considering the establishment of urgent care centers:

- Who are the patients that need urgent care services?

- How does an urgent care center differ from a primary care facility, an emergency room and a physician's office?

- What is the acuity level of the patients to be treated at an urgent care center?

- What should be the qualifications and expertise of the staff at an urgent care center?

- What are the health care services that are provided at an urgent care center?

- Will they provide services to all people with any illness or any complaint?

Given that national standards guiding urgent care practices are still under development, the burden is on the Applicant to demonstrate how they will operate to ensure that high quality, well-coordinated, integrated acute primary care services are provided in ways that enhance access, reduce barriers to care, and augment the current system of care.

Requirements

Applicants seeking to develop or expand urgent care services should:

- Demonstrate how the practice will address community need, augment a community's health system, and not unduly burden components of the health system that are critical to its strength.

- Define the scope, level, and acuity of care and demonstrate that the staffing levels, training and staff credentials are appropriate for providing the highest quality, evidence-informed urgent care services.

- Demonstrate how continuity of care is supported, and in particular, describe how follow-up care is coordinated with primary care, including transmission of care records and procedures for follow-up care.

- Demonstrate how and in what ways the proposed services will differ from primary care services.

- Demonstrate how the proposed services will target non-emergent medical needs, reducing avoidable emergency department visits.

- Demonstrate that the facility will serve all patients regardless of source of coverage or ability to pay.

- Demonstrate that the hours of operation extend beyond traditional primary care hours.

- Provide a report of patient satisfaction measurements and scores to demonstrate that services are patient-centered. Describe the process for measuring patient satisfaction.

- Demonstrate that the facility will have access to the medical equipment and other resources, including diagnostic and laboratory equipment, necessary for an urgent care facility

Emergency Departments

Emergency departments play a critical role in the health care system by providing acute services to those with emergent and life-threatening injuries. In 2014, DC's hospitals reported more than 300,000 visits of emergency department services; approximately 220,000 of those were for emergent, life threatening reasons. Hospital emergency departments also play an important role as the safety net for a region's primary care network by providing services to those who cannot get care elsewhere, whether it is for emergent or non-emergent reasons. According to a study sponsored by the Emergency Medicine Action Fund, hospital emergency departments are increasingly serving as advanced diagnostic centers for primary care physicians. Most dramatically, hospital emergency departments,

particularly in large, urban areas like DC, play a unique and critical role with respect to disaster preparedness. Today, more than ever, health care systems must make sure that they are equipped for emergencies (chemical, weather/climate-related, fire, terrorism, or some other cause of mass casualty). When disasters strike, the extent to which hospitals have the appropriate resources, training, and preparation is a crucial factor in the successful treatment and triage of the injured.

In DC, there are eight acute care hospitals (ACHs) or medical centers that provide services to residents: Children's National, George Washington University Hospital, Howard University Hospital, MedStar Georgetown University Hospital, MedStar Washington Hospital Center, Providence Hospital, Sibley Memorial Hospital, and United Medical Center (UMC) (see Appendix D for Service Area Maps). In addition to these core hospitals, there are also two psychiatric hospitals: Psychiatric Institute of Washington and St. Elizabeth's Hospital that provide services for those with severe mental health or substance use conditions. Walter Reed Army Medical Center and the Washington DC VA Medical Center are not included in this assessment due to the specialized nature of the services these facilities provide, and Walter Reed's location in Bethesda, Maryland. Furthermore, Children's National also operates a satellite pediatric emergency department at United Medical Center.

There is overwhelming evidence to suggest that emergency departments in the United States are over-utilized and are critical drivers of health care costs. Numerous studies have shown that upwards of 30% of all hospital emergency department visits in the nation are for non-emergent issues that could be more effectively and efficiently managed in primary care or specialty care outpatient settings.[153,154] Hospitals are spending considerable efforts in emergency departments to: (1) better triage patients to other, more appropriate outpatient settings, (2) improve inpatient care transitions in ways that help to prevent unnecessary emergency department utilizations, post discharge, and (3) work with long-term care and rehabilitation facilities as well as emergent and non-emergent medical transport providers to prevent unnecessary transports to hospital emergency departments.

Requirements
In addition to meeting the general CON criteria, Applicants seeking to start or expand emergency medical services should:

* Demonstrate that assessed need does not include patients that could more appropriately be seen in a lower acuity setting like outpatient primary, urgent, or specialty care.

* Demonstrate policies that support patient care management to avoid preventable emergency department visits (e.g. coordination of follow-up care in a more appropriate setting).

* Describe processes for monitoring, evaluating, triaging, and reducing potentially avoidable emergency department visits and report performance.

* Provide policies related to emergency preparedness, including decontamination training requirements for staff. Demonstrate Applicant has the minimum capabili-

    ties for decontamination or clearly describe plans to acquire such capabilities (e.g. active Hazmat teams, decontamination rooms).

- Describe plans and programs to handle disease outbreaks and mass casualties.

- Describe plans, initiatives, programs, and services in order to serve patients with mental illness.

Home Health

Home health care services are provided for the purpose of promoting, maintaining, or restoring health and minimizing the effects of disability and illness, while maximizing the level of independence. Home health services have been growing in importance as they have been shown to effectively support adherence to treatment plans, including prescribed medication regimens, and can contribute to reducing total health care costs, most notably by reducing avoidable hospital readmissions. The services provided range from assistance with performing activities of daily living to intensive, skilled nursing care and therapeutic services.

DC Municipal Regulations section 4099.1 defines home health agency (HHA) as "a public agency or private organization, or a subdivision of an agency or organization, that is primarily engaged in providing skilled nursing services and at least one (1) other therapeutic service to individuals in their residences, that has at least one (1) employee in addition to the proprietor if the agency is a sole proprietorship. This term does not include an entity that provides only housekeeping services."

The increased cost of institutional care, coupled with an increased emphasis on allowing patients the option of rehabilitating at home, has influenced a nation-wide movement to ensure adequate capacity to high-quality and innovative post-acute services that promote independence and maximize impact. The desire to explore how to best maintain an appropriate capacity of home health services has also been heightened by the drive on the part of hospitals to better manage post-acute services and prevent inappropriate hospital readmissions, which have been shown to play a significant role in increasing health care costs.

Evidence from the HSP assessment efforts indicates that overall service capacity is not a major concern. There seems to be a stable, adequate, well-distributed supply of home health and other post-acute care service providers. However, as mentioned above there is considerable attention being paid to ensuring that home health care agencies are capable of providing care that is of the highest quality and fully informed by the existing evidence. Furthermore it is increasingly important that these service providers are capable of working with hospitals and other post-acute care providers to develop and implement innovative home health protocols that promote recovery and independence while also reducing readmissions. It is also important to make sure that the array of available home health providers are capable of providing services across the continuum to those with all forms of public and private insurance. This attention and scrutiny has been further magnified given the fraud and abuse that has been uncovered in DC over the past 3-5 years. This has served to raise the bar with respect to SHPDA's need to ensure that its Applicants can demonstrate

a track record or the on-going staffing capacity to manage and provide accessible, high quality, well-coordinated, integrated services.

Requirements

In addition to meeting the general CON criteria, Applicants seeking to start or expand home health services must:

- Demonstrate that there are patients who are having difficulty accessing care because of a shortage of providers.

- Identify why existing providers cannot meet the demand for services.

- Clearly define the scope and level of services and identify the target population.

- Demonstrate how the quality of care will be consistent with CMS and DC licensing regulations, for Home Health Agencies participating in Medicare and Medicaid, include Home Health Compare (HHC) Star Ratings.

- Demonstrate that the Applicant will be able to be accredited by appropriate accreditation agencies.

- Clearly define the roles and responsibilities of personnel and identify the necessary qualifications and credentials required for the provision of high quality services.

- Demonstrate their understanding and experience with the health care delivery system in the District in general and the underserved and minority groups in particular.

- Demonstrate a track record, experience, and qualification in the provision of the proposed services.

- Demonstrate the capacity to bill across a diverse payer base.

- Demonstrate how continuity of care will be ensured.

Non-Emergency Ambulance Services

As with other components of the service system, SHPDA's goal in developing this guidance for non-emergency ambulance services is to ensure that high quality, accessible, well-coordinated, integrated, cost-effective services are available to all who need them. The availability of timely, high quality, reliable, and cost-effective non-emergent transportation is an important facilitator in accessing care and is critical to an effective, efficient health care continuum. More specifically, it ensures that patients can move between facilities and take advantage of the most appropriate levels of care. Currently, there are nine private, non-emergency ambulance providers with approximately 160 ambulances that are licensed to provide services in the District of Columbia. The providers usually have contracts with hospitals and other health care facilities to transport patients. One of the most common themes in the assessment's qualitative interviews and community forms was the fact that DC residents face barriers with respect to transportation that impact their ability to access clinical and vital non-clinical health-related resources. Non-emergency ambulance services, however, were not raised as an issue.

Non-emergency ambulance services do not include the emergency medical services provided in response to emergency medical situations; rather, the services are provided to individuals who are not in an emergency situation, but who require more assistance than a taxi service or a personal vehicle is able to provide. Non-emergency ambulance service vehicles are specially equipped to provide basic life support, advanced life support, and critical care services. The ambulances must be staffed by appropriate emergency medical technicians and paramedics that are able to stabilize and provide care to patients.

Requirements

In addition to meeting the general CON criteria, Applicants seeking to start or expand non-emergency ambulance services should:

- Demonstrate processes that ensure transportation staffing and equipment are appropriate for the level of intensity and needs of the individual (e.g. how vehicles equipped with specific medical equipment will be used when necessary, while vehicles without medical equipment will be used for basic transportation).

- Provide evidence as to why current providers are unable to meet current needs.

- Demonstrate the impact of proposal on existing non-emergency ambulance services.

- Demonstrate plans to obtain the certifications and staffing levels appropriate for the services proposed. Applicants with a history of providing non-emergency ambulance services should provide certifications and describe how they are appropriate for the level of services provided.

- Demonstrate how proposed services will improve care coordination between health institutions.

- Provide policies related to emergency preparedness, such as reciprocal agreements with other providers in the target service area, or plans to develop such an agreement.

- Applicants seeking to open or expand non-emergency ambulance services should ensure that they have appropriately equipped vehicles to meet the transportation needs of individuals across the range of services provided.

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Appendix A: Health Systems Plan Key Informant Interviewees

Dr. Anneta Arno, Director, DC Office of Healthy Equity

Jacqueline Bowens, President/CEO, DC Hospital Association (Member of SHCC)

Robert Brandon, Robert M. Brandon and Associates (Member of SHCC)

Clarence Brewton, Vice President of Regulatory Compliance at MedStar Health

Pierre Cartier, Program Manager, Oral Health Program at DC DOH

Karen Dale, Executive Director, Amerihealth

Vanessa Damesyn-Sharpe, Executive Director, DC Health Care Association

Suzanne Fenzel, former Deputy Director, DC Department of Behavioral Health

Michael Ferrell, Executive Director, DC Coalition for the Homeless

Joshua Ghaffari (Program Mgr.) and **Tonya Stern** (Deputy Dir.), DC Office of Planning

Bob Gilbert, President, MedStar Ambulatory Services

Stephen Glaude, President/CEO, Coalition for Non Profit Housing

George Jones, CEO, Bread for the City

Michael Kharfen, Senior Deputy Director, HAHSTA

Christopher King, Director of Master's Program at Georgetown

Tonya Kinlow, VP of Community Engagement and Advocacy, Children's Hospital

Sharon Lewis, Deputy Director, Health Regulation & Licensing

Howard Liebers, Department of Insurance

Dr. Yavar Moghimi, Behavioral Health Medical Director, Amerihealth

Steve Nash, Stoddard Baptist Home Foundation (Member of SHCC)

Chioma Nwachukwu, DC Board of Nursing

Dr. Lavdena Orr, Medical Director, Amerihealth

Ruth Pollard, Asst. VP of Community and Government Relations, Providence Hospital

Nancy Roman, CEO, Capitol Area Food Bank

Jacqueline Reuben, Chief Epidemiologist, DC Hospital Association

Sarah Roque, Public Health Analyst, DC Fire and EMS Department

Dr. Tanya Royster, Director, DC Department of Behavioral Health

Claudia Schlosberg, Director of Health Care Policy, Department of Health Care Finance

Dr. Sanjay Seth, Executive Vice President, Health EC

Aarti Subramanian, Vice President and CFO, Psychiatric Institute of DC

John Sumner, Statistician, Department of Health Care Finance

Dr. Raymond Tu, GWUH/Medical Society

Charletta Washington, COO, United Medical Center

Dr. Jacqueline Watson, Chief of Staff at DC DOH

Jim Wotring, Deputy Director, DC Department of Behavioral Health

Appendix B: Data Limitations

Assessment activities of this nature face limitations with respect to both quantitative and qualitative data collection. With respect to the quantitative data compiled for this project, the most significant limitation was the availability of timely data. Relative to most states and jurisdictions throughout the United States, the District does an exemplary job of making comprehensive data available at zip code, ward, and District-wide levels.

The breadth of available demographic, socioeconomic an epidemiologic data was more than adequate to facilitate an assessment of community characteristics, social determinants of health, and health status. This information was compiled from existing quantitative data sources, including Healthy People 2020, the Behavioral Health Risk Factor Surveillance Survey (BRFSS), the DC Healthy Communities Collaborative CHNA, and the U.S. Census Bureau.

In assessing the strength of DC's health system, a broad range of utilization, capacity, and claims data were compiled and analyzed to assess service gaps or shortages, unmet need, and the distribution of services across the District. The most robust analyses possible to assess need, demand, and supply of health services was applied, but these types of assessments are inherently challenging, as it is difficult to precisely calculate need, demand and capacity. Provider capacity assessments rely on licensure or survey data, which is often dated or incomplete. Assessing need and demand is more of an art than a science, as one typically must rely on utilization data to estimate these figures. The team explored service distribution and analyzed patient origin/destination analyses with respect to hospital inpatient and primary care services. These analyses, combined with educated, but subjective, assumptions regarding the patterns of care allow us to make some judgments on need, demand, and service capacity considerations. We stand by our findings and believe they provide valuable information that can be used to guide sound policy and programs; nonetheless, there are clear limitations to our data.

With respect to qualitative data, information gathered through key informant interviews and community forums engaging service providers, health department officials, community stakeholders, and/or community residents provided valuable insights on major health-related issues, barriers to care, service gaps and at-risk target populations. Overall, nearly 100 people were involved in this effort. While this level of engagement is a considerable achievement, it is still a small sample compared to the size of the resident and service provider populations overall. While every effort was made to advertise the community forums and to select a broadly representative group of stakeholders to interview, the selection or inclusion process was not random. Additionally, community forums did not exclude participants if they did not live in the particular regions where the meetings were held, so feedback by meeting does not necessarily reflect the needs or interests of the areas in which the meetings were held.

Appendix C: Data Placemats
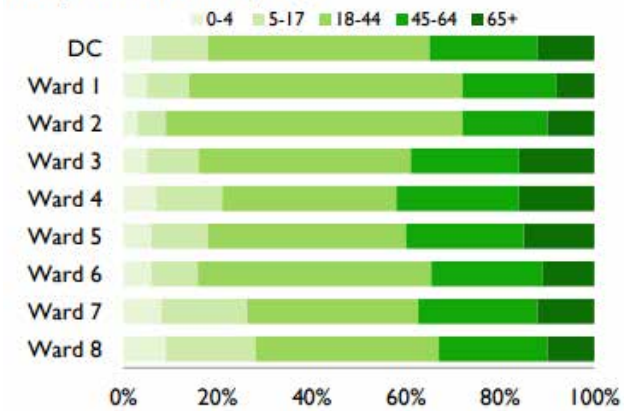
DC Community Characteristics

Race *(2015)*

DC is one of the most diverse places in the nation! However, residential segregation based on race is a concern in DC.
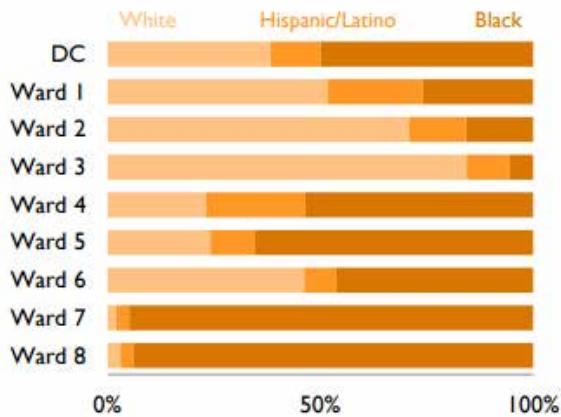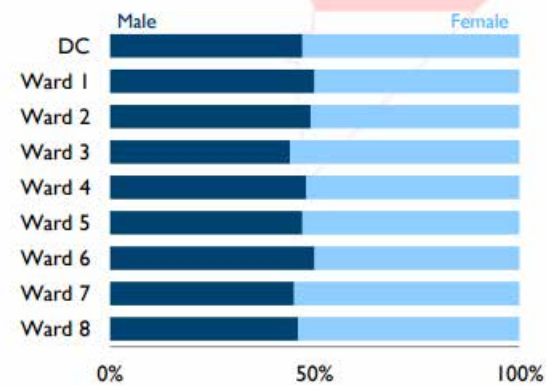

Age *(2015)*

The age distribution of DC overall mirrors the distribution of the US as a whole, with a slightly smaller young (under 18 years) population (18%) compared to the US (24%).
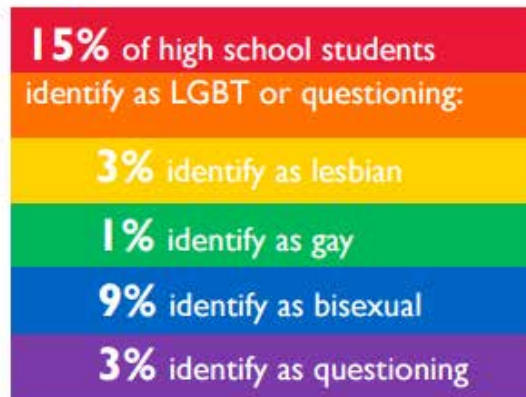

Gender *(2015)*

DC overall, and particularly Wards 3, 5, 7, and 8, is disproportionately female. While the US skews slightly female (50.8%) DC is less balanced at 53%.

LGBT Community

DC is home to the largest percentage of residents who identify as lesbian, gay, bisexual, or transgender (LGBT), at 10%. *(2012)*

15% of high school students identify as LGBT or questioning:

3% identify as lesbian

1% identify as gay

9% identify as bisexual

3% identify as questioning

Nearly half of the transgender population earns less than $10,000 a year compared to 11% of DC residents overall. Trans women of color tend to earn even less. *(2013)*

11% of DC residents earn less than $10,000

% Earning below $10,000

■ Transgender women of color
■ Transgender population
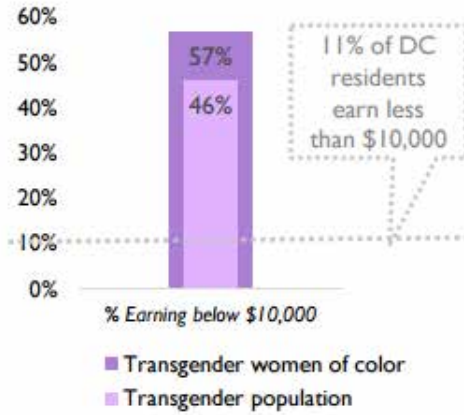
According to the Human Rights Campaign, DC supports all nine of their top issues, including:

1) Statewide housing laws and policies
2) Statewide employment laws and policies
3) Marriage equality and other relationship recognition laws
4) State hate crime laws
5) Statewide public accommodations laws and policies
6) Statewide school anti-bullying laws and policies
7) Statewide school non-discrimination laws and policies
8) Transgender healthcare
9) Gender marker change on identification documents

Poverty *(2015)*

14% of DC families lived in poverty in 2015.

Wards 7 and 8 have over **75% more families living in poverty** compared to DC overall.

% of families living in poverty
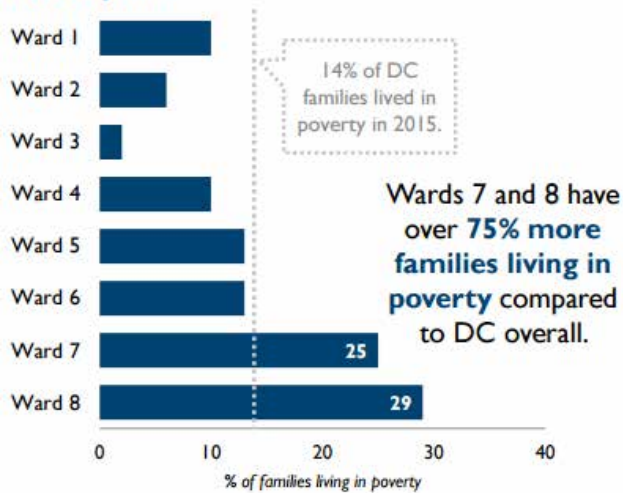
Education *(2015)*

In wards with higher percentages of minorities, residents tend to have lower levels of educational attainment.

% of DC residents by ward
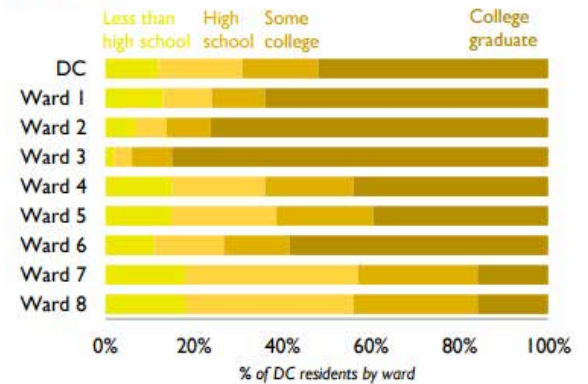
Median Household Income by Race *(2013)*

Median household income in DC is $70,354.

- $113,631 — White
- $84,146 — Asian
- $62,631 — Hispanic/Latinx
- $41,394 — Black
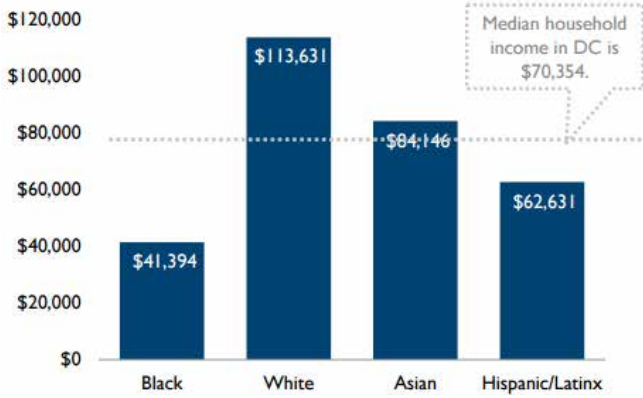
Unemployment

DC's overall unemployment rate has decreased since 2011.

2010	2011	2012	2013	2014
9.4	10.2	9	8.5	7.8
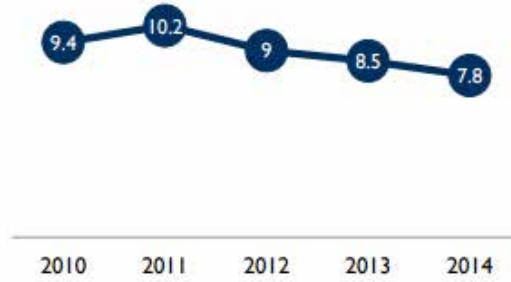
But major discrepancies in unemployment between wards persist. *(2015)*

In 2015, national unemployment was 5%.

Ward	% unemployed residents
Ward 1	5
Ward 2	4.8
Ward 3	4.5
Ward 4	6.4
Ward 5	8.7
Ward 6	5.8
Ward 7	11.9
Ward 8	14.6

% unemployed residents
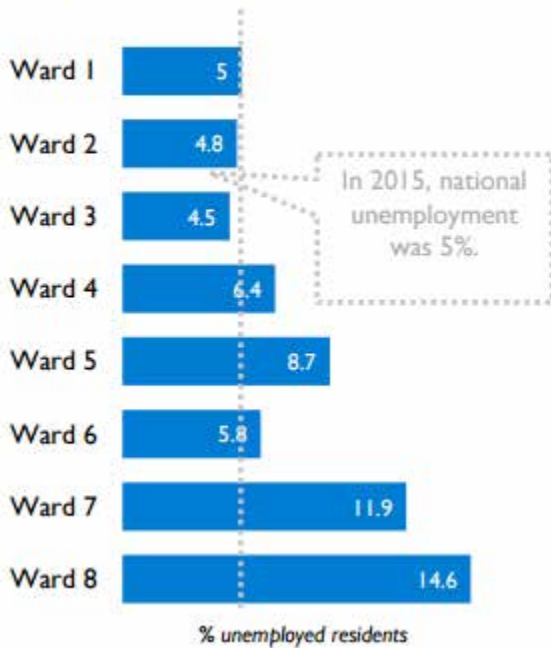
Education and Workforce

Test Scores

Across demographic groups, DC students have shown improvements in math and reading scores on the CAS since 2007— as high as a 22% increase in math scores for Hispanic students.

Despite these gains, DC students' average scores on nationally standardized tests are below the national average.

% change in DC CAS score (2007 to 2014)
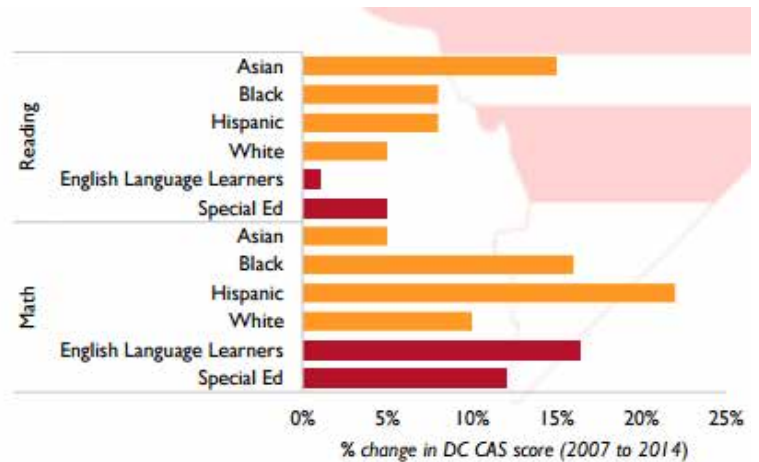
Teachers

DC Public Schools attract highly qualified teachers, and prioritize placement in high-poverty schools, where 94% of teachers at high-poverty schools are highly qualified, meaning they have subject matter expertise and is certified in the area he or she teaches.

% of teachers who are highly qualified
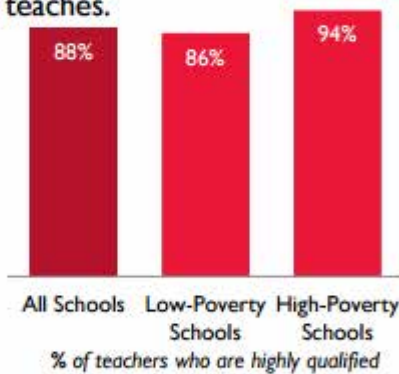
27% of DC's Elementary Teachers &
37% of Secondary Teachers
have their Masters degree.

Attendance

For the 2014–2015 school year, DC had 90% overall school attendance, falling short of its 95% target.

85,403

students were enrolled in 2014–2015 at DC Public Schools (DCPS).

High School Graduation Rates

The high school graduation rates across demographic groups in the DC Public Schools fall short of the national average (79%), which reached a record high in 2013. Of the race categories, Black students have the lowest rate at 64%.

% of students who graduate high school
(by cohort)
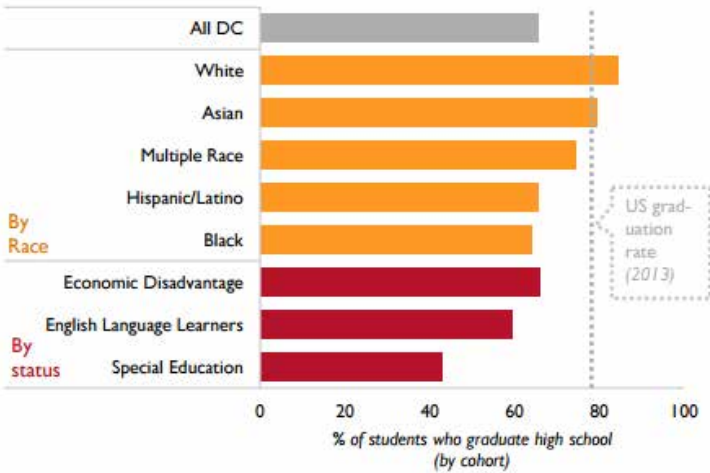
Change in Graduation Rates

While Public Charter Schools maintain higher graduation rates than the DCPS overall, the 4-year graduation rate dropped from 2012 to 2014.
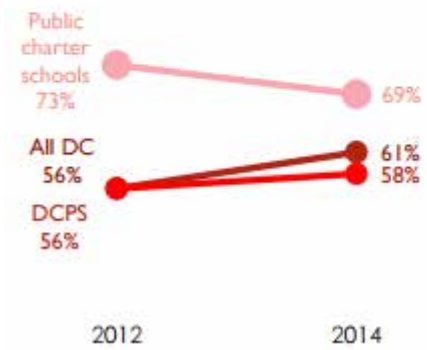
Labor Force

The number of people in the labor force has increased from 2010 to 2014. In the same period, the raw number of unemployed persons in the district has declined from 326,000 in 2010 to 294,000 in 2014.
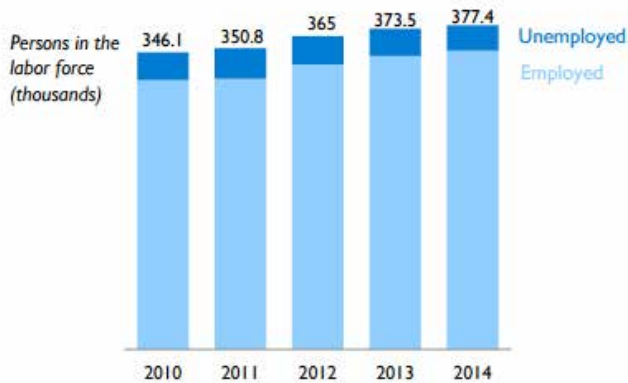
Unemployment

From 2010 to 2014, unemployment in the District decreased by 1.6%, from 9.4% to 7.8%. In the same period, youth unemployment (ages 16–19) dropped by more than half (from 50% to 20%).
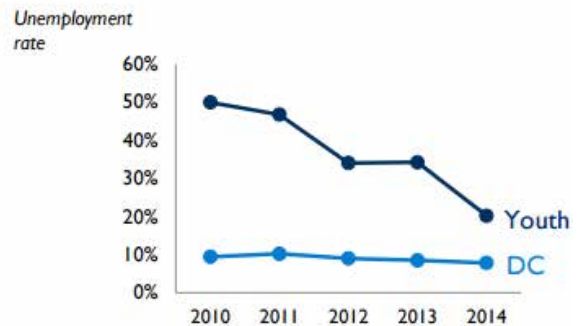
Growing Sectors

In 2015, most of the positions employers were hiring for fell into the sectors identified below. These sectors are predicted to be the top 10 fastest growing sectors between 2015–2025.
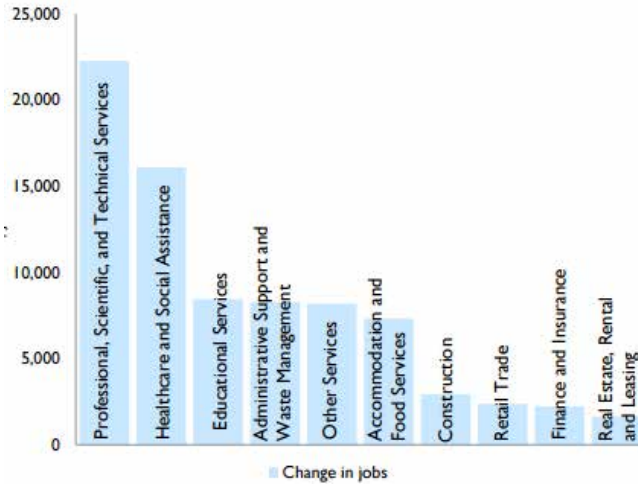
Unemployment by Race

All races saw declines in unemployment from 2010 to 2014. The greatest gains were in the Hispanic population, where unemployment declined by 4.5%.

These gains were smaller than in the larger US population (particularly for blacks and whites), though this may be partially attributed to the relatively stagnant unemployment rate in the District overall.
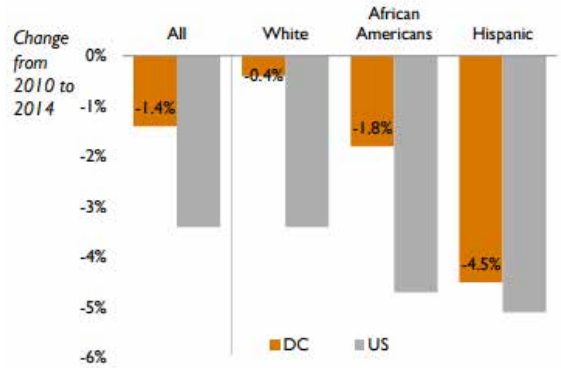
Employment by Industry

In 2015, Government was the District's largest industry, accounting for almost 237,000 jobs.
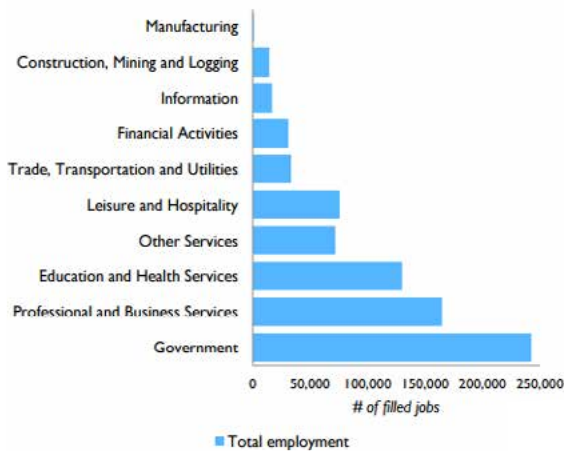
Employment by Education

In 2014, college graduates were two times more likely to be employed than someone with less than a high school diploma.
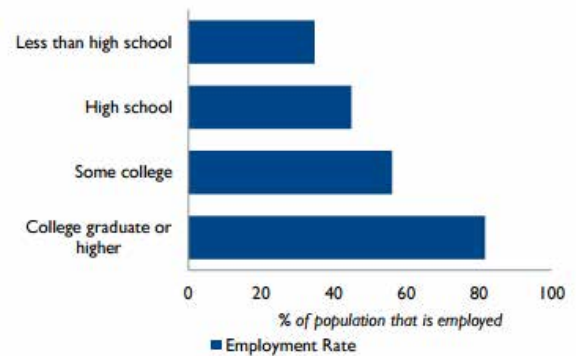
DC Barriers to Access and Health Disparities

Median Household Income *(2015)*

The median household incomes in Wards 5, 7 and 8 are below the DC average.

Ward 1
Ward 2
Ward 3
Ward 4
Ward 5 — $63,502
Ward 6
Ward 7 — $39,276
Ward 8 — $36,722

$0 | $50,000 | $100,000

Median household income

DC's median household income is $70,354

Adults in DC Living in Poverty *(2014)*

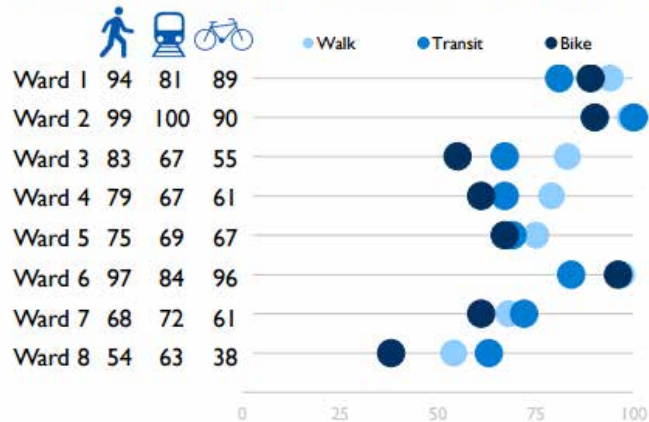A higher percentage of the black population live in poverty compared to other racial groups and DC overall.

% of DC residents living in poverty

18% of DC residents live in poverty

White — 7%
Hispanic/Latinx — 17%
Black — 27%
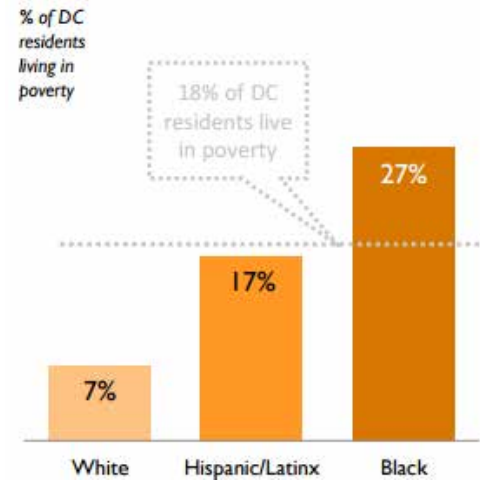
Children in DC Living in Poverty *(2014)*

A higher percentage of the black children live in poverty compared to other racial groups and DC overall.

% of children living in poverty

28% of DC children live in poverty
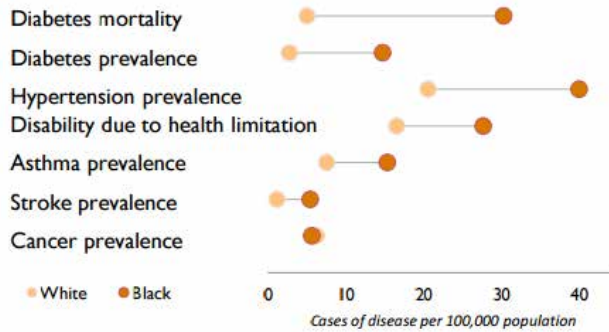

White — 2%
Hispanic/Latinx — 22%
Black — 38%
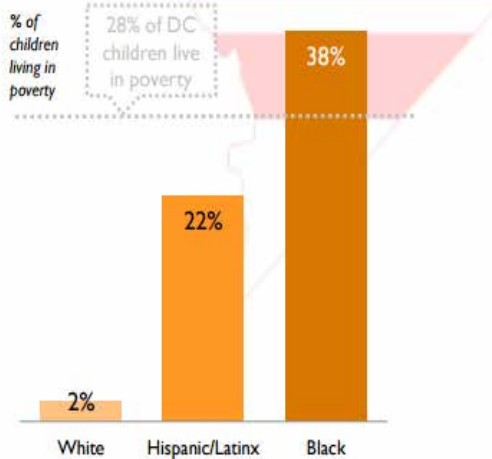
Transportation *(2016)*

How easy is it to walk, bike, or take the bus or Metro to run daily errands? With 100 as most accessible, how does your Ward score?
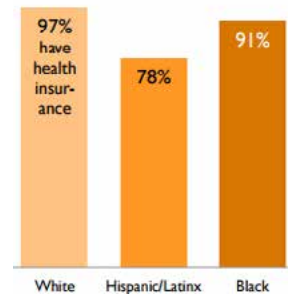
● Walk   ● Transit   ● Bike

	Walk	Transit	Bike
Ward 1	94	81	89
Ward 2	99	100	90
Ward 3	83	67	55
Ward 4	79	67	61
Ward 5	75	69	67
Ward 6	97	84	96
Ward 7	68	72	61
Ward 8	54	63	38

0 | 25 | 50 | 75 | 100

Chronic Diseases *(2011-2014)*

DC's black adult population has rates of chronic diseases compared to the white population: more than double the rate for diabetes and hypertension. *Data from 2013.*
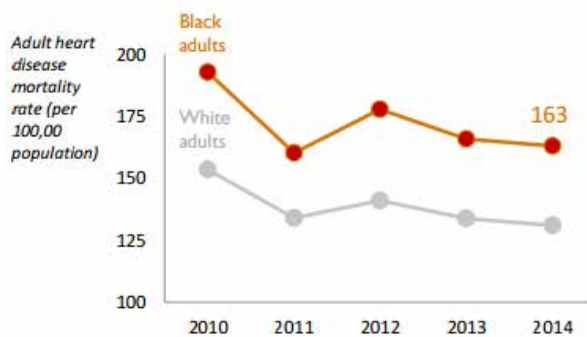
- Diabetes mortality
- Diabetes prevalence
- Hypertension prevalence
- Disability due to health limitation
- Asthma prevalence
- Stroke prevalence
- Cancer prevalence

White   Black

0   10   20   30   40

Cases of disease per 100,000 population

Access to Health Insurance

97% have health insur- ance (White)

78% (Hispanic/Latinx)

91% (Black)

White   Hispanic/Latinx   Black

Insurance coverage is **lowest** among DC Hispanic/Latinx residents. *(2014)*

Only 7% of employed DC residents lack **health insurance.** *(2014)*

Heart Disease Mortality

Heart disease mortality rates in DC's black population have decreased since 2012. DC is on track to meet its Healthy People 2020 goal of 128!

Adult heart disease mortality rate (per 100,00 population)

Black adults

White adults

163

200   175   150   125   100

2010   2011   2012   2013   2014

Maternal and Child Health *(2013)*

Rates of infant mortality and preterm births were higher in DC's black population, followed by the Hispanic/Latinx population, compared to the white population.

Infant mortality (rate per 1,000)   1.7   6.4   9.9

Preterm births (%)   7.5   8.9   12.8

White   Hispanic/Latino   Black

Children's Oral Health *(2012)*

The percent of children (1-17 years) with a toothache, decayed teeth, or an unfilled cavity **is four times higher** in minority populations.

% children with an oral health issue

- White: 5.4%
- Hispanic/Latinx: 19.9%
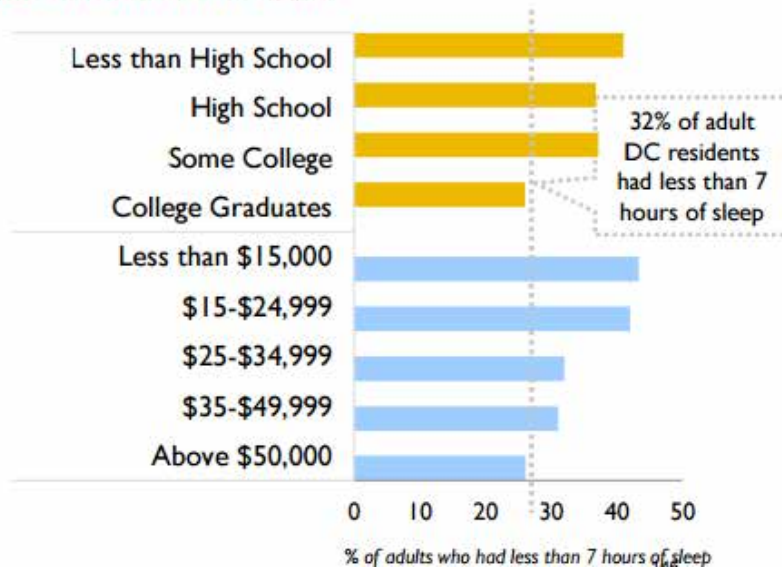- Black: 22.5%
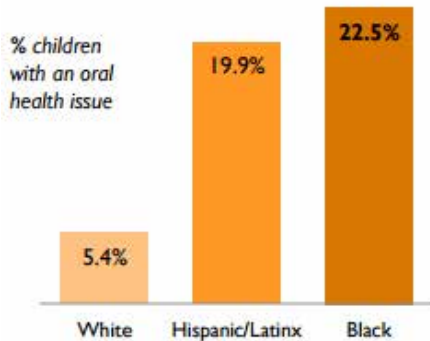
Asthma Hospitalizations *(2014)*

In DC, 15.4% of black adults, and 7.6% of white adults suffer from asthma. Asthma-related inpatient and emergency department hospitalizations were highest in Wards 7 and 8.

incidents

ER Dept.

Inpatient: Ward 7: 311, Ward 8: 323

Ward 1 Ward 2 Ward 4 Ward 5 Ward 6 Ward 7 Ward 8

Inadequate Sleep by Education & Income *(2014)*

Around 1 in 3 DC residents is "sleep deprived" with less than 7 hours of sleep in a night.

A greater proportion of residents with **less than college graduate education**, and residents with **annual incomes less than $25,000** experience inadequate amounts of sleep (less than 7 hours).

- Less than High School
- High School
- Some College
- College Graduates
- Less than $15,000
- $15-$24,999
- $25-$34,999
- $35-$49,999
- Above $50,000

32% of adult DC residents had less than 7 hours of sleep

0   10   20   30   40   50

% of adults who had less than 7 hours of sleep

Healthy Eating and Active Living

Adult Obesity by Race, Ward & Education *(2014-2015)*

22% of DC adults are obese

% of adults who are obese
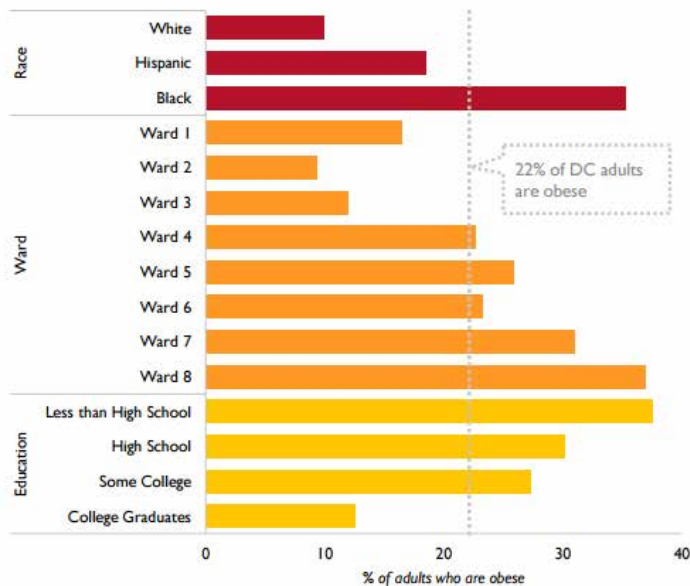
**1 in 5** DC youth (10-17 years) is **obese.** *(2011)*

DC ranked #49 nationwide for the lowest percentage of obese youth (10-17 years). *(2011)*

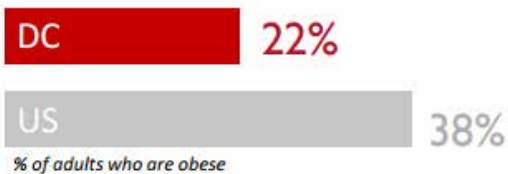**14.4%** of low-income children (2-4 years) in DC are **obese.** *(2012)*

Full-Service Grocery Stores

Between 2010 and 2015, the number of full-service grocery stores increased in Wards 1, 4, 5, and 6. During that time, the number of full-service grocery stores decreased in Wards 2, 3, 7 and 8.

# of full service grocery stores by Ward   ● 2010 ● 2015
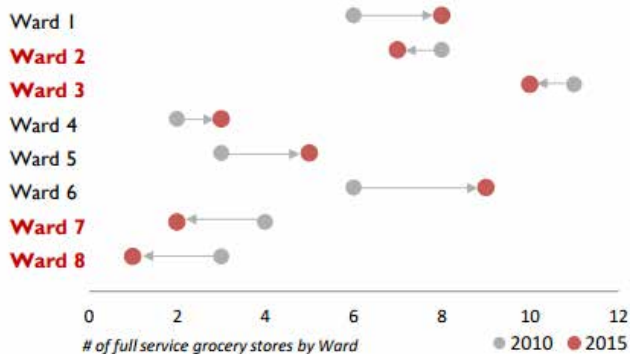
The percent of obese adults is much lower in DC compared to the national average. DC is on track to hit its 2020 goal of 19.2%.

Adult Obesity in DC & the US *(2015)*

| DC | 22% |
| US | 38% |

% of adults who are obese

Adult Physical Inactivity by Race, Ward & Income *(2014)*

21% of DC adults are physically inactive

Race:
- White
- Hispanic
- Black

Ward:
- Ward 1
- Ward 2
- Ward 3
- Ward 4
- Ward 5
- Ward 6
- Ward 7
- Ward 8

Income:
- Above $50,000
- $35-$49,999
- $25-$34,999
- $15-$24,999
- $15,000

% of adults who are physically inactive 147
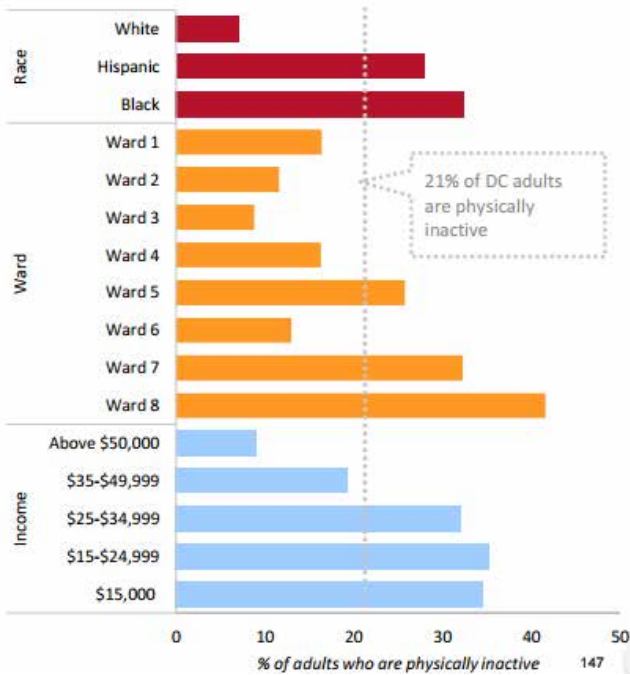
Children and teenagers who are low-income and Hispanic/Latinx or black face particular disparities.

A greater percentage of Hispanic/Latinx and black teens in DC are overweight compared to white teens. *(2015)*

Hispanic/Latinx	Black	White
20.3	18.4	8.4
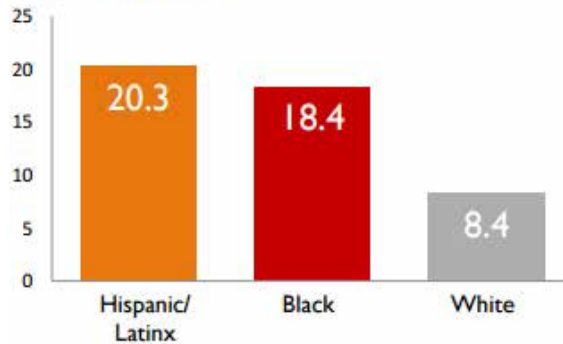
SNAP Participation

Wards 5, 7, and 8 have the most people participate in SNAP (food stamps), which makes it easier for them to get fresh and healthy foods. *(2015)*

16,557
19,877
20,233
701
2,779
33,849
15,865
45,181
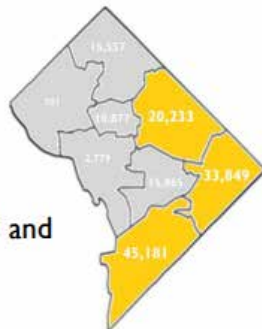
#2

DC is ranked second only to New York City in terms of the percentage of **residents who bike, walk, or take public transportation** to work. *(2014)*

Parks & Recreation (2014)

DC has many parks, recreation centers, pools, and cooling spaces. Which of these resources do you have in your community?

7,821 acres of parks and open spaces

22 community gardens

400 events and programs throughout the year

11 indoor pools

18 outdoor pools

20 splash pads

340 fields and courts

73 recreation centers

5 skate parks

70% of DC teens do not participate in the CDC recommended 60 minutes of physical activity on 5 or more days per week. (2015)

Housing and Homelessness

Access to Affordable Housing

Affordable housing is critical to ensuring DC residents have a safe environment to live in.

The Metropolitan Washington Council of Governments, said the "single greatest barrier to ending homelessness" in the region was a "diminishing number of affordable and available permanent housing opportunities for the lowest-income households."

The median price of a single family home in DC has **more than tripled in 15 years.**

2015
$670,000

2000
$209,000
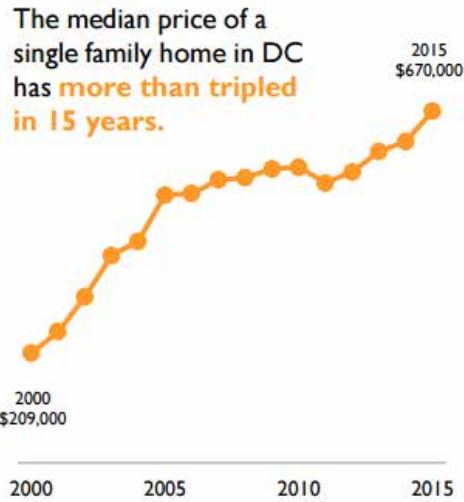
Data from 2015 show the median price in Ward 2 was **5 times higher** than in Wards 7 and 8.

Median single family home price

Rental Assistance to DC Families

As house prices and rents skyrocket, DC families increasingly rely on multiple types of housing assistance. Across these programs, $417 million in federal rental assistance funding was brought into DC in 2014.

 # households assisted

|	
Housing choice vouchers	10,558
Section 8 project-based	10,595
Public housing	8,091
Elderly and disabled	524
USDA	0
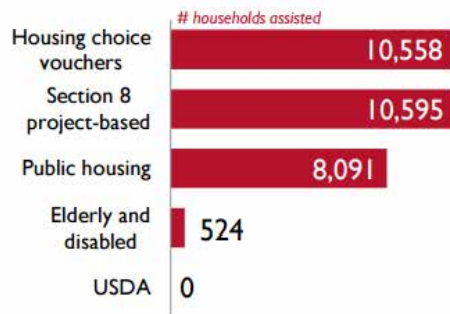
As rents rise around DC, the average incomes for the bottom 40 percent of renters did not increase at all, leaving more households reliant on rental assistance. *(2010)*

What kinds of households are receiving federal assistance? *(2014)*

34% have children, including:
29% adults with children
4% disabled adults w. children
1% elderly with children

21% are disabled adults

28% are elderly

17% are childless adults
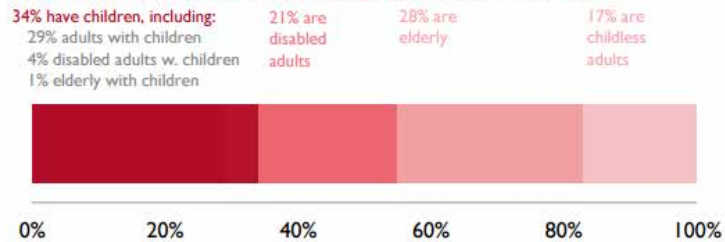
How many people are sleeping on the DC streets?

Point in time estimates show the number of homeless in DC has increased in the past 10 years.

8350

homeless individuals   5320

2007   2010   2013   2016
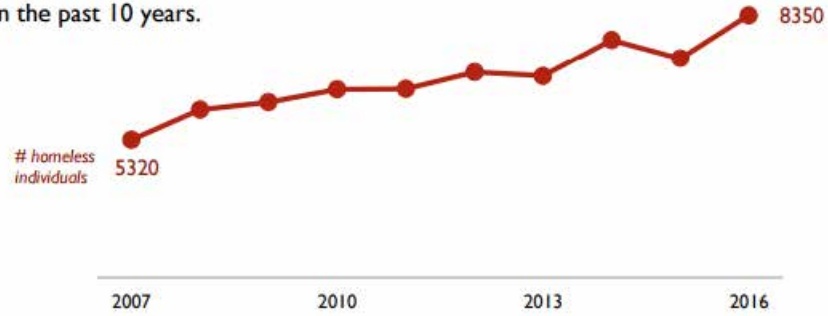
On a given night in the District, approximately 1,600 individuals and 130 families are chronically homeless.

49 years Median age of a homeless individual in DC *(2014)*

**25 years** Median age of a homeless adult with children *(2014)*

What are the health costs of homelessness?

More than $19 million in emergency services per year are spent to care for the DC homeless. *(2015)*

4,702 Uses of the ER

2,544 Ambulance rides to the hospital

2,154 Inpatient hospitalizations

1,696 Uses of a crisis service (suicide prevention)

What's the cost of a solution?

The per-person cost of permanent and supportive housing is less than half the per person cost of emergency services.

Annual cost per person

$40,843 per person

$15,889 per person

Emergency Response   Housing Solutions
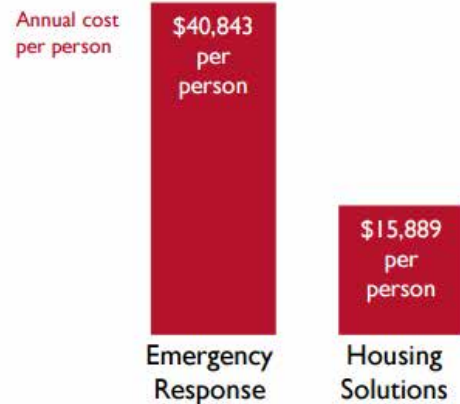
Homeless Veterans

While the number of homeless individuals has increased in the last five years, the number of homeless veterans has declined by 37%.

homeless veterans

531

350

2012   2014   2016
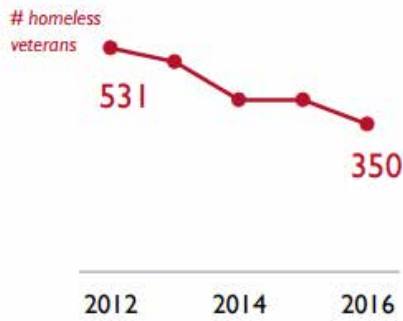
Homelessness by Race

Racial inequalities persist:

3 in 4 homeless individuals are black in DC. *(2014)*

Homeless Families

Between 2007-2014, DC had the largest change of any state/district in the US in the number of homeless people in families: an increase of 137%.

Safety and Violence

How is DC doing this year?

The figures show the number of different kinds of crimes reported at the same point in 2015 and 2016.

■ Getting better   ■ Getting worse

Offense	2015	2016	% change	
Homicide	110	98	-11%	■
Sex abuse	239	238	0%	■
Assault w/ dangerous weapon	1,672	1,707	2%	■
Robbery	2,277	2,155	-5%	■
Violent Crime (total)	4,298	4,198	-2%	■
Burglary	1,655	1,469	-11%	■
Motor vehicle theft	2,069	1,762	-15%	■
Theft from auto	7,871	7,139	-9%	■
Theft (other)	9,628	9,700	1%	■
Arson	11	4	-64%	■
Property Crime (total)	21,234	20,074	-5%	■
All crime (total)	25,532	24,272	-5%	■

Homicides

DC's homicide rate remains consistently higher than the US. It declined until 2012 and has increased since then.
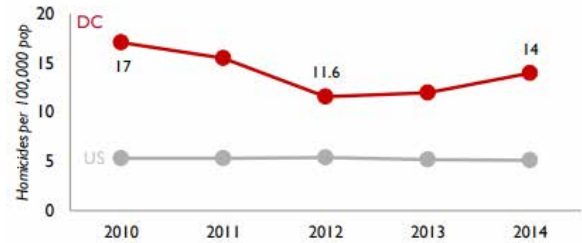
Hate Crimes

Hate crimes are on the rise in DC. The number of hate crimes increased by 64% in 2016 compared to 2015.

hate crimes reported
● 2015   ● 2016
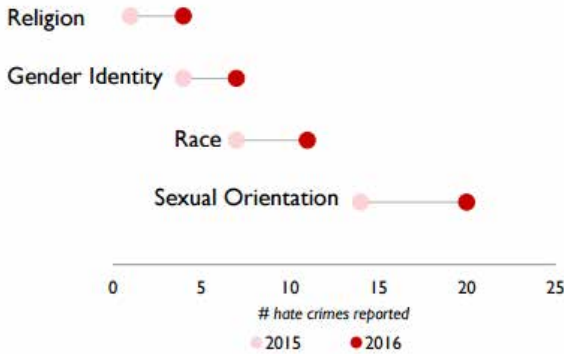
In 2014, the homicide rate in the US was 5.1 per 100,000, and it has already met its 2020 target of 5.5. In 2014, DC's rate was 14, and its on track to meeting its 2020 target of 10.4

US: 5.1
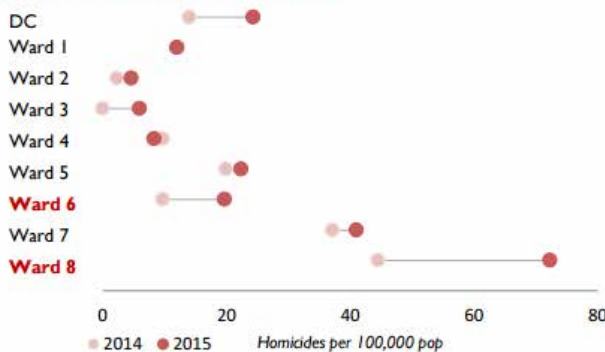
DC: 14

Homicide rate per 100,000

85%
of homicide victims were black males.
(2015)

Between 2014 to 2015, the homicide rate increased in most wards and throughout DC overall. Wards 6 and 8 had the greatest increase in homicide rates.


● 2014   ● 2015   *Homicides per 100,000 pop*

Youth Violence

More DC high school students experience violence compared to US students overall, though fewer DC high school students are electronically bullied or feel sad or hopeless. *(2015)*


● US   ● DC   *% of high school students*
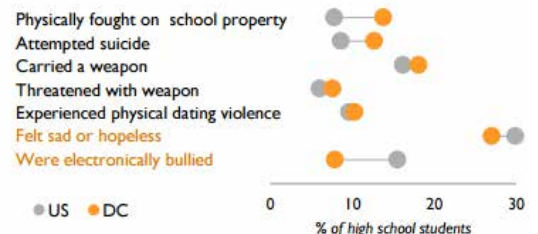
Incarceration Rate (2016)

The US has the highest incarceration rate compared to all other countries, and DC's incarceration rate per 100,000 is the highest in the world.

DC	1196
Louisiana	1143
Georgia	1004
US	693

0   200   400   600   800   1000   1200   1400

Incarceration rate per 100,000
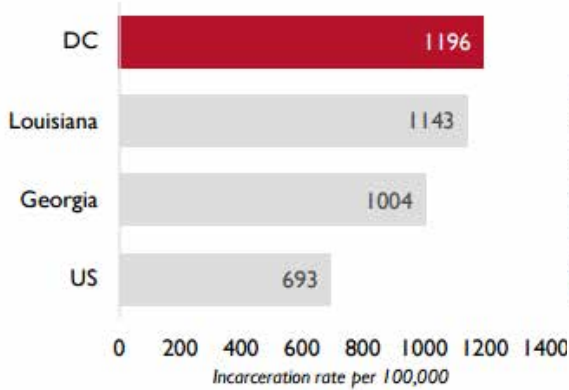
Incarcerated Individuals

The number of individuals incarcerated in a DC Department of Corrections (DOC) facility has decreased since 2011, but showed a slight uptick in 2016.

# of incarcerated individuals

2011
3093

2016
1,845

Over 90% of inmates are male. (2016)
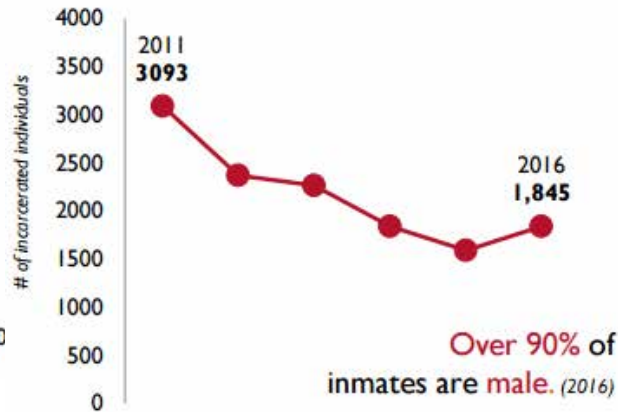
1 in 5

inmates were **re-incarcerated** in 2016.

71% of male and **84%** of female inmates remain in custody for less than 6 months.
(2016)

Incarceration by Gender (2016)

There are more incarcerated males compared to females. This is especially true for individuals younger than 21 years old.

Male   Female

<21 years
21-30
31-40
41-50
51-60
>61 years

0%   50%   100%

*% of incarcerated individuals by age*
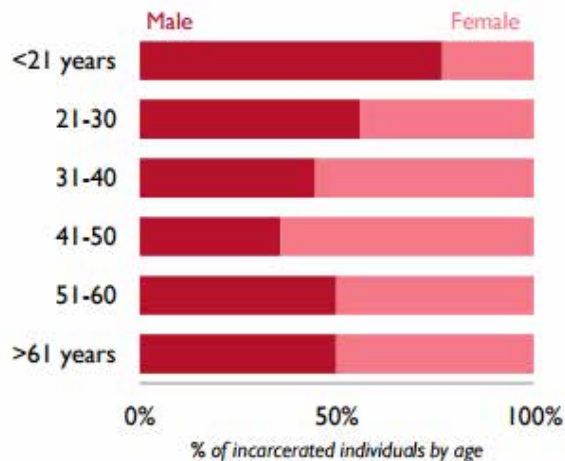
Re-entry after Incarceration

1 in 8

DC adult residents has a **prior conviction.** *(2015)*

In 2014, the Mayor's Office on Returning Citizen Affairs (MORCA) was created. Since then....

2,200 new clients registered.

5,800 individuals who were provided a service.

482 returning citizens were registered to vote.

Almost half of the supervised re-entry population is **employed.**
*(2015)*

65% Supervised re-entry population who are employable.

49% Supervised re-entry population who are employed.
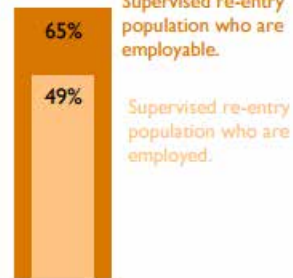
% of supervised population

Law Enforcement *(2015)*

DC is ranked **#1** for **number of police officers** per 10,000 residents (56.9), over twice the rate in San Francisco (25.9).

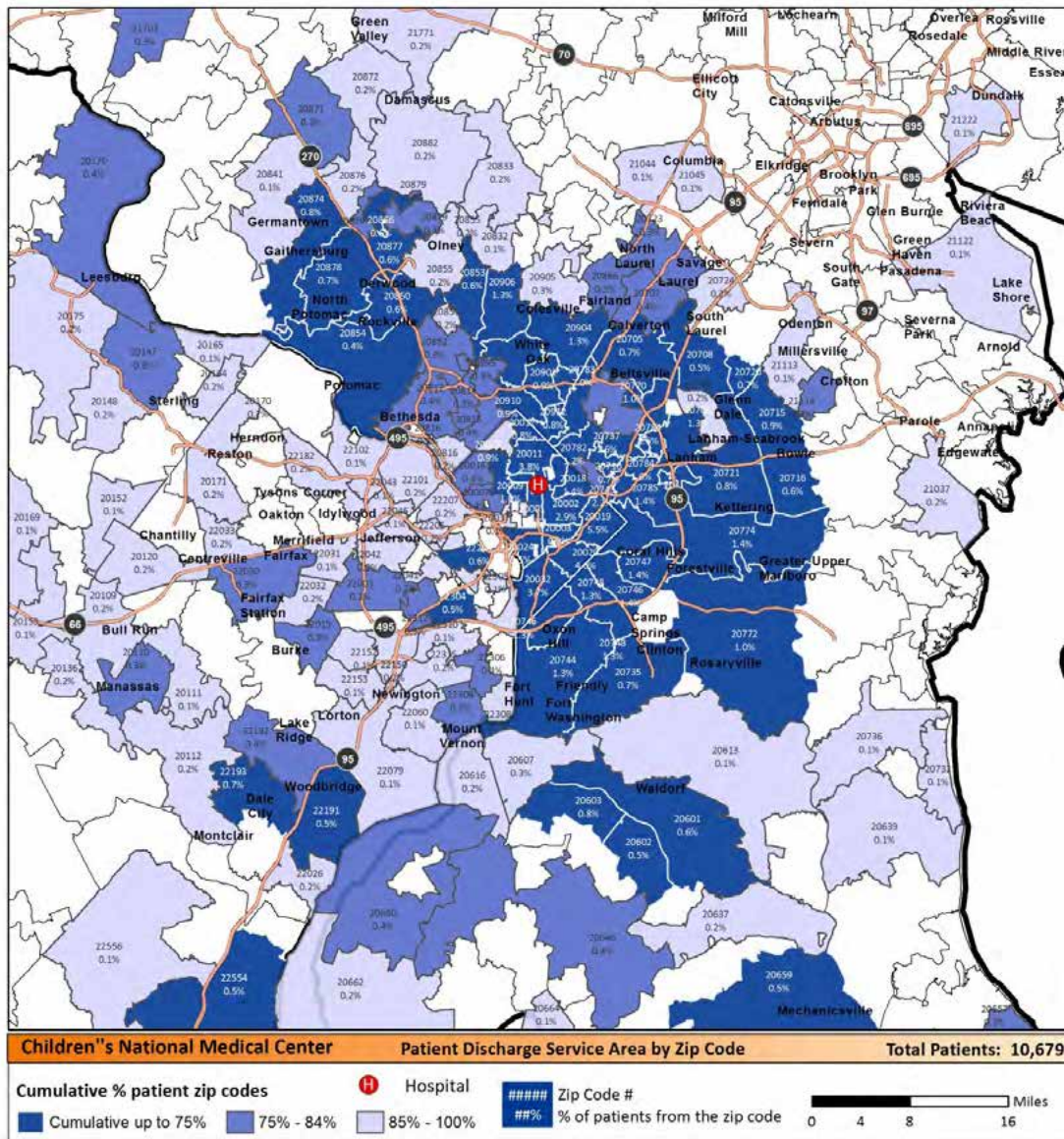Since 2015, DC has deployed **more than 1,200 body-worn cameras** to officers.

Race of Inmates *(2016)*

The majority of the inmate population is black: nearly 90% of incarcerated individuals in DC.

3.4% are white.

5% are Hispanic/Latinx.

89% of DC inmates are black.
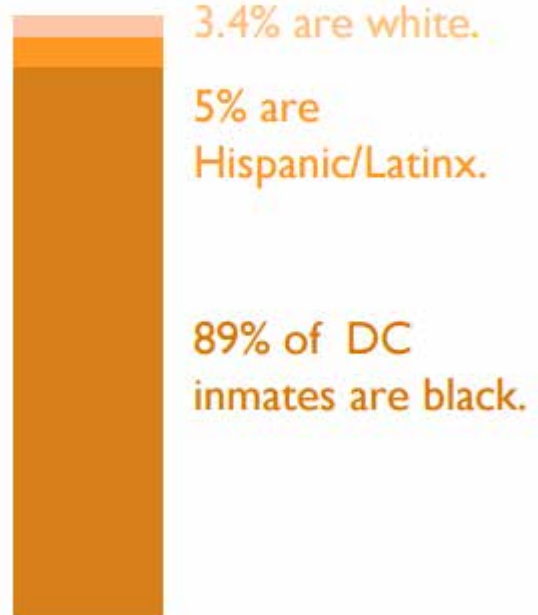
Appendix D: DC Hospital Service Area Maps

CHILDREN'S NATIONAL: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE

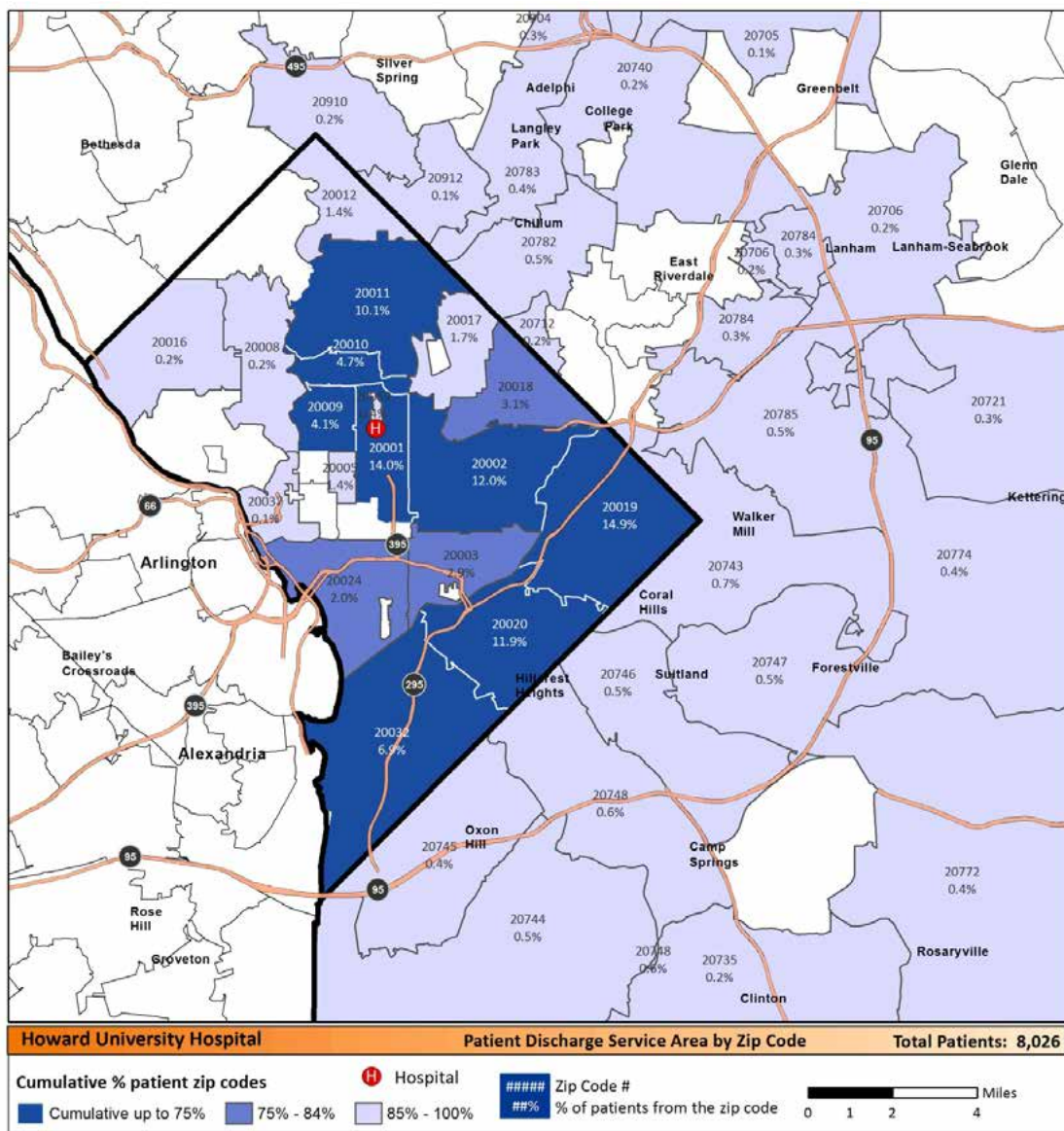*Inpatient Discharge Database, DC Hospital Association*

GEORGE WASHINGTON UNIVERSITY HOSPITAL: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE

George Washington University Hospital | Patient Discharge Service Area by Zip Code | Total Patients: 15,498
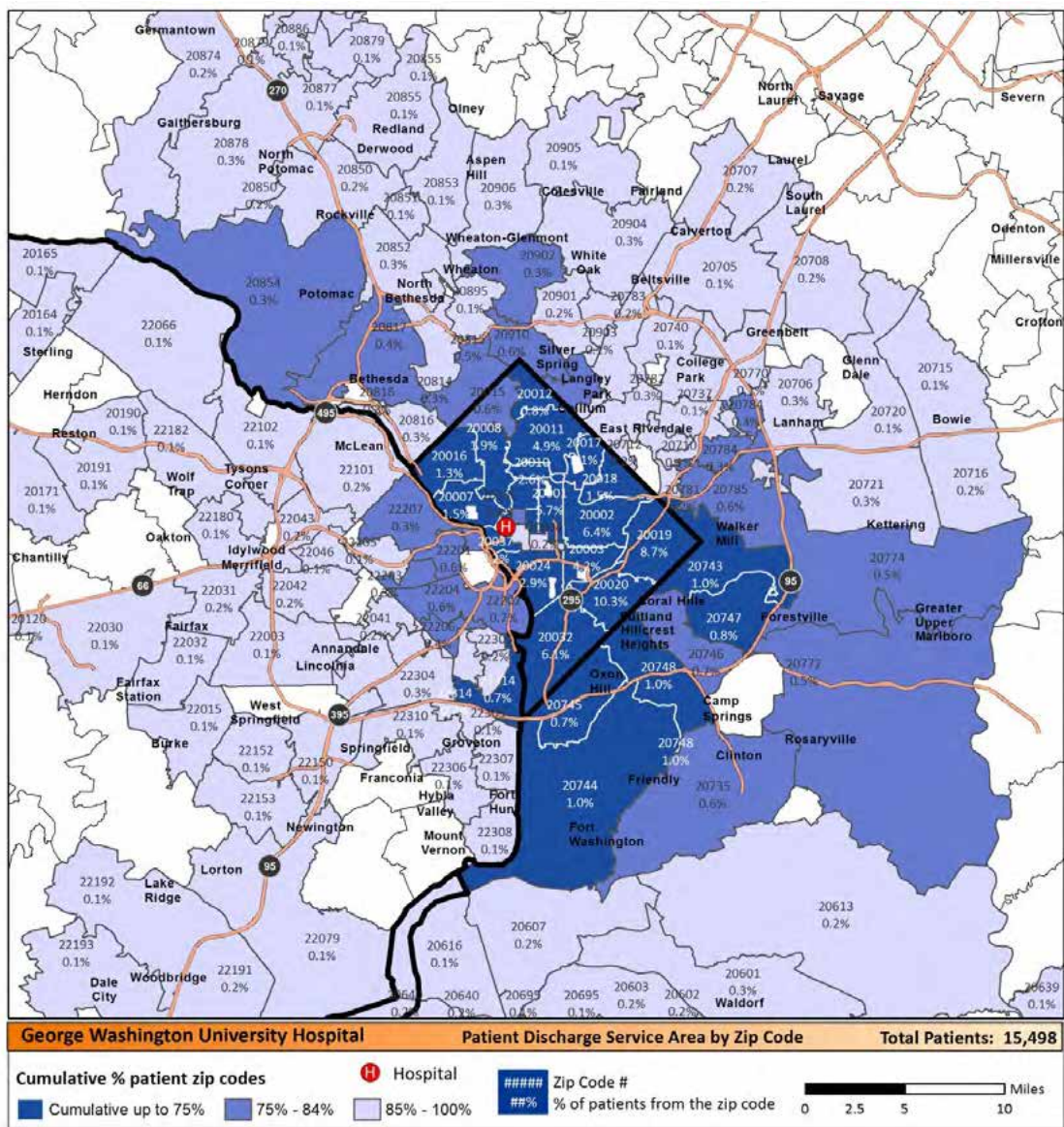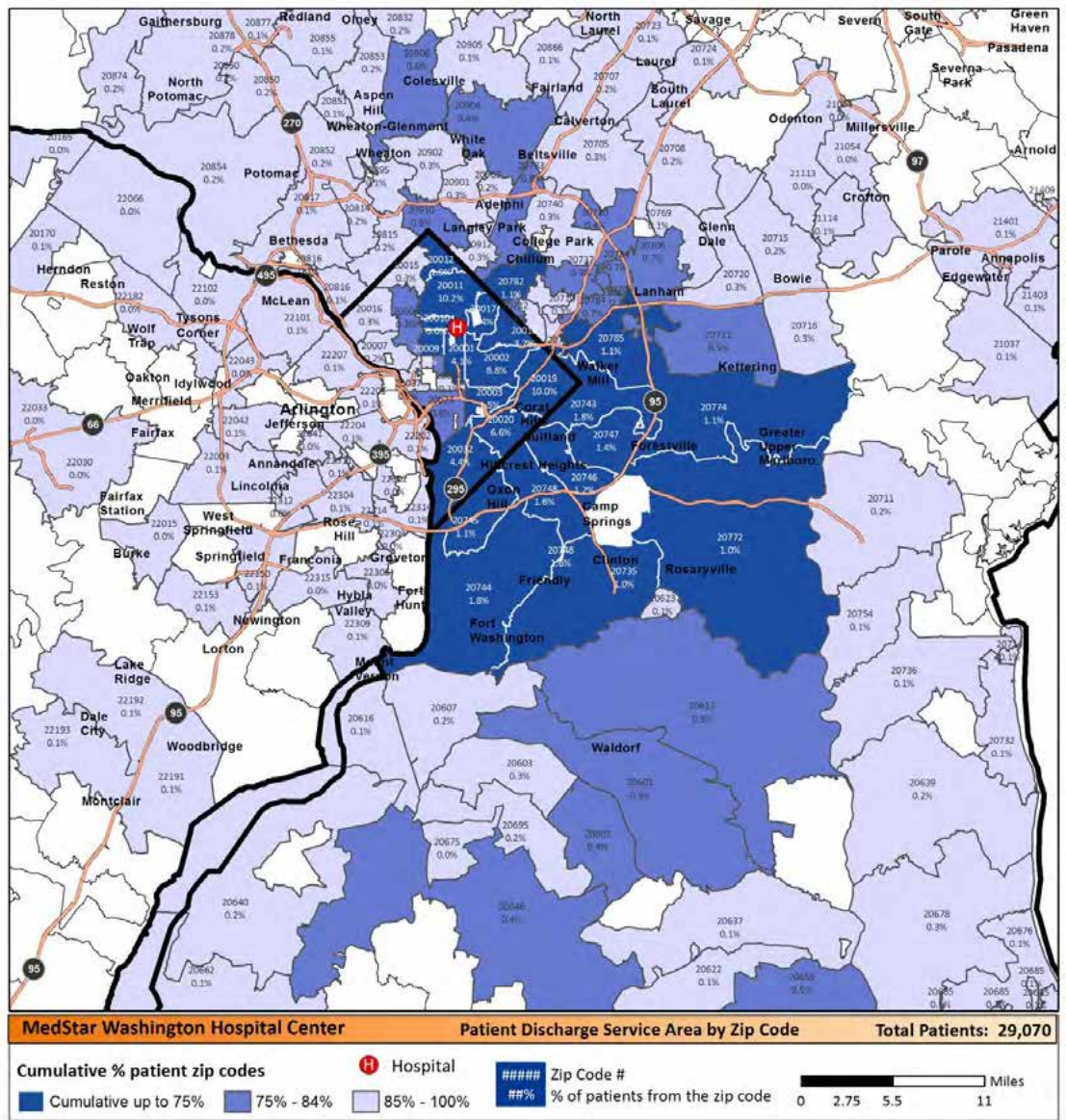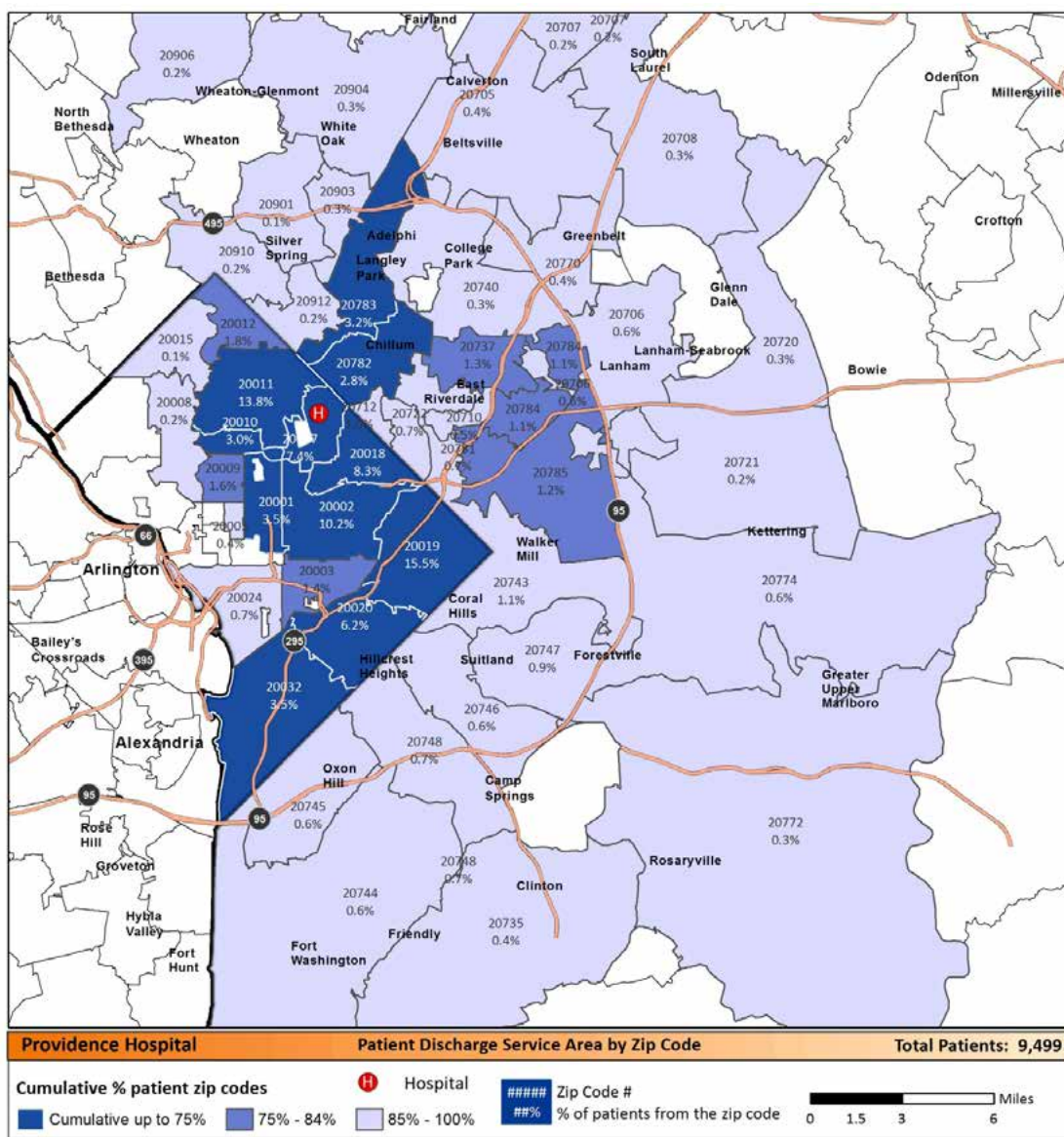
Inpatient Discharge Database, DC Hospital Association

HOWARD UNIVERSITY HOSPITAL: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE

Inpatient Discharge Database, DC Hospital Association

MEDSTAR GEORGETOWN UNIVERSITY HOSPITAL: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE

Inpatient Discharge Database, DC Hospital Association

MEDSTAR WASHINGTON HOSPITAL CENTER: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE

Inpatient Discharge Database, DC Hospital Association
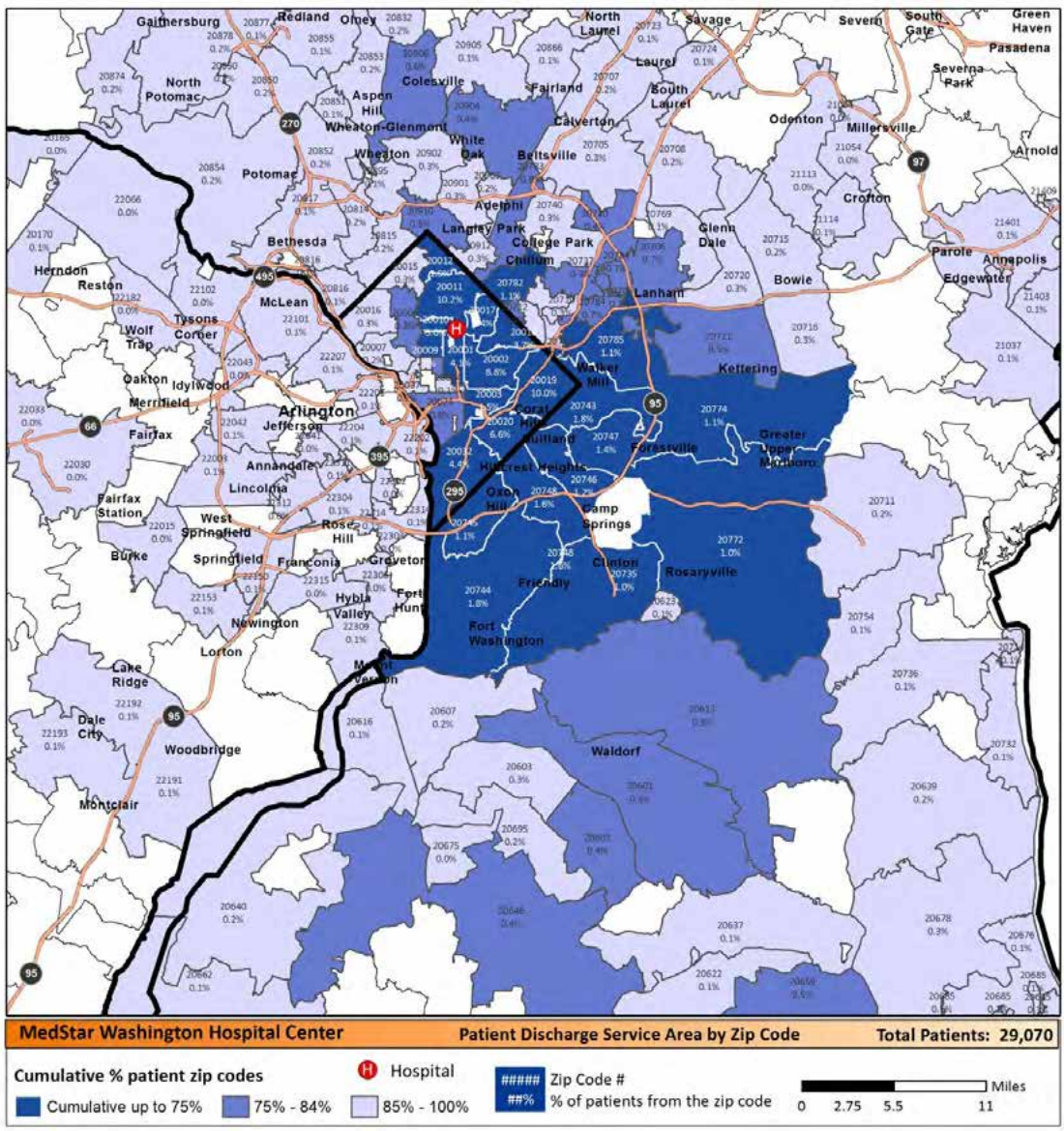
PROVIDENCE HOSPITAL: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE

Inpatient Discharge Database, DC Hospital Association

SIBLEY MEMORIAL HOSPITAL: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE

Inpatient Discharge Database, DC Hospital Association

UNITED MEDICAL CENTER: PATIENT DISCHARGE SERVICE AREA BY ZIP CODE
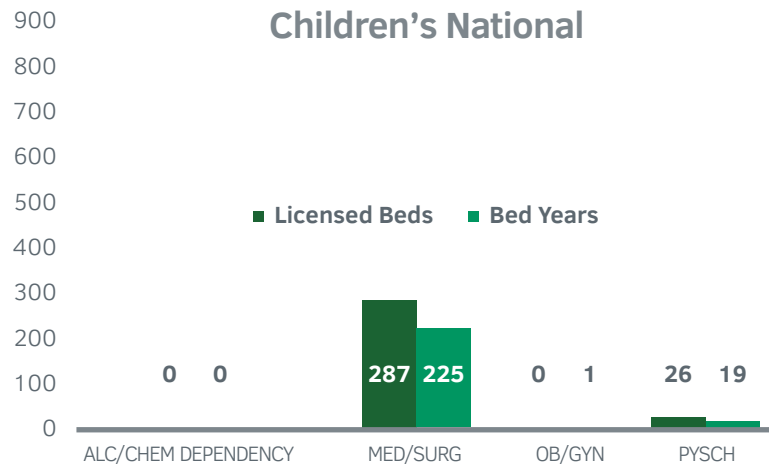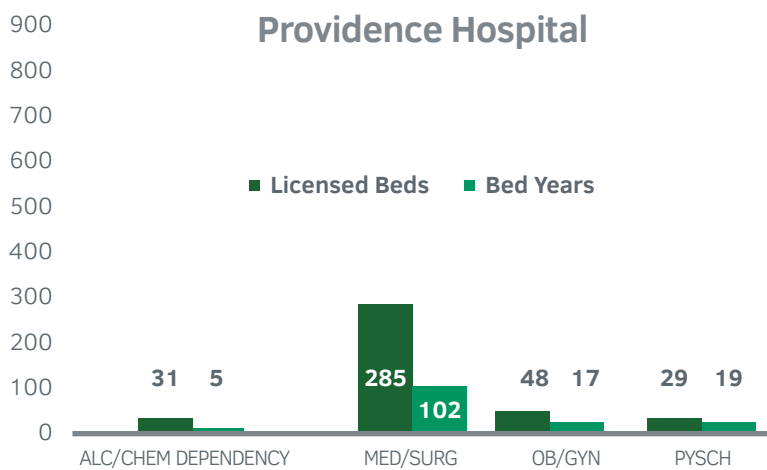

Inpatient Discharge Database, DC Hospital Association

Appendix E: Hospital Bed Category Aggregation and Line of Service Crosswalk

Bed Category Aggregation	
License Category	Bed Category
Med/Surg	Med/Surg
ICU/CCU	Med/Surg
Ob/Gyn	Ob/Gyn
Nursery	Med/Surg
NICU	Med/Surg
Pediatric	Med/Surg
Alc/Chem Dependency	Alc/Chem Dependency
Rehab	Rehab
Psych	Psych

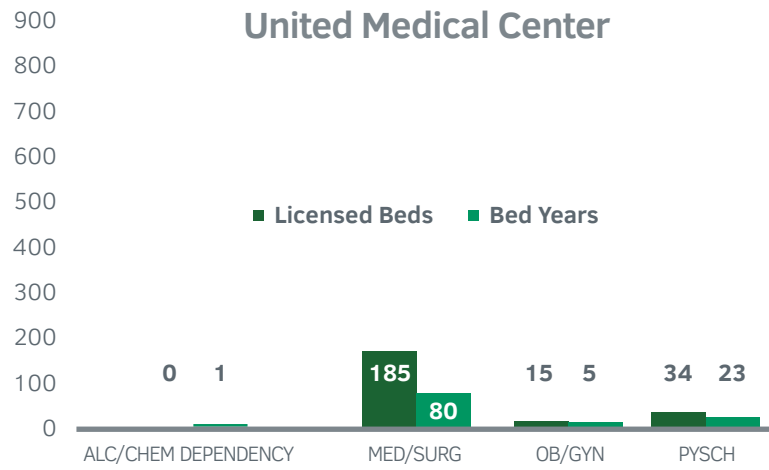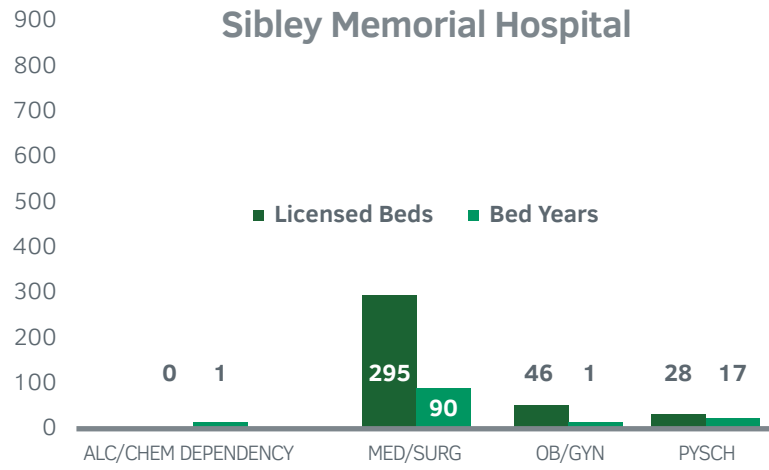| Line Of Service Crosswalk to Bed Category	
Line Of Service	Bed Category
Medicine	Med/Surg
General Surgery	Med/Surg
Newborn	Med/Surg
Other Surgery	Med/Surg
Psychiatry	Psych
Cardiac Care (m)	Med/Surg
Respiratory	Med/Surg
Obstetrics	Ob/Gyn
Neurological (m)	Med/Surg
Cardiac Care (s)	Med/Surg
Neurological (s)	Med/Surg
Orthopedics (s)	Med/Surg
Renal / Urology (m)	Med/Surg
Cancer Care (m)	Med/Surg
Trauma (s)	Med/Surg
Renal / Urology (s)	Med/Surg
Cancer Care (s)	Med/Surg
Trauma (m)	Med/Surg
Substance Abuse	Alc/Chem Dependency
Orthopedics (m)	Med/Surg
Women's Health	Ob/Gyn
Ophthalmology	Med/Surg
Dental	Med/Surg
Miscellaneous	Med/Surg

Appendix F: DC Hospital Licensed Bed Capacity and Utilization

Certificates of License provided by each hospital - produced by the DC Health Regulation Administration, Health Care Facilities Division. Utilization data from the Inpatient Discharge Database, DC Hospital Association.

Children's National

■ Licensed Beds ■ Bed Years

	ALC/CHEM DEPENDENCY	MED/SURG	OB/GYN	PYSCH
Licensed Beds	0	287	0	26
Bed Years	0	225	1	19

George Washington University

■ Licensed Beds ■ Bed Years

	ALC/CHEM DEPENDENCY	MED/SURG	OB/GYN	PYSCH
Licensed Beds	0	312	37	20
Bed Years	2	231	28	16

Howard University Hospital

■ Licensed Beds ■ Bed Years

	ALC/CHEM DEPENDENCY	MED/SURG	OB/GYN	PYSCH
Licensed Beds	0	403	53	20
Bed Years	1	109	1	6

MedStar Georgetown University Hopsital

Licensed Beds / Bed Years

ALC/CHEM DEPENDENCY: 0, 1
MED/SURG: 533, 296
OB/GYN: 62, 12
PYSCH: 14, 10

MedStar Washington Hospital

ALC/CHEM DEPENDENCY: 22, 3
MED/SURG: 775, 572
OB/GYN: 41, 32
PYSCH: 57, 39

Providence Hospital

ALC/CHEM DEPENDENCY: 31, 5
MED/SURG: 285, 102
OB/GYN: 48, 17
PYSCH: 29, 19

Sibley Memorial Hospital

Legend: ■ Licensed Beds ■ Bed Years

Category	Licensed Beds	Bed Years
ALC/CHEM DEPENDENCY	0	1
MED/SURG	295	90
OB/GYN	46	1
PYSCH	28	17

United Medical Center

Legend: ■ Licensed Beds ■ Bed Years

Category	Licensed Beds	Bed Years
ALC/CHEM DEPENDENCY	0	1
MED/SURG	185	80
OB/GYN	15	5
PYSCH	34	23

Appendix G: DC FQHC Penetration Maps

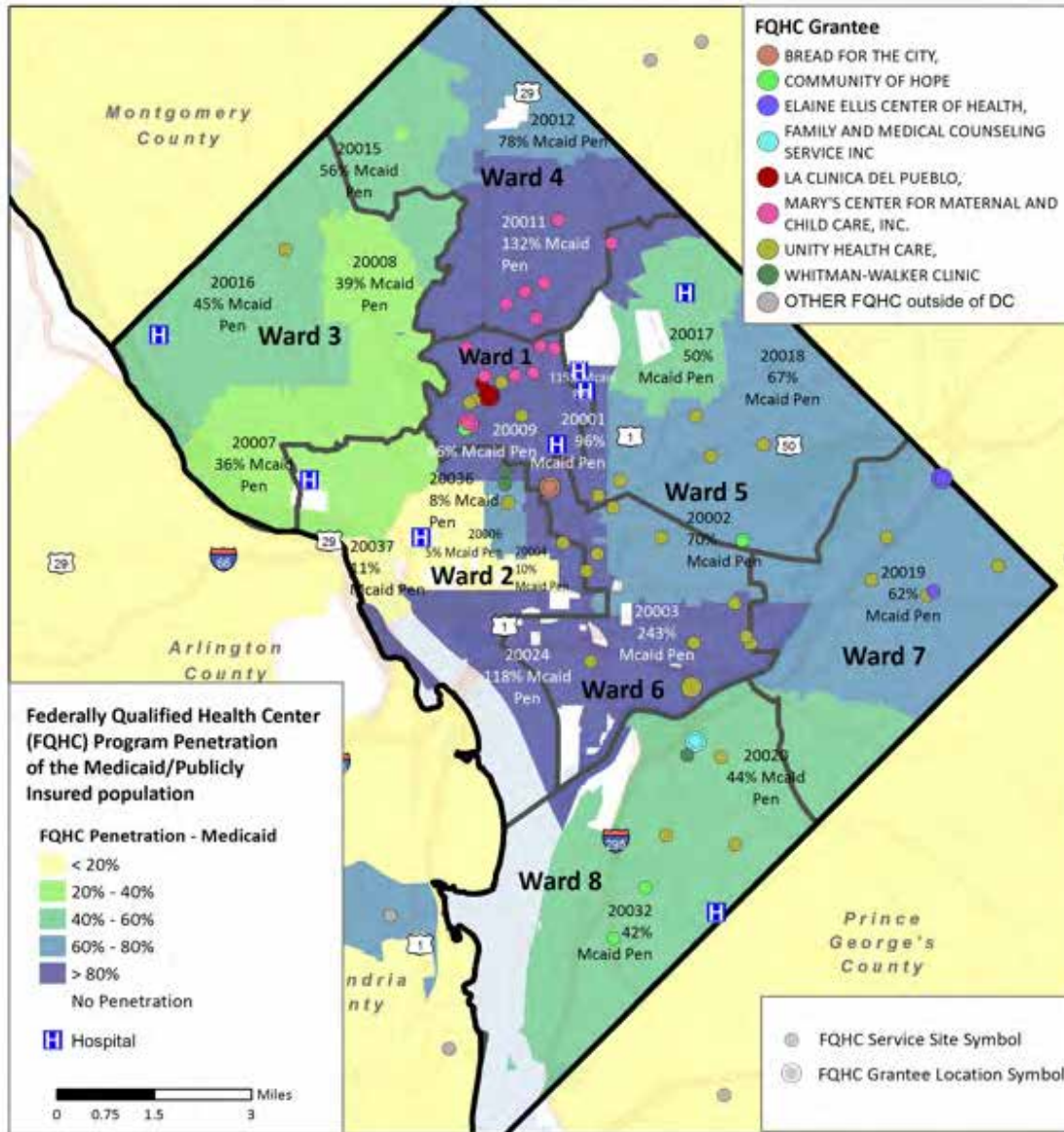## MAP 1: FQHC 2015 PROGRAM PENETRATION TOTAL POPULATION
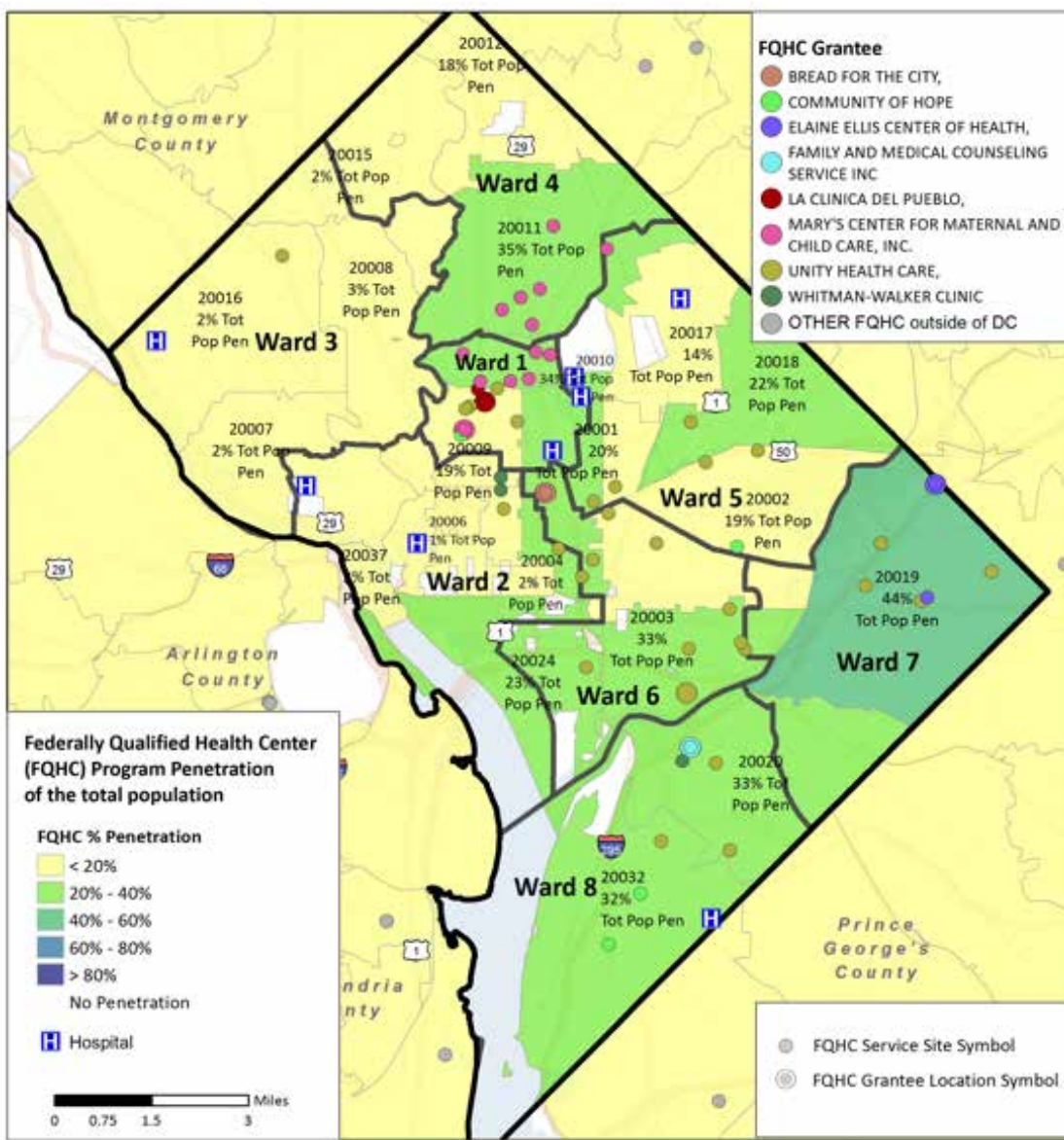
UDS Service Area Analysis, 2015.

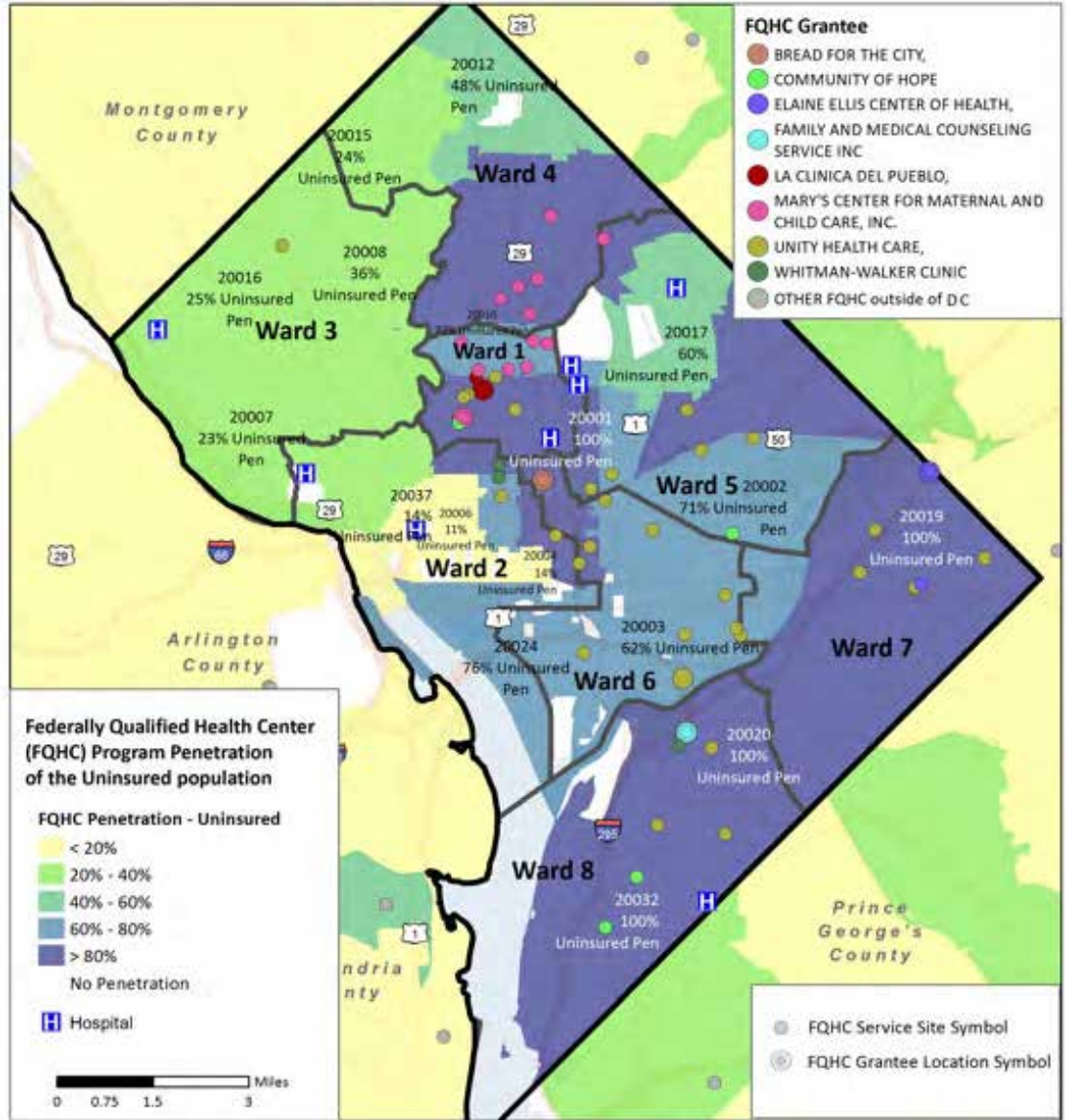## MAP 2: FQHC 2015 PROGRAM PENETRATION LOW-INCOME POPULATION
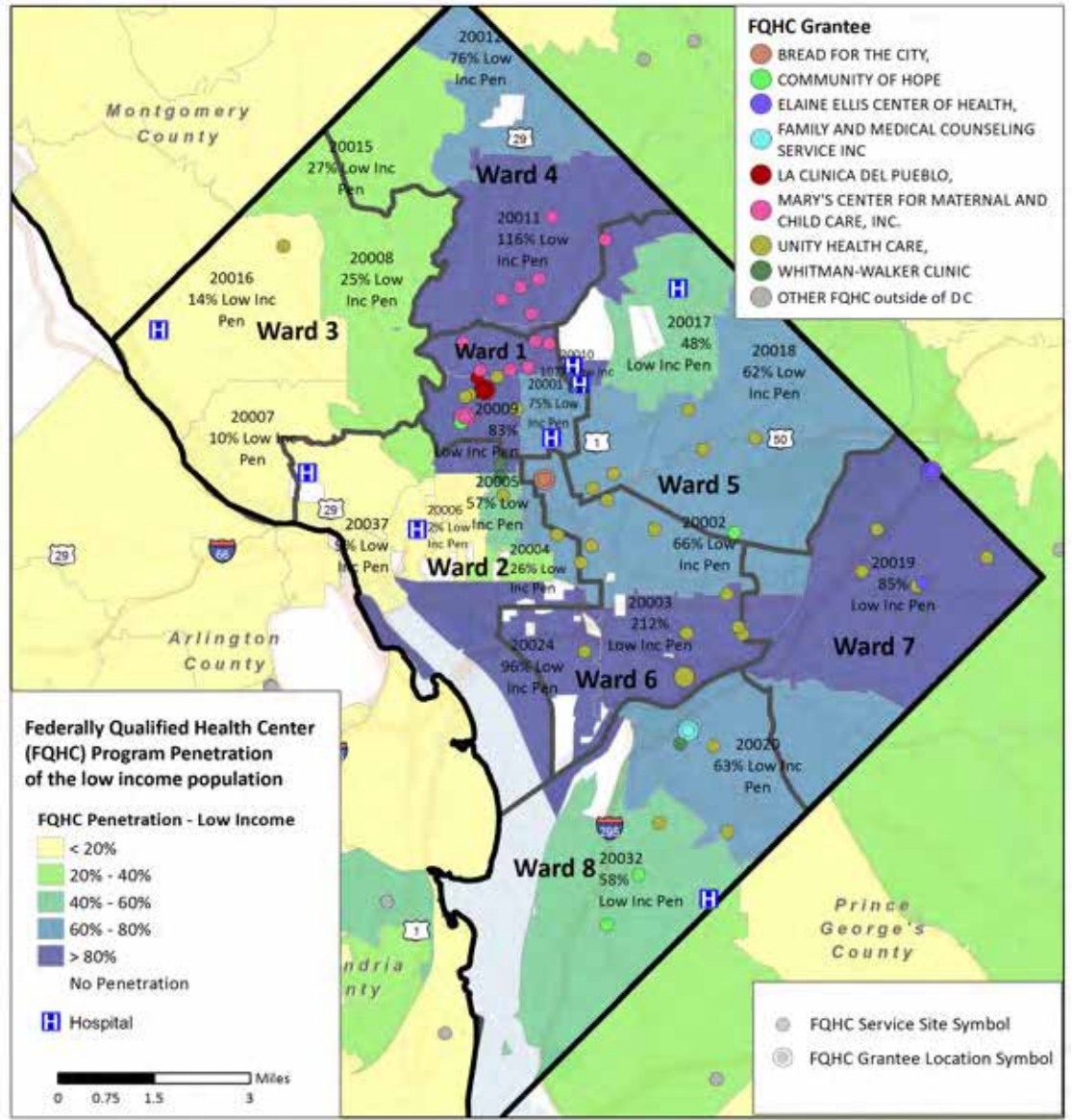
MAP 3: FQHC 2015 PROGRAM PENETRATION MEDICAID/PUBLICLY INSURED POPULATION

UDS Service Area Analysis, 2015.

MAP 4: FQHC 2015 PROGRAM PENETRATION UNINSURED POPULATION

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF HEALTH
CENTER FOR POLICY, PLANNING AND EVALUATION
STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

★ ★ ★

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