



District of Columbia  
Department of Health

**COVID-19  
PANDEMIC  
HEALTH AND  
HEALTHCARE  
RECOVERY  
REPORT**

May  
**2021**

May 28, 2021

Dear District Residents and Partners,

I am pleased to share with you the District of Columbia Department of Health (DC Health) public health framework for post-pandemic recovery. The COVID-19 pandemic will undoubtedly have a long-lasting impact on the health needs of the District of Columbia's residents, as well as the operational functions of the city's health care organizations and community-based organizations. To ensure that the District has the optimal opportunity to emerge from the pandemic and build toward a more vibrant and equitable city as outlined in the District's Reopening plan, we must be intentional in implementing programs and policies that address the needs of our public health and healthcare systems in the short and long-term.

Prior to March 2020, the District of Columbia developed a robust agenda for improving District residents' health status and achieving health equity. Experts in public health and healthcare, policymakers, and residents convened to publish a series of reports including the Health Systems Plan released in 2017, the 2018 Health Equity Report, and the Mayor's Commission on Healthcare Systems Transformation released in 2019. While the recommendations embedded in these reports remain relevant today, the global pandemic afforded us the opportunity to view the recommendations through a new lens during one of the city's most challenging times and to prioritize the implementation of critical programs and policies based on lessons learned.

This report provides an assessment of the District's current and emerging health needs while offering solutions for improving our health system in five domains: workforce, healthcare facilities, health information technology, health planning, and community health services. With equity as the guiding principle, this report offers recommendations for our collective post-pandemic recovery through the strategic investments in high-impact programs and policies. Importantly, the future directions and recommendations in this report are intended for adoption by every person, organization, and leader committed to improving the health and well-being of District residents.

Undoubtedly, the past year has presented us with challenges. We have worked collectively to protect the health, safety, and well-being of our citizenry. Working together, and with concern for the well-being of our neighbors, we demonstrated what can be accomplished when we are committed to the same goals. Our coordination and collaboration across sectors and branches of government to address the public health emergency gives me much optimism. It indeed demonstrates that we are a community committed to HOPE—health, opportunity, prosperity, and equity—for all.

Be Well,



LaQuandra S. Nesbitt, MD, MPH  
Director



MURIEL BOWSER  
MAYOR

Dear Washingtonians:

Throughout a difficult period of more than a year in our response to the COVID-19 pandemic, I have relied on the science-based public health guidance from our city's dedicated doctor, Dr. LaQuandra Nesbitt, the Director of DC Health, to ensure the safety of all of our residents. I have also relied on you to follow that guidance to keep our fellow Washingtonians healthy, safe, and strong during the public health emergency. Time and again, DC made me proud. You stepped up to protect yourselves, your families, your friends, your colleagues, and your neighbors by wearing masks, social distancing, and practicing good hygiene. Thanks to your perseverance, and thanks to our great public health team, we have been able to begin returning to the lives we knew prior to COVID-19 and imagining what a pandemic recovery will look like for Washington, DC.

Importantly, we know that not only were our Black and Latinx residents disproportionately affected by COVID-19, but their overall healthcare outcomes also declined during the pandemic. This virus did not hit every neighborhood or every demographic equally. As our focus turns to this post-pandemic recovery, we must ensure that we are coming back fairer and more equitably, including in our delivery of health care and in addressing the social determinants of health outcomes.

While we have learned many lessons during the pandemic, it should be clear to us all that we have much more to do. Access to care is critically important, but as this report from DC Health indeed highlights, there is a great deal more we can and must do to ensure the overall health and wellbeing of all Washingtonians.

Again, my thanks to Dr. Nesbitt and her team and to you, our residents, for the sacrifices you have made. Together, we can continue to provide DC HOPE: Health, Opportunity, Prosperity, and Equity.

Sincerely,

A handwritten signature in black ink, appearing to read "Muriel Bowser".

Muriel Bowser  
Mayor

## ACKNOWLEDGMENTS

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## Introduction

### Post-Pandemic Recovery Framework

The impact of the COVID-19 pandemic will have long-lasting impacts on the health needs of District residents. As of Spring 2021, COVID-19 vaccine coverage continues to increase in the District and across the U.S., and with that comes optimism of a deceleration of the current pandemic. DC Health, as the state health agency and the primary public health responder for this emergency, has devised a framework for the post-pandemic recovery of the District’s health ecosystem.

The DC Health framework for addressing post-pandemic needs (Figure 1) aims to assess the pre-pandemic, pandemic, and potential post-pandemic landscape of five functional areas critical to addressing the health needs of District residents: Health Planning, Workforce, Health Information Technology, Healthcare Facilities, and Community Health Services with equity in programming and policy as a foundation. DC Health is utilizing this framework in an effort to not return to the “pre-pandemic” normal. However, the aim is to return to a health ecosystem prepared to not only address another global pandemic, but to better address all health needs in the District through integration and a focus on health equity. While the pandemic has caused a significant amount of suffering and negative impacts on health outcomes, it has also come with some instrumental, positive lessons learned.



**Figure 1. Framework for Addressing Post-Pandemic Health Needs**

### Applying an Equity Informed & Structural Determinants Lens

The release of the *2018 Health Equity Report for the District of Columbia* reframed the conversation in the District about what drives health, underscoring the limitations of public health and health care acting alone to improve health, without reference to non-health sectors that drive 80% of a population’s health outcomes.<sup>1</sup> Introducing a nine key driver framework and mapping each to the granular 51-statistical-neighborhoods level of analysis, it showed a 21-year difference in life expectancy between some neighborhoods. It also called to attention the need to distinguish between a narrow focus on immediate social needs (which has tended to be the emphasis related to social determinants), versus structural determinants as the primary source of underlying systemic drivers of inequity and their persistence. Structural determinants can be defined as: *“the totality of ways in which societies foster [racial] discrimination, via mutually reinforcing [inequitable] systems...(e.g., in*

<sup>1</sup> DC Health. Health Equity Report for the District of Columbia. Feb 2019. Available at: <https://dchealth.dc.gov/publication/health-equity-report-district-columbia-2018>

*housing, education, employment, earnings, benefits, credit, media, health care, criminal justice, etc.) that in turn reinforce discriminatory beliefs, values, and distribution of resources, reflected in history, culture, and interconnected institutions.”<sup>2</sup> The challenges, experience, and disparate outcomes of the pandemic in the District, has, if nothing else, underscored the necessity to apply an equity informed, structural analysis to our work going forward. In order to eliminate disparities in health outcomes, our collective actions must be intentional in three key areas: access to quality health care; social and structural determinants of health; and, structural and institutional racism.<sup>3</sup>*

## Overview of COVID-19 Pandemic Response and Impact

### Pandemic Response Summary (February 2020 - April 2020)

The arrival of the first COVID-19 cases in the United States and ensuing pandemic over the past year has required the nation to adapt the way it functions. District residents and families like many across the nation have been impacted by this public health emergency. In January 2020, the District of Columbia Department of Health (DC Health) activated its Incident Management Team (IMT) to internally monitor, create guidance, and coordinate information sharing efforts in the District around COVID-19. Early coordination through the IMT helped establish plans and processes to test for COVID-19, isolate and quarantine positive COVID cases, transport possible COVID positive patients safely to hospitals and healthcare facilities, and share high-level information with District leadership.

Prior to the discovery of the first case of COVID-19 in the District, D.C.’s Mayor Muriel Bowser issued an [executive order on February 28, 2020](#) directing District agencies to prepare for potential impacts of the Coronavirus. This order included directing DC Health, DC Homeland Security and Emergency Management Agency (HSEMA) to coordinate the District’s response, and activated the [Emergency Operations Center and other District agencies on March 2, 2020](#) at DC Health’s Health Emergency Coordination Center (HECC). The activation of the EOC and development of the District’s COVID-19 response structure allowed for better collaboration and planning across the District. The Operations Section was organized into several branches which help to support the public health response. Early on, the Health and Medical Branch (HMB), led by DC Health, established several free public testing sites, produced guidance for the public, including businesses and healthcare facilities. The HMB also established a Contact Trace Force (CTF) to track and monitor COVID-19 patients and their contacts in addition to these significant efforts: coordinating and collaborating with hospitals and healthcare facilities for personal protective equipment (PPE) distribution and surge bed capacity; establishing an alternate care site for hospital bed surge; and helping to plan for future operations. The Human Services Branch, led by the DC Department of Human Services (DHS) stood up operations for isolation and quarantine (ISAQ), food and commodity assistance for quarantining and vulnerable individuals and established the Pandemic Emergency Program for Highly Vulnerable Individuals Experiencing Homelessness (PEP-V). It also created the Virtual Family Assistance Center (VFAC) which connected family who lost loved ones to COVID-19, to District support services, and continued support for DC’s community members experiencing

<sup>2</sup> Krieger N. Discrimination of health inequities. *Int J Health Serv.* 2014;44:643-710.

<sup>3</sup> Nesbitt, LaQuandra S. MD, MPH Disparities in COVID-19 Outcomes: Understanding the Root Causes Is Key to Achieving Equity, *Journal of Public Health Management and Practice*: January/February 2021 - Volume 27 - Issue - p S63-S65



homelessness. The Fatality Management Branch, led by the Office of the Chief Medical Examiner (OCME) built a disaster morgue and planned for a surge of possible waves of COVID-19 fatalities. Overall, these branches coordinated together under the District’s COVID-19 response structure to reduce the burden of COVID-19.



**Dr. LaQuandra S. Nesbitt speaks during the April 5, 2021 Coronavirus Situational Update**

DC Health confirmed the District’s first coronavirus case on March 7, 2020, and the Mayor declared a public health emergency on March 11, 2020, which initiated a series of city-wide public health safety measures aimed at preventing the spread of the virus. These measures included shifting Spring Break for District of Columbia Public School (DCPS) students to March 16, 2020 (and ultimately suspending in-person learning for the rest of the school year), shifting District Government operations to an agency-specific telework schedule on March 16, 2020, and prohibiting mass gatherings of [50](#) or more people. The District established free COVID-19 testing sites for residents experiencing symptoms. On March 24, 2020, the

Mayor announced the temporary closure of non-essential businesses and prohibition of gatherings of 10 or more through April 24, 2020, however this was ultimately extended through late June. Guidance on mask wearing and social distancing was also issued in April 2020 concurrent with the public health emergency being extended. On April 23, 2020, the Mayor directed DC Health to establish a Contact Trace Force (CTF) which put into motion the hiring of hundreds of additional disease investigators and contact tracers to identify people who contracted COVID-19 and monitor their contacts to reduce the spread of the disease. DC Health, in its role as the lead public health agency, has developed, implemented, and provided timely guidance and resources to help mitigate the spread of COVID-19.

### **Pandemic Response Summary (May 2020 – November 2020)**

In May 2020, as cases of COVID-19 continued to climb in the District, region, nation, and across the world, coordination of operations across the District was even more critical. The District’s Emergency Operations Center, Health and Medical Branch (HMB) was fully operational and coordinating robust operations around testing and sampling, building of an alternate care site (ACS), creating robust contact tracing and monitoring technology systems, standing up a call center to triage public questions about COVID-19, register eligible individuals for public testing, acquiring and coordinating the distribution of personal protective equipment (PPE) for healthcare facilities, and ensuring residents had wrap around resources if they were required to isolate or quarantine due to a positive COVID test or were identified as a close contact of someone who tested positive for COVID-19.



**District Alternate Care Site at Walter E. Washington Convention Center**

In June 2020, the District expanded its ability to test anyone who wanted a COVID-19 test. This initiative was made possible due to the partnership with District of Columbia Fire & EMS Firehouses which expanded hours and locations of public testing, becoming integral in finding new COVID-19 cases. These expanded testing efforts, continued ramp-up of the CTF, and mitigation policies allowed the District to decrease its epidemiological curve and move into Phase 2 of reopening on June 22, 2020. The Mayor's order for [Phase 2 reopening](#): continued the restriction on mass gatherings, established reopening guidance for learning institutions, established new guidance for restaurants, cafes, and other dining facilities, allowed entertainment venues to apply for waivers to operate, and provided guidance on other indoor and outdoor activities. The Health and Medical Branch, as the coordinating public health operations entity, worked with the District's acute care hospitals to fairly allocate and distribute new COVID therapeutics (which received Emergency Use Authorization (EUA) through the Food and Drug Administration (FDA)). DC Health launched SARS-CoV-2 antibody serology testing sites in three locations across the District, as well as a serology study aimed at identifying and estimating the number of residents who had been infected with COVID-19.

In July 2020, DC Health internally started planning for the distribution of vaccine. The vaccine planning team discussed who would initially be eligible, how the District would support operations, and the logistics concerning supplies and equipment that would be needed to roll out the vaccine to over more than 750,000 residents and essential workers. State and jurisdictions were required to submit plans to the Centers for Disease Control and Prevention (CDC) by October 16, 2020.

In September 2020, the District continued to have moderate community spread of COVID-19. As surrounding jurisdictions moved forward in phases of reopening, the District evaluated what additional establishments could safely begin to reopen and expand their capacity. On October 20, 2020, the District became one of the first jurisdictions to use Apple-Google EN Express, a system in which mobile device users could opt-in to receive alerts through the DC COVID Alert Notice (DC CAN) when they may have been exposed to someone who tested positive for COVID-19. Over 740,000 people have opted-in as of April 2, 2021. The end of October also marked the beginning of an additional wave of COVID-19 cases. With the holidays approaching, the District saw a large increase in the number of COVID-19 cases over the coming months – a similar experience across the nation. The week of November 21, 2020, the District Health and Medical Branch, Testing and Sampling Group completed its largest single week number of tests, having conducted over 25,500. During this week, the District moved into the top-five in the nation for number of tests run per capita. Citywide, the District completes 30,000-35,000 COVID-19 tests on a weekly basis.

In November 2020, as the authorization of the first COVID-19 vaccine appeared imminent, the District began planning discussions with healthcare facilities regarding ultra-cold storage capability, staff capacity, and how the vaccine would be equitably distributed across the District.



**DC CAN Promotional Ad**

**Pandemic Response Summary (December 2020 - May 2021)**



**Shipment of Moderna Vaccine arrives at Mary's Center on December 23, 2020**

On December 11, 2020 the Pfizer BioNTech COVID-19 vaccine was the first vaccine to receive EUA approval in the United States. First shipments of this vaccine were received by states and jurisdictions starting on December 13, 2020. On December 18, 2020, the Moderna vaccine received FDA EUA approval in the U.S., and first shipments of the vaccine arrived in the District on December 21, 2020.

The District strived for a dual focus of equity and efficiency in COVID-19 vaccine distribution. Programmatically, each of the three main avenues for vaccine distribution aimed for high access to those communities who have shared a disproportionate burden of the pandemic. One mechanism is vaccine scheduling via the public [vaccinate.dc.gov](https://vaccinate.dc.gov) portal. The District partnered early with retail pharmacies providing them with technical assistance, human resources, and public facilities (Department of Aging and Community Living Senior Centers and Department of Parks and Recreation Community and Recreation Centers) to help broaden their capacity. These facilities were located in Wards 4, 5, 7, and 8 - communities with the higher cumulative incidence of COVID-19 cases. Additionally, the District implemented zip code prioritization early in January 2021, which means eligible individuals residing in those high burden zip codes had first access to appointment scheduling. As the District moved to a pre-registration system in March 2021, a majority of appointment invitations went to those living in priority zip codes.

Another avenue of vaccine distribution was via the District's Federally Qualified Health Centers and large Hospital Systems, where the healthcare providers conducted direct outreach to their patients. The District was one of the first jurisdictions to include all of its FQHCs as vaccinators. En masse, these healthcare providers care for the majority of Medicaid beneficiaries in the District. The last avenue of vaccine distribution is through place-based

special initiatives. The District partnered with Community-Based Organizations and Faith Institutions to launch the "Faith in Vaccine" initiative in February 2021 where places of worship were sites of vaccine clinics. Additionally, through a partnership with the D.C. Housing Authority, DC Health partnered to implement place-based vaccine clinics at low-income senior housing buildings. Programs such as the "Senior Buddies Program" and "Homebound Vaccinations" brought vaccine access to the most vulnerable at their doorstep.



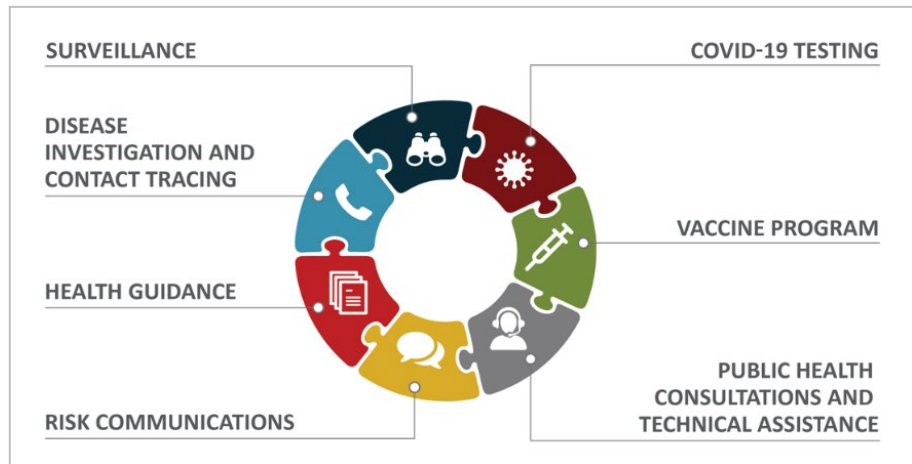
**Launch of Faith in Vaccine Initiative on February 11, 2021 at Pennsylvania Ave. Baptist Church**



**Senior Vaccine Buddy engages with a District Senior**

The District’s eligibility prioritization was equity focused as well. The trigger for moving to a new eligibility phase was based on the demand among those in priority zip codes. Broader age and eligible medical condition criteria were implemented to ensure those at higher risk of poor COVID-19 outcomes had an early opportunity for vaccine access.

On April 12, 2021, all adults 16 years and older were eligible for vaccine access. As of May 1st, 2021, the District launched 11 walk up vaccination sites across the city in addition to a majority of vaccine providers offering walk-in availability for their patient population. As of May 3<sup>rd</sup>, 2021, over 530,000 doses of vaccine have been administered in the District with 22.3% of residents fully vaccinated and 36.3% of residents partially vaccinated. Figure 2 displays some of the critical operations that emerged during the COVID-19 response.



**Figure 2. Public Health Roles During the COVID-19 Response**

## Health Landscape and Emerging Post-Pandemic Public Health Concerns

The future of post-pandemic public health challenges is uncertain, however, the five concerns that are currently evident include the pandemic outcomes of:

- Delayed Preventative and Chronic Disease Care
- Long-term Effects of COVID-19 Infection
- Economic Impact and Job Loss
- Mental Health Stress, Social Isolation, Trauma, and Grief
- Loss of Academic, Social, and Emotional Growth in Children

### Preventative and Chronic Disease Care

Many policies, procedures, and operations of the healthcare system were altered to address the rapid surge and magnitude of the COVID-19 pandemic. The pandemic brought a decreased capacity of public health, primary care, and acute care facilities for in-person services. This, in turn led to a decrease in utilization of preventive health services including cancer screenings, and reproductive health plans during COVID-19 pandemic.

In 2020, COVID-19 was the 3<sup>rd</sup> leading cause of death among District-resident deaths occurring in D.C. (Figure 3). While the remaining leading causes of death were similar to those observed in 2019, there were increases in deaths due to other causes, such as:



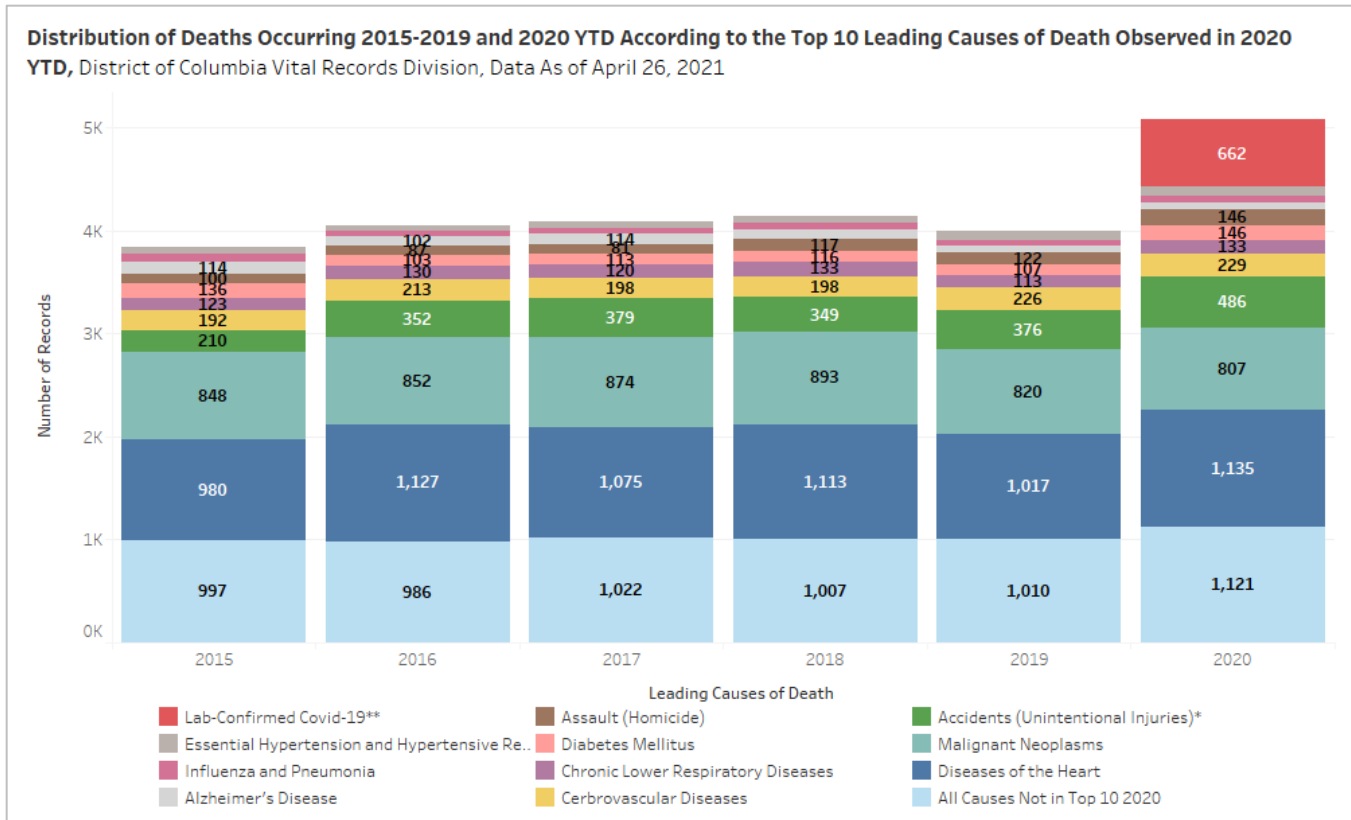
- **Diabetes Mellitus:** Deaths up by **36%** in 2020, compared to 2019.
- **Accidents:** Including deaths due to drug overdoses, up by **29%** in 2020 as compared to 2019.
- **Influenza and Pneumonia:** Deaths up by **21%**, compared with 2019.
- **Assault (Homicide):** Deaths up by **20%** in 2020, compared with 2019.
- **Chronic Lower Respiratory Diseases:** Deaths up by **18%** in 2020, compared with 2019.
- **Heart Diseases:** Deaths up by **12%** in 2020, compared 2019.

Possible reasons for these increased number of non-COVID-19 deaths include poor continuity of preventative and chronic disease care management, higher risk behaviors due to pandemic-related stress and trauma, or lower quality of high acuity healthcare delivery services due to healthcare resources being focused on the COVID-19 pandemic.

Top 10 Leading Causes of Death Among District Residents (Deaths Occurring in the District), 2019 and 2020 YTD			
District of Columbia Vital Records Division, Data As of April 26, 2021			
2019		2020 YTD	
Rank	Leading Cause	Number of Deaths	
1	Diseases of the Heart	1,017 (25.4%)	
2	Malignant Neoplasms	820 (20.5%)	
3	Accidents (Unintentional Injuries)*	376 (9.4%)	
4	Cerebrovascular Diseases	226 (5.6%)	
5	Assault (Homicide)	122 (3.0%)	
6	Chronic Lower Respiratory Diseases	113 (2.8%)	
7	Diabetes Mellitus	107 (2.7%)	
8	Essential Hypertension and Hypertensive Renal Disease	89 (2.2%)	
9	Alzheimer's Disease	63 (1.6%)	
10	Human Immunodeficiency Virus	58 (1.4%)	
	Influenza and Pneumonia	58 (1.4%)	
1	Diseases of the Heart	1,135 (22.3%)	
2	Malignant Neoplasms	807 (15.9%)	
3	Lab-Confirmed Covid-19**	662 (13.0%)	
4	Accidents (Unintentional Injuries)*	486 (9.5%)	
5	Cerebrovascular Diseases	229 (4.5%)	
6	Assault (Homicide)	146 (2.9%)	
	Diabetes Mellitus	146 (2.9%)	
8	Chronic Lower Respiratory Diseases	133 (2.6%)	
9	Essential Hypertension and Hypertensive Renal Disease	86 (1.7%)	
10	Influenza and Pneumonia	70 (1.4%)	

**Figure 3. Preliminary Assessment of Leading Causes of Death in 2020 Among DC Residents<sup>4</sup>**

<sup>4</sup> Data Source: 2019 and 2020 YTD DC Mortality Data; Vital Records Division, Center for Policy Planning and Evaluation, D.C. Department of Health; data as of 4/26/21. **Data are preliminary and subject to change. The 2020 District resident death count is likely an undercount because some death records for deaths occurring in Jan-July 2020 may not have been filed yet. Deaths to DC-residents that occurred in other states are not included, because DC VRD has not yet received ICD-10 cause of death codes for many of these records.** Leading cause categories are based on underlying cause of death ICD-10 codes; these codes were grouped according to the National Center for Health Statistics (NCHS) Selected 113 Cause of Death categories ([dc.gov/nchs/data/nvsr/nvsr68/nvsr68\\_06-508.pdf](https://dc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf)). In 2020 YTD, 77% of deaths were due to the Top 10 Leading Causes, and in 2019, 75% of deaths were due to the Top 10 Leading Causes.



**Figure 4. Preliminary Assessment of Leading Causes of Death in 2020 Among DC Residents<sup>5</sup>**

A preliminary assessment of District-resident deaths that occurred in D.C. during 2015-2020 that were attributed to the 2020 Top 10 Leading Causes of Death shows that the distribution of District-resident deaths by cause has been consistent during this period, and that there is some normal fluctuation in the number of deaths attributed to each leading cause from year to year (Figure 4).

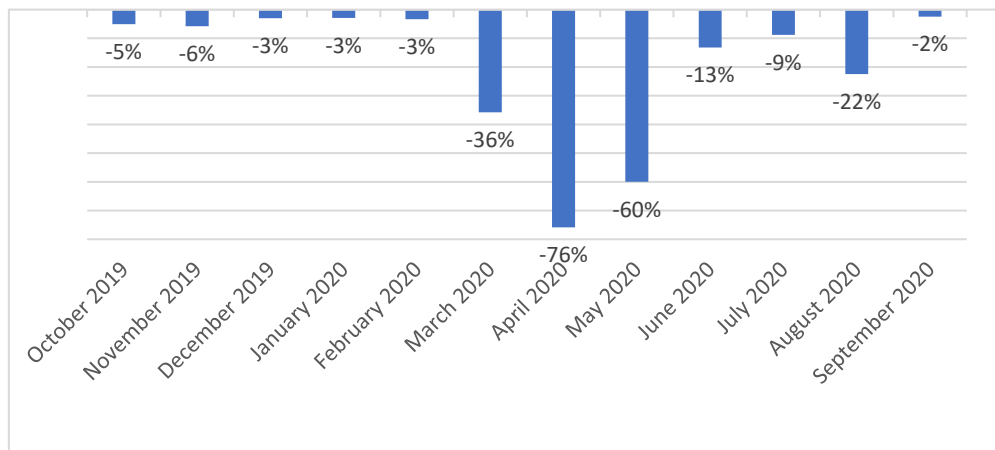
\* Since DC VRD has not received underlying cause of death codes for some 2020 YTD overdose deaths (these are manually coded by NCHS), the manner of death and literal cause of death terms were used to identify accidental deaths; these deaths were included in the “Accidents (Unintentional Injuries)” category.\*\* The number of deaths due to COVID-19 reported here is based on D.C. Vital Records data and may not match the number of COVID-19 deaths reported in 2020 through the COVID surveillance system because some of these death records may not have been completed yet.

<sup>5</sup> 2019 and 2020 YTD DC Mortality Data; Vital Records Division, Center for Policy Planning and Evaluation, D.C. Department of Health; data as of 4/26/21. **Data are preliminary and subject to change. The 2020 District resident death count is likely an undercount because some death records for deaths occurring in Jan-July 2020 may not have been filed yet. Deaths to DC-residents that occurred in other states are not included, because DC VRD has not yet received ICD-10 cause of death codes for many of these records.** Leading cause categories are based on underlying cause of death ICD-10 codes; these codes were grouped according to the National Center for Health Statistics (NCHS) Selected 113 Cause of Death categories (dc.gov/nchs/data/nvsr/nvsr68/nvsr68\_06-508.pdf). In 2020 YTD, 77% of deaths were due to the Top 10 Leading Causes, and in 2019, 75% of deaths were due to the Top 10 Leading Causes.

\* Since DC VRD has not received underlying cause of death codes for some 2020 YTD overdose deaths (these are manually coded by NCHS), the manner of death and literal cause of death terms were used to identify accidental deaths; these deaths were included in the “Accidents (Unintentional Injuries)” category.

\*\* The number of deaths due to COVID-19 reported here is based on D.C. Vital Records data and may not match the number of COVID-19 deaths reported in 2020 through the COVID surveillance system because some of these death records may not have been completed yet.

Decreases in well-child visits are well documented. Among the District’s Medicaid population, the District experienced a sharp drop in well-child utilization during March to May 2020 when compared to the same months in 2019, consistent with Centers for Medicare and Medicaid Services (CMS) findings for other states.<sup>6</sup> The most substantial decrease in well-child visit utilization in FY2020 occurred during the months of April and May (Figure 5<sup>7</sup>) with the share of children with well-child visits decreasing by 76% and 60%, respectively, compared to the same time period in FY2019. This represents a 5.7% and 4.7% percentage point decrease in the share of children with a well-child visit for the months of April and May, respectively, in 2020 compared to the same months in 2019.



**Figure 5. Percentage Change in Share of Children with a Well-Child Visit, Compared to Same Month in Prior Year, FY2020<sup>7</sup>**

The decreases in well-child visits are an apt example how preventative and chronic disease care utilization declined throughout the pandemic. In-person community health services decreased, in turn impacting other services such as perinatal home visits, teen pregnancy prevention, nutrition education, and brain health care. The decreased utilization of preventative services and management of chronic conditions suggests that the health system may need increased capacity and new strategies in both the short and long-term as we approach the post-pandemic era.

### Long-Term Effects of Covid-19 Infection

Currently, the long-term pathogenesis of COVID-19 is unknown. While most individuals with COVID-19 improve within weeks to months of illness, not all improve. The CDC uses the term “post-COVID conditions” to describe health issues that persist more than four weeks after first being infected with the SARS-CoV-2 virus that causes COVID-19. Scientists are working to learn more about short- and long-term health effects associated with COVID-19 (also known as Post-Acute Sequelae of SARS-CoV-2 infection [PASC]), who gets them, and why, including a newly launched National Institutes of Health (NIH) initiative. Some post-COVID conditions involve symptoms similar to those caused by other health problems. Types of post-COVID-19 conditions include “long COVID”, multiorgan effects of COVID-19 (similar to multisystem inflammatory syndrome (MIS) and autoimmune

<sup>6</sup> <https://www.medicaid.gov/state-resource-center/downloads/covid19-data-snapshot.pdf#page=13>

<sup>7</sup> DC Department of Health Care Finance (DHCF). DC Medicaid/CHIP Children’s Monthly Well-Child Visit Utilization, FY2020

conditions) and effects of COVID-19 treatment or hospitalization. “Long COVID” is a range of symptoms that can last weeks or months after first being infected and can appear weeks after infection. “Long COVID” can happen to anyone who has had COVID-19, even if the illness was mild, or they had no symptoms. Different combinations of the following symptoms have been experienced by individuals with “Long COVID”: tiredness or fatigue, difficulty thinking or concentrating (“brain fog”), headache, loss of smell or taste, dizziness on standing, fast-beating or pounding heart (aka, palpitations), chest pain, difficulty breathing or shortness of breath, cough, joint or muscle pain, depression or anxiety, fever, and symptoms that get worse after physical or mental activities. COVID-19 may cause worsening of existing chronic health conditions and new disease processes in previously healthy individuals of any race/ethnicity and age. As District data indicates, Black/African-American and Latinx District residents have been disproportionately impacted by COVID-19; therefore that population may also have the highest burden of long-term complications.

### Economic Impact and Job Loss

There has been an overall loss of approximately 13,700 participants (420,600 to 406,900) in the civilian labor force over the past year with an increase in unemployment rate for the District from 5.2% at the start of the pandemic in March 2020, to 7.8% in March 2021.<sup>8</sup> The economic and job losses have impacted many, but most striking are the differences in unemployment in areas of the District already at an economic disadvantage. At the start of the pandemic in March 2020, the rate of unemployment in Ward 8 (median income of \$39,473<sup>9</sup>) was 11.7% - three times greater than that of Ward 3 (median income of \$143,339<sup>10</sup>). While the unemployment rate in Ward 3 has largely stabilized since last March to the present (3.3% to 3.8%), the rate in Ward 8 has increased significantly during the same time period (11.7% to 16.1%).<sup>11</sup> This is mostly attributed to the loss of many retail, service, hospitality and related sector jobs during the pandemic. As in many places across the nation, socioeconomic inequalities and awareness of these inequalities have become increasingly palpable as a result of the pandemic.

**Table 1. Employment Status for the Civilian Population District of Columbia March 2021/a<sup>12</sup>**

Washington, D.C. (Seasonally Adjusted)	March 2021	March 2020	Net Change
<b>Civilian Labor Force</b>	406,900	420,600	-13,700
<b>Total Employed</b>	375,400	398,900	-23,500
<b>Total Unemployed</b>	31,600	21,700	9,900
<b>Unemployment Rate (%)</b>	7.8	5.2	2.6

<sup>8</sup> Prepared by the D.C. Department of Employment Services, Office of Labor Market Research and Information in cooperation with the Virginia Employment Commission, the Maryland Department of Labor, Licensing and Regulation, the West Virginia Bureau of Employment Programs, and the U.S. Department of Labor, Bureau of Labor Statistics.

<sup>9</sup> DC Health Matters. (2021). 2021 Demographics: Summary Data for Ward: Ward 3

<sup>10</sup> DC Health Matters. (2021). 2021 Demographics: Summary Data for Ward: Ward 8

<sup>11</sup> DOES - Office of Labor Market Research and Information (OLMRI). (2021). Available at:

[https://does.dc.gov/sites/default/files/dc/sites/does/page\\_content/attachments/DC%20Ward%20Data%20Mar21-Feb21-Mar20.pdf](https://does.dc.gov/sites/default/files/dc/sites/does/page_content/attachments/DC%20Ward%20Data%20Mar21-Feb21-Mar20.pdf)

<sup>12</sup>ibid



**Table 2. Socioeconomic Characteristics for the District and Selected Municipal Areas**

	District of Columbia	Ward 3	Ward 8
<b>Median Income</b>	\$91,414	\$143,339	\$39,473
<b>Unemployment Rate (March 2021)</b>	7.8%	3.3%	16.1%
<b>Unemployment Rate (March 2020)</b>	5.2%	3.8%	11.7%
<b>Race:</b>			
<b>Black/African American</b>	43.90%	5.33%	91.84%
<b>White</b>	42.31%	81.38%	4.27%
<b>Hispanic/Latino</b>	12.23%	9.77%	3.12%
<b>American Indian/Alaskan Native</b>	0.36%	0.25%	0.25%
<b>Asian</b>	4.48%	7.51%	0.45%
<b>Native Hawaiian/Pacific Islander</b>	0.07%	0.05%	0.04%
<b>Some Other Race</b>	5.35%	1.96%	0.81%
<b>2+ Races</b>	3.53%	3.52%	2.35%

### Mental Health Stress, Social Isolation, Trauma, and Grief

The COVID-19 pandemic has challenged individuals physically, emotionally, and mentally on many levels ranging from personal effects of contracting COVID-19, to losing family and friends to COVID-19, to changes in work life due to being in quarantine or isolation due to the pandemic, continuing to work in-person during the pandemic due to the essential nature of work, distance learning for children, lack of childcare for younger children, inability to see family members, in particularly elderly members at higher-risk for negative COVID-19 complications, and limiting social interactions. A representative survey of U.S. adults last June 2020 on mental health, substance use, and suicidal ideation during the COVID-19 pandemic reported initially in the Center for Disease Control and Prevention’s (CDC) Morbidity and Mortality Weekly Report (MMWR) showed considerably elevated adverse mental health conditions associated with COVID-19. For example, 40.9% of 5,470 U.S. adults reported adverse mental or behavioral health symptoms (an approximately 3-fold increase from pre-pandemic estimates).<sup>13</sup> Those experiencing disproportionately worse mental health outcomes including increased substance use and elevated suicidal ideation included younger adults, racial/ethnic minorities, essential workers, and unpaid adult caregivers. In a follow-up survey in September 2020, a significant portion of adults still reported adverse mental health conditions - 33.0% reported anxiety or depression symptoms, 29.6%, reported COVID-19-related trauma- and stressor-related disorder symptoms, 15.1% reported increased substance use, 11.9% reported having seriously considered suicide in August, and a total of 2,237 (43.1%) reported at least 1 of these symptoms.<sup>14</sup>

<sup>13</sup> Czeisler MÉ, Lane RI, Petrosky E, et al. Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic – United States, June 24–30, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1049–1057. DOI: <http://dx.doi.org/10.15585/mmwr.mm6932a1>

<sup>14</sup> Czeisler MÉ, Lane RI, Wiley JF, Czeisler CA, Howard ME, Rajaratnam SMW. Follow-up Survey of US Adult Reports of Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic, September 2020. *JAMA Netw Open*. 2021;4(2):e2037665. doi:10.1001/jamanetworkopen.2020.37665

Pandemic “burnout” is affecting everyone, especially front-line health care workers. The Harvard Business Review conducted an extensive survey of burnout and well-being during the COVID-19 pandemic, among some of the main findings<sup>15</sup> include:

- 85% say their well-being has declined during the past year
- 62% are struggling to meet their workload and to balance work with other responsibilities
- Many report difficulty maintaining strong connections with others
- Exhaustion and cynicism are on the rise
- Burnout levels are highest among Millennials

A study examining the effects of perceived social isolation in adults across the age span (age 18-84) demonstrated the entire sample reporting at least some perceived social isolation, but young adults reporting the highest levels.<sup>16</sup> Perceived social isolation was associated with poor life satisfaction, as well as work-related stress, and lower trust of institutions. Higher levels of substance use for coping was also related to higher perceived social isolation; respondents reporting higher levels of subjective personal risk for COVID-19, reported higher perceived social isolation. These results suggest what we anecdotally know to be true - experience of perceived social isolation has significant negative consequences related to psychological well-being.

Results of a recently released study conducted last October by researchers at Making Caring Common (a project of the Harvard Graduate School of Education (HGSE)), demonstrated that 36% of respondents reported feeling “serious loneliness”, that is feeling lonely “frequently” or “almost all the time or all the time” in the prior four weeks, compared to 25% who recalled experiencing “serious loneliness” in the two months prior to the pandemic.<sup>17</sup> A striking 61% of those aged 18 to 25 reported high levels of experiencing serious issues.

After over a year into the pandemic, many health care workers are struggling to cope. According to a Washington Post-Kaiser Family Foundation poll from February to March 2021, 3 out of 10 health care workers have considered no longer working in health care as a result of the COVID-19 pandemic; more than half say they are burned out and about 6 in 10 say stress from the pandemic has harmed their mental health.<sup>18</sup> The potential exodus of front-line health care workers has serious implications for already existing health care workforce shortages.

The District’s Department of Behavioral Health (DBH) has recognized the increased stress the pandemic has caused many individuals, in particular those already living with mental and substance abuse disorders. DBH has created [several resources](#) in multiple languages to help individuals in maintaining their mental health and to help

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<sup>15</sup> Beheshti, Naz. (2021). Forbes. Is Pandemic Burnout Draining Your Motivation And Energy? Here's How We Can All Promote Recovery.

<sup>16</sup> Clair, R., Gordon, M., Kroon, M. *et al.* The effects of social isolation on well-being and life satisfaction during pandemic. *Humanit Soc Sci Commun* **8**, 28 (2021). <https://doi.org/10.1057/s41599-021-00710-3>

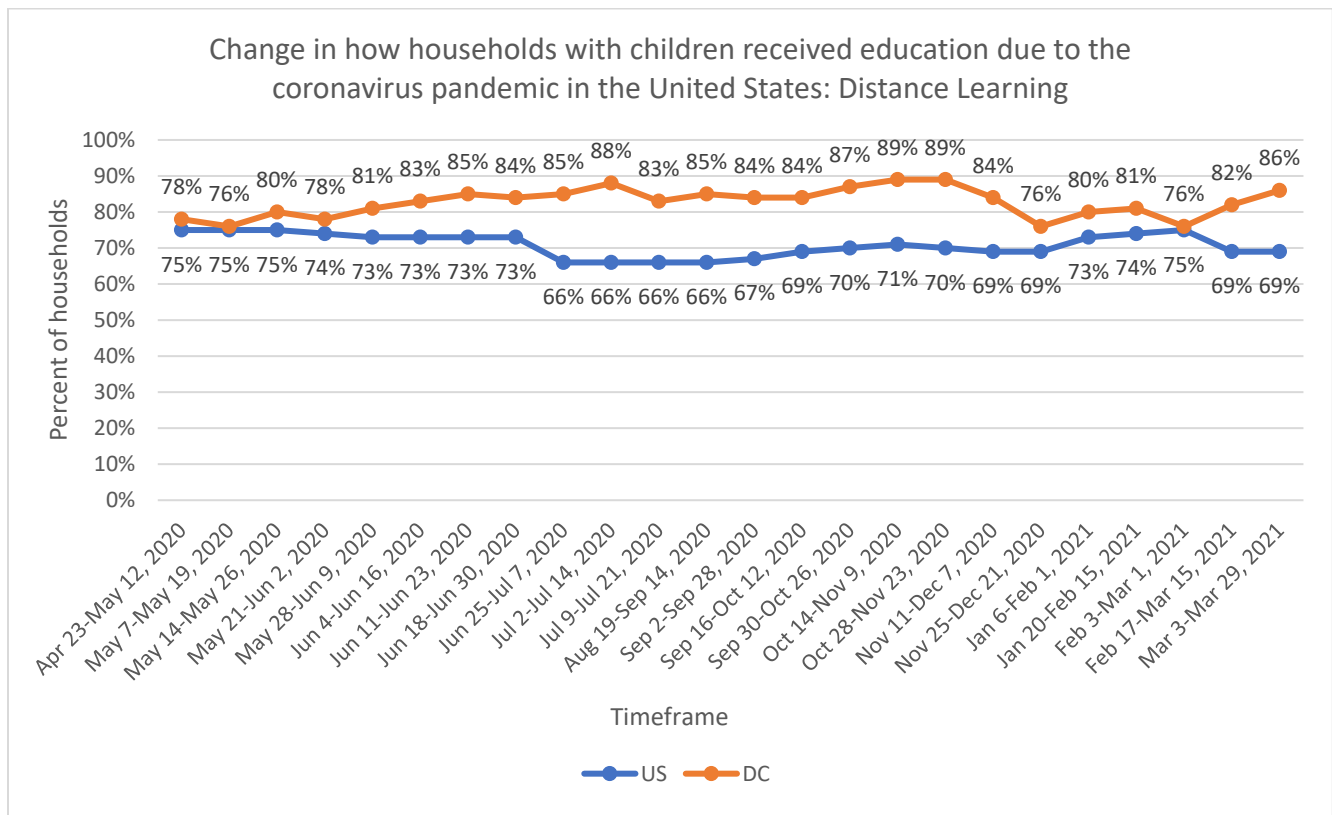
<sup>17</sup> The Harvard Gazette (2021). Young adults hardest hit by loneliness during pandemic. Available at: <https://news.harvard.edu/gazette/story/2021/02/young-adults-teens-loneliness-mental-health-coronavirus-covid-pandemic/>

<sup>18</sup> The Washington Post. (2021). Washington Post-KFF frontline health-care workers survey, Feb. 11-March 7, 2021 Available at: <https://www.washingtonpost.com/context/washington-post-kff-frontline-health-care-workers-survey-feb-11-march-7-2021/ba15a233-9495-47a9-9cdd-e7fa1578b1ca/>

manage grief over the death of a loved one, during the pandemic. The double pandemic of COVID-19 and social isolation has emphasized the need for stakeholders across sectors to prioritize social needs during the pandemic in any recovery policy.<sup>19</sup>

### Loss of Academic, Social & Emotional Growth for Children

The pandemic has brought about an abrupt change to how many students learn. At the beginning of the pandemic, initially, many schools had to shut down entirely in response to safety and transmission mitigation for COVID-19. Once re-opened, school districts implemented remote learning. Figure 6 below depicts the percentage of households in DC, and the US with at least one child attending public, private or home school for kindergarten through 12th grade by how children’s receipt of education changed in response to the coronavirus pandemic, specifically the percent of households in which classes moved to distance learning using online resources.

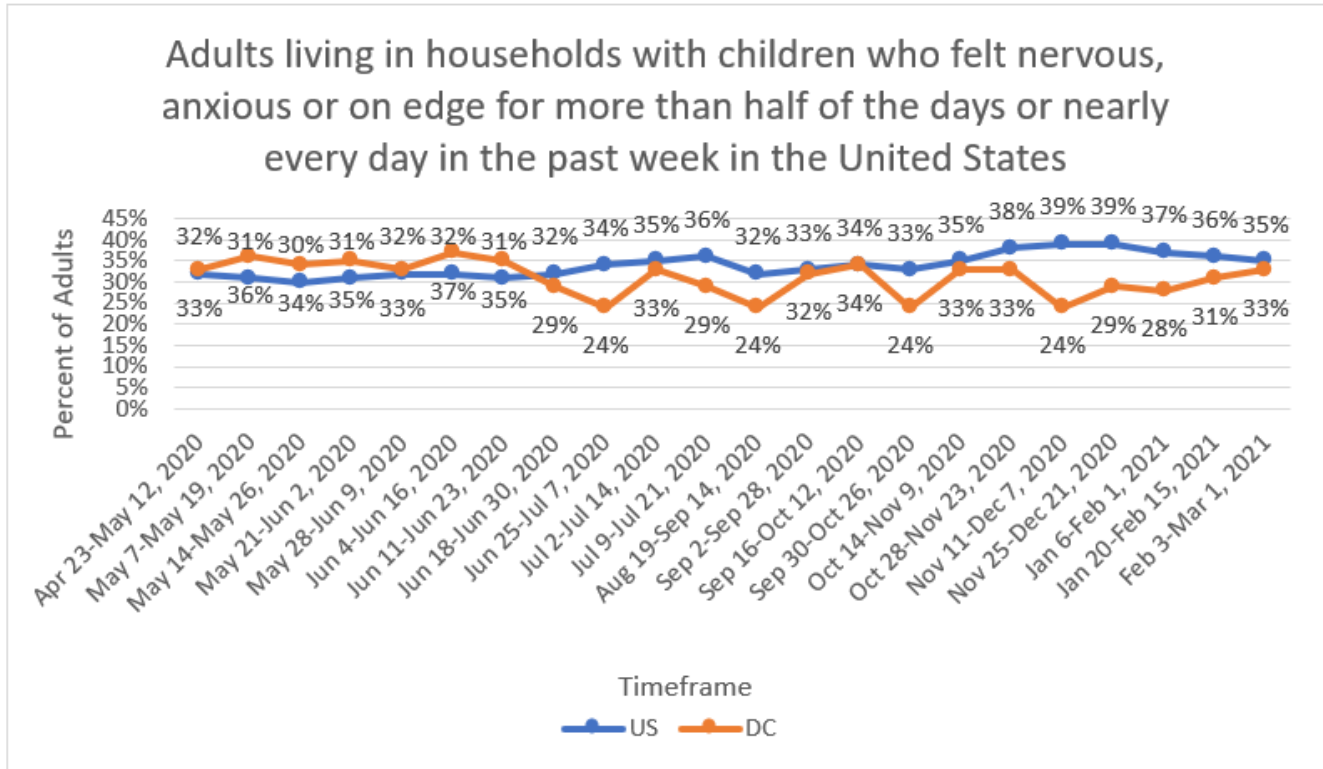


**Figure 6. Households with Children and Distance Learning DC and the US<sup>20</sup>**

<sup>19</sup> The Double Pandemic Of Social Isolation And COVID-19: Cross-Sector Policy Must Address Both, " Health Affairs Blog, June 22, 2020. DOI: 10.1377/hblog20200609.53823

<sup>20</sup> The Annie E. Casey Foundation, KIDS COUNT Data Center, datacenter.kidscount.org; Source: Population Reference Bureau analysis of the U.S. Census Bureau, Household Pulse Survey, 2020-2021

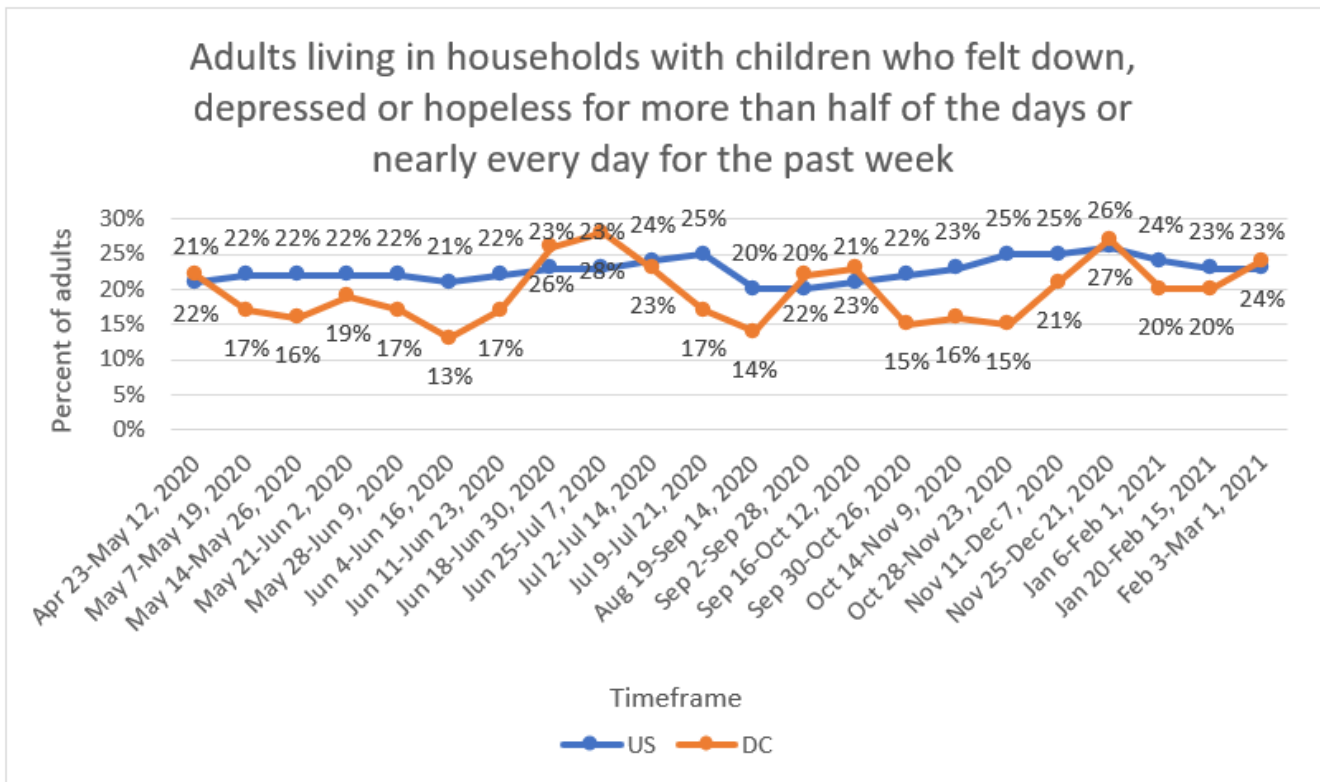
Figure 7<sup>21</sup> displays the percent of adults that report living in a household with children who felt nervous, anxious or on edge for at least more than half of the days in the past week. While the data for the District is similar to national level data, it shows that over the course of the pandemic, a significant portion of households (24% - 37%) have children regularly experiencing anxiousness. Similarly, approximately a quarter of households in the District, like the nation, report having children feeling down, depressed or hopeless for more than half of the week (Figure 8<sup>22</sup>). This is cause for concern in terms of the impact of the pandemic on the well-being of our youngest residents.



**Figure 7. Children Feeling Nervous, Anxious or On Edge During the Pandemic in DC and the US<sup>21</sup>**

<sup>21</sup> The Annie E. Casey Foundation, KIDS COUNT Data Center, datacenter.kidscount.org; Source: Population Reference Bureau analysis of the U.S. Census Bureau, Household Pulse Survey, 2020-2021

<sup>22</sup> The Annie E. Casey Foundation, KIDS COUNT Data Center, datacenter.kidscount.org; Source: Population Reference Bureau analysis of the U.S. Census Bureau, Household Pulse Survey, 2020-2021



**Figure 8. Children Feeling Down, Depressed or Hopeless During the Pandemic in DC and the US<sup>22</sup>**

## **Pandemic Lessons Learned and Recommendations for Post-Pandemic Recovery and Beyond**

### **Health Planning**

Health Planning in the District of Columbia encompasses Population Health Planning, Healthcare Systems Planning and Health Services Planning. Effective health planning begins with a shared understanding of the health trends and key drivers of health outcomes observed within a population. The Community Health Needs Assessment for DC Healthy People 2020 established a foundation for this understanding and articulated the need to: 1) better leverage strategic partnerships and assets; 2) strengthen the health system by aligning governmental public health and clinical care services to address the social determinants of health; and, 3) improve coordination of a community-wide agenda focused on achieving health equity in the District. The District of Columbia regularly engages in comprehensive health planning, with the Mayor's Commission on Healthcare System Transformation (2020) as another example. The foundational level of these planning efforts is a collaborative Health in All Policies (HiAP) approach to health equity, intended to integrate and articulate health considerations into policymaking across sectors to improve the health of all communities and people. HiAP recognizes that health is created by a multitude of factors beyond healthcare and, in many cases, beyond the scope of traditional public health activities.<sup>23,24</sup>

DC Health has an established vision for DC to become the healthiest city in America and operates under five strategic priorities aimed to achieve health equity.

- 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
- Implement data driven and outcome-oriented approaches to program and policy development

Pre-pandemic, there were incremental shifts in clinical care delivery, payment models, and public health strategies to drive improved quality of care, create opportunities to identify and address the social needs of patients, and enable a broader reach of interventions through policy change. The pandemic has highlighted strengths in the District's ability to rapidly develop, modify, implement and evaluate programs and policies through data driven and outcome-oriented approaches. It has also exposed opportunities for continued improvement towards the goal of achieving health equity.

As a major force of transformation across every sector, the pandemic has spawned an accelerated perception of the future state of population health improvement in the District which further broadens collective District

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<sup>23</sup> DC Health. Defining Health Equity. <https://dchealth.dc.gov/page/defining-health-equity>

<sup>24</sup> Centers for Disease Control and Prevention (CDC), Office of the Associate Director for Policy and Strategy (2016). <http://www.cdc.gov/policy/hiap/>

goals, promotes high-impact interventions that target social and structural determinants of health, and leverages strategic partners' areas of expertise for collective impact.

## District Healthcare System

The Healthcare system in the District of Columbia has traditionally followed a facility/office/clinic-centered model. Some facilities require a Certificate of Need (CON) and facility licensure to operate; most offices and clinics are not licensed by DC Health's Health Regulations and Licensing Administration (HRLA). In 2018, DC Health released its Primary Care Needs Assessment (PCNA) to describe community need, barriers to care, unmet service need, provider capacity, and service gaps within the District's primary care system. According to the PCNA, the District's primary care supply is substantially reliant on physicians compared to other provider types. Nationally, physicians account for 71% of the primary care workforce capacity. In DC, physicians represented over 81% of the provider visit capacity; and in Wards 7 and 8, physicians represented over 90% of primary care capacity.<sup>25</sup> The PCNA revealed that DC has sufficient primary care provider capacity but there is a maldistribution of this primary care capacity as measured through its provider FTEs (inclusive of internal medicine, family medicine, pediatricians, obstetrics & gynecologists). Across the city, the primary care provider FTE to population ratio average is 1 primary care FTE for every 667 patients. This varies significantly at the ward level, with a ratio in Ward 2 of 1 FTE for every 261 patients, compared with Ward 4 where there is 1 FTE for every 3,271 patients. In Ward 7, the ratio is 1:4,358 and a ratio of 1:1,610 in Ward 8<sup>26</sup>.

DC Health released its Health Systems Plan (HSP) in 2017, which reviewed existing quantitative data, and gathered qualitative data, in the form of interviews and community forums, to assess the overall behavioral health capacity. According to the HSP, DC has the second highest population to mental health provider ratio in the nation. In DC, there is one mental health provider for every 230 individuals.<sup>24</sup> These assessments yielded recommendations to:

- Improve care coordination and service integration using evidence-based models
- Better engage patients/families/caregivers in shared decision-making
- Address health literacy and the root causes of inappropriate hospital re-admissions
- Enhance health information technology, health information exchange, and information sharing, and;
- Optimize data monitoring, evaluation and measurement of interventions

The strategic recommendations that came out of these reports are still relevant today and the pandemic has put a spotlight on areas that need to be accelerated.

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<sup>25</sup> District of Columbia Department of Health, Community Health Administration, Health Care Access Bureau. (2018). Primary Care Needs Assessment. Retrieved from: [https://dchealth.dc.gov/sites/default/files/dc/sites/doh/page\\_content/attachments/DC%20Primary%20Care%20Needs%20Assessment%202018.pdf](https://dchealth.dc.gov/sites/default/files/dc/sites/doh/page_content/attachments/DC%20Primary%20Care%20Needs%20Assessment%202018.pdf)

<sup>26</sup> District of Columbia Department of Health, Center for Policy, Planning, and Evaluation, State Health Planning and Development Agency. (2017). Health Systems Plan. Retrieved from [https://dchealth.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/DC%20Health%20Systems%20Plan%202017\\_0.pdf](https://dchealth.dc.gov/sites/default/files/dc/sites/doh/publication/attachments/DC%20Health%20Systems%20Plan%202017_0.pdf)



## Health System Changes During the Pandemic

At the onset of the COVID-19 pandemic, health care and public health organizations were forced to determine which programs to continue and which to shift to align with the COVID-19 response to meet the critical needs of District residents. A portion of health-related programs were postponed or discontinued due to the limited operational status of schools and health centers. Support for initiatives was also redirected to support COVID-19 testing, vaccine administration readiness, and other COVID-19 related activities. During the pandemic there was a necessary, abrupt shift to the use of virtual environments to engage communities. Health systems planning and the Certificate of Need review process also shifted to the virtual environment.

Community Health Centers serve a unique role in their communities as both a provider of comprehensive health care and, also a trusted and reliable source of information. Since the onset of the pandemic response, DC Health has collaborated with DC Primary Care Association member organizations and provided Technical Assistance (TA) to modify clinical and non-clinical operations and service delivery models and launch new initiatives. Examples of modifications included the use of telehealth visits, use of virtual platforms to conduct home visits and engage with clients enrolled in family support programs, and significant budget modifications to expand criteria for allowable costs (e.g. PPE, supplies, emergency food vouchers). DC Health also provides ongoing vaccine planning and coordination TA to FQHC's and other community health centers to maximize capacity for COVID-19 vaccine administration in the District. With expanded telehealth allowances, a home/patient-centered model has emerged. How patients engage, and who engages in the home-centered model, and whether they engage through applications (apps) or through home visits varies by facility. Providers in schools and educational facilities have adapted throughout the pandemic to try to meet resident demands, in particular with access to care being limited as many clinics and offices closed in response to COVID-19.

The need to expand engagement with community partners around clinical care delivery also became evident in order to support vaccine administration and perceptions. DC Health brought together key faith-based partners, along with Mary's Center, to launch the Faith in the Vaccine (FiV) initiative that has, to-date, vaccinated over 3000 of DC's seniors and residents with qualifying medical conditions. The FiV initiative leverages clinical, community- and faith- based partners to hold vaccination clinics on-site at houses of worship. Mary's Center, one of the District's FQHCs, has been a central partner for the initiative - managing sub-contracts to mobile unit vendors and clinical partners that have extended Mary's Center's capacity to administer the vaccines. DC Health and Mary's Center have also worked closely on vaccine supply management to ensure sufficient vaccines for both Mary's Center patient vaccinations and FiV clinic vaccinations.

With the potential for previously monitored health outcomes, such as those for chronic disease, to get worse during the pandemic due to decreased primary care utilization, there is increased ongoing monitoring of DC Healthy People 2020 indicators and plans to include pandemic trends in the planning and development for DC Healthy People 2030. Despite being in the throes of a pandemic, in December 2020, the Mayor announced the District's DC Ends HIV Plan and new community platform: [DCEndsHIV.org](https://DCEndsHIV.org). The plan set new bold goals focused on key strategies based on extensive community input. The 2021 Primary Care Needs Assessment Update is also underway.



## FUTURE DIRECTIONS AND RECOMMENDATIONS

Health planning, assessment, analysis, and action in a post-pandemic world necessarily includes acknowledgment of the extensive impact of COVID-19 on mortality, short and long-term clinical outcomes, mental health and wellness, community engagement, partnerships and policy.

### Recommendations include:

- **Proactive Strategic Alignment and Engagement:** Post-pandemic recovery should include more strategic alignment and proactive engagement with partners, especially non-traditional partners to ensure inclusion of public health priorities, equity, and coordination with resident perspectives. Additionally, increased alignment with already-published recommendations (i.e. the Mayor's Commission on Healthcare Systems Transformation), D.C. Agency or Cluster strategic plans is critical to minimize duplication of efforts and resources.
- **Expanded Home/Patient-Centered Model:** The regular use of telehealth and in-home visits should become a standard of practice model. With this model, providers can be located locally or nationwide.
- **Expanded Scope of School-Based Health Providers:** School-Based Health Providers need to expand the scope of services provided and develop enhanced care coordination among different providers within a family's health ecosystem.
- **Increased Influence in Policy:** Utilize the COVID-19 Pandemic thought-leadership and regulatory levers to continue promoting bold public health action into post-pandemic public health priorities.
- **Formal Assessments of Current Health Status:**
  - Disproportionate COVID-19 Outcomes Among Populations: There is a need to review COVID-19 rates, clinical outcomes, and impact on social needs among populations disproportionately affected by the pandemic.
  - Pandemic Impact on:
    - Grief and Trauma
    - Substance Use Disorders
    - Academic, Social, and Emotional Growth in Children
  - Mental and Behavioral Health: Increased demand for mental and behavioral health services suggest the need to expand access in multiple settings as recommended by the Mayor's Commission on Health Care Transformation as well as an enhanced role for Department of Behavioral Health (DBH) partners.
- **Update the Certificate of Need Process:** The Certificate of Need process should be revised, especially in light of a fundamental shift in the healthcare model (on-site vs. home-based). The State Health Planning and Development Agency (SHPDA) currently reviews health services providers regardless of the primary site of service (i.e., in-home and facility-based hospice services, home-based and facility-based dialysis). The SHPDA has not treated telemedicine as a new health service

that is subject to certificate of need review. The review has been captured where providers were subjected to certificate of need review as a facility or clinic that offers telemedicine.

- **Optimize Team-based Care Models:** Creation of pipelines to ensure quality and efficient healthcare delivery through the utilization of non-clinical team members (e.g. Community Health Workers and Care Coordinators) that resonate with communities can be an important and sustainable strategy in health planning, promotion and community engagement. Telehealth options should be assessed in the Community Health Worker and Care Coordinator context.
- **Maximize Information Technology Infrastructure and Information Sharing:** Broad interagency data sharing agreements should be composed to allow for easier communication between agencies. Resource allocation and TA for data reporting and data quality should be emphasized among stakeholders, which in turn supports population health data collection, management, analysis, and sharing by DC Health.

## Public Health and Healthcare Workforce

### Overview of Pre and Current Pandemic Workforce Issues

There have been substantial shifts in U.S. healthcare delivery models. Currently, there is a shift from a volume-based fee-for-service model of care, to a value-based model of care, where patients and the quality of their health outcomes are at the forefront of care and payment. The services provided embody the following attributes: comprehensive, patient-centered, coordinated, accessible, and high quality services.<sup>27</sup> This care is inclusive of medical, dental, mental health, substance use services, as well as case management and other enabling or non-clinical services. These services are most effectively delivered through a Patient-Centered Medical Home (PCMH) model. The PCMH model encourages close partnerships between patients, primary care providers, and a range of these health-related stakeholders and support staff to ensure that individuals and families are able to navigate an increasingly complex health care system.<sup>28</sup>

In order to meet the demand for health care services and fulfill the goals of the PCMH, mid-level providers, such as nurse practitioners, physician assistants, nurse midwives, as well as non-clinical health workers are playing increasingly important roles in the structure and implementation of the team-based PCMH health care delivery model. Incorporating mid-level providers, like nurse practitioners, into primary care can help alleviate the pressures of primary care physician shortages. The years of education and training required for a nurse practitioner to practice are less than those of physicians, so they are able to enter the workforce more quickly<sup>29</sup>.

<sup>27</sup>Agency for Health Care Research and Quality (AHRQ). (2017, March) Defining the PCMH. AHRQ Retrieved from: <https://pcmh.ahrq.gov/page/defining-pcmh>

<sup>28</sup> Patient-Centered Primary Care Collaborative. (2017) Defining the medical home: A patient-centered philosophy that drives primary care excellence. Retrieved from <https://www.pcpcc.org/about/medical-home>.

<sup>29</sup> National Conference of State Legislatures. (August 2017) Improving Access to Care in Rural and Underserved Communities: State Workforce Strategies, Retrieved from <http://www.ncsl.org/documents/health/WorkforceStrategies2017.pdf>

### Team-Based Care Coordination

It is critical to engage mid-level team members in the health care model to effectively address patient needs and improve care coordination. Implementing team-based care within a clinical practice necessitates a strategic redistribution of work among members of a practice team. The team can include a range of clinical personnel—physicians, nurse practitioners, physician assistants, nurses, care managers, dietitians, pharmacists, and social workers—as well as non-clinical staff, such as community health workers and care coordinators.<sup>30</sup> All members of the team play an integral role in providing patient care. There is ample evidence of the advantages of a team-based model, including<sup>31</sup>:

- Expanded access to care (additional hours of coverage, shorter wait times, etc.);
- Improved patient support;
- Increased team member collaboration;
- Improved patient adherence to medications;
- Prompt follow up resulting in improved patient and provider quality of life;
- Improved patient knowledge;
- Time efficiency in health care delivery and corresponding reduction in patient wait times for service;
- Cost efficiencies; and
- Improved patient and physician satisfaction.

A nationwide shortage of nurses existed prior to the pandemic and contributed to a need for implementation of new licensed professions to help expand healthcare delivery capacity. The creation of new licensed professions (for example, Nursing Assistant Personnel (NAP), Certified Professional Midwives (CPMs), and laboratory technicians) has resulted in the need for a review of the efficiency of licensure processes. Prior to the pandemic, the role of the Community Health Worker (CHW) had become increasingly important in public health programming such as behavior change and health promotion efforts. The role of the CHW should be examined for optimization, including clinical support and social need support. For example, the role of a CHW should be re-imagined to be similar to that of a social worker, in particular with the underserved not only dealing with the risk of the pandemic to health, but to potentially existing socio-economic struggles such as difficulty paying bills and food insecurity. Similarly, prior to the pandemic, the EMS workforce often responded to issues beyond the scope of emergency health services and may also need an expansion of certification/scope of practice to include some functions of other health professionals. Due to the geography and proximity of Washington, D.C. to neighboring states, many non-residents (about two-thirds of physicians residing in Maryland and Virginia, for example)<sup>32</sup>, work and provide services in the District, emphasizing the need for appropriate Interstate Compacts regarding licensure of the health workforce (Figure 9).

<sup>30</sup>US Department of Health and Human Services, Agency for Healthcare Research and Quality. (2016). *Creating Patient-Centered Team-Based Primary Care* (AHRQ Publication No. 16-0002-EF. Retrieved from <https://pcmh.ahrq.gov/page/creating-patient-centered-team-based-primary-care>

<sup>31</sup> World Health Organization. (2018). HEARTS Technical package for cardiovascular disease management in primary health care: team-based care (CC BY-NC-SA 3.0 GO). Retrieved from <https://apps.who.int/iris/bitstream/handle/10665/260424/WHO-NMH-NVI-18.4-eng.pdf?sequence=1>

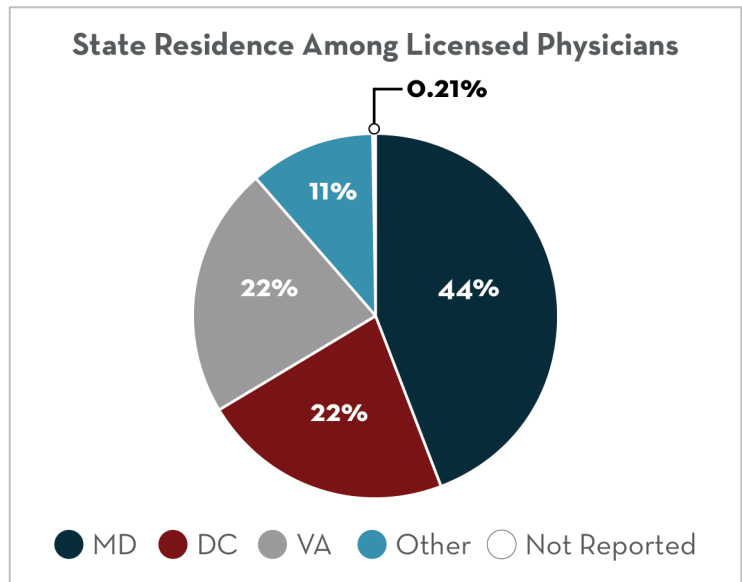
<sup>32</sup> DC Department of Health, Board of Medicine. (2016). Physician Survey Instrument.

Investments in Medically Underserved Areas (MUA) and Health Professional Shortage Areas (HPSA) were critical prior to the pandemic and are even more important as we have witnessed those in underserved communities suffer disproportionately from impacts of the virus.

The pandemic stressed hospital systems, staff and workforce capacity with an immediate need for increased staffing and creation of Alternate Care Sites (ACS). It was noted during the pandemic, the top five professions that were recruited using Administrative Order 2020-02<sup>33</sup> waiving District professional licensure included: registered nurses, respiratory therapist, pharmacists, physicians, and telemetry technicians depicted in Figure 10. These

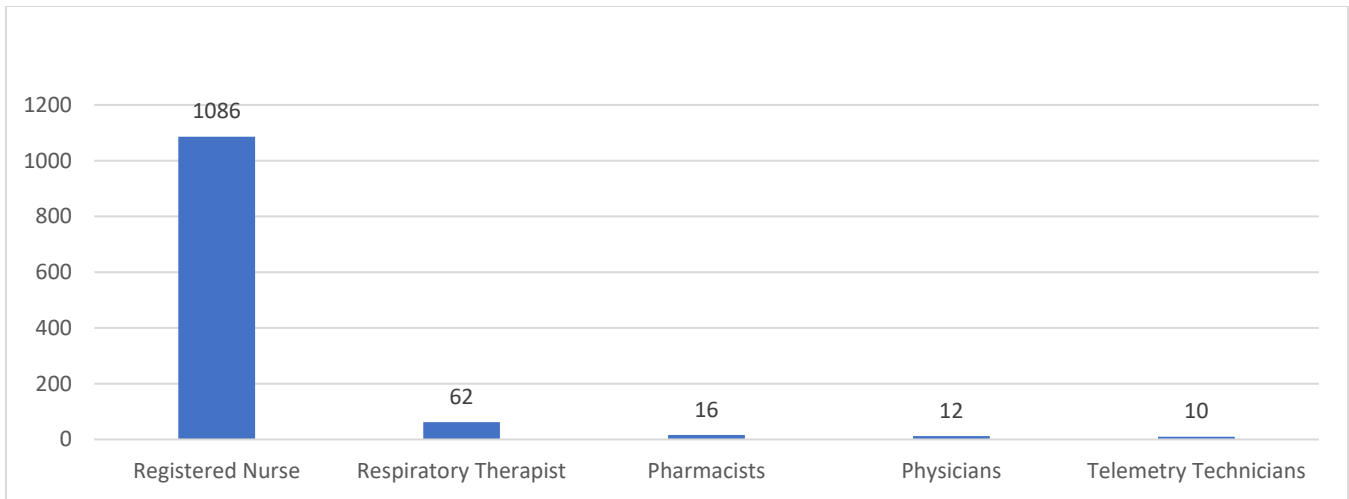
temporary agents of the District that augmented the acute care workforce were properly licensed and in good standing in their home jurisdiction. Although, some of the health care workers applied for a District license, many representing multiple states retained their state of residence licensure credential. It was noted health care providers were drawn to the District from States across the Nation as shown in Figure 11.

The need for healthcare providers and related shortages led to expanding scopes of practice for other providers (i.e., pharmacists, unlicensed personnel, etc.) both for COVID-19 testing and vaccination. Administrative actions, such as waiving licensure requirements and expanding allowances for telehealth were implemented to allow an influx of healthcare providers licensed in other states and jurisdictions to provide support in the District. This was particularly important as stress of the pandemic has increased burnout among health and mental health providers, health facilities, community centers and other providers. Entire scopes of practice have rendered themselves unfeasible to engage in during the pandemic, for example physical therapy. This has resulted in financial and practice stressors for these providers. Not only were many lives lost due to COVID-19, but the pandemic has brought on a loss of healthcare workers due to retirement, job loss, burnout, and lack of childcare, among other circumstances.

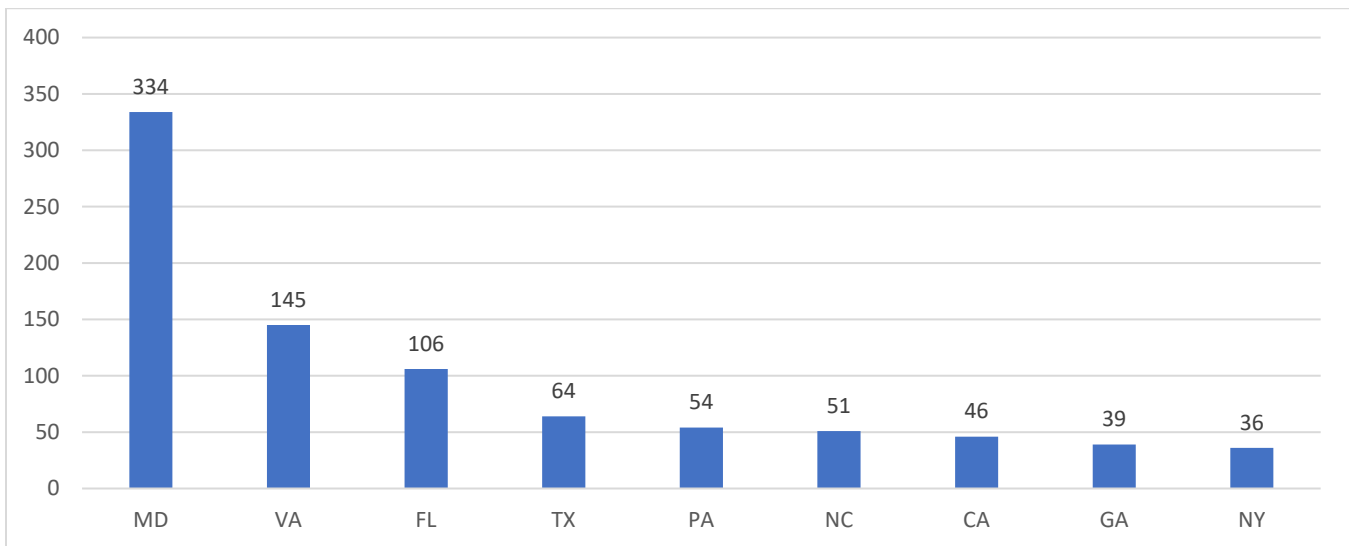


**Figure 9. State of Residence Among Licensed Physicians**

<sup>33</sup>District of Columbia Department of Health. (2020). Administrative Order No: 2020-02, [https://dchealth.dc.gov/sites/default/files/dc/sites/doh/page\\_content/attachments/Order%20-%20Licensure%20Waivers.20.03.13.pdf](https://dchealth.dc.gov/sites/default/files/dc/sites/doh/page_content/attachments/Order%20-%20Licensure%20Waivers.20.03.13.pdf)



**Figure 10. Top Five Professions Utilized by Licensure Waiver<sup>34</sup>**



**Figure 11. Top Ten Jurisdictions of Original Licensure for Professions Utilized by Licensure Waiver<sup>35</sup>**

**Trust and Diversity Issues in the Healthcare System**

Examinations of the root causes of disparate health care utilization and health outcomes, especially in the realm of perinatal health, have emphasized the importance of the patient experience and trust in these factors. The rollout of COVID-19 vaccines has spurred deeper deliberation on the concept of “vaccine hesitancy” among members of particular groups, including people of color. This reluctance suggests a larger issue of distrust or

<sup>34</sup> DC Health’s Health Regulation and Licensing Administration Data as of implementation of administrative order March 13<sup>th</sup>, 2020 until March 2021.

<sup>35</sup> Ibid

discomfort with doctors and hospitals. The *Survey on Race and Health*<sup>36</sup> a joint effort of the Kaiser Family Foundation survey & ESPN's The Undeclared found that:

- Across the country, only 6 of 10 Black adults said they trust doctors to do what is right most of the time, compared with 8 of 10 Whites
- About 56% of Black people said they can trust their local hospitals to do what is right for them or their community “all or almost all of the time” compared with 70% of Whites
- 7 out of 10 of Blacks say the health care system treats people unfairly based on race “very” or “somewhat often,” (up from 56%, when a similar question was asked in a 1999 poll)

Even prior to the pandemic, work needed to be done on diversifying the health workforce and this has only become clearer during the pandemic. People need to feel like they can trust the health care system and studies show that among other factors, racial concordance, which refers to having a shared identity between a physician and a patient regarding race, often helps with patient satisfaction.<sup>37,38</sup>

### Licensure

Licensure of health professionals is currently handled through a state-by-state approach. Issues of examination, endorsement, reciprocity, and compacts are difficult to disentangle and can pose undue burdens on the ability of health professionals to practice and provide service. Nationwide licensure systems have been unable to meet the demand of the pandemic due to many of the issues listed, in addition to paper-based documentation being the current standard for health professional credentialing. Administrative Waivers have been used to allow for more flexibility in provision of health services, however, one of the greatest breakdowns of the licensure processes exposed during the pandemic, was the need for waiver of licensure.

### Scopes of Practice

Scopes of practice are defined by license type and similar to licensure, scopes of practice differ from state to state. Because of the need to accommodate surges during peaks of the pandemic, coupled with health professions shortages described above, scopes of practice for certain professions have had to be expanded or limited based on supervision or lack thereof. This has resulted in unintended consequences including some conflicts between professions. Some states have seen legal challenges between licensing boards regarding scopes of practice (i.e., Texas Medical board vs. Texas Chiropractic board).

The District Government workforce, including DC Health, like government health agencies and healthcare systems across the country, adapted significantly to continue its critical role in serving District residents throughout the pandemic. In the process, many lessons have been learned not only to be able to function during this public health emergency, but on ways the workforce should continue to operate and can function more efficiently post-pandemic.

<sup>36</sup> Hamel, L., Lopes, L., Muñana, C., Artiga, S. and Brodie, M. (2020). Kaiser Family Foundation/The Undeclared Survey on Race and Health. *New poll shows Black Americans put far less trust in doctors and hospitals than white people*. Available at: <https://www.kff.org/racial-equity-and-health-policy/report/kff-the-undeclared-survey-on-race-and-health/>

<sup>37</sup> LaVeist, T. A., & Nuru-Jeter, A. (2002). Is doctor-patient race concordance associated with greater satisfaction with care?. *Journal of health and social behavior*, 296-306.

<sup>38</sup> Takeshita J, Wang S, Loren AW, et al. Association of Racial/Ethnic and Gender Concordance Between Patients and Physicians With Patient Experience Ratings. *JAMA Netw Open*. 2020;3(11):e2024583. doi:10.1001/jamanetworkopen.2020.24583

## FUTURE DIRECTIONS AND RECOMMENDATIONS

### Trust and Diversity in the Healthcare System

- **Implicit Bias Training and Policies:** Diversification efforts aimed at increasing the percent of physicians who identify as people of color can serve as a longer-term strategy, however there is also an immediate opportunity to put more effort into implicit bias and discrimination training for health care providers and institutions. Mandatory implicit bias training should be implemented for new health workforce employees, also as core competencies for medical and public health curriculums. Organizational policies should also be reviewed and revised to ensure they are supportive of a positive patient experience regardless of the race/ethnicity, insurance status, or socio-economic status of patients.

### Licensure

- **Compacts vs. Reciprocity:** Several professions (e.g., Nursing, Medicine, Psychiatry, and Psychology) already have compacts, but these agreements still have their own downsides. Reciprocity laws should be expanded to allow for the expedient licensure of individuals already licensed in other jurisdictions in good standing, similar to the requirements of the licensure waiver, without compromising each jurisdiction's authority to implement disciplinary actions.
- **Utilize Digital Credentials:** This will allow for greater portability of credentials between jurisdictions. Digital credentials (i.e., school transcripts) that are self-validating would eliminate the need for issuing institutions to send copies, further reducing application processing times.
- **Potential for Different Licensure Categories:** With the shift from facility-based care to home-based care, licensure categories may need to be updated to reflect telehealth-specific credentialing, as compared to in-person, or both, or temporary ability to provide telehealth services, etc.
- **New Models of Oversight:** Given the shortage of health providers, certain procedures, processes or interventions that traditionally require specific oversight (i.e. cardiac rehabilitation) may need to be re-examined for more flexible supervision options.

### Scopes of Practice

- **Scope of Practice Definitions:** Scopes of practice will need to be assessed and potentially redefined by training or supervision level with an emphasis on level of supervision truly required for safe patient care. Some professions can provide certain services, but only if supervised (e.g., Physician Assistants).
  - Active vs. Passive/Direct vs. In-Direct: The pandemic has shown that some of those services may not need direct supervision, either at all or to a lesser degree.
- **Telehealth and Interstate Care:** The increase in use of telehealth will require common scopes of practice across state lines.

- **Emergency Modifications:** An inventory of scope of practice changes should be taken to assess the full scope of changes in the context of the pandemic emergency. For example, there may be new professions that need to be created in response to the new healthcare system.

## Health Information Technology (IT)

### Overview of Pre-Pandemic and Pandemic Health IT Issues

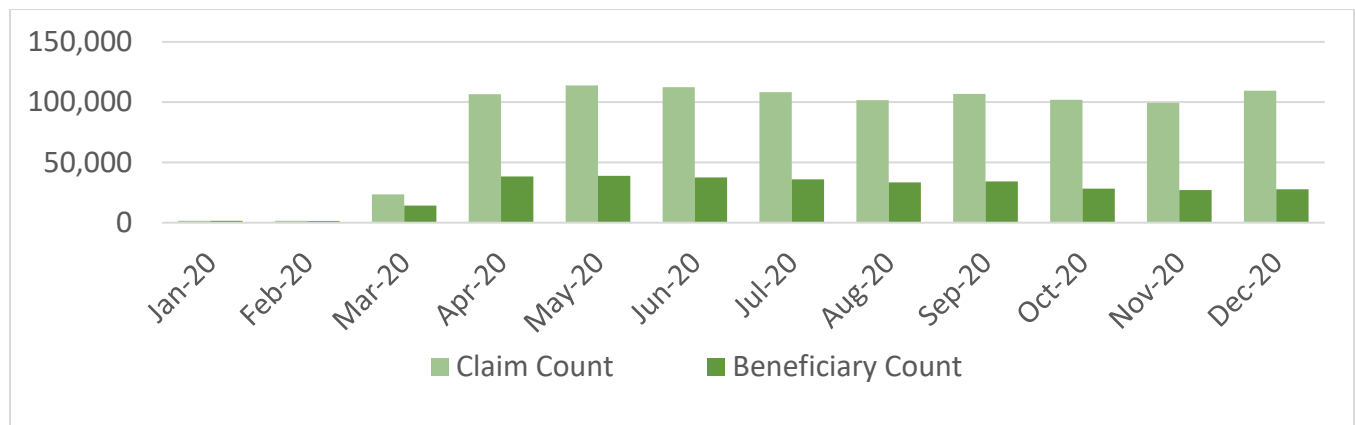
The onset of the pandemic has presented issues of telework readiness, IT capacity and coordination, lack of uniform software use and need for centralization of implementation, intra-agency and interagency data sharing agreements, and gaps in data quality. Prior to the pandemic the Chesapeake Regional Information System for Our Patients (CRISP) was designated as the District's Health Information Exchange. Initiatives were underway to identify public health use cases for CRISP including the integration of immunization registry and the Prescription Drug Monitoring Program (PDMP). DC Health was in the process of working with its community-based projects to improve access to real-time data for population health management (i.e. Million Hearts access to Electronic Health Record data for key chronic conditions). Efforts to align DC Health and Department of Health Care Finance (DHCF) policies for expansion of telehealth were also underway. In addition, pre-pandemic, momentum was building to formalize clinical community linkages and create bi-directional referral pathways. At DC Health, all of the food access programs were exploring opportunities for grantees (Community Based Organizations, or CBOs) to partner with health providers and utilize a web-based platform to facilitate bi-directional (closed-loop) referrals from the providers to the food access programs.

The need to rapidly enhance health IT capacity became increasingly apparent at the onset of the pandemic. During the pandemic, the District of Columbia Immunization Information System (DOCIIS), an internet-based system that collects, stores, tracks and monitors immunization event information across the lifespan for residents and visitors to DC was upgraded to DOCIIS 2.0. The first phase of the new system implementation focused on the COVID-19 vaccine operations, and the second phase to include all vaccines. Improvements to REDCap, a database management system used for electronic infectious disease case reporting were executed. The agency has increased utilization of client relationship management (CRM) tools and call centers for large scale disease investigation and contact tracing. Other issues involving Health IT that have become increasingly important to address during the pandemic are healthcare system coordination, in particular coordination between states regarding health professional licensing, expanding online grant application and payment processing capability and enhancing the DC Health website to incorporate a more user-friendly design to facilitate health information exchange with District residents.

DC Health implemented an administrative order to expand the use of telehealth when an established relationship exists between an out-of-state provider and an individual located in the District of Columbia. Although Medicaid reimbursed for telemedicine prior to the public health emergency, the DC Department of



Health Care Finance (DHCF) implemented several telemedicine policy changes in response to COVID-19.<sup>39</sup> Some of these changes included that services could be rendered via telemedicine if they were already included in the DHCF fee schedule within broad categories specified in the DHCF telemedicine rule, home would be allowable as an originating site, providers would have flexibility to work remotely, among other changes. As a result of the telemedicine policy changes, there was a sharp rise in DHCF telehealth claims in response to the COVID-19 during April to December 2020. Over 101,000 DHCF beneficiaries had a telehealth visit, representing 36% of all beneficiaries ever enrolled (Figure 12); this compares to 0.8% of beneficiaries in January to February 2020.



**Figure 12. Telehealth Utilization for DHCF Beneficiaries, January-December 2020<sup>40</sup>**

Telehealth claims accounted for 21% of all outpatient claims, compared to 0.3% in January to February 2020.<sup>41</sup> A total of 34% of beneficiaries using telehealth services received at least one telehealth behavioral health service; behavioral health services accounted for 79% of telehealth claims.<sup>42</sup> Building on feedback from the community in order to help facilitate the use of health IT/telehealth during the pandemic, DHCF developed an emergency request to CMS for a Health Information Technology for Economic and Clinical Health (HITECH) enhanced match (90/10 Federal Financial Participation (FFP)). The Centers for Medicare and Medicaid Services (CMS) approved this emergency request in July 2020 to further support telehealth efforts in the District to combat cCOVID-19. Since October 2020, this funding has enabled DHCF, in partnership with the DC Primary Care Association (DCPCA), to purchase and loan 396 laptops/tablets and data plans to providers with limited technical capabilities and distribute over 100 HIPAA compliant telehealth platform licenses to providers without a license in a continued effort to accommodate them during the pandemic response.

An example of the impact of the telemedicine policy changes and ramp-up of health IT efforts is described below. Figure 13 depicts data from the DC Health’s Health and Wellness Center on patient visits from November

<sup>39</sup> DC Department of Health Care Finance (DHCF). (2021). Telemedicine. <https://dhcf.dc.gov/page/telemedicine>

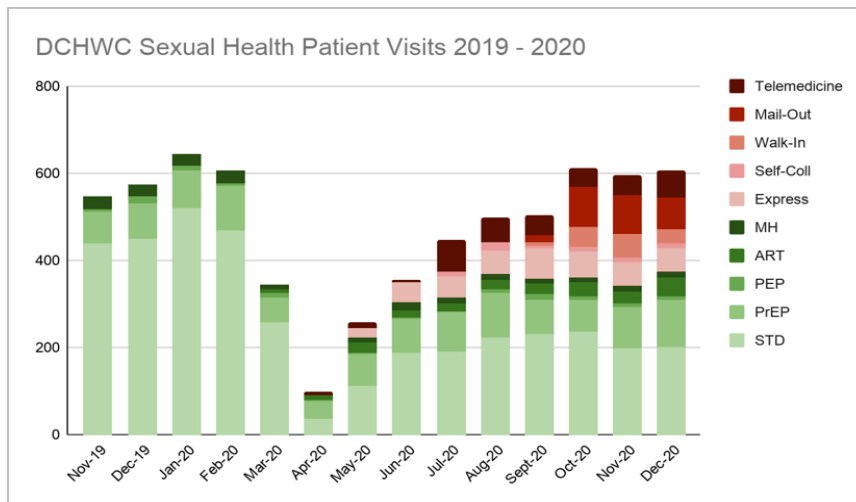
<sup>40</sup> DHCF Medicaid Management Information System data extracted March 10, 2021; Note: Includes Medicaid, Alliance, and Immigrant Children’s Program data. Reflects unique counts of beneficiaries and paid fee-for-service claims/managed care organization encounters by date of service. Due to claims lag, counts are likely to be higher when run at a future date.

<sup>41</sup> DHCF Medicaid Management Information System data extracted March 10, 2021; Note: Includes Medicaid, Alliance, and Immigrant Children’s Program data. Reflects unique counts of beneficiaries and paid fee-for-service claims/managed care organization encounters by date of service. Due to claims lag, counts are likely to be higher when run at a future date.

<sup>42</sup> Ibid

2019 - December 2020. Utilization of HIV and STI services declined briefly at the onset of the pandemic but stabilized because services rapidly shifted to tele-delivery, demonstrating the powerful capability of

telemedicine approaches to maintain critical services.



**Notes:**

- Mail-Out = Three site STI test kits mailed to patients
- Walk-In = Walk-in services for testing at LabCorp
- Self-Coll = Mailout HIV oral swab kits mailed to patients and for self-testing
- MH = Mental Health service
- ART = Anti-Retroviral Therapy

**Figure 13. DC Health and Wellness Center Visits (November 2019-December 2020)**

**FUTURE DIRECTIONS AND RECOMMENDATIONS**

Local governments and health systems should critically leverage data across their jurisdictions to improve population health management. Maximizing the use of digital health tools in case and care management, as well as disease self-management should be implemented to improve population health outcomes. The District and other jurisdictions must leverage the expanded use of telehealth services in primary and behavioral health to promote right care, right time, and right place approaches. DC Health and other District agencies should continue to streamline applications and databases, minimizing the number of disparate applications in use, especially if they are not federally mandated.

**Data Collection Strategy Informed by, and Aimed to Address Health Equity**

Data collection is a core competency of the Department of Health, and quality data reporting to DC Health should be a core competency of strategic partners. By law, the Department of Health, similar to others across the country, has the ability to, and collects much raw health data.

- **Data Collection as a Core IT Competency including Standardized Monitoring and Evaluation of Programs and Services:** To help inform decision-making and guidance for health planning, programs, and services.
- **Data Dashboards:** To operationalize data for decision-making, the use of data dashboards and related visualizations of data should be more regularly integrated health systems work.

- **Enhance Capacity to Collect Neighborhood-Level Data:** DC Health has embarked on efforts to collect and present health outcome data (i.e. life expectancy, educational attainment, etc.) for over 50 neighborhood groups in the District, which allows for comprehensive assessment of health status. We hope to increase the availability of data collected at this level and encourage other states and jurisdictions to utilize this granular level data.

### Digital Health Tools

- **Incorporate the Use of Applications (Apps) and Tools:** To enhance delivery of health services through telemedicine.
- **Provide Consumers with Instruments (and training) for Telehealth Monitoring:** Examples include fetal monitoring for pre-natal visits and blood pressure monitoring for pre- and hypertensive patients.

### Database Integration

- **Integration with District Agencies and Community Partners:** Should include all labs, pharmacies, and electronic health record systems (EHRs) to allow for easier data sharing. Formalizing integrations must occur with agencies with crucial data sources for local health departments, for example the Chief Medical Examiner (OCME), Fire and Emergency Medical Services (FEMS) and the Public Health Laboratory (PHL).
- **Maximize Integration of Regional Health Information Exchanges:** Comprehensive assessment on the capabilities of the regional health information exchange (CRISP for the DC metro area) to support patient-center healthcare service delivery as well as population health management.
- **Enhanced Engagement on Social Media:** The ability to manage social media feeds should be used as a way to reduce the dependency on phone calls and broaden reach to the public.
- **Enhance Virtual Options for Consumers/User-Friendly Public-Facing Websites:** Enhancement in the navigation and functionality of public-facing websites may help address customer needs, lessening the need for troubleshooting through phone calls. Additional functions on websites could include: live chats, will-call features and virtual calling.

## Health Care Facilities

DC Code 5-48: Health Care and Community Residence Facility, Hospice and Home Care Licensure Act 1983, also known as DC Code 5-48 § 44-501 defines health care facilities in the District. For the purposes of this summary and a vision of post-pandemic recovery, health care facilities are defined as places where health care services are administered.

### Overview of Pre and Pandemic Issues

An ongoing challenge faced by DC Health that presented issues during the pandemic was DC Health’s lack of regulatory oversight of health clinics and urgent care centers. Access to 24-hour, 7-day a week care (beyond the

utilization of emergency departments) was limited due to a lack of urgent care centers with extended hours. Relevant to the nature of this pandemic, there are regulations on communicable disease reporting requirements; however, setting standards for infection control practices and surveillance of these practices is limited broadly across the spectrum of health provider types. School-based health centers had outdated emergency preparedness plans prior to the pandemic, and it became clearer during the pandemic that there was no centralized place to locate these emergency plans.

Health centers in the District encountered many challenges during the pandemic as they activated their emergency preparedness plans. Facilities sought a variety of ongoing technical assistance from multiple administrations within DC Health, including for example, how to quarantine patients with potential infectious disease, i.e. whether to use separate entrances or set up tents outside of facilities. As national demand for supplies and resulting associated shortages occurred, the procurement of supplies such as PPE, gloves, syringes, etc., became increasingly difficult with many facilities seeking assistance from DC Health, as the local health department, including for provision of PPE. It was readily apparent that siloed processes, among certain facility types, such as nursing homes, home health and assisted-living facilities, would be inefficient at addressing the extreme demand. Large physical changes were made to many facilities including ventilation system upgrades. The abrupt shift to telehealth for health care services demonstrated a lack of uniformity in technological capabilities and workforce training across health centers. Particular sub-specialties of health care are less-suited for integration into telehealth, with tele-dentistry in the District being less advanced and less equipped to initially weather the Covid-19 pandemic. This resulted in the closure of some dental facilities in the District. Several private dental practices also sought support and technical assistance from DC Health.

## FUTURE DIRECTIONS AND RECOMMENDATIONS

- **Rulemaking Proposals:** Increased Health Regulation and Licensing Administration (HRLA) oversight of certain health care facilities should be considered. Regulatory oversight of new provider types, i.e. primary care services provided through clinics (FQHCs) and urgent centers may have helped identify weaknesses in emergency plans and strengths in clinics' capabilities to provide services during the pandemic.
- **Study of Health Care Facility Types and Needs:** Thoroughly assess the utilization of urgent centers - some are underutilized, and residents may not know of their availability. Businesses may need to enhance branding to highlight location, quality services, hours, etc. to decrease improper use of emergency rooms as the 24-hour/7-day a week option. More assisted-living facilities may be needed post-pandemic.
- **Expanding Administration of Services for Medicaid-eligible Populations through Telehealth, Assisted Telehealth or Home-based Models:** Incentivizing entities to offer services for Medicaid-eligible populations, for example, through more accessible means other than visiting brick-and-mortar health care facilities.

- **Increased Need for Home Health Aides/Support Services:** Care models are changing to include increased home care options and necessitate additional supply of home health aides and home services.
- **Establishing Supply and Equipment Networks:** Health care facilities need to maximize the use of critical supply chains by enhancing networks among health care facilities.
- **Ongoing Infection and Outbreak Reporting:** DC Health should continue to evaluate technology to capture information requested from multiple administrations within DC Health, for the same health care facilities.
- **Emergency Preparedness:** DC Health should continue to provide technical assistance to facilities on emergency preparedness including health care facility coordination with the State Health Planning and Development Agency (SHPDA). In order for health care facilities to receive Certificates of Need (CON), Emergency Preparedness plans should be included as a “reasonable conditions” requirement.
  - Department of Corrections: Assist with an environmental scan for emergency preparedness needs and provide technical assistance as determined.
  - Federally Qualified Health Centers: Assist in streamlining processes and protocols, in particular, concerning infection control protocol and provide operational technical assistance.
  - School-Based Health Centers: Develop a centralized place to locate preparedness plans for schools and assist with developing a toolkit for emergency response.
- **Data Experts:** Data Analysts should be embedded in health care and social services organizations to ensure data analysis capacity.
- **Workplace Flexibility/Reimagine Workplace Offices:** The nature of the coronavirus and spread necessitates a reimagining of how workspaces will be laid out and how common spaces will be utilized and revamped to optimize safety.

## Community Health Services

Community Health refers to the health status of a defined group of people and the actions and conditions, both private and public, to promote, protect, and preserve their health.<sup>43</sup> Community Health Services are evidence-based and evidence-informed clinical and public health services and programs that are provided primarily through community-based organizations or place-based means.

### Overview of Pre and Pandemic Efforts

Several years prior to the pandemic, the District was an early leader in integrating an equity lens into program and policy development. This lens has put a spotlight of focus on decreasing disparities in cancer and chronic

<sup>43</sup> Goodman, R. A., Bunnell, R., & Posner, S. F. (2014). What is "community health"? Examining the meaning of an evolving field in public health. *Preventive medicine, 67 Suppl 1*(Suppl 1), S58–S61. <https://doi.org/10.1016/j.ypmed.2014.07.028>

disease morbidity and mortality through several strategies including screening, patient navigation, community health workers, EHR interventions, remote patient monitoring, and community-based education. Understanding the need to “reach people where they are,” the District increased adoption of capacity-building, place-based approaches to service delivery via its grantmaking process. DC Health provides school health services to over 70,000 students in more than 175 DC public and public charter schools through its School Health Services Program (SHSP). Prior to the pandemic, the program was considering expanding the system of care due to the nature of interactions nurses have with the students, often concerning mental health issues. Although school nurses are not considered mental health providers, they often carry out preliminary assessment of symptoms in their face-to-face interactions that then lead to referral for related services. As part of the Certificate of Need process for operating, facilities are required to demonstrate financial sustainability which is critical to the overall sustainability of services provided to District residents. Just prior to the pandemic, momentum was building around food insecurity screening by healthcare providers in hopes of connecting them to federal and local food access programs.

During the pandemic there was an obvious need for increased flexibility for healthcare providers experiencing economic hardship due to decreased patient volumes as many direct patient activities (i.e. screenings, CHW programming and in-person education) were largely suspended. Providers continued executing diagnostic procedures as needed (ultrasounds, biopsies, etc.) in-person, but many DC Health staff provided technical assistance to partners to continue cancer and chronic disease activities through telehealth. Several typically in-person, community-level strategies were adapted during pandemic including the provision of home testing and monitoring. For pre-natal care, as an example, DC Health’s community-based partners at Mary’s Center began pilot testing a new method of monitoring pregnancy status and progress through fetal heart monitoring home kits among Healthy Start participants. Patients are trained to connect to apparatus that relays information directly to providers for evaluation. Mail order test kits were provided as a means of continuing HIV and STI testing. In addition, the DC Health and Wellness Center established an “Express Clinic” modality to help expedite, safe, in-person services.

While many direct patient activities were curtailed during the pandemic, some home visiting services fared relatively stable or better during the pandemic. National models of home visiting programs shifted requirements to include exceptions for home visits using virtual visits and phone calls.

The feasibility of implementing COVID-19 safety protocols for populations with difficult and differing needs is difficult. In addition, the nature of interactions with these populations emphasized the idea that transitioning in-person services to a virtual platform, phone or in-home visits is not suitable for all populations. For example, putting active drug users into isolation due to potential COVID-19 exposure and assisting users actively trying to quit, and in need of a “heavier touch,” proved challenging. Utilizing a buddy system and buddy support has become critical in these instances.

In terms of capacity-building and work with our partners, DC Health provided enhanced technical assistance and guidance, specifically to community-based organizations. This assistance included helping grantees determine supply needs (i.e., for PPE) in order to continue providing services and helping staff re-think processes to incorporate extra time needed to prepare for shifts in order to provide services safely or ensure that office

environments were safe. The District’s more equipped clinical providers requested technical assistance in dealing with COVID-19 protocols and we found that less equipped community-based organizations were in even greater need. A potentially significant issue that arose during the pandemic, and as some multi-year, grant-funded programming was set to sunset, was that presence and monitoring of sustainability plans for those organizations, in particular in the midst of the pandemic landscape, when District budgets and funding decisions were a bit uncertain.

## FUTURE DIRECTIONS AND RECOMMENDATIONS

- **Consider the Benefits of a Shift to Telehealth for Community Health Services:** The shift to telehealth brought with it a removal of barriers for patients that typically have difficulty taking time off work or travelling to a facility for appointments. This should expand not only to healthcare providers but community-based organizations services as well.
- **Expand Reach to Meet Communities Where They Are:** Ensure healthcare delivery systems are easily accessible.
  - Expanded Schedule/Hours: Utilizing regulatory and grantmaking authority to create expanded access for in-person services, in addition to telehealth services.
  - Cultural Sensitivity: Recognition that cultural sensitivity and affirmation have been inconsistent in health settings is critical. Individuals who experience this lack of sensitivity will be less likely to re-engage with providers, in essence the provider has put himself out of reach of the individual.
- **Federal & Local Partnerships, Clinical Community Linkages:** These relationships can be enhanced and strengthened to help expand and facilitate services. Continued investments in appropriately designed Community Health Worker (CHW) programs, mobile services and community-based partnerships to improve equitable service delivery is needed. In addition:
  - Federal and local food access programs can be used to build partnerships with healthcare partners, increasing clinical community linkages, and strengthening referral pathways to such food access programs.
  - Federal and local partnerships can ensure an integrated systematic approach to community linkages which include both clinical and non-clinical needs.
  - These partnerships can place an enhanced focus on care coordination, alignment and integration across programs and across different levels of the health system.
- **State Agency Technical Assistance and Capacity Building Scale Up:** State agencies need to take a high-level view to determine the scale of comprehensive technical assistance and capacity building they can provide to public and private entities. This may include:
  - Cultural Sensitivity and Affirmation Training Among Clinicians and Non-Clinical Staff: There is a need for this type of capacity building in provider settings. This includes an intentional effort on the part of providers to have staff that reflect the community, in-setting language capacity

(including capacity in health terminology), and meaningful community engagement to inform services;

- Providing support and technical assistance to enhance telemedicine for delivery of community health services;
  - Providing funding needed to support technology, advanced instruments (and training) for telehealth monitoring (i.e., fetal monitoring for pre-natal visits, blood pressure monitoring for pre- and hypertensive patients);
  - Providing funding support to perinatal providers to provide transportation and child-care services for women with difficulty going to prenatal (or post-partum) appointments, i.e. mass transit waivers, Uber/Lyft partnerships.
  - Assisting community-based organizations with varying levels of resource development in terms of grant writing and fundraising, with development of future sustainability of programming.
- **School Health Services:** State agencies and health systems must address how these school-based systems may experience an uptick in services given the increased level of trauma post-pandemic. Significant adaptations to how services should be delivered should be considered, for example:
    - Implementing walk-in clinics for mental health services (or other given services), similar to mass vaccinations sites to help alleviate the weight of trauma and/or stressors faced by providers in trying to link students to services/mental health providers;
    - Increasing services to reach a broader audience, for example utilizing feeder schools, dual enrollment in SBHCs, extending hours to accommodate surrounding schools for access.



## Conclusion

The COVID-19 pandemic response triggered a new mode of operating at both macro and micro levels and demonstrated how the District can plan, implement, monitor, and evaluate complex programs, service delivery, and policies at a much faster pace than pre-pandemic times. The response also demonstrated the importance of having a workforce that can be nimble and innovative enough to operate successfully through significant change and uncertainty. At this time, it is important to leverage community partnerships and the current appetite for bold public health action at all levels including laws, regulations, and institutional policies.

DC Health, as the state health agency and the primary public health responder for this emergency, has devised a framework for the recovery of the District's healthcare ecosystem through five components of focus: health planning, health workforce, health information technology, health care facilities and community health services. Undergirding efforts to enhance health through these five components is the need for application of an equity informed and structural determinants of health lens, due to the limitations of public health and health care alone to improve health. Addressing health literacy and acknowledging the varying levels of interventions and "touch" needed to reach District residents is even more important now, due to the shift in health care from in-person health service to virtual environments. Related to this, we must expand reach to meet communities where they are, thinking critically about how various systems in place can adapt practices to engage individuals, for example not only through expanded hours and telehealth, but more importantly through cultural sensitivity. National recognition by the American Public Health Association (APHA), American Medical Association (AMA) and the Centers for Disease Control and Prevention (CDC) amongst other institutions, of racism as a public health crisis or threat underscores the need to recognize that cultural sensitivity and affirmation have been inconsistent in health settings and have contributed in part to the pre-existing, disparate health-seeking behavior and health outcomes among racial and ethnic minority populations, the vulnerable and underserved. Individuals who experience this discrimination or a lack of sensitivity are less likely to re-engage with the health care system and are at increased risk for higher chronic disease burden, and as we have seen with the COVID-19 pandemic, at a greater risk for disproportionate impact in large part because of that increased burden at the outset. Addressing these issues of racism and cultural sensitivity will be important because of the disproportionate impact of COVID-19 on people of color and the unknown impact and duration of COVID-19 sequelae amongst those individuals affected who may need follow-up and continuous care.

Moving forward in a post-pandemic era, state health agencies and health care systems should include more strategic alignment and proactive engagement with partners, including interagency and public-private partnerships, and especially non-traditional partners to ensure inclusion of public health priorities, equity and coordination with resident perspectives. Health workforce considerations should include the creation of pipelines to ensure the integration of local talent as well as quality and efficient healthcare delivery through enhanced utilization allied health workers, including Community Health Workers (CHWs). CHWs resonate with communities and can be an important and sustainable strategy in health planning, promotion and community engagement; their roles should be examined for optimization, including clinical support and social need support. Given the shortage of health providers, certain procedures, processes or interventions that traditionally require specific oversight should be re-examined for more flexible supervision options. Location agnostic approaches need to be adapted by agencies and health systems (to the extent

possible) to enable the workforce to function from any location, which also requires data to be available in a secure and in real-time manner, regardless of location. Health care facilities need to think beyond the “brick-and-mortar” and expand administration of services, in particular for Medicaid-eligible populations through telehealth, assisted telehealth or home-based models as the shift brought with it a removal of barriers for patients that typically have difficulty taking time off work or travelling for appointments. Providers have expressed wanting to maintain flexibility to keep patients engaged. Health care systems and providers should optimize team-based care models and consider supporting national models to continue to allow virtual visits to meet the needs of residents who prefer this model, while still ensuring appropriate use of telehealth as it is not always a substitute for some health services. State agencies need to take a high-level view to determine the scale of comprehensive technical assistance and capacity building they can provide to public and private entities. As part of post-pandemic recovery, acknowledgment of individual and collective grief and trauma will be part of the new reality. State agencies and health care systems should consider how the delivery of services can be adapted to reach a broader audience in an easier fashion, for example, implementing walk-in clinics in school-based health centers, for mental health services, similar to mass vaccinations sites. The pandemic has made us collectively reflect at our local and national public health “pain” points, which charges us to take actionable steps to improve our health ecosystem to not only recover, but to thrive.

