A COVID-19 SPECIAL REPORT

COVID-19 & Behavioral Health in the District of Columbia

April 20, 2023

A report by Georgetown University Center for Global Health Science and Security for the Office of the D.C. Auditor

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GEORGETOWN UNIVERSITY | CENTER for GLOBAL HEALTH SCIENCE & SECURITY

REPORT

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This report is a collaborative effort between the Georgetown University Center for Global Health Science and Security and the Office of the District of Columbia Auditor, examining the impact of COVID-19 on mental illness, substance use disorders, and other behavioral health concerns in the District of Columbia. The goal of the effort is to identify the data available to assess and measure impacts to behavioral health services over time and better guide investments to serve and support the District in meeting the needs for these services going forward.

The Center for Global Health Science and Security at the Georgetown University Medical Center was formally established in September 2016 and is directed by Dr. Rebecca Katz. The Center's multi-disciplinary team develops evidence for action, providing decision-makers with the tools needed to prevent, detect, and respond to public health emergencies. The team incorporates expertise in epidemiology, data science, demography, economics, statistics, and law to enrich the evidence-base for informed decision-making and sustainable capacity development.

Dr. Ellie Graeden leads the Center Data Lab, with over a decade of experience translating complex data into actionable information for global decision makers, specifically in the context of risk. By blending scientific, economic, and policy analysis into interactive decision-making tools, the Data Lab empowers leaders to make real time decisions with profound impacts. During the COVID-19 pandemic, Dr. Graeden's team (formerly Talus Analytics) supported the U.S. Centers for Disease Control and Prevention in developing response tools for hospital visibility, and provided the Nevada Governor's Office with real time analytical support and data analysis to aid their response. In addition, the team performed analysis for the Office of the District of Columbia Auditor (ODCA) using data from across the Washington, D.C. metropolitan area to assess the impact that COVID-19 and the resulting mitigation policies had on caseload, including assessing differential impact on vulnerable populations across the District. These reports are available at www.dcauditor.org.

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List of Acronyms

Acronym	Name
ACS	American Community Survey
AHL	D.C. Access HelpLine
AMI	Any mental illness
BRFSS	Behavioral Risk Factor Surveillance System
CBO	Community-based organization
CDC	Centers for Disease Control and Prevention
COVID-AMP	COVID-19 Analysis and Mapping of Policies
CMS	Centers for Medicare and Medicaid Services
CPEP	Comprehensive Psychiatric Emergency Program
CRT	Community response team
CSA	Core service agency
DBH	Department of Behavioral Health
D.C.	District of Columbia
DCHA	D.C. Hospital Association
DC MAP	D.C. Mental Health Access in Pediatrics
DHCF	Department of Health Care Finance
DMHHS	Office of the Deputy Mayor for Health and Human Services
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition
DSM-V	Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
DYRS	Department of Youth Rehabilitation Services
ECIN	Early Childhood Innovation Network
ED	Emergency department
EMS	Emergency medical services
FEMS	D.C. Fire and Emergency Medical Services
FFS	Fee-for-service
HHS	US Department of Health and Human Services
HPS	Household Pulse Survey
HPSA	Health Professional Shortage Area
HRSA	Health Resources and Services Administration
ICD-9-CM	International Classification of Diseases, Ninth Revision, Clinical Modification
ICD-10	International Classification of Diseases, Tenth Revision
ICU	Intensive care unit

Acronym	Name
HRSA	Health Resources and Services Administration
LLDC	LIVE.LONG.DC.
MCO	Managed care organization
MHEASURES	Mental Health and Substance Use Report on Expenditures and Services
MHRS	Mental Health Rehabilitation Services
MPD	D.C. Metropolitan Police Department
NBSB	National Biodefense Science Board
NGO	Non-governmental organization
N-MHSS	National Mental Health Services Survey
NPI	National Provider Identification
NPPES	National Plan and Provider Enumeration System
NSDUH	National Survey on Drug Use and Health
OCA	Office of the City Administrator
OCME	Office of the Chief Medical Examiner
ODCA	Office of the District of Columbia Auditor
OSSE	Office of the State Superintendent of Education
OUC	Office of Unified Communications
PIW	Psychiatric Institute of Washington
SAMHSA	Substance Abuse and Mental Health Services Agency
SBBH	School-Based Behavioral Health program
SED	Serious emotional disturbance
SEH	St. Elizabeths Hospital
SMI	Serious mental illness
SUD	Substance use disorder
URS	Uniform Reporting System
YRBS	Youth Risk Behavior Survey

Executive Summary

As decision-makers have responded to COVID-19, they are confronted with long-lasting consequences for behavioral health in addition to physical health. The psychosocial effects of the pandemic – economic downturn, isolation, uncertainty, loss, and fear of infection – have increased the risk of mental illness and substance abuse and have exacerbated pre-existing behavioral health concerns.[1] While these impacts have been widely reported, the data and metrics describing both the need and demand for behavioral health services before and during the pandemic have been limited and often described anecdotally. Ranging from generalized community stress to hospitalized psychiatric care, from substance use disorders to behavioral health issues in schools, impacts are broad and services provided by a wide range of public and private care providers and community-based organizations. The combination of a lack of comprehensive and integrated reporting with the breadth of patient and provider types has proven a significant challenge for quantifying the need for behavioral health services historically, which has amplified challenges for evaluating increases in need during the pandemic.

Georgetown University Center for Global Health Science and Security has partnered with the Office of the D.C. Auditor (ODCA) to evaluate the data available to quantify the impacts of COVID-19 across the District. This report defines the sources of data, existing metrics of, and relative change in need for behavioral health services across the District both prior to and during the pandemic. The research presented draws from a literature review and discussions with subject-matter experts across the District, including behavioral health care providers, managed care organizations (MCOs), non-profit advocacy organizations, professional associations, and government partners engaged through the ODCA contract audit (see Appendix C: List of Organizations and Appendix D: Discussion Guide). These discussions were focused on the data sources available to measure supply and demand for behavioral health services across the District over time. Additional context provided during those discussions is included in this report where relevant. Key data sources were cataloged in a data inventory (see Appendix A: Data Inventory and Appendix B: Data Dictionary), including relevant metadata. The data inventory was used to assess data availability and reveal gaps in the current information system. We then performed analysis on the data itself, where available, to establish a baseline assessment and quantify changes to demand for behavioral health services over time.

Previous audits by ODCA have highlighted challenges with the District's data standardization, transparency, historical availability, and data sharing across topics as varied as education, substance

[1] Yue, J.L. (2020). Mental health services for infectious disease outbreaks including COVID-19: a rapid systematic review. *Psychological Medicine 50*(15), https://www.cambridge.org/core/journals/psychological-medicine/article/mental-health-services-for-infectious-disease-outbreaks-including-covid19-a-rapid-systematic-review/97AC466C1B5D0400574455CB9F33685A

use, the justice system, and family home visits.[2,3,4] Building on this work, the key findings and recommendations from the current analysis are summarized below.

Key Findings

1. In consultation with stakeholders, we identified more than 50 datasets related to behavioral health care service needs, supply, and demand at the local, regional, and national levels. Data owners and external stakeholders described a lack of integration between datasets, which was confirmed by our analysis.
2. There was a notable increase in mental health diagnoses (15% above baseline) and telehealth-eligible service visits (97% above baseline) reflected in the Medicaid data during the COVID-19 pandemic in D.C. These findings broadly align with the increase in demand described in interviews by the behavioral healthcare provider community.
3. In-person service utilization and emergency department (ED) visits for behavioral health among Medicaid beneficiaries decreased by over 20% during the COVID-19 pandemic, corresponding with a similar decrease in emergency department visits.
4. Daily census of hospital psychiatric patients decreased 25% in the first year of the pandemic, largely reflecting a decrease in bed supply due to COVID-19 quarantine and distancing requirements rather than a decrease in demand.
5. There was more than a 200% increase in crisis/suicide calls to the D.C. Department of Behavioral Health (DBH) Access Helpline in the first year of the pandemic compared to the year prior.
6. Data from the Office of the Chief Medical Examiner (OCME) show that while fatal opioid-related overdoses do not constitute a *new* crisis, they peaked during the pandemic at 45% above the expected baseline.
7. Fire and Emergency Medical Services (FEMS) provider impression data do not mirror increases seen in other data sources (e.g. Medicaid, OCME, Access Helpline) in categories related to crises/suicides or overdoses, likely due to differences in collection methods
8. Adults served for mental health care through DBH increased by approximately 10% during the COVID-19 pandemic; there was no corresponding increase in the number of children served for mental health by DBH.
9. The COVID-19 pandemic exacerbated ongoing concerns about public data availability, particularly for behavioral health. Challenges identified across the data ecosystem include:
    a. **Data coordination** issues, driven by challenges in sharing data between stakeholders, especially between public and private partners, and by data sensitivity and privacy concerns, which resulted in a lack of visibility into system-wide impacts.

[2] ODCA (2017). Status Report on Home Visiting in the District of Columbia, https://dcauditor.org/report/status-report-on-home-visiting-in-the-district-of-columbia/

[3] ODCA (2020). *Everything is Scattered…*The Intersection of Substance Use Disorders and Incarcerations in the District, https://dcauditor.org/report/everything-is-scattered-the-intersection-of-substance-use-disorders-and-incarcerations-in-the-district/

[4] ODCA (2021). Measuring What Matters: More and Better Data Needed to Improve D.C. Public Schools, https://dcauditor.org/report/measuring-what-matters-more-and-better-data-needed-to-improve-d-c-public-schools/

b. **Data integration** issues driven by (a) a lack of standardized data definitions; (b) a lack of clarity regarding which data are collected to meet specific requirements; and (c) disparate data integrity and retention guidelines across stakeholders, impacting the ability to collect and use historical data across partners.
c. **Data access** issues driven by a lack of ready access to the raw data that underpin analysis performed by partners across behavioral health groups in D.C. and amplified by challenges in data sharing particularly between public and private partners. These issues further impact the ability of partners to (a) cross reference individual service users across the system, and (b) identify consistent, integrated sources of data about pre-clinical need and supply of behavioral health services.

Recommendations

1. The D.C. government should continue supporting and expanding telehealth services
2. The D.C. government should continue publishing Medicaid trends, and make the existing Department of Behavioral Health (DBH) dashboards into publicly available and long-term platforms
3. DBH should build on existing public-private working groups to identify and generate shared metrics for behavioral health needs across the District
4. DBH should coordinate with care providers across the District to define data sources and metrics to track needs for behavioral health services, especially among youth
5. The D.C. government should develop reporting with specific data requirements for those providing behavioral health services in the District for both public and private systems, including:
    a. Counts of individuals served, grouped by age and type of service
    b. Capacity of each service provider across each domain
    c. Length of wait time to receive care/services (beyond DBH and Medicaid)
    d. Attrition from waiting lists (e.g., enrolled but never seen)

Introduction

Three years into a global pandemic, there is a widely recognized gap between behavioral health care supply and demand in the United States. A study from the Lancet reported a 33.6% increase in the number of diagnosed cases of major depressive disorder in the United States in 2020 compared to their pre-pandemic baseline, and the Surgeon General declared rising levels of mental illness among adolescents a national emergency.[5, 6] Mental disorders were among the leading causes of health burden nationally even prior to COVID-19. These trends demonstrate a new and dramatic increase.[7] COVID-19 may have amplified this issue, as a number of hospital administrators are reported in a National Pulse Survey to have closed psychiatric units to accommodate surges in COVID-19 patients.[8] Amid increasing demand by both COVID-19 and psychiatric patients, behavioral health facilities across the country faced reduced capacity to meet social distancing requirements, contain COVID-19 outbreaks, or manage staffing shortages.[9] Together, these factors have caused nationwide impacts not seen in 30 years of health care practice.[10, 11]

Natural disasters and large-scale emergency events have historically driven increases in mental illness and substance use disorders (SUD) and placed stress on behavioral health facilities.[12, 13] For instance, during the H1N1 influenza outbreak, the Disaster Mental Health Subcommittee was established under the National Biodefense Science Board (NBSB) to submit recommendations to the federal government for protecting and restoring individual and community mental health during large-scale emergency events. In 2008, the Subcommittee highlighted the need for an overarching and standardized operational framework to coordinate meeting the behavioral health needs of disaster-affected populations, including data collection strategies to support "real-time disaster behavioral health monitoring at a population/systems level to identify emergency unmet needs and to inform a

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[5] Collaborators C-MD. (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet 398*(10312), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02143-7/fulltext

[6] Office of the Surgeon General. (2021). Protecting Youth Mental Health: The U.S. Surgeon General's Advisory. https://www.hhs.gov/sites/default/files/surgeon-general-youth-mental-health-advisory.pdf

[7] The White House. (2022). FACT SHEET: Biden-Harris Administration Announces Two New Actions to Address Youth Mental Health Crisis, https://www.whitehouse.gov/briefing-room/statements-releases/2022/07/29/fact-sheet-biden-harris-administration-announces-two-new-actions-to-address-youth-mental-health-crisis/

[8] Grimm, C.A. (2021). Hospitals Reported That the COVID-19 Pandemic Has Significantly Strained Health Care Delivery: Results of a National Pulse Survey, February 22–26, 2021. *U.S. Department of Health and Human Services Office of Inspector General*, https://oig.hhs.gov/oei/reports/OEI-09-21-00140.pdf

[9] Rapoport, R. (2020). 'Every day is an emergency': The pandemic is worsening psychiatric bed shortages nationwide. *STAT News*, https://www.statnews.com/2020/12/23/mental-health-covid19-psychiatric-beds/

[10] Joseph, A. (2021) As the Covid-19 crisis ebbs in the U.S., experts brace for some to experience psychological fallout. *STAT News*,

[11] Dickinson, E. (2020). "The Coronavirus Crisis in the Psychiatric Ward." *Rolling Stone*, https://www.rollingstone.com/culture/culture-features/psych-units-coronavirus-covid-19-980461/

[12] Makwana, N. (2019). Disaster and its impact on mental health: A narrative review. *Journal of Family Medicine and Primary Care 8*(10), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6857396/pdf/JFMPC-8-3090.pdf

[13] Esterwood, E. & Saeed, S.A. (2020) Past Epidemics, Natural Disasters, COVID19, and Mental Health: Learning from History as we Deal with the Present and Prepare for the Future. *The Psychiatric Quarterly 91*(4), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7429118/

continuum of tactical response and strategic planning."[14] Fifteen years later, there is still an absence of Federal leadership on standardized metrics to analyze the impact emergencies have on behavioral health care system demands, and only limited real-time behavioral health data collection.

At the state level, there is widespread recognition of the need to address behavioral health concerns during crises as evidenced by the expansion of programs and the enactment of emergency behavioral health plans, but leaders rarely have access to the data needed for system-wide preparedness and response.[15] Nationally, there are no standardized best practices guiding which data to collect and when. The decentralized network of behavioral health care services has resulted in data silos.[16] This incomplete and patchwork data landscape restricts visibility into system-wide impacts.[17, 18]

In the District of Columbia (D.C.), there are many programs that have been working to address and prevent behavioral health crises, both prior to and during COVID-19, such as D.C. Access HelpLine (AHL), Healthy Futures and Healthy Steps D.C., the School-Based Behavioral Health (SBBH) program, the Comprehensive Psychiatric Emergency Program (CPEP), and LIVE. LONG. DC. (LLDC). Health care providers and policy makers have recognized that proactive efforts to provide these services to at-risk populations have helped mitigate the behavioral health impacts of the pandemic, but it has not been possible to effectively measure their effect. As has been identified in previous ODCA audits,[19, 20] there is no unified mechanism for collecting and sharing historical behavioral health data across metrics such as facility utilization and service capacity, which limits decision-makers' ability to discuss investments, compare the behavioral health affects of COVID-19 to previous emergency events, diagnose gaps in the system, and prepare for future behavioral health crises accordingly.

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[14] National Biodefense Science Board (2008). Disaster Mental Health Recommendations: Report of the Disaster Mental Health Subcommittee of the National Biodefense Science Board, https://www.phe.gov/Preparedness/legal/boards/nbsb/Documents/nsbs-dmhreport-final.pdf

[15] Rock, D. & Cross, S.P. (2020). Regional Planning for Meaningful Person-Centered Care in Mental Health: Context is the Signal Not the Noise. *Epidemiology and Psychiatric Sciences 29*, https://www.cambridge.org/core/journals/epidemiology-and-psychiatric-sciences/article/regional-planning-for-meaningful-personcentred-care-in-mental-health-context-is-the-signal-not-the-noise/F0BFA3AA8A732ECCCC2F2E212F7BEC87

[16] *Ibid.*

[17] McBain, R.K. et al. (2021). Adult psychiatric bed capacity, need, and shortage estimates in California – 2021. *Rand Corporation,* https://www.rand.org/pubs/research_reports/RRA1824-1-v2.html

[18] Rock, D. & Cross, S.P. (2020). Regional Planning for Meaningful Person-Centered Care in Mental Health: Context is the Signal Not the Noise. *Epidemiology and Psychiatric Sciences 29*, https://www.cambridge.org/core/journals/epidemiology-and-psychiatric-sciences/article/regional-planning-for-meaningful-personcentred-care-in-mental-health-context-is-the-signal-not-the-noise/F0BFA3AA8A732ECCCC2F2E212F7BEC87

[19] ODCA (2017). Status Report on Home Visiting in the District of Columbia, https://dcauditor.org/report/status-report-on-home-visiting-in-the-district-of-columbia/

[20] ODCA (2020). *Everything is Scattered…*The Intersection of Substance Use Disorders and Incarcerations in the District, https://dcauditor.org/report/everything-is-scattered-the-intersection-of-substance-use-disorders-and-incarcerations-in-the-district/

To address this gap, the research effort described here focused on: (1) identifying the data sources and metrics available to measure behavioral health impacts in the District; and (2) quantify the changes in those impacts over the course of the last 20 years with a specific focus on the role of large scale emergency or disaster events in driving these impacts. To that end, our goal was to assess the relative impact of COVID-19 compared to prior events known to have effected behavioral health in the District, such as the September 11 attacks, the D.C. sniper attacks, and H1N1.[21, 22, 23] Using historical data, we aimed to define a baseline for behavioral health across a diverse set of metrics and analyze change against the historical benchmark for each type of event. This would allow us to assess the sensitivity of these metrics for different types of emergency events and identify which metrics could be used as early warning signals for a behavioral health crisis.

Early in the research process, it became evident that access to the wide scope of data needed to assess past behavioral health crises was limited due to changes in data definitions, the way the data were collected, and limitations in making data available for public analysis. Compiling and analyzing 20 years of data would have required a level of data work not possible given the scope of the effort. Given the data available, we shifted our focus to assessing the data landscape rather than relative change across events, which has allowed us to identify and characterize gaps in the data that have made it difficult to quantify behavioral health impacts over time. Comprehensive review of the current data system can help identify successes, further opportunities for cross-stakeholder collaboration, and long-term challenges in addressing persistent behavioral health needs. This knowledge can then be translated into evidence-based budget and planning considerations to help build the behavioral health data systems and services of the future.

This report is divided into the following sections: Introduction, Methods, Results, Discussion, Recommendations and Conclusion. This **Introduction** describes the audit objectives, provides background on the behavioral health data landscape, defines key terms in the space, and summarizes behavioral health demand and supply measurement approaches from the literature. The second section, **Methods**, outlines the data collection efforts, analysis methods, and study limitations. The third section, **Results,** describes the results from data analysis, including key figures. The fourth section, **Discussion,** presents key findings from results in the context of the audit objectives. The fifth section, **Recommendations and Conclusion,** charts a prospective path for future research and practice.

Audit Objectives

The Georgetown University Center for Global Health Science and Security began a contract audit with ODCA in June 2022 (originally contracted through Talus Analytics LLC). The research team

[21] Jordan et al. (2004). Mental health impact of 9/11 Pentagon attack: Validation of a rapid assessment tool. *American Journal of Preventive Medicine 26(*4). https://www.ajpmonline.org/article/S0749-3797(04)00012-1/fulltext

[22] Gershenson, S. & Tekin, E. (2015). The Effect of Community Traumatic Events on Student Achievement: Evidence from the Beltway Sniper Attacks. https://cmepr.gmu.edu/wp-content/uploads/2014/01/Tekin-Sniper-Paper.pdf

[23] National Biodefense Science Board (2008). Disaster Mental Health Recommendations: Report of the Disaster Mental Health Subcommittee of the National Biodefense Science Board, https://www.phe.gov/Preparedness/legal/boards/nbsb/Documents/nsbs-dmhreport-final.pdf

implemented an exploratory, mixed methods approach to identify key data sources using qualitative discussions and perform quantitative analysis of those sources and developed the following objectives for the effort:

1. Understand data collection efforts relevant to behavioral health throughout the District, systematically integrate and classify key sources, and highlight information gaps;

2. Identify patterns of behavioral health service impacts during and after COVID-19 to define metrics within District health agencies and detect early warning signals of a behavioral health crisis; and

3. Generate evidence-based recommendations to help District residents most heavily impacted by the pandemic with regard to mental health and direct resources to communities in need of support.

Background

In the District of Columbia, the Department of Behavioral Health (DBH) administers the public mental health and substance use services, while the Department of Health Care Finance (DHCF), serves as the Medicaid agency. These two departments are central to the behavioral health system. However, there are many other agencies involved in delivering behavioral health care and responding to behavioral health crises, including the Office of the State Superintendent of Education, Fire and Emergency Medical Services, Department of Youth Rehabilitation Services, Department of Health, and Office of Unified Communications. Additionally, there are many non-governmental organizations involved in a broad range of social supports working to address and prevent behavioral health crises, both prior to and during COVID-19.

Behavioral health services administered across D.C. generally fall into three categories: services integrated into the general health system, community-based services, and residential services. Each provider or organization serves a different subset of the population with a specific set of either mental or behavioral health needs. These services are delivered by a diverse network of public and private-sector providers across the District, thus lending themselves to collecting and tracking different types of data. Figure 1 provides a brief description of the roles these providers fulfill by service category.

Behavioral health services in the District

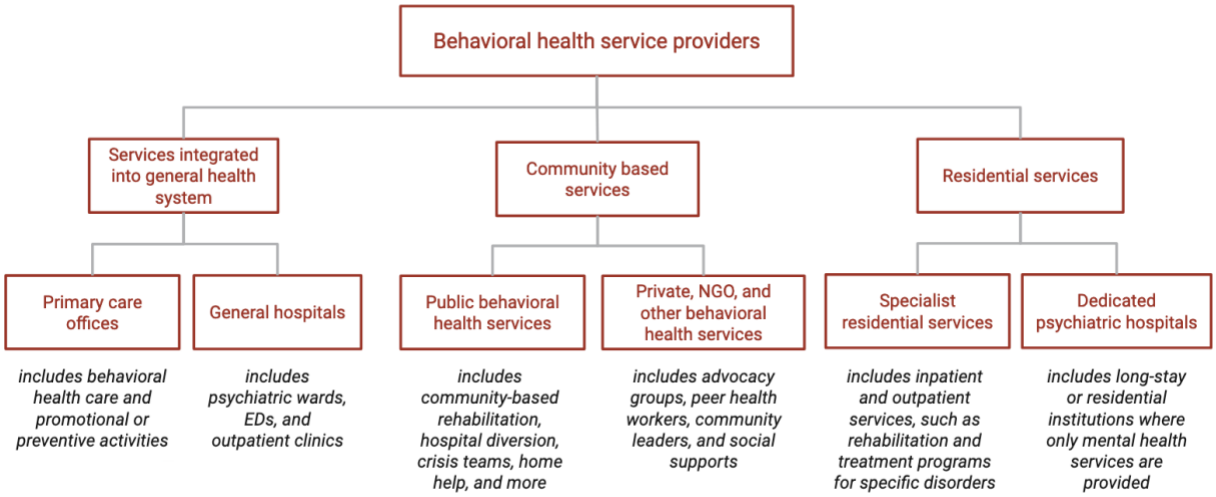

Figure 1. Overview of the behavioral health services available in the District, adapted from the WHO (2003) Organization of Services for Mental Health

In the United States, primary care offices often operate as the point-of-entry or de facto behavioral health service for most patients, and especially those covered by private insurance.[24] Primary care practices frequently screen for common mental illnesses like depression and anxiety, and can provide treatment of mental illnesses within their practice or refer patients to specialists.[25] Within the District, the D.C. Collaborative for Mental Health in Pediatric Primary Care has helped solidify this model of care through its support for initiatives like D.C. Mental Health Access in Pediatrics (DC MAP) that encourage and allow pediatric primary care providers and child behavioral health specialists to coordinate care.[26] Another example of primary care office-based services is the Early Childhood Innovation Network (ECIN), which provides broad support for families focused on preventive efforts and early intervention. ECIN programming includes clinical care and home visits, but more often works to "meet families where they are" and provide access to housing, food, or legal services to mitigate risk factors for childhood behavioral health disorders. These services are critical in promoting greater access to behavioral health services, but the adaptive and on-the-ground nature of the work also makes it difficult to consistently collect and track data.

Similar to the work being done by DC MAP and ECIN in primary care, community-based behavioral health services serve as another source of behavioral health prevention and treatment, especially among individuals who are served by Medicaid or the D.C. Healthcare Alliance, or who

[24] Rogers et al. (2021). Identifying Mental Disorders in Primary Care: Diagnostic Accuracy of the Connected Mind Fast Check (CMFC) Electronic Screen. *Journal of Clinical Psychology in Medical Settings 28*(4), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8491449/

[25] *Ibid.*

[26] Children's National (n.d.) D.C. Collaborative for Health in Pediatric Primary Care, https://childrensnational.org/advocacy-and-outreach/in-the-community/community-partnerships/dc-collaborative-for-mental-health-in-pediatric-primary-care

are uninsured.[27] In D.C., the Department of Behavioral Health (DBH) offers many public behavioral health services, including diagnostic assessment, medication and somatic treatment, counseling and psychotherapy, day/rehabilitation services, and community support.[28] These services are provided through "core services agencies" (CSAs) which are community-based providers of behavioral health services and supports that are certified by DBH.[29, 30]

Public services administered through CSAs are only available to District residents with DBH-defined criteria for severe mental illness for adults, or severe emotional disturbance for children. The DBH criteria for service eligibility include:

> Has diagnosable mental, behavioral, or emotional disorder (including those of biological etiology) which substantially impairs the mental health of the person or is of sufficient duration to meet diagnostic criteria specified within the DSM-IV or its ICD-9-CM equivalent (and subsequent revisions) with the exception of DSM-IV "V" codes, substance abuse disorders, intellectual disability, and other developmental disorders, or seizure disorders, unless those exceptions co-occur with another diagnosable mental illness

The primary point of entry into formal community-based services is the D.C. Access HelpLine (AHL), a 24-hour call service that screens clients to help determine potential DBH service eligibility and connects clients directly to behavioral health providers. Consumers may also enroll in behavioral health services on-site at a CSA or through referral. All individuals seeking services must complete an intake assessment, which is then forwarded to DBH for approval.

Aside from public behavioral health services, there is also extensive work being done by advocacy groups, community leaders, NGOs, and other external stakeholders that is not contractually supported or reimbursed by DBH, Medicaid, or others. These services often complement (but do not replace) public or private behavioral health services, and include broad supports that fall outside of the scope of clinical services, such as housing assistance, employment supports, childcare, legal services, or educational coordination. The Children's Law Center's work integrating legal and behavioral health supports within pediatric care is an example of this type of service. These services may also include the type of work done by the D.C. Behavioral Health Association, a professional

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[27] Department of Health Care Finance (2019). Behavioral Health Transformation Section 1115(a) Medicaid Demonstration, Section 1115 SMI/SED Demonstration Implementation Plan, https://dhcf.dc.gov/sites/default/files/dc/sites/dhcf/page_content/attachments/DHCF%20Demonstration%20STCs%20with%20Evaluation%20Design%20and%20Monitoring%20Protocol%20010621.pdf#page=172

[28] Department of Health Care Finance (2019). Behavioral Health Transformation Section 1115(a) Medicaid Demonstration, Section 1115 SMI/SED Demonstration Implementation Plan, https://dhcf.dc.gov/sites/default/files/dc/sites/dhcf/page_content/attachments/DHCF%20Demonstration%20STCs%20with%20Evaluation%20Design%20and%20Monitoring%20Protocol%20010621.pdf#page=172

[29] Code of the District of Columbia. § 7–1131.02. Definitions, https://code.dccouncil.us/us/dc/council/code/sections/7-1131.02

[30] Department of Behavioral Health. (n.d.). List of Community-based Service Providers, https://dbh.dc.gov/page/list-community-based-service-providers

association which connects member agencies involved in mental health services, addiction services, or both, provides training, and represents members in policy advocacy. Many others, such as the D.C. Action for Children, D.C. Fiscal Policy Institute, D.C. Hospital Association (DCHA), and the Justice Policy Institute, are actively involved in similar efforts.

For individuals requiring more intensive care, the Department of Behavioral Health offers Comprehensive Psychiatric Emergency Program (CPEP) services which provide extended observation crisis beds for individuals experiencing a psychiatric crisis to reduce the likelihood of hospitalization. Individuals may occupy a CPEP crisis bed for up to 72 hours before being released or redirected to a DBH-contracted hospital. In 2018, an ODCA audit reported that seventy percent of people are brought to CPEP involuntarily.[31]

Hospitals such as MedStar Georgetown or George Washington University Hospital also provide inpatient treatment for individuals experiencing acute psychiatric crises or drug overdoses. The person may arrive at an emergency department (ED) by emergency medical service (EMS) ambulance (where a first responder may or may not record an impression of the patient that is mental or behavioral-health related), crisis response team mobilization, or by transporting themselves to the hospital. Depending on the circumstances, the hospital may perform a psychiatric evaluation on-site, offer a telehealth evaluation, refer a patient to another facility, or stabilize and transport them to a psychiatric facility according to local policy and legislation.[32]

In addition to emergency psychiatric services offered at hospitals, there are also public and private specialist facilities providing intensive inpatient and outpatient care for populations with high acuity and very particular needs requiring the attention of staff who are properly trained. These include tertiary specialized services for acute short-term stays such as the Psychiatric Institute of Washington (PIW), residential care for elderly people with challenging mental or behavioral health needs, or forensic psychiatry units. These facilities will generally specialize in care for patients with mental illness or substance use disorders, but typically not both. St. Elizabeths Hospital is a public psychiatric hospital, offering long-term stays for patients with serious and persistent mental health needs. In addition, SEH provides mental health evaluations and cares for patients involuntarily committed by mental health courts.

Defining Behavioral Health

The role of providers and services is largely distinguished by roles in the behavioral health care system and the financing mechanisms of the services. Based on a combination of results from expert interviews and literature review, operational definitions for behavioral health, mental health, and mental illness are included below to provide a foundation for measures, metrics, and indicators of impact in each domain.

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[31] ODCA (2018). Improving Mental Health Services and Outcomes for All: The D.C. Department of Behavioral Health and the Justice System. https://www.courtexcellence.org/uploads/publications/ODCA_Report_Audit_of_DBH_2.pdf

[32] NAMI (2020). Voluntary and Involuntary Commitment to Inpatient Hospitalization, https://namimainlinepa.org/voluntary-and-involuntary-commitment-to-inpatient-hospitalization/

The umbrella term "behavioral health" refers to mental illness, substance use disorder (SUD), and the broader range of behaviors, habits, and psychological presentations that negatively affect a person's overall social, emotional, and psychological well-being and development.[33, 34] These can include clinically diagnosed mental illness as defined in the DSM-V[35], as well as non-clinical manifestations of behavioral health issues such as heightened stress and sense of crisis.[36, 37, 38] Behavioral health issues can affect children or adults.

Within the umbrella of behavioral health, "mental health" refers to a state of emotional, psychological, and social well-being, where an individual can realize their own abilities, cope with the stresses of life, and make productive contributions to work and their community.[39] Importantly, the absence of mental illness is not sufficient to experience good mental health, nor is it necessary to have a mental disorder to suffer from poor mental health. [40, 41] Across disciplines, mental health and behavioral health are often used interchangeably, though "mental health" generally implies the exclusion of substance use or developmental disorders.

The term "mental illness" refers to a subset of behavioral health disorders (excluding developmental or substance use disorders) that have been clinically confirmed to meet diagnostic criteria defined in the DSM-V.[42] The DSM-V lists many different conditions that it recognizes as mental illnesses, including psychotic disorders like schizophrenia, mood/affective disorders such as depressive episode, and anxiety or stress-related disorders. The Substance Abuse and Mental Health Services Administration (SAMHSA) outlines two categories to describe these mental health conditions: any mental illness (AMI) and serious mental illness (SMI). AMI includes all recognized mental illnesses regardless of impairment level, whereas SMI is defined as a mental illness that causes serious

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[33] American Public Health Association (2014). Support for social determinants of behavioral health and pathways for integrated and better public health, https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2015/01/28/14/58/support-for-social-determinants-of-behavioral-health

[34] Code of the District of Columbia. § 7–1131.02. Definitions, https://code.dccouncil.us/us/dc/council/code/sections/7-1131.02

[35] Stein, D.J. et al. (2021). What is a mental disorder? An exemplar-focused approach. *Psychological Medicine 51*(6), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8161428/

[36] Pinals, D.A. et al. (2020). The Behavioral Health System and Its Response to COVID-19: A Snapshot Perspective. *Psychiatry Services 71*(10), https://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.202000264

[37] Hansel, T.C. et al. (2020). Behavioral Health and Response for COVID-19. *Disaster Medicine and Public Health Preparedness 14*(5), https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/behavioral-health-and-response-for-covid19/E0B44CB513D6E3675591A5FC66C4D943

[38] Hodge Jr., J.G. et al. (2010). Mental and Behavioral Health Legal Preparedness in Major Emergencies. *Public Health Reports: Law and the Public's Health 125,* https://journals.sagepub.com/doi/pdf/10.1177/003335491012500519

[39] World Health Organization (2004). Promoting Mental Health: Concepts, Emerging Evidence, Practice, https://apps.who.int/iris/bitstream/handle/10665/42940/9241591595.pdf

[40] Centers for Disease Control and Prevention (2021). Mental health, https://www.cdc.gov/mentalhealth/learn/index.htm

[41] Fusar-Poli et. al. (2020). What is good mental health? A scoping review. *European Neuropsychopharmacology 31*, https://www.sciencedirect.com/science/article/pii/S0924977X19318693

[42] Stein, D.J. et al. (2021). What is a mental disorder? An exemplar-focused approach. *Psychological Medicine 51*(6), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8161428/

functional impairment.[43] There is a third category typically reserved for children, severe emotional disturbance (SED), which is defined in DSM-V and includes a "complex trauma" diagnosis.

While these definitions are widely recognized, there remain variations across governments, organizations, and policies that impact their scope.[44] For instance, some stakeholders work primarily in mental health, whereas others may exclusively handle substance use disorders – both still fall within the realm of behavioral health. Additionally, some entities distinguish between acute (sudden, short-term) episodes of a behavioral health disorder and chronic (long-term, persistent) behavioral health issues.[45] Despite variations, consistency in classification of mental illness and behavioral health disorders is generally sustained. DSM-V classifications broadly align with ICD-10 equivalents. This alignment is analytically significant due to their pervasive use in medical and behavioral health service billing, a key source of data.

Measuring Behavioral Health Demand and Supply

Throughout the literature, demand and supply are repeatedly referenced as the foundational metrics for understanding the relative impacts of large-scale emergency events on behavioral health care services. Whereas demand captures impacts on population needs, supply captures impacts on the capacity of systems. Here, we define each to establish the foundation for how these have previously been used to quantify impacts to behavioral health and behavioral health systems, which guided our data collection and analysis process.

Demand

The development of sustainable capacity in the behavioral health care system requires accurate projections of demand for such services, including at a baseline and during an emergency event. The Federal Health Resources and Services Administration offers one definition of demand for behavioral health care as the number of individuals requesting access to services, regardless of whether their need for care was met.[46] Previous studies using demand as a metric have identified a

[43] National Institute of Mental Health (2022). Mental Illness, https://www.nimh.nih.gov/health/statistics/mental-illness

[44] Goldman, H.H. & Grob, G.N. (2006). Defining 'Mental Illness' in Mental Health Policy. *Health Affairs 25*(3), https://doi.org/10.1377/hlthaff.25.3.737

[45] Sederer, L.I., & Dickey, B. (1995). Acute and chronic psychiatric care: Establishing boundaries. *Psychiatric Quarterly 66*, https://link.springer.com/article/10.1007/BF02265675

[46] Bureau of Health Workforce (2016). National Projections of Supply and Demand for Selected Behavioral Health Practitioners: 2013-2025. *Health Resources and Services Administration (HRSA)*, https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/data-research/behavioral-health-2013-2025.pdf

variety of proxy measurements in order to capture data across diverse services and care settings, including traditional medical care and broader behavioral health services and supports.[47, 48, 49]

Utilization is one way to operationalize a measure of demand, as it provides context for the types of services most requested at a baseline and during different types of emergencies. Data on hospital patient load, crisis team mobilization and response, Medicaid claims, and telehealth visits support comparative analysis of utilization over time, across various demographic groups, and with other regions.[50, 51, 52, 53] For instance, evaluating change in patient volume for intensive care units (ICU), EDs, and psychiatric wards will capture the highest acuity cases which may provide insight about whether pre-existing cases of mental illness and SUD worsened during the crisis. Meanwhile, Medicaid claims data may be used to determine the types of services consumed by those with diagnostic SMI and SUD and capture new diagnoses to show how the incidence of behavioral health conditions changed during the crisis such that there could be long-term impacts on demand.

While these types of data can capture medical diagnoses of mental illness, experts noted that there are often broader impacts related to behavioral health not captured in patient load data.[54] For example, lower numbers of patients do not necessarily indicate lower need for care. The CDC reported that nearly all non-respiratory ED and ICU visits fell during 2020, except for mental health-related visits, which saw a slight increase.[55] This does not mean that prevalence of mental illness stayed the same – quite the opposite. The finding implies that the acuity of mental health conditions

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[47] Aoun, S., Pennebaker, D., & Wood, C. (2004). Assessing Population Need for Mental Health Care: A Review of Approaches and Predictors. *Mental Health Services Research 6*(1), https://link.springer.com/article/10.1023/B:MHSR.0000011255.10887.59

[48] Hermann, R.C. et al. (2000). Quality Measures for Mental Health Care: Results from a National Inventory. *Medical Care Research and Review 57*(2). https://journals.sagepub.com/doi/10.1177/1077558700057002S08?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed.

[49] Jones, E. et al. (2013). County Workforce, Reimbursement, and Organizational Factors Associated with Behavioral Health Capacity in Health Centers. *The Journal of Behavioral Health Services & Research 41*, https://link.springer.com/article/10.1007/s11414-013-9364-9.

[50] Kolbasovsky, A., Reich, L., & Futterman, R. (2006). *The Journal of Behavioral Health Services & Research 34*, https://link.springer.com/article/10.1007/s11414-006-9044-0

[51] Andersen. J.A., et al. (2022). Telehealth Utilization During COVID-19 Among People with Diagnosed Mental Health Conditions. *Telemedicine and e-Health 28*(5), https://www.liebertpub.com/doi/full/10.1089/tmj.2021.0356

[52] Law, J. & Perlman, C. (2018). Exploring Geographic Variation of Mental Health Risk and Service Utilization of Doctors and Hospitals in Toronto: A Shared Component Spatial Modeling Approach. *International Journal of Environmental Research and Public Health 15*(593), https://www.mdpi.com/1660-4601/15/4/593.

[53] Liu, J. et al. (2020). Inclusion of Telemedicine in Behavioral Health Quality Measures. *Psychiatric Services 71*(12), https://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201900449.

[54] Choi, K.R. et al. (2020). A Second Pandemic: Mental Health Spillover from the Novel Coronavirus (COVID-19). *Journal of the American Psychiatric Nurses Association 26*(4), https://journals.sagepub.com/doi/full/10.1177/1078390320919803

[55] Hartnett, K.P., Kite-Powell, A., DeVies, et al. (2020). Impact of COVID-19 Pandemic on Emergency Department Visits – United States, January 1, 2019–May 30, 2020. *CDC MMWR Morbidity and Mortality Weekly Report 69*, https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm

increased, given that proportionally more people felt the need to seek ICU and ED care than in the year prior, even as mobility decreased due to the pandemic.[56, 57]

The true burden of behavioral health demand is likely far greater than utilization alone would suggest due to well-documented barriers surrounding access to care, stigma around behavioral health, and awareness of services.[58, 59, 60, 61] Therefore, assessing proxies for demand beyond in-person healthcare utilization may be warranted. For instance, to include those who wanted but did not receive care in estimates of demand, studies have attempted to capture data on the interactions that occur prior to an individual receiving behavioral health care services.[62] These include helpline call volume, website visits for behavioral health services, and school or primary care referrals.[63, 64, 65] Not only do these types of sources capture demand among individuals without a medical diagnosis, but they (along with telehealth visits) are less susceptible to the chilling effects of COVID-19 on demand for face-to-face services.[66] In this way, evaluating a variety of data sources as proxies for demand allows for disaggregation of the trends driving behavioral health crises.

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[56] Talus Analytics (2021). Analysis of Demographics and Mobility Across D.C. During COVID-19. Office of the District of Columbia Auditor, https://dcauditor.org/report/analysis-of-demographics-and-mobility-across-d-c-during-covid-19/

[57] Adjemian, J. et al. (2021). Update: COVID-19 Pandemic–Associated Changes in Emergency Department Visits — United States, December 2020–January 2021. *CDC MMWR Morbidity and Mortality Weekly Report 70*(15), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8344998/

[58] Leong, F.T.L., & Kalibatseva, Z. (2011). Cross-Cultural Barriers to Mental Health Services in the United States. *Cerebrum 5*, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3574791/

[59] Mojtabai, R. et al. (2010). Barriers to mental health treatment: results from the National Comorbidity Survey Replication. *Psychological Medicine 41*(8), https://www.cambridge.org/core/journals/psychological-medicine/article/abs/barriers-to-mental-health-treatment-results-from-the-national-comorbidity-survey-replication/C97562DF214CE01121A497F6D49E3798

[60] Walker, E.R. et. al. (2015). Insurance Status, Use of Mental Health Services, and Unmet Need for Mental Health Care in the United States. *Psychiatric Services 66*(6), https://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201400248

[61] Esterwood, E. & Saeed, S.A. (2020) Past Epidemics, Natural Disasters, COVID19, and Mental Health: Learning from History as we Deal with the Present and Prepare for the Future. *The Psychiatric Quarterly 91*(4), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7429118/

[62] Lyon et al. (2012). Patterns and Predictors of Mental Healthcare Utilization in Schools and Other Service Sectors Among Adolescents at Risk for Depression. *School Mental Health 5*, https://link.springer.com/article/10.1007/s12310-012-9097-6

[63] Brulhart, M. et al. (2021). Mental health concerns during the COVID-19 pandemic as revealed by helpline calls. *Nature 600*, https://www.nature.com/articles/s41586-021-04099-6

[64] Stijelija, S. & Mishara, B.L. (2020). COVID-19 and Psychological Distress – Changes in Internet Searches for Mental Health Issues in New York During the Pandemic. *JAMA Internal Medicine 180*(12), https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2771502

[65] Lyon et al. (2012). Patterns and Predictors of Mental Healthcare Utilization in Schools and Other Service Sectors Among Adolescents at Risk for Depression. *School Mental Health 5*, https://link.springer.com/article/10.1007/s12310-012-9097-6

[66] Friedman, A.B. et al. (2022). Telemedicine Catches On: Changes in the Utilization of Telemedicine Services During the COVID-19 Pandemic. *The American Journal of Managed Care 28*(1), https://www.ajmc.com/view/telemedicine-catches-on-changes-in-the-utilization-of-telemedicine-services-during-the-covid-19-pandemic

Supply

To effectively meet the demand for behavioral health services, local decision makers need access to data to assess the supply of psychiatric hospital beds, outpatient care services, and providers. These services need to be defined by payer, care level, and care setting to better understand whether the specific needs of the population related to behavioral health are being addressed by the available services.

Currently, there are no standardized metrics available within the field to define supply of behavioral health care services across facilities and methods of care delivery.[67, 68, 69, 70] Experts suggest that triangulation of indicators such as bed occupancy rates, staff vacancies, provider ratios, average length of stay, billed provider hours, wait list or boarding volume, referrals, and transfer requests can support these estimates.[71] Previous work estimating behavioral health system capacity confirms that evaluating numerous data sources is necessary to understand system-wide supply, given the diversity of actors who provide services within the behavioral health system.[72]

Facilities range from general hospitals with psychiatric wards, to community residential facilities, to outpatient clinics at community health centers. In turn, these facilities serve patients with vastly different needs. This diversity makes it a challenge to develop standardized metrics that capture demand for services and the supply of services needed to support that demand. For instance, the metrics used to evaluate hospital capacity – such as effective bed counts – may differ from the metrics best equipped to measure capacity of alternative models of care, such as cumulative appointments per clinician at outpatient facilities or hours billed to telehealth.[73] Furthermore, each type of facility may need numerous metrics to evaluate whether supply meets demand for a single aspect of care. For instance, changes in the number of available psychiatric beds can be used to evaluate whether available supply is within the recommended bed to population ratio, 40 to 60 beds per 100,000 individuals.[74] However, psychiatric bed counts alone do not sufficiently measure whether supply meets demand for inpatient care; these beds must also be appropriately staffed, and beds must be allocated among different types of facilities based on the level and type of care

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[67] Bhaskara, S.M. (1999). Setting Benchmarks and Determining Psychiatric Workloads in Community Mental Health Programs. *Psychiatric Services 50*(5), https://ps.psychiatryonline.org/doi/full/10.1176/ps.50.5.695

[68] Burke, B.T. et al. (2013). A needs-based method for estimating the behavioral health staff needs of community health centers. *BMC Health Services Research 13*, https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-13-245

[69] Andrilla, C.H.A. et al. (2018). Geographic Variation in the Supply of Selected Behavioral Health Providers. *American Journal of Preventive Medicine 54*(6), https://www.sciencedirect.com/science/article/pii/S0749379718300059#bib9

[70] McBain, R.K. et al. (2022). Estimating Psychiatric Bed Shortages in the US. *JAMA Psychiatry 79*(4), https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2789297

[71] *Ibid.*

[72] McBain, R.K. et al. (2022). Adult Psychiatric Bed Capacity, Need, and Shortage Estimates in California – 2021. *Rand Corporation,* https://www.rand.org/pubs/research_reports/RRA1824-1-v2.html

[73] LaGanga, L.R. (2011). Lean service operations: Reflections and new directions for capacity expansion in outpatient clinics. *Journal of Operations Management 29*(5), https://www.sciencedirect.com/science/article/pii/S027269631000104X

[74] McBain, R.K. et al. (2022). Estimating Psychiatric Bed Shortages in the US. *JAMA Psychiatry 79*(4), https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2789297

required by the population.[75] Therefore, utilizing data on workforce availability and staffing requirements alongside data on the types of services in demand across patient demographic groups could prove valuable.[76]

Methods

Data Source Identification: Stakeholder Discussions

To supplement the literature review and identify key datasets for behavioral health services in the District, the research team identified expert stakeholders through initial discussion with ODCA and the Office of the Deputy Mayor for Health and Human Services (DMHHS). Initial discussant lists were augmented by recommendation, which resulted in 22 conversations with individuals or groups representing 18 public agencies, non-profit organizations, foundations, and financing systems engaged with all aspects of behavioral health service provision (see Appendix C: List of Organizations).

Semi-structured discussions (see Appendix D: Discussion Guide) were conducted from July through September 2022 and ranged from 40 to 60 minutes. Stakeholders were asked about key terms, data sources, and metrics used in their work, and the challenges they face with regard to data availability, data quality, and data analysis. Stakeholders were asked to characterize the data environment and to provide information regarding trends in behavioral health data capture, utilization, retention, and integration. Because of the conversational nature of the discussions, questions across interviews varied based on the participants' background(s), prior context, and previous responses. To ensure the confidentiality of interview participants, discussions were not recorded. A notetaker captured key points, and where discussants provided additional information and context, those are provided in the Discussion section rather than as Results given that the interviews were not part of a formal interview process.

Data Source Inventory

Informed by a comprehensive literature review and stakeholder discussions, more than 100 publicly available datasets were identified and reviewed, including national surveys from the Centers for Disease Control and Prevention (CDC) and other federal agencies; reports and data repositories from non-governmental stakeholders with expertise operating in behavioral health; and public data files, audits, reports, budgets, and hearings from D.C. government websites. All datasets were retrieved by or shared with us as de-identified or aggregate files suitable for public access.

As identified in the literature, defined across datasets, and validated by stakeholder discussions, the key metrics for behavioral health in youth and adult populations are (a) demand for services and (b) supply of services available. In this audit, our goal was to identify and source data on each to define

[75] Burke, B.T. et al. (2013). A needs-based method for estimating the behavioral health staff needs of community health centers. *BMC Health Services Research 13*, https://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-13-245

[76] Bhaskara, S.M. (1999). Setting Benchmarks and Determining Psychiatric Workloads in Community Mental Health Programs. *Psychiatric Services 50*(5), https://ps.psychiatryonline.org/doi/full/10.1176/ps.50.5.695

the gap between supply and demand for behavioral health care services. Sources included in the inventory were classified by the category of data in each (See Appendix A: Data Inventory and Appendix B: Data Dictionary). The categories are as follows:

- **Behavioral health patient data (demand)** include estimates of need and demand for behavioral health services, such as facility counts of patients seeking behavioral health care, helpline call volume, and emergency medical service (EMS) incident response or community response team (CRT) mobilization.

- **Behavioral health services data (supply)** include measures of behavioral health facility capacity and workforce availability. These data include bed availability, staffing requirements, provider census and hours, referral networks, and diagnostic capacity. Facilities are defined broadly to include any service that supplies behavioral health care, such as community-based organizations (CBOs), mental health clinics, telehealth providers, hospitals, and psychiatric care facilities.

- **Population and demographic data (contextual)** provide key information about who resides within the District. These data not only include basic counts, but information on demographic characteristics such as age, race and ethnicity, gender identity and sexual orientation, income level, education level, insurance status, and more.

- **Geographic data (spatial)** establishes District boundaries (city, wards, health planning neighborhoods), as well as behavioral health facility and school locations to allow for detailed analysis on behavioral health needs in context with demographics and event data.

Data sources identified were reviewed and included in the inventory if they met the following criteria:

- Data elements support analysis of key behavioral health care service metrics, as described above
- Subject-matter experts and/or research team members use the data source themselves or recommend for use
- Timeframe of data available intersects with the study period, 2000–2022
- Geographic coverage of the dataset includes the District of Columbia
- Data are natively available at a state level geographic resolution or finer (i.e., census-tract level)
- Data are accessible online or can be requested and shared electronically
- Once analyzed, the results from the data analysis can be shared publicly

The data inventory lists key data sources. A corresponding data dictionary describes the data source, data elements from each source, and how the data can be used to support analysis. In total, 29 metadata are captured per data source, including:

- **Data source name:** The name of the data asset

- **Description:** A summary of the contents of the resource and key data elements
- **Data category:** The category the data belongs to with respect to analysis (demand, supply, population and demographic data, geographic data, event data)
- **Data elements:** The exact columns contained within the data source pertinent to analysis
- **Target populations:** If any, the group of individuals represented in the data source
- **Race/ethnicity categories:** The exact race and/or ethnicity categories included in the data
- **Age breaks:** The exact age group buckets included in the data
- **Geographic coverage and resolution:** The geographic area(s) and units natively available in the data source
- **Temporal coverage and resolution:** The time frame(s) and units covered by the data source
- **Update frequency:** Whether the data are updated on a recurring basis, and the frequency with which they are regularly updated
- **Data lag**: The delay between publication of the data and the timeframe it describes
- **Access information:** Web links to the data, and if any, the limitations associated with viewing or utilizing the data

See Appendix B: Data Dictionary for the full list of metadata and descriptions.

Data Analysis

For each dataset or source identified in the data inventory, we aligned the data available with the categories of information and metrics defined during interviews and through literature review to assess changes in behavioral health need and services in D.C. prior to and during the COVID-19 pandemic, including, where possible, comparisons to national datasets.

We established a historical baseline for each dataset using a rolling 6-month average, which establishes an unweighted mean value of the past 6 months that is continuously updated. By defining the baseline in this way, we were able to determine what has historically been "expected" and identify anomalous patterns that indicate changes in demand for behavioral health care services.

The analysis was limited to the time period from January 1, 2017 to June 30, 2022, based on the datasets available to the research team. We defined the start of the pandemic as March 7, 2020, the date when the first confirmed case of COVID-19 was reported in the District.[77]

In cases where the general population was used as the denominator, we did not adjust for population size because the population of the District of Columbia experienced less than 5% growth from 2017 to 2022. However, when the Medicaid population was used as the denominator, we did normalize by population size because Medicaid enrollment increased by 16% during the study period. Thus, any changes to demand for behavioral health care services would not be expected to

[77] D.C. Department of Health (2020). "DC Department of Health Confirms First Coronavirus Case." *D.C. Coronavirus.gov,* https://coronavirus.dc.gov/release/dc-department-health-confirms-first-coronavirus-case

be driven by change in population, but rather, reflective of actual change in behavioral health care service demand.

Where possible, we provided breakdowns for children (ages 0-17) and adults (ages 18+) either in the main text or in Appendix E: Supplemental Figures. Only Medicaid and DBH data sources consistently included age breakdowns.

Limitations

This study had several limitations. First, the inventory of data sources was designed to be inclusive, limited largely by what was already publicly available or suitable for public sharing. Data sources reflect what is available currently, in use, in real time - rather than other criteria (e.g., what is best fit for this research, most comprehensive, or best suited to meet original research design aims). Respondents' feedback suggests that the content of these datasets may include overlaps, different definitions for the same terms, and a lack of temporal continuity. We have raised these issues throughout the text as needed.

Second, stakeholder discussions were conducted informally and designed to elicit identification of data sources, data availability, and context for the sources identified. These discussions did not include a comprehensive list of experts or stakeholders but were instead intended to capture a broad and generally representative overview of the data sources generated and used by the D.C. behavioral health service community. While the analysis may have left some data sources unidentified, discussions reached saturation in identifying new sources and began to surface repeated descriptions of the state of behavioral health in the region.

Third, given the time and resource constraints of the study, we were unable to collect or analyze all available data from stakeholders. For instance, some stakeholders have maintained data over a longer timeframe than was analyzed for this study. However, changes in technology and data storage platforms, diagnostic codes definitions, and District ward boundaries mean that there is significant query and matching effort required to provide data older than five years. That level of analysis and data effort were out of scope for this project, though more exhaustive analysis may be possible in future work.

Finally, much of the data that was readily available and suitable for analysis was sourced from the DHCF Medicaid Management Information System (MMIS). Thus, the findings from these data are focused on only a subset of the D.C. population, which could limit the ability to generalize to the broader D.C. population. Additionally, due to lags in Medicaid claims submission and payment, counts may differ slightly between sources as data continues to be processed for recent periods. We have only included months for which there was reasonably complete data.

Results

A core hypothesis of this project, based on widespread reporting and anecdotal evidence[78, 79, 80, 81] was that COVID-19 has both driven an unprecedented level of behavioral health impacts across the U.S. and in Washington, D.C., and amplified challenges in a field that was already described as underfunded and not sufficiently robust to support demand. As drawn from discussions with the diverse group of subject-matter experts engaged for this study, there was a consistent sense that the behavioral health crisis currently being reported was not new, but rather an acceleration of what had been a steady and significant increase in demand over the past five years; these statements aligned with the reports in the literature and public media.[82, 83, 84, 85] The general consensus is that COVID-19 worsened conditions: nearly a quarter of discussants mentioned that the public experienced heightened emotional distress and community trauma due to the pandemic, which has disproportionately affected black and brown communities, women, and LGBTQ+ persons.

To address this hypothesis, we examined behavioral health impacts across Washington, D.C., and found that there was, indeed, an increase in demand for behavioral health services across the District when comparing demand for care pre-pandemic to during the pandemic. Newly expanded access to telehealth during the pandemic corresponded with a significant increase in behavioral health care utilization, as measured through Medicaid billing data. These results and additional findings related to COVID-19 are described in detail below.

During the period 2018 through 2022, a number of key events, policy changes, and program innovations changed the supply and demand environment for behavioral health service delivery in the District that cannot be disaggregated for cause and effect.

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[78] Rapoport, R. (2020). 'Every day is an emergency': The pandemic is worsening psychiatric bed shortages nationwide. *STAT News*, https://www.statnews.com/2020/12/23/mental-health-covid19-psychiatric-beds/

[79] Richtel, M. (2022). "'It's Life or Death': The Mental Health Crisis Among U.S. Teens", *New York Times*, https://www.nytimes.com/2022/04/23/health/mental-health-crisis-teens.html

[80] Gotlib, I. et al (2022). Effects of the COVID-19 Pandemic on Mental Health and Brain Maturation in Adolescents: Implications for Analyzing Longitudinal Data. *Biological Psychiatry Global Open Science*, https://www.bpsgos.org/article/S2667-1743%2822%2900142-2/fulltext#secsectitle0075

[81] Dickinson, E. (2020). "The Coronavirus Crisis in the Psychiatric Ward." *Rolling Stone*, https://www.rollingstone.com/culture/culture-features/psych-units-coronavirus-covid-19-980461/

[82] Collaborators C-MD. (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet 398*(10312), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02143-7/fulltext

[83] Rapoport, R. (2020). 'Every day is an emergency': The pandemic is worsening psychiatric bed shortages nationwide. *STAT News*, https://www.statnews.com/2020/12/23/mental-health-covid19-psychiatric-beds/

[84] Dickinson, E. (2020). "The Coronavirus Crisis in the Psychiatric Ward." *Rolling Stone*, https://www.rollingstone.com/culture/culture-features/psych-units-coronavirus-covid-19-980461/

[85] Yue, J.L. (2020). Mental health services for infectious disease outbreaks including COVID-19: a rapid systematic review. *Psychological Medicine 50*(15), https://www.cambridge.org/core/journals/psychological-medicine/article/mental-health-services-for-infectious-disease-outbreaks-including-covid19-a-rapid-systematic-review/97AC466C1B5D0400574455CB9F33685A

Highlights include:

2018: The District kicked off the Live. Long. DC opioid response initiative.
2020: January: Section 1115 Behavioral Health Transformation Demonstration goes into effect. [86]
2020: March: Onset of the COVID-19 Pandemic.
2020: March: Telehealth expanded to include audio-only services for Medicaid beneficiaries in D.C.
2020: Expansion of the Access Helpline to include counseling for COVID-19.

Notably missing from the results that follow is an answer to the original research question: how do the behavioral health service impacts of COVID-19 compare to prior emergency events over the past 20 years? Through discussions with stakeholders and a review of the data sources made available to us over the course of the research period, it became evident that there were few sources with more than five years of comparable temporal coverage, let alone two decades, due to the rapidly changing technological and policy environment governing data collection, storage, standardization, and maintenance. Most experts cited national survey data as the best source for historical analysis of behavioral health needs; some stakeholders in D.C. additionally had data available beyond the five year period cited above. However, even in cases where the data are available from prior to 2017, accessing those data would have required significant time and resource investment for data owners to query it from older data systems or align new data definitions with old. While many stakeholders were able to retrieve and clean that data, the limited time frame for the analysis reduced the amount of data available. Additionally, the research team was unable to access data from private hospitals. These data would be a critical addition for future analyses to contextualize the epidemiology of severe behavioral health conditions among the general population over time but were not within the scope of this effort. Therefore, the analysis focuses instead on a comparison of impacts prior to and during the COVID-19 pandemic.

Mental health and substance use disorder diagnoses have substantially increased during the COVID-19 pandemic.

To understand the prevalence of clinical behavioral health needs among individuals enrolled in Medicaid in the District and using the data available, we assessed the number of beneficiaries with a mental health (MH) or substance use disorder (SUD) diagnosis at any point in the month assessed. Diagnoses were identified based on final, paid claims data from the Department of Health Care Finance (DHCF) Medicaid Management Information System with codes in the following Healthcare Effectiveness Data and Information Set (HEDIS) value sets: Mental Health Diagnosis, Alcohol Abuse and Dependence, Opioid Abuse and Dependence, Other Drug Abuse and Dependence. Each data point represents an individual, regardless of the number of diagnoses they may have. By

[86] Policy expanded Medicaid reimbursement for transition planning services upon discharge for individuals with SMI/SED and/or SUD; expanded Medicaid reimbursement for Crisis Stabilization Services, including to the Crisis Psychiatric Emergency Program (CPEP) and youth and adult mobile crisis support services; established Psychiatric Crisis Stabilization as an alternative to inpatient hospitalization; and expanded Medicaid reimbursement for SUD-related Recovery Support Services, supported employment, and Psychosocial Rehabilitative Clubhouse Services.

examining this data, we aim to understand how the prevalence of clinical behavioral health needs has changed during the crisis and evaluate the potential long-term impacts on demand.

As of June 2022, approximately 12% of the 300,000 people enrolled in D.C. Medicaid had a mental health or substance use disorder diagnosis. After adjusting for Medicaid enrollment growth, we found that diagnoses increased by 15% between January 2017 and June 2022 (see Figure 2), normalized to the relevant Medicaid population in the District. Medicaid enrollment increased by 16% from 2017-2022 (see Appendix E: Figures 18 and 19). Results were not normalized by the size of the general population due to limited growth over the same period (less than 5% total increase 2017-2022; see Appendix E: Figure 20).

Adjusted total Medicaid beneficiaries with a behavioral health diagnosis

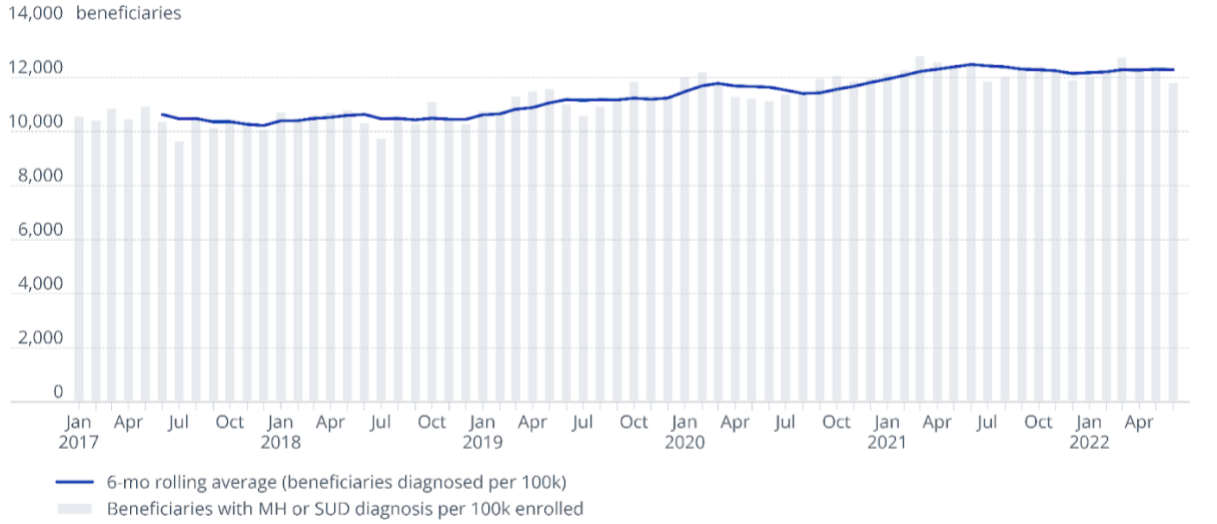

Figure 2. Deduplicated count of Medicaid beneficiaries with a mental health or substance use disorder diagnosis within a month, normalized per 100,000 people enrolled in Medicaid.[87]

To better understand what was driving the increase in diagnoses, we separated mental health diagnoses from SUD diagnoses and found that from January 2020 to June 2022, there was a 15% increase in mental health diagnoses among the Medicaid population, affecting approximately 10% of the total Medicaid population (see Figure 3). Both adults and children had relatively similar rates of mental health diagnoses, at 10% and 8% respectively (see Appendix E: Figures 21 and 22). By contrast, SUD diagnoses decreased by almost 20% during this same time period and impacted less than 2% of the Medicaid population (see Figure 3). Fewer than 1% of substance use disorders were reported in children (data not shown).

[87] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

Adjusted total Medicaid beneficiaries with a behavioral health diagnosis by type

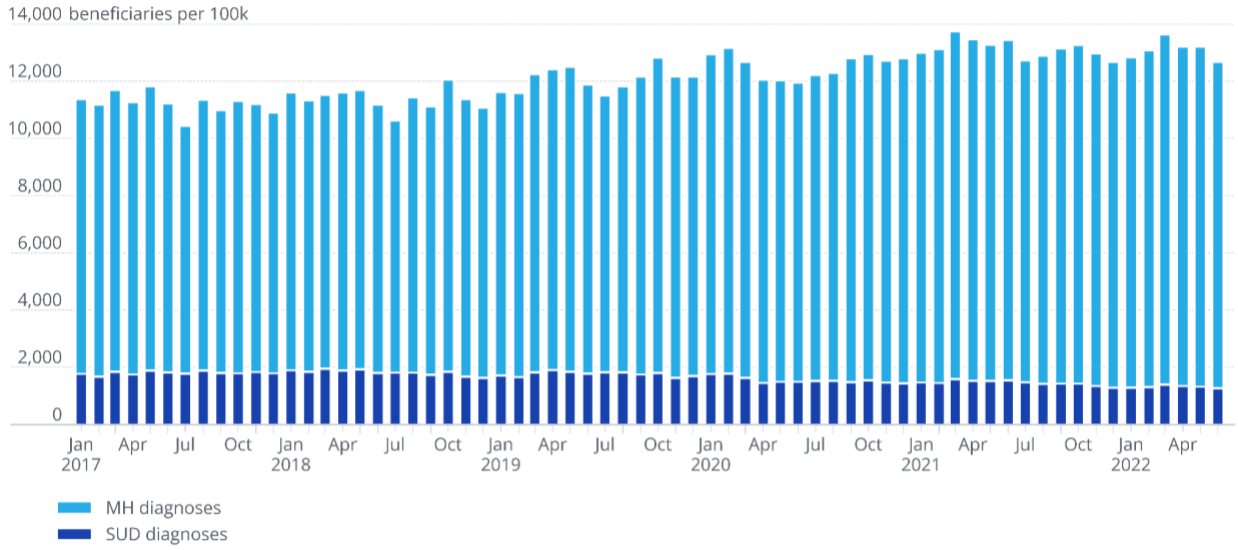

Figure 3. Medicaid beneficiaries with a mental health or substance use disorder diagnosis within a month, normalized per 100,000 people enrolled in Medicaid. Mental health (MH) and substance use disorder (SUD) diagnoses are identified based on codes in the following HEDIS value sets: Mental Health Diagnosis, Alcohol Abuse and Dependence, Opioid Abuse and Dependence, Other Drug Abuse and Dependence.[88]

Although the increase in diagnoses trended as hypothesized, the Medicaid data are limited in that they only capture the individuals who entered and navigated the behavioral health system and received a diagnosis. Behavioral health care providers often see patients for preventive care or provide support and referrals before a formal diagnosis is made, which are patient encounters not captured in the above data. Discussants described a behavioral health system of care in the District in which many of the individuals served by primary care and preventive programs do not meet the full criteria for a mental health diagnosis as per the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), but are at high-risk of developing behavioral health conditions in the future. While providers can capture and bill non-diagnostic conditions with V-Codes in the DSM-V or Z-Codes in the International Classification of Diseases, Tenth Revision (ICD-10), they are unlikely to be reimbursed by Medicaid because the codes are not currently financed in the District.[89] Accordingly, demand for behavioral health care services in primary care settings is less likely to be represented in Medicaid data.

[88] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022

[89] Children's Law Center (2021). A Path Forward: Transforming the Public Behavioral Health System for Children, Youth, and their Families in the District, https://static1.squarespace.com/static/59a73d596f4ca3affa5d50af/t/61e82c6a1d3aa711ccd8e92f/1642605678432/BHSystemTransformation_Final_121321.pdf

Demand for behavioral health services nearly doubled among Medicaid beneficiaries starting in March 2020, corresponding with the increase in diagnoses.

To assess demand for behavioral health services, we evaluated the number of Medicaid beneficiaries receiving at least one behavioral health service. We counted each individual only once, regardless of the number of services they received, and included the following categories of behavioral health services in our analysis: mental health rehabilitation services (MHRS), freestanding mental health clinic services, behavioral health stabilization (crisis) services, federally qualified health center (FQHC) behavioral health services, other licensed practitioner (OLP) behavioral health services, and adult substance abuse rehabilitation services (ASARS) and recovery support services (RSS). Emergency department visits, inpatient stays, and pharmacy claims were excluded from this segment of our analysis.

We found that there was a notable increase in aggregate demand for behavioral health services starting in March 2020. From January 2017 to June 2022, the number of beneficiaries using these selected behavioral health services increased by 97% (as shown in Figure 4). While there was a slight increase in demand for these services in January 2020 corresponding with the Behavioral Health Transformation Demonstration, the largest increase in service use was observed in March 2020, with a 33% increase in the number of beneficiaries receiving services compared to the previous month. The level of demand continued to climb beyond March 2020 and remain high, with the peak occurring in March 2022. The rolling 6-month average baseline for June 2022 is 96% higher than it was in June 2017 and appears to have stabilized with around 14% of Medicaid beneficiaries receiving these services each month.

Adjusted total Medicaid beneficiaries receiving behavioral health services

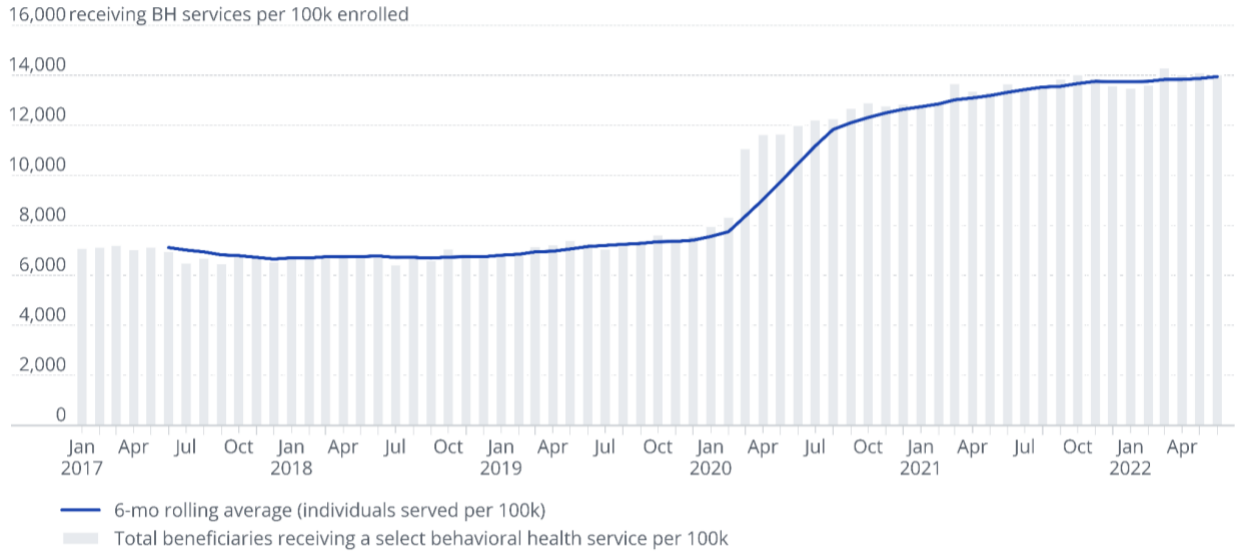

Figure 4. Deduplicated count of Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim for mental health rehabilitation services (MHRS), freestanding mental health clinic services, or behavioral health stabilization (crisis) services; federally qualified health center (FQHC) behavioral health services; other licensed practitioner (OLP) behavioral health services; or adult substance abuse rehabilitation services (ASARS) and recovery support services (RSS).[90]

The increased demand for behavioral health services corresponds with an increase in telehealth service availability (see Figure 5). By April 2020, approximately 50% of all beneficiaries receiving telehealth-eligible behavioral health services were receiving these services via telehealth, compared to only 0.01% prior to March 2020. This shift to telehealth services corresponded with a 22% decrease in demand for in-person services, which is lower than overall estimated national decreases in in-person healthcare utilization due to the pandemic.[91, 92] Since then, the overall distribution of service delivery has remained stable at around 50% as of June 2022, even as in-person services have returned to full capacity. This trend is consistent among both adults and children (see Appendix E: Figures 23 and 24).

There are some differences in the utilization of telehealth and in-person services among the different categories of behavioral health services (see Appendix E: Figures 25-28). For example, substance abuse and rehabilitation (ASARS and RSS) services experienced the smallest decline in in-person services, dropping to 15% below baseline in June 2022. Even when demand for in-person services was stable, there remained a notable demand for telehealth: approximately 30% of beneficiaries

[90] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

[91] Moynihan, R. et al. (2021). Impact of COVID-19 pandemic on utilisation of healthcare services: a systematic review. *BMJ Open Health Services Research 11*(3), https://bmjopen.bmj.com/content/11/3/e045343

[92] Koonin, L.M. et al. (2020). Trends in the Use of Telehealth During the Emergence of the COVID-19 Pandemic – United States, January-March 2020. *CDC Morbidity and Mortality Weekly Report (MMWR) 69*(43), https://www.cdc.gov/mmwr/volumes/69/wr/mm6943a3.htm

receiving ASARS and RSS services from April 2020 to June 2020 received care via telehealth (see Appendix E: Figure 25). Federally qualified health centers (FQHCs) had the highest proportion of beneficiaries receiving care via telehealth, with nearly 85% of beneficiaries receiving behavioral health care from FQHCs from April 2020 to September 2020 receiving care via telehealth (see Appendix E: Figure 26). FQHCs were also the only type of service that was consistently billing for telehealth behavioral health services prior to March 2020. However, as of June 2022, FQHCs have largely recovered their in-person service, and telehealth made up only 20% of all FQHC behavioral health services.

Adjusted total Medicaid beneficiaries receiving behavioral health services by delivery method

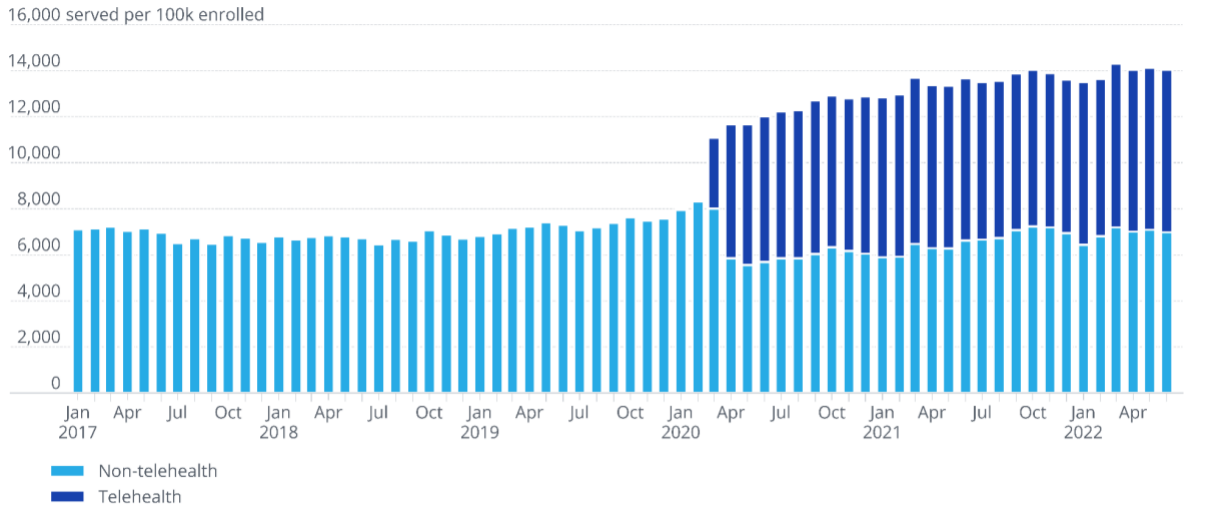

Figure 5. Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim (with or without telehealth procedure modifiers GT / 95) for mental health rehabilitation services (MHRS), freestanding mental health clinic services, or behavioral health stabilization (crisis) services; federally qualified health center (FQHC) behavioral health services; other licensed practitioner (OLP) behavioral health services; or adult substance abuse rehabilitation services (ASARS) and recovery support services (RSS).[93]

Emergency department visits for behavioral health substantially decreased beginning in April 2020, corresponding with the COVID-19 pandemic.

According to national data from the CDC, there was a significant decrease in non-respiratory emergency department (ED) visits during 2020, with the exception of mental health-related visits which saw a slight increase.[94] To determine if this trend was present in D.C., we used monthly Medicaid data and quarterly data provided by the D.C. Hospital Association (DCHA) to assess both public and private demand for ED services related to behavioral health. The Medicaid data was

[93] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022

[94] Hartnett, K.P., Kite-Powell, A., DeVies, et al. (2020). Impact of COVID-19 Pandemic on Emergency Department Visits – United States, January 1, 2019–May 30, 2020. *CDC MMWR Morbidity and Mortality Weekly Report 69*, https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm

specific to beneficiaries visiting the ED, while the DCHA data included all individuals, including both Medicaid beneficiaries and the general population. The proportion of private-pay patients was unavailable from the hospital-reported data used in the DCHA Monthly Utilization Report. Both datasets recorded the number of individuals with at least one paid claim for an ED outpatient visit with a primary diagnosis of mental health or SUD. If an individual visited the ED multiple times in a month, they were only counted once in the data. Additionally, both datasets excluded ED visits that resulted in an inpatient stay. While both data sources are similar in terms of their measurement, the difference in temporal resolution (i.e., monthly versus quarterly) does not allow for a direct comparison of the impact on the Medicaid population versus the total population.

In April 2020, ED visits for mental health and SUD saw the steepest declines, falling 21% below the expected baseline among the Medicaid population and 10% below the expected baseline among the general population. As shown in Figures 6 and 7, ED visits for mental health and SUD did not recover after the pandemic among the Medicaid population, but did for the general population due to a 46% increase in ED visits for MH and SUD in January 2021 which persisted through the year. Most ED visits among Medicaid beneficiaries were driven by adults (see Appendix E: Figures 30 and 31).

Between January 2017 and January 2022, the number of outpatient ED visits for mental health and substance use disorders among the Medicaid population decreased by 44% overall, with a slightly larger decrease in mental health (47%) than SUD (41%) (see Figure 6). Among the general population, ED visits for SUD fell 24%, but visits for MH increased 20% during this time period (see Figure 7). These findings suggest that while the proportion of mental health and SUD emergency department visits shifted among the general population, the overall demand for behavioral health care in the emergency department does not appear to have substantially changed due to COVID-19.

Adjusted total Medicaid beneficiaries visiting the ED for behavioral health reasons, by diagnosis

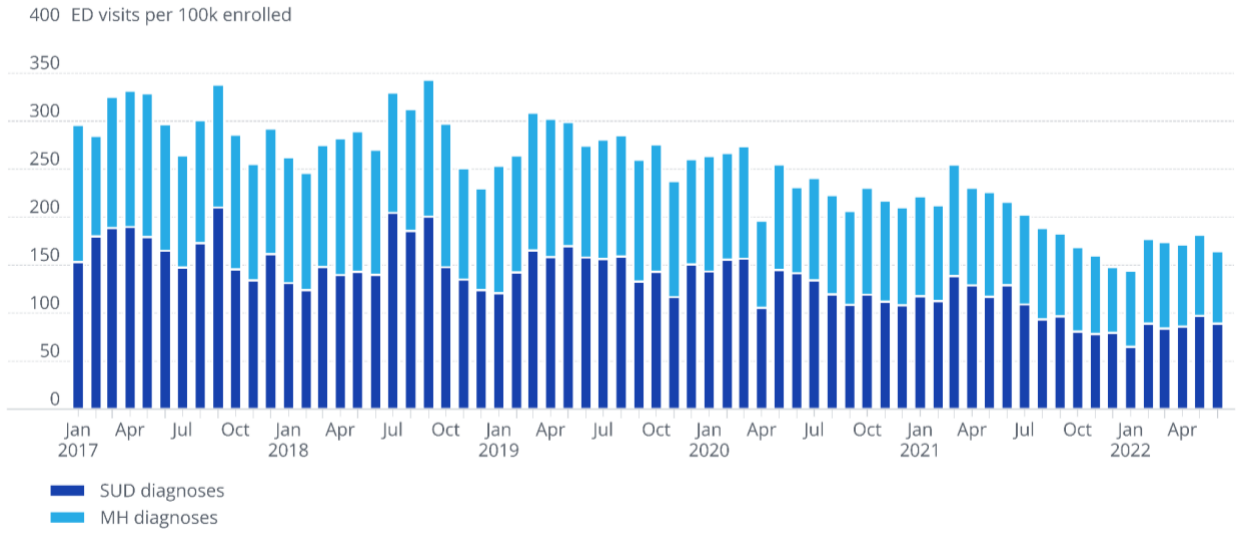

Figure 6. Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim for an emergency department outpatient visit with MH or SUD as the primary diagnosis, excluding ED visits leading to an inpatient stay.[95]

Total individuals visiting the ED for behavioral health reasons, by diagnosis

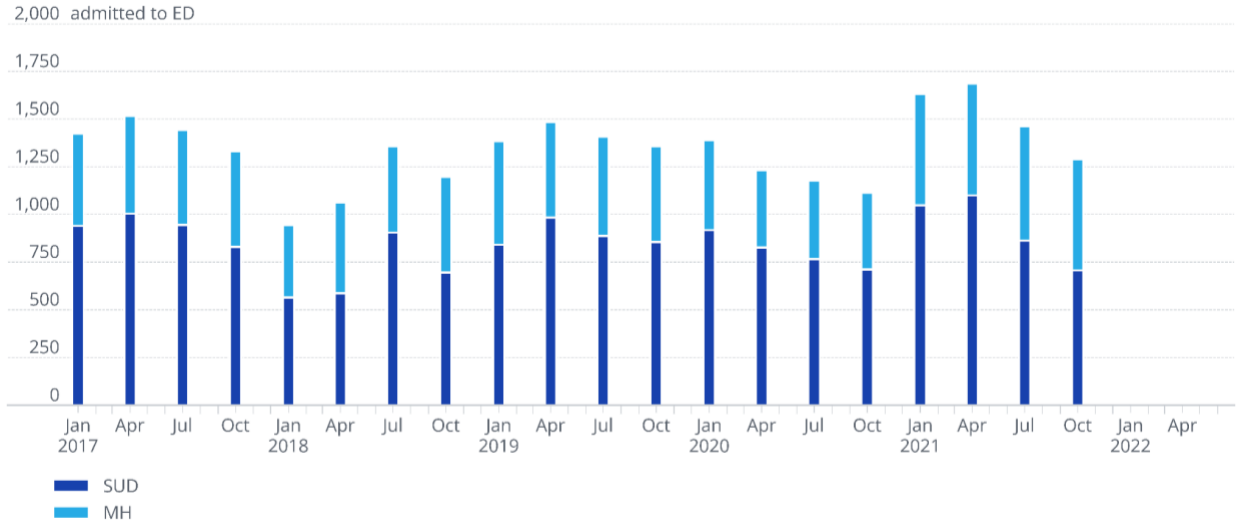

Figure 7. Total number of individuals visiting the emergency department with MH or SUD as the primary diagnosis across all D.C. Hospital Association Member facilities, excluding ED visits leading to an inpatient stay.[96]

[95] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

[96] Source: D.C. Hospital Association Monthly Utilization data extracted 11/7/2022

Admissions to the Comprehensive Psychiatric Emergency Program peaked in March 2020 and then appeared to decrease but require additional context surrounding capacity.

As described in the introduction, the Comprehensive Psychiatric Emergency Program (CPEP) provides 72-hour extended observation beds for individuals in psychiatric crises as an alternative to immediate hospitalization.[97] Therefore, it was suggested that CPEP admissions data may be complementary to emergency department admission data to provide an indication of demand for behavioral health crisis care.

Though there was a peak in CPEP admissions in March 2020 (approximately 10% above the expected baseline) which then appeared to decrease as shown in Figure 8, this finding is complicated by the impact of CPEP diversions. When CPEP is on diversion, no new admissions are accepted which makes it appear as though there is less demand, when in reality, there may be unmet demand due to capacity limitations. For instance, CPEP admissions were 8% below the baseline in November 2020, which one might assume was because there were fewer individuals with a need for crisis care given consistent declines in admissions from April 2020 and onward. Analyzing the diversion data in tandem, however, shows that CPEP recorded the most diversion hours spent "at capacity" in November 2020 (see Appendix E: Figure 31). Indeed, CPEP was on capacity-related diversion for at least one hour every month from September 2020 – October 2021 (see Appendix E: Figure 31). Diversion may at least partially explain the observed declines in new admissions from March 2020 onward. Therefore, without counts of eligible individuals who were unable to be admitted to CPEP due to diversion, it is not possible to assess demand for emergency crisis care from CPEP data.

[97] This program is not exclusive to Medicaid. See page 14 for additional detail about CPEP.

Total individuals admitted to the Comprehensive Psychiatric Emergency Program (CPEP)

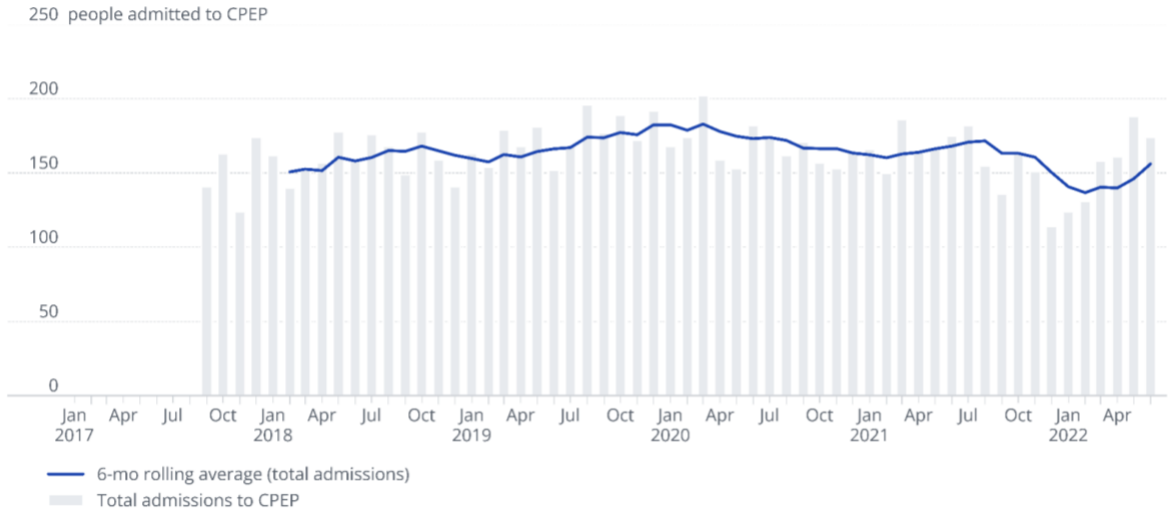

Figure 8. Total number of consumers admitted to the comprehensive psychiatric emergency program (CPEP).[98] Admissions are when consumers are deemed medically necessary for extended observation (up to 72 hours) to treat and stabilize a psychiatric condition.

Average daily census for inpatient psychiatric care across D.C. decreased during the pandemic corresponding with a presumed reduction in bed availability.

Psychiatric inpatient admissions are reserved for patients in severe crisis. Prior to the pandemic, the average daily census of psychiatric patients aggregated across all D.C. Hospital Association Member facilities was consistently around 500 inpatient psychiatric patients (see Figure 9). As shown in Figure 9, daily psychiatric census fell 18% below the baseline in April 2020. As of June 2022, the baseline average daily census has not recovered to pre-pandemic capacity; it remains around 400 average daily psychiatric patients (80% of pre-pandemic levels). This decrease likely corresponds with a decrease in available bed supply (see Appendix E: Figure 32); however, the full extent of the decrease in bed supply is unknown due to a lack of standardized reporting and rapidly changing conditions during the pandemic. The most recent annual report from DCHA – the only publicly available reporting on hospital utilization and impact – shows occupancy rates averaging between 60 and 80% among all facilities from 2016 through 2021, using daily census and operational bed space.[99, 100] These publicly reported occupancy rates do not reflect that during COVID-19, up to 30% of the total operational beds across the District were not in use due to policy restrictions implementing social distancing, isolation, and quarantine requirements in hospitals.[101] For example,

[98] Source: CPEP Initial Assessment, iCAMS data extracted 11/3/2022

[99] D.C. Hospital Association (2021). Utilization Indicators: Calendar Year 2021, https://dcha.org/data-publications/

[100] Commission on Healthcare Systems Transformation (2019). *Government of the District of Columbia, Executive Office of Mayor Muriel Bowser,* https://dmhhs.dc.gov/sites/default/files/dc/sites/dmhhs/page_content/attachments/COMMISSION%20ON%20HEALTHCARE%20SYSTEMS%20TRANSFORMATION_Final%20Minutes_07.30.2019.pdf

[101] Department of Behavioral Health (2020). Guidance to Operators of Community-based Residences and Facilities to

the 2021 DCHA Utilization Indicators Report documents that St. Elizabeth's Hospital (SEH) has 291 licensed, operational psychiatric beds.[102] However, interviewees reported that the hospital regularly had approximately 90 beds offline during the pandemic – a 30% reduction in effective bed space – for a total of just 201 usable beds. The hospital has a daily census of around 200 patients per day;[103] using the constant denominator (291 beds), these data would indicate 70% occupancy, whereas the real-time denominator (e.g., from a bed board) instead may suggest that SEH is frequently at or above 100% capacity, in apparent conflict with the publicly available quantitative reporting.

Average daily census of psychiatric inpatients at D.C. Hospital Association member facilities

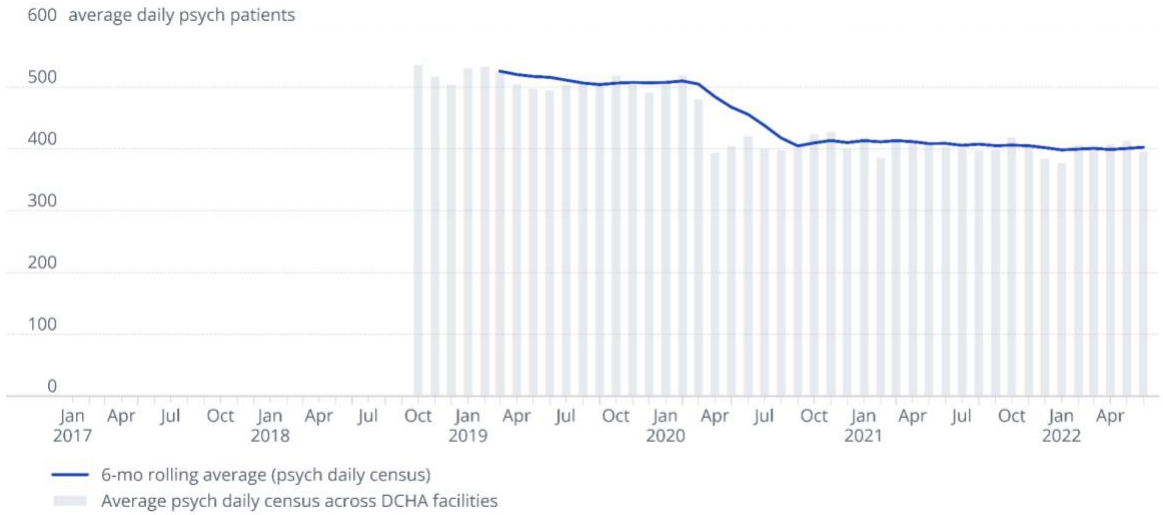

Figure 9. Average daily census of hospital psychiatric patients per month aggregated across all D.C. Hospital Association Member facilities, including Children's National Hospital, George Washington University Hospital, Howard University Hospital, MedStar Georgetown University Hospital, MedStar Washington Hospital Center, Psychiatric Institute of Washington, D.C., Saint Elizabeths Hospital, Sibley Memorial Hospital, and United Medical Center.[104]

Suicide and crisis calls to the Access Helpline substantially increased at the start of the pandemic.

The Access Helpline (AHL) is a 24-hour call service administered by the DBH call center which can refer a caller to immediate psychiatric care, assist with problem-solving, connect clients directly with ongoing services, or screen clients to determine potential DBH service eligibility. Nationwide studies have shown that Helpline calls are a valuable source of real-time information on population distress

Comply with Mayor's Order 2020-063. *Bulletin ID: 125*, (https://dbh.dc.gov/sites/default/files/dc/sites/dmh/publication/attachments/COVID-19%20Guidance%20to%20Operators%20of%20Community-based%20Residences_0.pdf

[102] D.C. Hospital Association (2021). Utilization Indicators: Calendar Year 2021, https://dcha.org/data-publications/

[103] DBH (2021). FY21 MHEASURES Annual Report, https://dbh.dc.gov/sites/default/files/dc/sites/dmh/page_content/attachments/FY21%20MHEASURES%203-9-22.pdf

[104] Source: D.C. Hospital Association Monthly Utilization data extracted 11/7/2022

to complement clinical data (e.g., emergency department visits) during crisis situations.[105, 106] In 2020, DBH expanded the Access Helpline to offer phone- or video-based consultation and counseling to support individuals with grief or stress related to COVID-19. Anyone can call the Access Helpline, regardless of whether or not they have a diagnosis, their insurance status, or the acuity of their situation.

In the first year of the pandemic, the D.C. Access Helpline experienced a 202% increase in calls categorized as "Crisis/suicide calls" compared to the previous year (see Figure 10). The number of calls to AHL peaked in December 2020 at 565 calls, 114% above baseline. Since December 2020, the total number of calls to AHL declined about 4%, to a baseline of 320 calls per month as of June 2022. This compares to a baseline of about 76 calls per month pre-pandemic.

Total crisis/suicide calls to the D.C. Access Helpline

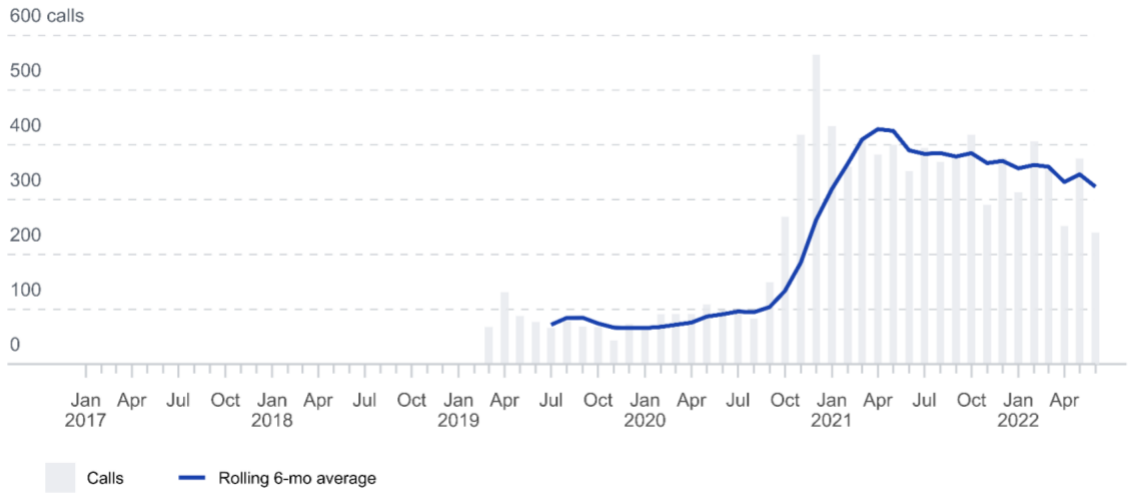

Figure 10. Total monthly calls to the D.C. Access Helpline categorized as "Crisis/suicide calls" by a DBH call-taker[107]

In addition to the Access Helpline, DBH also operates a Community Response Team (CRT) for individuals experiencing psychiatric emergencies, trauma, or showing signs of mental health and substance use disorders. While the Access Helpline dispatches CRT when someone may be at imminent risk or in need of emergency intervention, the CRT can be reached by the general public. Any service request to the CRT, whether it originated from an Access Helpline dispatcher or member of the public, is shown in the DBH CRT Referral form data (see Figure 11). Though CRT data were available only starting in mid-2019, there was a 20% increase in the 6-month rolling average baseline from March 2020 through March 2021 (see Figure 11).

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[105] Brulhart, M. et al. (2021). Mental health concerns during the COVID-19 pandemic as revealed by helpline calls. *Nature 600*, https://www.nature.com/articles/s41586-021-04099-6

[106] Liu, C.H. & Tsai, A.C. (2021). Helpline data used to monitor population distress in a pandemic. *Nature*, https://www.nature.com/articles/d41586-021-03038-9

[107] Source: DBH COVID-19 Executive Dashboard, AHL Suicide Log, data extracted 10/19/2022.

Total service requests to the DBH Community Response Team (CRT)

Figure 11. Total DBH Community Response Team service requests.[108] There is no data prior to September 2019 because the CRT program was created from the previously-separate Homeless Outreach, Mobile Crisis, and Pre-Arrest Diversion program.

Fatal opioid-related overdoses do not constitute a new crisis, but peaked during the pandemic.

National reporting suggests that substance use and overdoses increased during the pandemic, with the Overdose Detection Mapping Application (ODMAP) reporting an 11% increase in fatal overdoses from March through May 2020 compared with the same period in 2019 with a particularly notable rise in deaths involving opioids nationally.[109, 110, 111] While state-level data is not yet available through 2022 from ODMAP or other nationwide surveys, the D.C. Office of the Chief Medical Examiner has released epidemiology and surveillance reports on opioid-related fatal overdoses from January 2017 through August 2022 which allow for analysis of trends in overdoses before and during the pandemic.[112] These data should be interpreted with caution; they do not include non-fatal overdoses and there is significant year-to-year variance in the number of overdoses reported. Assessment over a longer period of time is required to fully assess the trend and establish more accurate baselines.

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[108] Source: DBH CRT Referral form data extract provided on 12/9/2022

[109] Alter, A. & Yeager, C. (2020). The Consequences of COVID-19 on the Overdose Epidemic: Overdoses are Increasing. *ODMAP*. https://odmap.org:4443/Content/docs/news/2020/ODMAP-Report-May-2020.pdf

[110] Holland, K.M. et al. (2021). Trends in US Emergency Department Visits for Mental Health, Overdose, and Violence Outcomes Before and During the COVID-19 Pandemic. *JAMA Psychiatry 78*(4), https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2775991

[111] Alter, A. & Yeager, C. (2020). The Consequences of COVID-19 on the Overdose Epidemic: Overdoses are Increasing. *ODMAP*. https://odmap.org:4443/Content/docs/news/2020/ODMAP-Report-May-2020.pdf

[112] Government of the District of Columbia Office of the Chief Medical Examiner (2022). Opioid-related Fatal Overdoses: January 1, 2017 to August 31, 2022. https://ocme.dc.gov/sites/default/files/dc/sites/ocme/agency_content/Opioid%20related%20Overdoses%20Deaths%2011.21.22%20FINAL.pdf

Data from the report indicate that opioid-related fatal overdoses increased steadily between January 2019 and January 2020, averaging more than 30% of the baseline each month (see Figure 12). Although 2019 saw an increase in fatal opioid-related overdoses, there were 42% more opioid overdose fatalities in 2020. Fatal opioid-related overdoses peaked in April 2020 at 48 fatalities in a month, 78% higher than the previous month and 45% above the expected baseline. Since then, overdoses have fluctuated around what appears to be a "new" baseline compared to before the pandemic.

Total opioid-related fatal drug overdoses

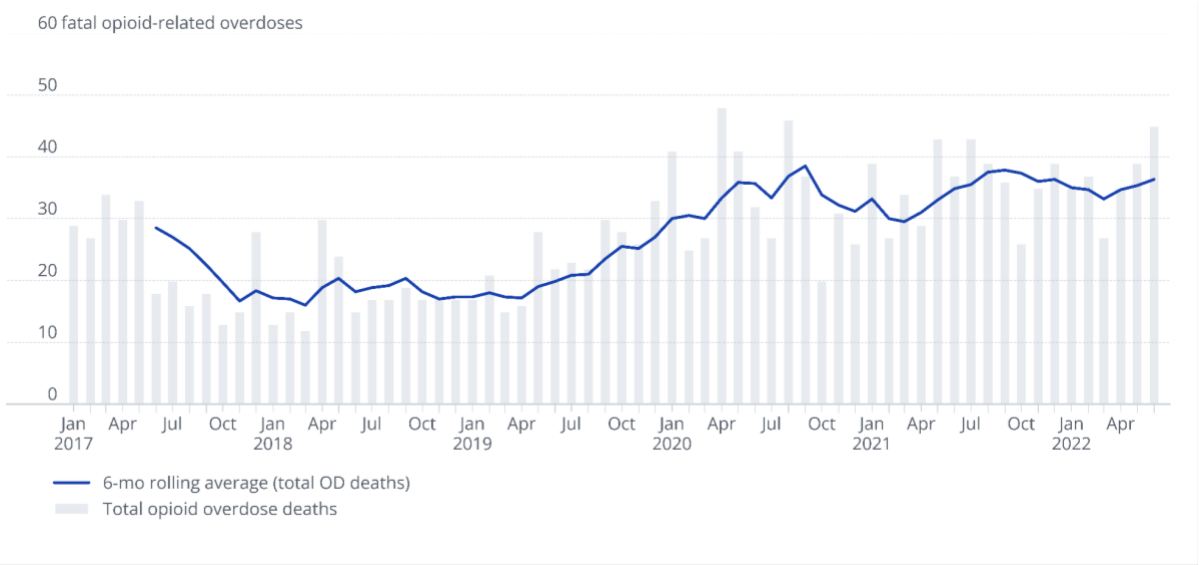

Figure 12. Monthly count of opioid-related overdose deaths in D.C., including fatalities observed at the Office of the Chief Medical Examiner with the presence of opioids.[113] Opioids include heroin, fentanyl, fentanyl analogs, morphine, prescription opioids, and the general category of opiates.

FEMS response data do not mirror increases in psychiatric or overdose emergencies.

In the U.S., an estimated 10% of all EMS calls are related to a behavioral health crisis, making it one of the most common types of encounters for EMS providers.[114] Previous research has indicated that EMS call volume data may be a useful proxy for public health surveillance because of its ability to capture needs from a preclinical setting (e.g., need is documented absent a formal diagnosis or interaction with the healthcare system).[115, 116] While FEMS data are not routinely integrated into

[113] Source: OCME Epidemiology and Surveillance Reports, Opioid-related Fatal Overdoses: January 1, 2017, to August 31, 2022.

[114] Rivard, M.K. et al.(2021). Public Health Surveillance of Behavioral Health Emergencies through Emergency Medical Services Data. *Prehospital Emergency Care 26*(6), https://doi.org/10.1080/10903127.2021.1973626

[115] *Ibid.*

[116] Mostashari, F., et al. (2003) Use of Ambulance Dispatch Data as an Early Warning System for Communitywide Influenzalike Illness, New York City. *Journal of Urban Health 80*(2), https://link.springer.com/article/10.1007/PL00022314

health information systems in D.C.,[117] it was suggested that these data could be complementary to DBH Access Helpline, OCME, and Medicaid data to capture the needs of at-risk populations.[118]

Fire and emergency medical service (FEMS) data appear to diverge from the Medicaid, OCME, and DBH data for mental health crises and substance use disorder-related crises. The number of FEMS responses to calls with the type "Psychiatric Problem/Abnormal Behavior/Suicide Attempt" remained stable throughout the pandemic as shown in Figure 13[119], in contrast to the significant increases shown in suicide-related calls to the Access Helpline and overall demand for behavioral health services among Medicaid beneficiaries. As shown in Figure 14, the number of FEMS responses to calls with EMS impressions related to opioid disorders slightly increased during the pandemic, though not at the scale shown by the OCME data described earlier.[120] These discrepancies may be due to a difference in population coverage (e.g., not exclusively low-income individuals), but also due to the way the FEMS data are coded. The call types coded by FEMS are broad because they are meant to reflect the information given over dispatch and the primary impressions of the EMS responder rather than specific diagnoses or clinical observations. Additionally, FEMS data do not account for the outcomes of patients during or after transport. Given these discrepancies, FEMS data are not comparable with validated data from health information systems and are not likely to be sufficiently specific to detect early warning signals of population-level behavioral health crises.

[117] Millar, M. & Rieke, A. (2021). Re-Routing Behavioral Health Crisis Calls From Law Enforcement To The Health System. *D.C. Health Matters Collaborative,* https://www.dchealthmatters.org/content/sites/washingtondc/Re-Routing_Crisis_Response_white_paper_May_2021.pdf

[118] Rivard, M.K. et al.(2021). Public Health Surveillance of Behavioral Health Emergencies through Emergency Medical Services Data. *Prehospital Emergency Care 26*(6), https://doi.org/10.1080/10903127.2021.1973626.

[119] Only March 2021, September 2021, and May 2022 rise more than 10% above the expected baseline for FEMS calls coded as "Psychiatric Problem/Abnormal Behavior/Suicide Attempt."

[120] The baseline number of FEMS responses to opioid-related disorders has increased about 10% between January 2019 and December 2021 (see Figure 14), compared to a 111% baseline increase over the same time period recorded in OCME data.

Total Fire and Emergency Medical Service (FEMS) responses to psychiatric problems and suicide attempts

Figure 13. Total count of EMS calls where the incident was coded as a psychiatric problem, abnormal behavior, or suicide attempt.[121] Each data point represents a single call to FEMS, regardless of whether the individual was evaluated, treated, transported, or determined to be dead on the scene.

Total Fire and Emergency Medical Service (FEMS) responses to opioid-related disorders

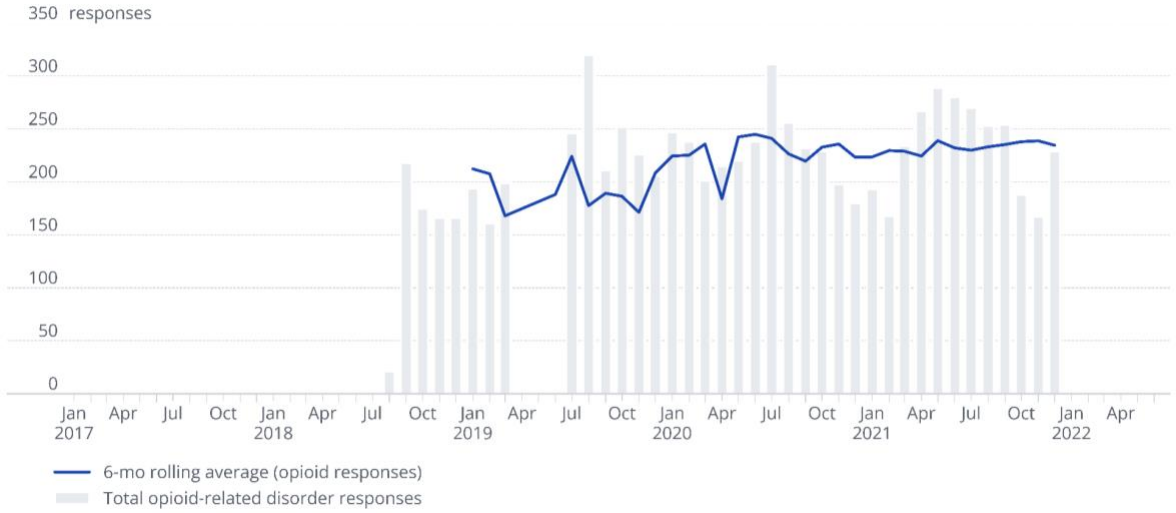

Figure 14. Total EMS calls where the provider impression of the patient was noted as an opioid-related disorder. Each EMS call is dispatched as an incident and captured in the data system regardless of patient outcome.

The number of adults served by DBH has steadily increased across all programs, but these increases are not reflected in youth data.

DBH offers an array of services in addition to the Access Helpline, CPEP, and Community Response Team, which include diagnostic assessment, medication and somatic treatment, counseling

[121] Source: D.C. FEMS ePCR System data extracted 10/16/2022

and psychotherapy, day/rehabilitation services, and community support.[122] These services are delivered through over 50 core service agencies (CSAs) which are community-based providers of behavioral health services and supports that are certified by DBH.[123, 124] CSAs operate under specific clinical policies and procedures for certification which influence the capacity of the services that they operate, without distinction between telehealth and in-person services.[125] The majority of these services are only available to District residents meeting DBH-defined criteria for severe mental illness for adults, or severe emotional disturbance for children.[126]

We analyzed monthly data from the DBH Utilization Dashboard for the number of children (0-17) and adults (18+) who received at least one mental health service, or individuals who received at least one substance use service excluding medication-assisted treatment.[127]Across all DBH programs, there was a steady increase observed in the total number of adults served with mental health care by the agency (see Figure 15). Since January 2020, the number of adults served by DBH has consistently been about 10% above the expected baseline, excluding October-December 2020 and 2021, where there appears to have been a sudden drop-off and recovery in adults served. By contrast, treatment for SUD, also provided by DBH, has decreased since March 2020 (see Appendix E: Figure 33).

[122] Department of Health Care Finance (2019). Behavioral Health Transformation Section 1115(a) Medicaid Demonstration, Section 1115 SMI/SED Demonstration Implementation Plan, https://dhcf.dc.gov/sites/default/files/dc/sites/dhcf/page_content/attachments/DHCF%20Demonstration%20STCs%20with%20Evaluation%20Design%20and%20Monitoring%20Protocol%20010621.pdf#page=172

[123] Code of the District of Columbia. § 7–1131.02. Definitions, https://code.dccouncil.us/us/dc/council/code/sections/7-1131.02

[124] Department of Behavioral Health. (n.d.). List of Community-based Service Providers, https://dbh.dc.gov/page/list-community-based-service-providers

[125] District of Columbia, § 22-A3410. MHRS PROVIDER QUALIFICATIONS--GENERAL, http://dcrules.elaws.us/dcmr/22-a3410

[126] The DBH criteria for service eligibility includes:

- Has diagnosable mental, behavioral, or emotional disorder (including those of biological etiology) which substantially impairs the mental health of the person or is of sufficient duration to meet diagnostic criteria specified within the DSM-IV or its ICD-9-CM equivalent (and subsequent revisions) with the exception of DSM-IV "V" codes, substance abuse disorders, intellectual disability, and other developmental disorders, or seizure disorders, unless those exceptions co-occur with another diagnosable mental illness; and
- Is not a substance abuse or developmental disorder unless co-occurring; and
- Are 18 years of age or over and are not consumers of special education, youth, or child welfare services; or
- Are 22 years of age or over.

[127] These data can also be found reported in the Mental Health and Substance Use Report on Expenditures and Services (MHEASURES) published by DBH, https://dbh.dc.gov/node/610092

Total adults receiving mental health services within the DBH system

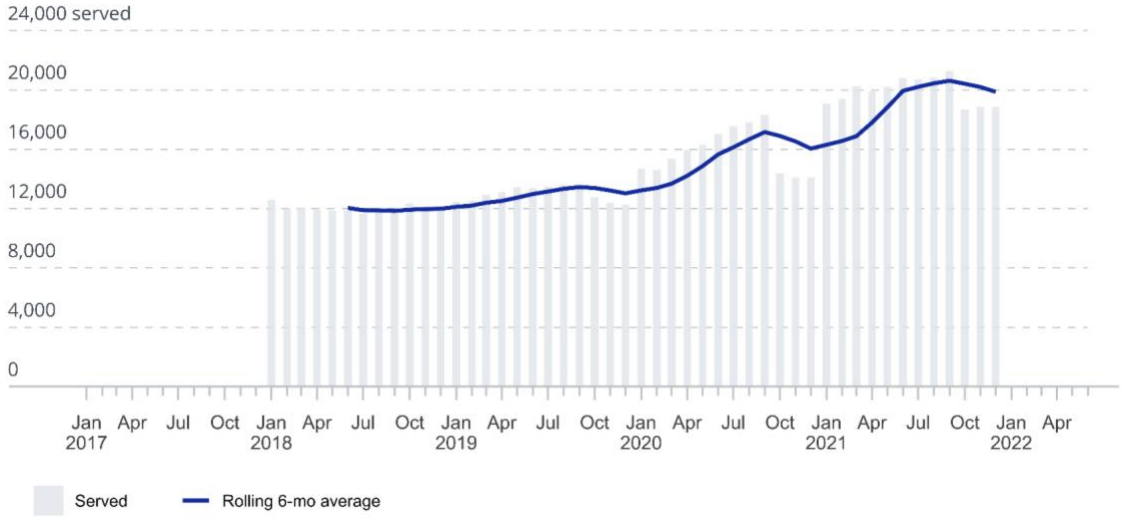

Figure 15. Deduplicated monthly count of adults (18+) with at least one paid claim for a mental health service within the DBH system.[128]

DBH also provides a range of treatment and support services for children and youth with a diagnosis of severe emotional disturbance (SED) or substance use disorders (SUD).[129] However, DBH does not collect claims data for services provided by managed care plans and/or grants, which cover most youth enrolled in D.C. Medicaid. Furthermore, youth treatment billing for SUD services has historically been done outside of paid claims. While the DBH data are likely an underestimate of SUD and mental health care utilization for children, they were the only data available specific to youth behavioral health care services. The increase in services provided to adults was not reflected in the number of children served by DBH for mental health services (see Figure 16). The total number of children served has remained consistent with around 2,300 children served at maximum each year. Seasonal fluctuations appear to cause an average 15% drop below baseline in children served, occurring around July of each year. This fluctuation was more drastic in the years prior to the pandemic (up to 20% below baseline) compared to during the pandemic (up to 7% below baseline).

[128] Source: DBH Utilization Dashboard data extracted 10/12/2022

[129] DBH (2020). July 2020 MHEASURES Report, https://dbh.dc.gov/sites/default/files/dc/sites/dmh/publication/attachments/MHEASURES%20Report%20July%202020.pdf

Total children receiving mental health services within the DBH system

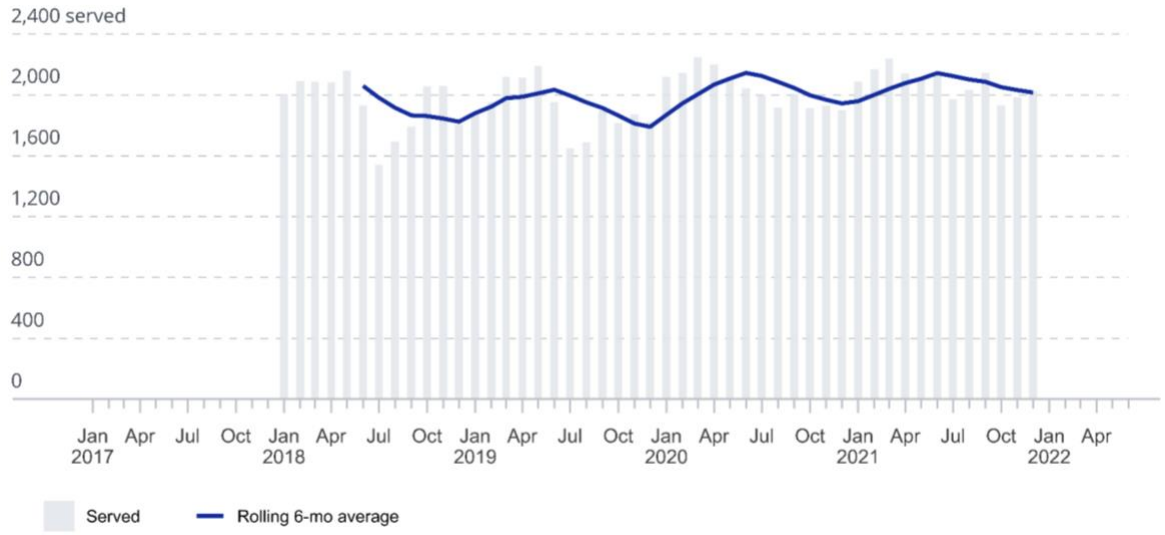

Figure 16. Deduplicated monthly count of children (under 18) with at least one paid claim for a mental health service within the DBH system.[130]

The Household Pulse Survey consistently shows unmet need for care among District residents.

In April 2020, the U.S. Census Bureau launched the Household Pulse Survey to rapidly collect data on the socioeconomic impacts of the pandemic on families nationwide.[131] The Household Pulse Survey addressed a number of issues related to mental health and healthcare access during the pandemic, including unmet behavioral health service need as measured by Question 38(c): "At any time in the last 4 weeks, did you need counseling or therapy from a mental health professional, but DID NOT GET IT for any reason?" This question is valuable in order to assess the gap in perceived need for behavioral health care and one's ability to access that care, whether due to long waiting lists, staffing shortages, reduced capacity of in-person service providers, or inability to access telehealth.[132, 133] The prevalence of unmet need for behavioral health services may be used to help develop future behavioral health capacity and shortage estimates, as well as to inform the level of investment needed to meet the behavioral health needs of the population.

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[130] Source: DBH Utilization Dashboard data extracted 10/12/2022

[131] The Household Pulse Survey was distributed as a 20-minute, nationwide online survey using a systematic sample of all available housing units, adjusted to select a large enough sample to create state level estimates including D.C. Because of its experimental nature, the survey has shifted over time to include new questions and improve past questions, meaning not all indicators are available for all weeks. For more detail, see: U.S. Census Bureau (2022). Household Pulse Survey Technical Documentation, https://www.census.gov/programs-surveys/household-pulse-survey/technical-documentation.html

[132] Coley, R.L. & Baum, C.F. (2021). Trends in mental health symptoms, service use, and unmet need for services among US adults through the first 8 months of the COVID-19 pandemic. *Translational Behavioral Medicine 12*(2), https://academic.oup.com/tbm/article/12/2/273/6400280

[133] World Health Organization (2020). The impact of COVID-19 on mental, neurological, and substance use services. https://www.who.int/publications/i/item/978924012455

Although there is no pre-pandemic baseline available, about 10% of D.C. respondents consistently report that they did not receive needed mental health services (see Figure 17). By comparison, about 7% of respondents nationally report needing but not receiving mental health care services.[134] There were no other publicly available sources identified to evaluate the gap between the capacity and supply of services to meet total need, although provider intake, referral, or waitlist attrition data, if made available, may support such analysis.[135]

Total D.C. respondents to the Household Pulse Survey with an unmet need for mental health care

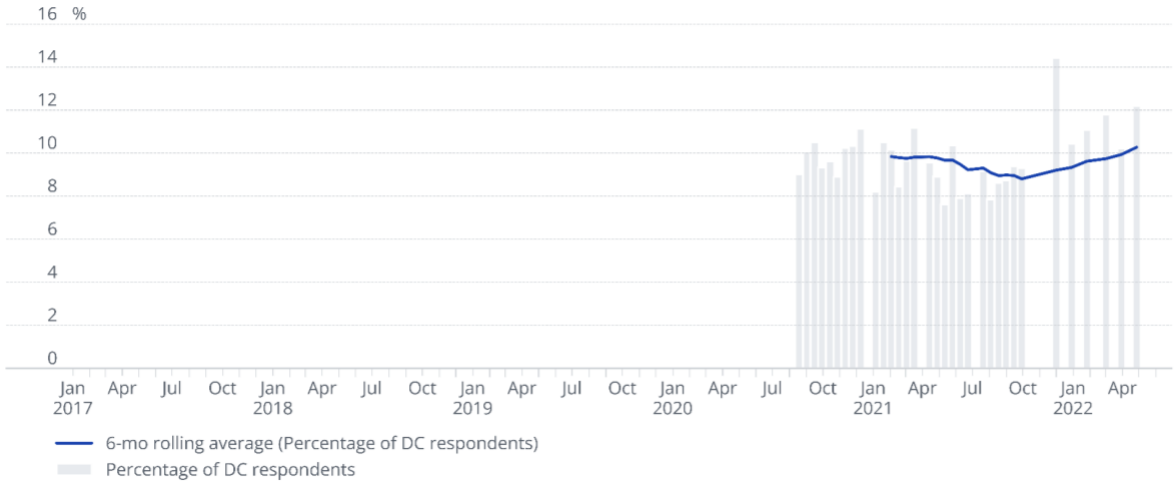

Figure 17. Percentage of D.C. respondents to the U.S. Census Bureau Household Pulse Survey who answered "yes" to Question 38(c): At any time in the last 4 weeks, did you need counseling or therapy from a mental health professional, but DID NOT GET IT for any reason?[136]

Discussion

Corresponding with national trends, behavioral health service utilization increased among adults during the COVID-19 pandemic in Washington, D.C. However, there was insufficient data publicly and readily available during this study to quantify behavioral health impacts among children and adolescents. Among adults, there was an increase in mental health diagnoses (15%) and telehealth-eligible service visits (97%) reflected in the Medicaid data during the COVID-19 pandemic in the District. Suicide and crisis calls to the Access Helpline also markedly increased at the start of the pandemic, with a 202% uptick in calls compared to the prior year, and peaked at the end of 2021. Autopsies from OCME reveal that fatal opioid overdoses surged in April 2020 and have remained high.

[134] Source: U.S. Census Bureau Household Pulse Survey

[135] Duncan, L. et al. (2020). Area-Level Variation in Children's Unmet Need for Community-Based Mental Health Services: Findings from the 2014 Ontario Child Health Study. *Administration and Policy in Mental Health and Mental Health Services Research 47*, https://link.springer.com/article/10.1007/s10488-020-01016-3

[136] Source: U.S. Census Bureau Household Pulse Survey

In parallel with increased utilization, system capacity for responding to in-person service demands decreased during the pandemic. Among Medicaid recipients, in-person behavioral health service utilization was 22% below the pre-COVID baseline, and emergency department (ED) visits were 21% below the pre-COVID baseline for behavioral health. Daily census for hospital psychiatric patients decreased 25% in the first year of the pandemic, corresponding with a national decrease in ED utilization.[137] While in-person service delivery fell during the pandemic, telehealth service delivery dramatically increased, in parallel with demand for behavioral health services. DBH Service Utilization data show that the number of adults receiving mental health services was about 10% above the expected baseline during the COVID-19 pandemic after the expansion of telehealth service delivery in March 2020. Notably, these changes occurred against a backdrop of long-term decline in emergency department visits for mental health or substance use disorders from 2017-2022, likely reflecting the cumulative and interconnected impacts of Medicaid policy changes, increased access to telehealth services, and the introduction of the Live. Long. DC opioid initiative.

Although emergency medical response data has been highlighted in the literature[138] and by stakeholders as an important source of data, the way these data are collected means that they are not comparable to data from the medical system. EMS responders broadly capture their impressions of the incident, but do not have the tools in the field that are required to reflect specific diagnoses, ascertain whether the individual already has a diagnosis, or follow-up on patient outcomes. Correspondingly, the data categories used by DC FEMS are more broad than other sources which decreases sensitivity. For instance, the FEMS category "Opioid-related disorders" includes fatal and non-fatal incidents based on non-clinical impressions. In comparison, the OCME data specifically includes only a subset of these – fatal opioid-related overdoses confirmed by autopsy – which allows for more tailored analysis by filtering out incidents which are not relevant to behavioral health. Therefore, those looking to evaluate early warning signals for behavioral health crises should be careful to draw comparisons between FEMS data and medical or clinical data.

As of late 2022, a few key metrics that increased during COVID-19 have returned to pre-pandemic levels. Mental health diagnoses among Medicaid beneficiaries, telehealth-delivered behavioral health services among Medicaid beneficiaries, calls to the Access Helpline, fatal opioid overdoses, and the number of adults receiving mental health services from DBH all substantially increased, especially in the first year of the pandemic. All metrics but the number of adults served by DBH are beginning to level-off or are slowly declining, pointing to signs of a "new normal." The continued use of telehealth by nearly 50% of Medicaid beneficiaries receiving behavioral health services suggests that this service is of particular importance and benefit.

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[137] Hartnett, K.P., Kite-Powell, A., DeVies, et al. (2020). Impact of COVID-19 Pandemic on Emergency Department Visits – United States, January 1, 2019–May 30, 2020. *CDC MMWR Morbidity and Mortality Weekly Report 69*, https://www.cdc.gov/mmwr/volumes/69/wr/mm6923e1.htm

[138] Rivard, M.K. et al.(2021). Public Health Surveillance of Behavioral Health Emergencies through Emergency Medical Services Data. *Prehospital Emergency Care 26*(6), https://doi.org/10.1080/10903127.2021.1973626.

Though additional analysis, including the particularly critical data from private-sector providers and hospitals are needed to better assess impacts to behavioral health in the District over time, the findings in this report largely corroborate what was previously shown across the U.S.: the COVID-19 pandemic exacerbated existing challenges in providing behavioral health services, while increasing demand for those same services. This analysis was limited by data availability and a lack of effective data collation and integration across public and private behavioral health service providers and by a series of concurrent changes that all affected both behavioral health service demand and supply. Specifically, the analysis performed here relied heavily on data from Medicaid and are therefore not representative of the population. Second, the increased utilization of behavioral health services corresponded to not only the onset of the COVID-19 pandemic, but also a Federal requirement for continuous Medicaid coverage during COVID-19;[139] expanded coverage of telehealth services from early 2020;[140] expanded Medicaid coverage of certain behavioral health services from CY 2020;[141] and the transition of approximately 17,000 beneficiaries from fee-for-service to managed care coverage as of FY 2021.[142]

Recommendations and Conclusion

Many stakeholders, including those in the D.C. government, have been actively engaged in combating the COVID-19 crisis, often adopting a "no wrong door" approach to ensure that residents have access to the care they need. Such an approach makes tracking and validating data across the behavioral health system challenging, both for those inside and outside of the behavioral health system of providers in the District. **The District's approach moving forward should emphasize integrated and interoperable data systems across both private and public systems – systems defined and built through cross-collaborative efforts among the diverse stakeholders involved in responding to the behavioral health needs.** These data systems must be flexible enough to meet providers where they are on the ground today while also ensuring that data are standardized for use in informing policy making, evidence-based response, and retrospective analysis. To define investment and planning requirements for the next phase of this outbreak, all stakeholders will need to coordinate and work to address systemic data needs.

Recommendations

The D.C. government should continue supporting and expanding telehealth services.

Telehealth services are essential for meeting surging behavioral health needs and demands when health service capacity is limited. The data show a large uptick in telehealth utilization in March 2020, around the same time as when DHCF proposed emergency rulemaking to allow Medicaid

[139] Medicaid (n.d.) Unwinding and Returning to Regular Operations after COVID-19, https://www.medicaid.gov/resources-for-states/coronavirus-disease-2019-covid-19/unwinding-and-returning-regular-operations-after-covid-19/index.html

[140] Department of Health Care Finance (n.d.) Telemedicine, https://dhcf.dc.gov/page/telemedicine

[141] Department of Health Care Finance (n.d.) Medicaid Reform: District of Columbia Section 1115 Medicaid Behavioral Health Transformation Demonstration, https://dhcf.dc.gov/1115-waiver-initiative

[142] Department of Health Care Finance (n.d.) Transition to Managed Care, https://dhcf.dc.gov/page/transition-managed-care001

beneficiaries to receive telemedicine services at their home.[143, 144] As of June 2022, telehealth utilization remains high and continues to be an important added capacity to the behavioral health care system. Given the substantial demand for telehealth services among beneficiaries receiving behavioral health services, **the District should continue supporting and expanding telehealth services for behavioral health.**

Despite the increasing availability of telemedicine throughout the pandemic, there were few publicly available data sources identified that provided information about the supply of telehealth services. Currently, the DBH MHEASURES report provided breakdowns of telehealth expenditures paid for by Medicaid in FY21.[145] However, underlying data for these statistics are not made publicly available, which makes it difficult to assess measures of telemedicine utilization. **As these services continue to grow, the District should integrate telehealth data into regular, publicly available reporting streams.** Regularly sharing aggregate counts of Medicaid beneficiaries using telehealth services by age and category of service – like those requested for this study – could, for example, be made publicly available by DHCF. These data could help decision-makers track the pace of telehealth growth in D.C. and compare to usage between provider groups and in other states. Additional data, such as the demographics of telehealth users and the types of services being used, could be valuable for future analysis to characterize the population using telemedicine services and disparities in utilization. Data on telehealth use from the Household Pulse Survey (or similar population-level surveillance data) could also be collected to understand how utilization trends among the general population compare to the Medicaid population. The District has already shown leadership in its support for telehealth, and continued collection and analysis of these data could help guide future investments in services to remain on the cutting edge of innovation in telemedicine delivery.

The D.C. government should continue publishing Medicaid trends, and transition the existing Department of Behavioral Health (DBH) dashboards into publicly-available and long-term platforms.

Key gaps in data availability create systemic challenges for behavioral health data. Medicaid data and local claims data were identified as the most complete and readily-available source for assessing service demand, diagnoses, and utilization over time. Because these data are extensively regulated by the Federal government and used for billing and reimbursement purposes, stakeholders have a financial incentive to ensure that the data are standardized and accurate. However, Medicaid claims data are difficult to gain access to given the sensitive nature of the data and complexity of the

[143] DBH (2020). Medicaid Expands In-Home Telemedicine Services for Medicaid Beneficiaries in Response to COVID-19, https://dbh.dc.gov/release/medicaid-expands-home-telemedicine-services-medicaid-beneficiaries-response-covid-19

[144] DHCF (2020). Telemedicine Provider Guidance, https://dbh.dc.gov/sites/default/files/dc/sites/dmh/release_content/attachments/Telemedicine%20Provider%20Guidance_3-13-20_Final.pdf

[145] DBH (2022). FY21 Annual Report: Mental Health and Substance Use Report on Expenditures and Services, January 2022, https://dbh.dc.gov/sites/default/files/dc/sites/dmh/page_content/attachments/FY21%20MHEASURES%203-9-22.pdf

queries involved. A selection of these data relevant to behavioral health are publicly reported through the biannual DBH MHEASURES report, which summarizes the usage of public mental health and substance use disorder services, including the number of residents enrolled and served, consumer demographics, and claims expenditures. While a valuable overview of ongoing trends, the raw data underlying these analyses are not made publicly available, limiting both validation of the results and subsequent analysis by outside researchers or partners.

DBH operates internal executive dashboards tracking mental health and SUD service utilization with much of the same data available in the MHEASURES report, as shown in Figures 15 and 16. Especially for those data already made publicly accessible through the MHEASURES report, **DBH should make these existing dashboards into publicly available and long-term platforms to encourage greater comparison of service utilization over time.** These data would be valuable for the operations of non-governmental organizations interested in using this data to inform investment and advocacy efforts, as well as the provider community. Furthermore, DBH's leadership in data-sharing would serve as an important example of how to safely facilitate access to aggregate behavioral health care service utilization data, encouraging other stakeholders who collect data and produce their own analyses to do the same.

DBH should build on existing public-private working groups to identify and generate shared metrics for behavioral health needs across the District.

To effectively meet the demand for behavioral health services, local decision makers need access to data to assess the supply of psychiatric hospital beds, outpatient care services, and other licensed providers. These services need to be defined by payer, care level, and care setting to better understand whether the specific needs of the population related to behavioral health are being addressed by the available services. Currently, however, existing District-level datasets on behavioral health do not have adequate transparency, visibility, and interoperability especially across the public and private systems, to provide a clear picture of these needed metrics.

Stakeholders we interviewed expressed great interest in sharing data and even speculated that data they wanted were already being collected. However, some stakeholders, especially those operating in a non-governmental and community-based capacity, indicated they did not have enough information to make a specific data request. Over the course of the study, the research team found that it was difficult to determine which agencies collected and maintained which specific data elements. When writing data requests, it was difficult to specify which data were needed because there was no published list of what data were available, at what resolution, over what time frame. Thus, **existing public-private working groups should make it a priority to support data sharing and standardization. This should include publishing data inventories publicly with the goal of identifying and generating a core set of data and corresponding metrics to measure behavioral health needs across the District.** These core metrics should represent the minimum data needed to evaluate population-level needs and systems-wide capacity and should be defined such that they can be compared over the long term. Considering data from a variety of sources would help capture the full spectrum of players involved in the behavioral health system.

During interviews, stakeholders described existing public-private working groups addressing issues related to data sharing, though additional publicly-available information on these efforts was not readily available. As a supplement to ongoing efforts, public-private working groups could consider establishing and maintaining a central inventory of behavioral health data available across the District – including both the full range of public, private, and non-governmental systems – with descriptive information regarding metrics, indicators, timeframes, and populations reported. A centralized data inventory would not need to surface the raw data or reveal any private/proprietary information, but instead would show metadata about the available datasets. Such an inventory would make it possible for interested parties to quickly scan for the required data and form a specific request for more efficient and informed data-sharing. Additionally, the inventory would help District leaders quickly identify gaps in data collection (e.g., population-level epidemiological data, workforce availability) and determine where data from different sources can be cross-referenced.

DBH should coordinate with care providers across the District to define data sources and metrics to track needs for behavioral health services, especially among youth.

Coordinated collection and integration of data on child and youth behavioral health needs, demands, and service utilization are needed to support analysis on whether these populations are receiving the care they need. Early stakeholder discussions emphasized that child and adolescent behavioral health needs were amplified during the pandemic; however, only very limited data were readily available to assess or quantify youth behavioral health care service impacts.

Data from private behavioral health care providers, hospitals, and community-based programs — particularly related to youth services — need to be more effectively integrated into public data reporting systems to track needs for behavioral health services. It is especially important to involve providers in youth behavioral health, given the different intake, referral, and payment schemes that exist for this population. For example, youth behavioral health needs are often first identified in schools rather than within a medical setting.[146] This means that school-based behavioral health program referral data may be more sensitive as an early warning signal of youth behavioral health crises than data from clinical programs. Similarly, youth treatment has historically been managed outside of paid claims for substance use and rehabilitation services, so it is necessary to work with providers on data sources outside of Medicaid to capture these needs.

One potential avenue for such data coordination and access is the Chesapeake Regional Information System for our Patients (CRISP), a health information exchange for public and private providers to share data. The District participates in CRISP and all DBH-certified providers will be required to report data as of October 1, 2023, facilitating the flow of information between providers and government agencies and vice versa.[147] Despite this requirement, it is worth noting that data from

[146] Community Mental Health CORE, Child Health Advocacy Institute, & Children's National Hospital (2021). COVID-19 and Children's Behavioral Health in the District of Columbia: The Pandemic's Impact On Child Behavioral Health Outcomes And The Behavioral Health Care System. https://childrensnational.org/-/media/cnhs-site/files/advocacy-and-outreach/child-health-advocacy-institute/covid19-and-childrens-behavioral-health-in-dc.pdf?la=en

[147] DHCF (n.d.) The DC Health Information Exchange, https://dhcf.dc.gov/page/dc-hie

Children's National Hospital, while accessible to DCHA, are not currently reported in CRISP. Children's National Hospital is a critical provider of emergency psychiatric care for children, as a world-renowned team of pediatric mental health specialists and the only Level I pediatric trauma center in D.C. where children can receive immediate evaluation for emotional distress. Children's National Hospital also leads important collaboratives involved in screenings and referral to behavioral health care, such as the DC Collaborative for Mental Health in Primary Care (DC MAP) and Early Childhood Innovation Network (ECIN).[148] While some data and trends are described in reports currently, including a June 2021 report on COVID-19 and children's behavioral health from the Children's National Hospital, in addition to data from the Community Mental Health CORE (Collaboration, Outreach, Research, Equity) and the Child Health Advocacy Institute, data reporting through CRISP would enable greater comparative analysis about impacts over time among key populations and significantly improve visibility into the needs of the pediatric population in the District.[149]

The D.C. government should develop reporting with specific data requirements for those providing behavioral health services in the District for both public and private systems.

While this project's limited scope limited our ability to capture and analyze all data identified, gaps in data on system-wide capacity, staffing requirements, and workforce availability were identified and confirmed through interviews with stakeholders across the District. Previously, public behavioral health providers have been requested to report data to DBH, but these specific data requirements are not routinely made public. Nor does public policy currently require the alignment of data from private partners that would support comparison of metrics over time, aside from what are reported in the aggregate to SAMHSA.[150] The D.C. Council requests key performance indicators from DBH each year, but these metrics often change from year to year depending on budget allocations and strategic goals of the administration. Where data does exist for the behavioral health system prior to 2017, it has been difficult to access and use due to data obsolescence and rapidly evolving policy environment and technological systems. Taken together, these factors limit the District's ability to conduct comparative analysis or to monitor behavioral health care access over time.

One example of this challenge is the difficulty in analyzing hospital bed availability across the behavioral health system. Current bed census is limited to counts of licensed beds from SAMHSA and other regulatory agencies and operational beds as reported by the D.C. Hospital Association. None of these sources reflect effective (actual) bed space. However, bed status data are particularly important given the system-wide infection control and prevention measures implemented during COVID-19, which were reported to have impacted bed availability.

[148] Children's National Hospital (n.d.) Mental Health, https://childrensnational.org/departments/center-for-neuroscience-and-behavioral-medicine/programs-and-services/mental-health
[149] Ibid.
[150] SAMHSA (n.d.) Uniform Reporting System. https://www.samhsa.gov/data/data-we-collect/urs-uniform-reporting-system

There are limited standardized data available across public and private systems on staffing requirements, workforce estimates, and provider capacity for specific services. Many stakeholders noted that their staff felt overwhelmed, as evidenced by high employee turnover and critical staffing shortages. However, there were no datasets identified that described staffing needs for facilities, presenting a challenge for identifying when and where bottlenecks occur in behavioral health systems. Professional licensing boards and registries for psychology, professional counseling, and social work provide some data on who is licensed, but do not indicate who is currently practicing nor how many hours they are billing per week. We found only limited proxies for system-wide workforce availability, making it difficult to understand current workforce requirements and estimate future needs.[151]

Specific data reporting requirements should be developed for those providing behavioral health services in the District for both public and private systems to permanently close these reporting gaps. At a minimum, these requirements should include:

a. Counts of individuals served, grouped by adult/youth and type of service
b. Capacity of each service provider across each domain (e.g., workforce estimates for psychiatrists, community support workers, etc.)
c. Length of wait time to receive care/services (beyond DBH and Medicaid)
d. Attrition from waiting lists (e.g., enrolled but never seen)

If required and standardly reported, these D.C.-collected data would strengthen system-wide capacity to rapidly evaluate the workforce capacity of specific services, and the system overall, to meet District behavioral health needs and service demand. Furthermore, reporting requirements could be used to help establish standards for the maintenance and archiving of essential behavioral health data for public use.

Conclusion

Investments in behavioral health data systems can lay the foundation for strong early warning systems to identify crises and target responses across all levels of the behavioral health system. Given the wide range of patient needs, care providers, and services offered in this space, layered analysis and interventions are needed to understand ongoing and emergent needs related to behavioral health in the District. Accordingly, stakeholders involved in response need access to timely, publicly available data to inform these efforts.

While the need for system-wide investments in addressing behavioral health needs has been widely recognized nationally, without clear, consistent, longitudinal data collection and analysis, those tasked with addressing these needs are left without sufficient information to effectively prioritize and provide services tailored to those in need. The COVID-19 pandemic highlighted the need to

[151] At a national level, the Health Resources and Services Administration (HRSA) designates Health Professional Shortage Areas (HPSA) and provides data showing geographic areas and populations groups that have limited access to providers, including behavioral health providers.

improve data collection and information sharing across public-private behavioral health care systems. By improving the coordination, integration, and sharing of these data both within the system of providers and with the public, the behavioral health needs of those across the District can be better defined and more effectively met.

Appendix A: Data Inventory

Download Appendix A.

Appendix B: Data Dictionary

Attached, and below.

Field name	Field description
Data source name	The name of the data asset, with used acronyms in parentheses
Data collector(s)	The entity that collected the data and/or created the data source
Data publisher(s)	The entity that is responsible for managing, providing, and updating the data source
Description	A description of the data source including a summary of key data elements and its general contents
Utility for analysis	A description of how the data source might be used to support an analysis for the project
Data category	The category the data source belongs to with respect to mental health analysis
Target population(s) (if applicable)	If any, the group of individuals represented within the data source, especially those populations most at-risk of mental health challenges,
Data elements	If known, the exact unit (columns or values) contained within the data source that are pertinent to analysis
Race/ethnicity categories (if applicable)	The exact race and/or ethnicity categories that are included in the data
Age breaks (if applicable)	The exact age group buckets that are included in the data
Geographic coverage	The degree of coverage of the data source in plain language, such "D.C." or "the continental US"
Geographic resolution	A list of geographic resolution(s) at which the data are natively available, such as "census tract," "state," or "zip code"
Temporal coverage	The degree of temporal coverage of the data source in plain language, such as "All years 2010-present"
Temporal resolution(s)	A list of unit(s) of time at which the data are natively available, such as "day", "week", or "month"
Initial date of source publication	If known, the first day, month, year the data was originally published

Most recent date of source publication	If known, the first day, month, year the data was most recently published / updated
Update frequency	If known, the frequency with which the data source is updated, and "Unknown" if otherwise
Data lag	If known, the delay between publication of the data and the time frame it describes, and "Unknown" if otherwise
Link: Data access (if available)	If any, a web link directly to the data or the page from which it can be immediately downloaded
Access information	A description of access information for the data source, including whether it is open access and freely available to anyone, or whether it has limitations on access
File formats	A list of file formats in which the data are natively available
Link: API access	If any, a link to the API documentation defining how to get access and/or the root location or primary endpoint of the service
API endpoint description	A description of the services available via the end-points, including their operations, parameters, etc., which may be expressed as a URL or free text
Link: Landing page (if available)	If any, a web link to a landing page describing the broader work
Link: Data dictionary (if available)	If any, a web link to a page describing the contents of the data itself in higher detail than would be found in a general overview of the data source
Link: Project manuscript (if available)	If any, a web link to an academic article or briefing paper describing the broader work in more detail than would be found in a general overview of the data source
Point of contact	Relevant contact information (i.e., name, email) for the inventoried resource
Suggested citation (if available)	If any, a suggested citation for the data set or project work
Rights and restrictions	A description of the access and usage rights and restrictions, defining what a user can do with the data

Appendix C: List of Organizations

Organization
AmeriHealth
Children's Law Center
Children's National Hospital
Council for Court Excellence
D.C. Action / Kids Count
D.C. Behavioral Health Association
D.C. Fiscal Policy Institute
D.C. Hospital Association
Department of Behavioral Health
Department of Health Care Finance
Fire and Emergency Medical Services Department
Justice Policy Institute
Office of the City Administrator
Office of the Deputy Mayor for Health and Human Services
Office of Unified Communications
McClendon Center
Metropolitan Police Department
Pew Charitable Trusts

Appendix D: Discussion Guide

The following Discussion Guide was provided to all individuals engaged in stakeholder interviews.

Project Overview

While there has been a widely recognized increase in demand for mental health care in the U.S. during the COVID-19 pandemic, this demand is largely anecdotal and is not currently well-defined in the District of Columbia. Talus Analytics and the Georgetown University Center for Global Health Science and Security are supporting the Office of the District of Columbia Auditor (ODCA) to better understand the impact of COVID-19 on mental health in the District in comparison to prior crisis, disaster, or outbreak events. The goal is to develop evidence-based indicators that can be used to help ensure mental health care services are available when, where, and for whom it is needed in the future. This effort will result in a final report that will provide evidence-based recommendations for how best to help District residents most heavily impacted by the pandemic and to inform investments in future mental health service preparedness.

Approach and Discussion Topics

In support of this work, we are interviewing experts involved in providing mental health care services or measuring and assessing mental health needs and services across the District with an initial focus on government partners to:

1. Understand the work already underway across the District to address mental health impacts specific to COVID-19 and prior emergency events;
2. Identify metrics of impact related to mental health and mental health service needs and define new measures that would be useful for decision makers across D.C. government; and
3. Document existing sources of data, including longitudinal and historical data related to mental health care in the District and nationally, as needed to support comparative analysis.

Interviews will be structured discussions framed around the following topics.

- What is your role as it relates to mental health care, mental health services, or health data?
- In your view, how have mental health needs changed in the District during COVID-19?
- Based on your experience, how is this change in demand similar to or different than other types of crises or emergencies?
- Related to the mental health data that you generate or use in your role:
    - What mental health related data sources do you use most frequently?
    - What are the key metrics that you use to assess mental health service demand?
    - What are the key metrics that you use to assess mental health service outcomes?
    - What, in your opinion, are the best measures available for measuring mental health demand?
- Do these sources provide quantitative information about how mental health needs and ability to provide care in the district has changed over time?
- What metrics or measures do you wish that you had access to that you currently do not have?
- What additional data would help you better serve the mental health needs of District residents?

Appendix E: Supplemental Figures

Total individuals enrolled in Medicaid in the District of Columbia

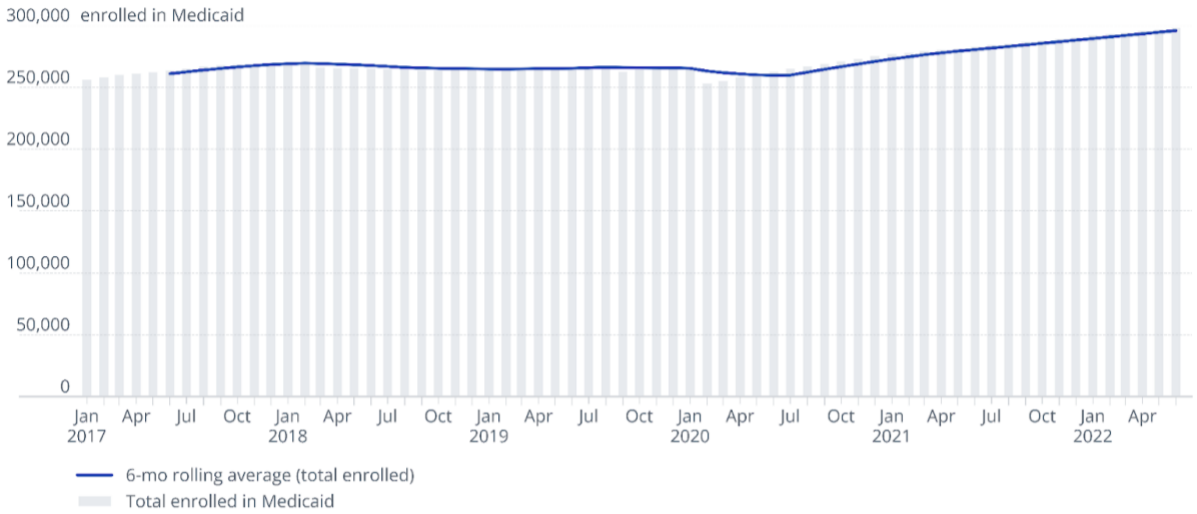

Figure 18. Deduplicated monthly count of total beneficiaries enrolled in Medicaid between January 2017 and June 2022.[152] Between January 2017 and June 2022, the D.C. Medicaid enrollment has grown 16.3%.

Total individuals enrolled in Medicaid in the District of Columbia, by age

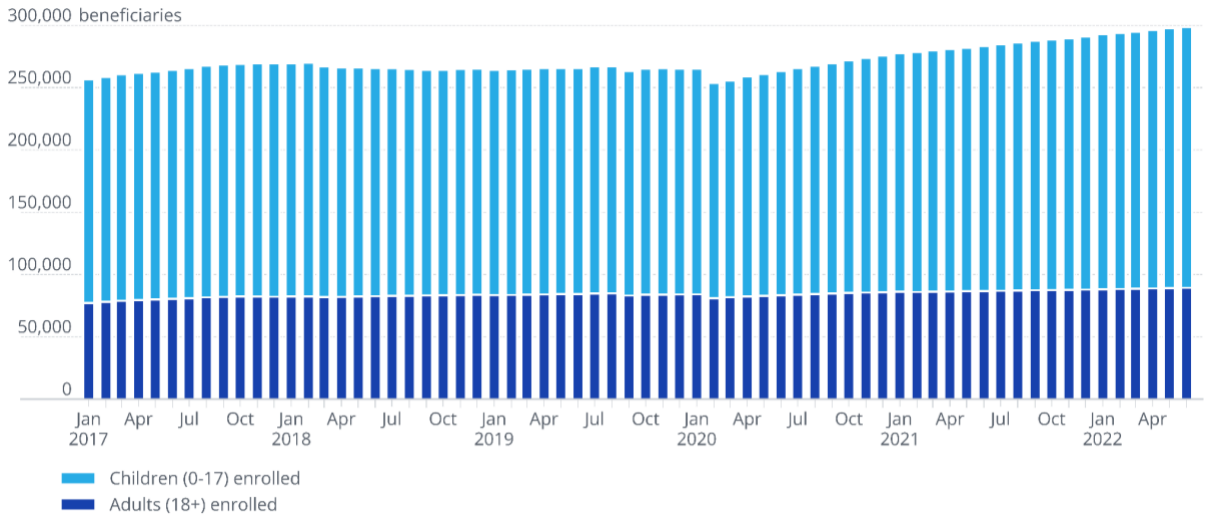

Figure 19. Deduplicated monthly count of total adults and children enrolled in Medicaid between January 2017 and June 2022.[153]

[152] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

[153] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 12/8/2022.

Total population of the District of Columbia

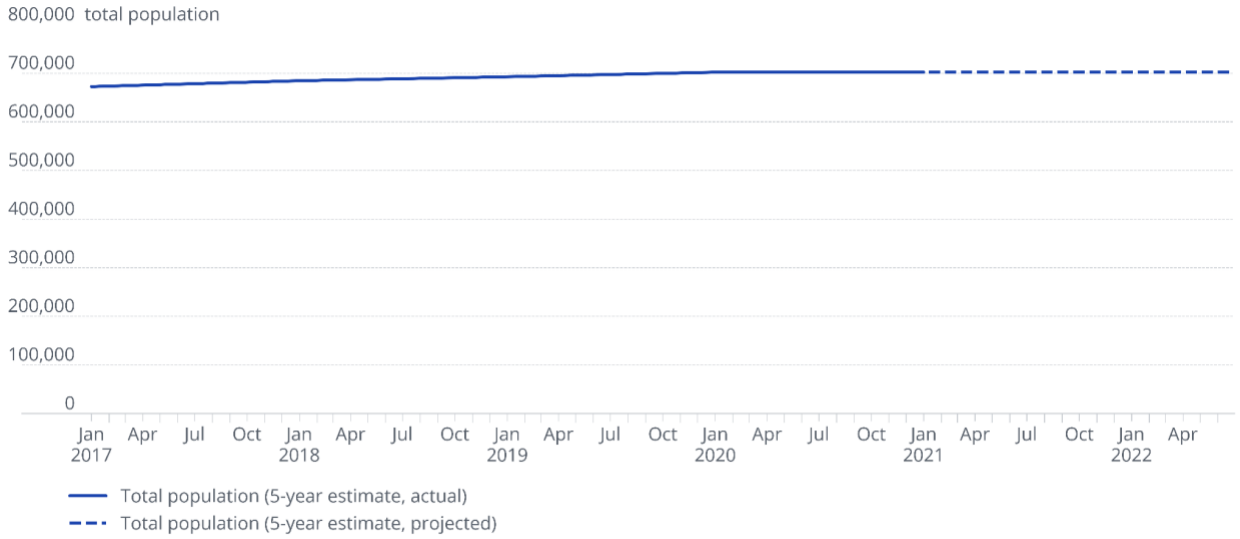

Figure 20. Total population of the District of Columbia, ACS-5 year estimates. Data not yet released for 2021 or 2022, so estimates from 2020 were projected for these years.[154] The total population has grown less than 2% every year since 2017. Because the population remains relatively constant over the study period, we do not normalize by population.

Adjusted total adult beneficiaries with a behavioral health diagnosis, by diagnosis

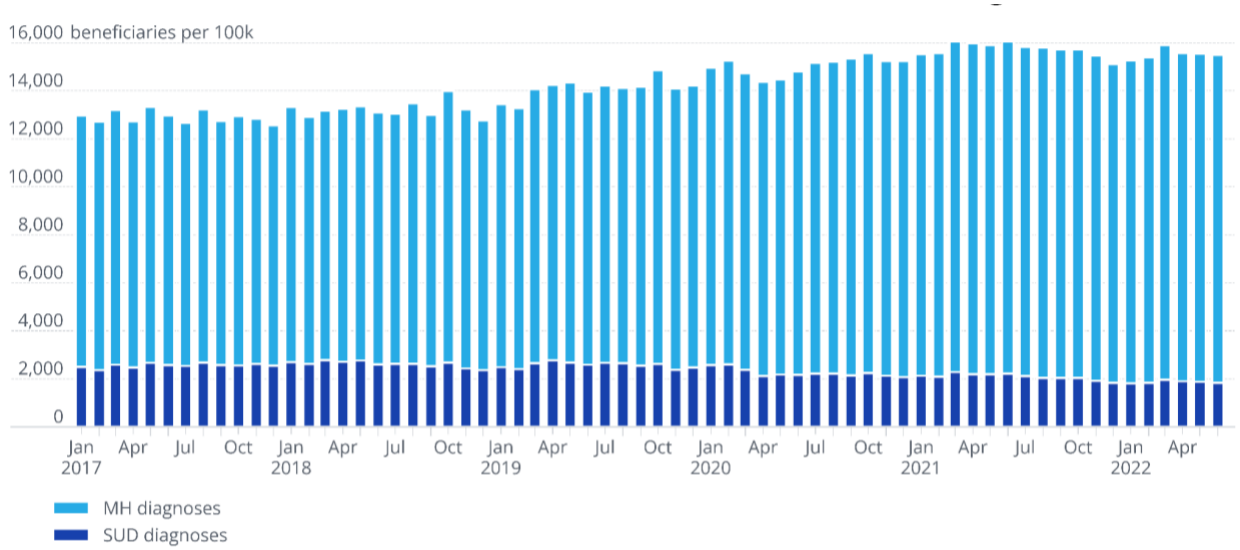

Figure 21. Deduplicated count of adult (18+) Medicaid beneficiaries with a mental health or substance use disorder diagnosis within a month, normalized per 100,000 adults enrolled in Medicaid. Mental health (MH) and substance use disorder (SUD) diagnoses are identified based on codes in the following HEDIS value sets: Mental Health Diagnosis, Alcohol Abuse and Dependence, Opioid Abuse and Dependence, Other Drug Abuse and Dependence.[155]

[154] Source: American Community Survey Demographic and Housing Estimates (DP05).

[155] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 12/8/2022.

Adjusted total child beneficiaries with a behavioral health diagnosis, by diagnosis

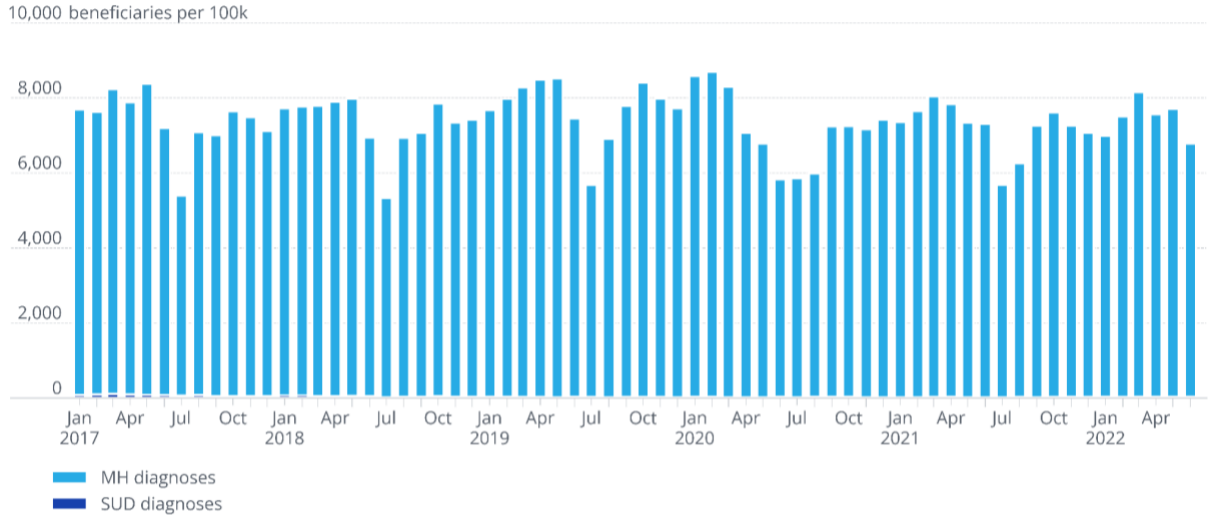

Figure 22. Deduplicated count of child (0-17) Medicaid beneficiaries with a mental health or substance use disorder diagnosis within a month, normalized per 100,000 children enrolled in Medicaid. Mental health (MH) and substance use disorder (SUD) diagnoses are identified based on codes in the following HEDIS value sets: Mental Health Diagnosis, Alcohol Abuse and Dependence, Opioid Abuse and Dependence, Other Drug Abuse and Dependence.[156]

[156] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 12/8/2022.

Adjusted total adult beneficiaries receiving behavioral health services, by delivery method

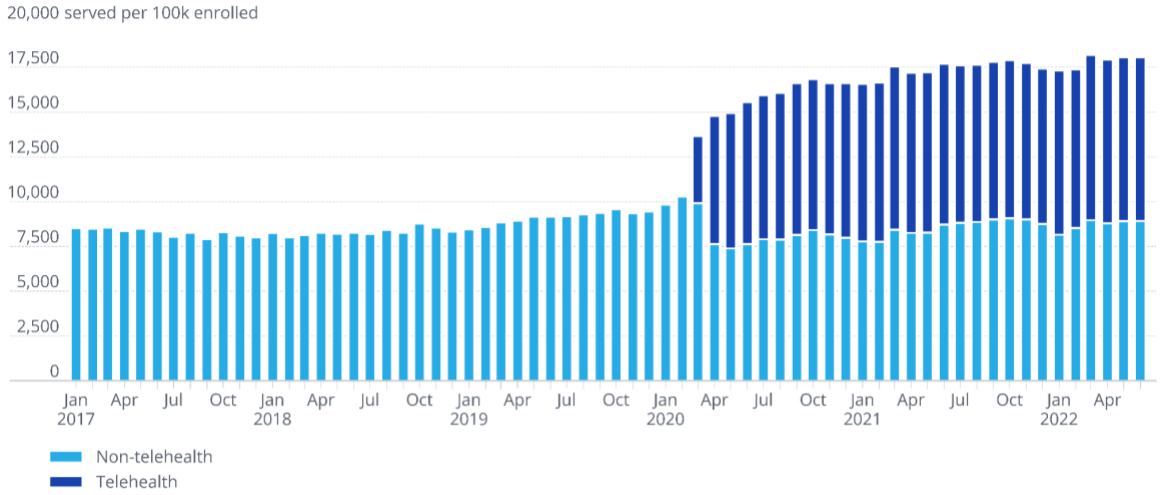

Figure 23. Adult (18+) Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim (with or without telehealth procedure modifiers GT / 95) for mental health rehabilitation services (MHRS), freestanding mental health clinic services, or behavioral health stabilization (crisis) services; federally qualified health center (FQHC) behavioral health services; other licensed practitioner (OLP) behavioral health services; or adult substance abuse rehabilitation services (ASARS) and recovery support services (RSS).[157]

[157] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 12/8/2022.

Adjusted total child beneficiaries receiving behavioral health services, by delivery method

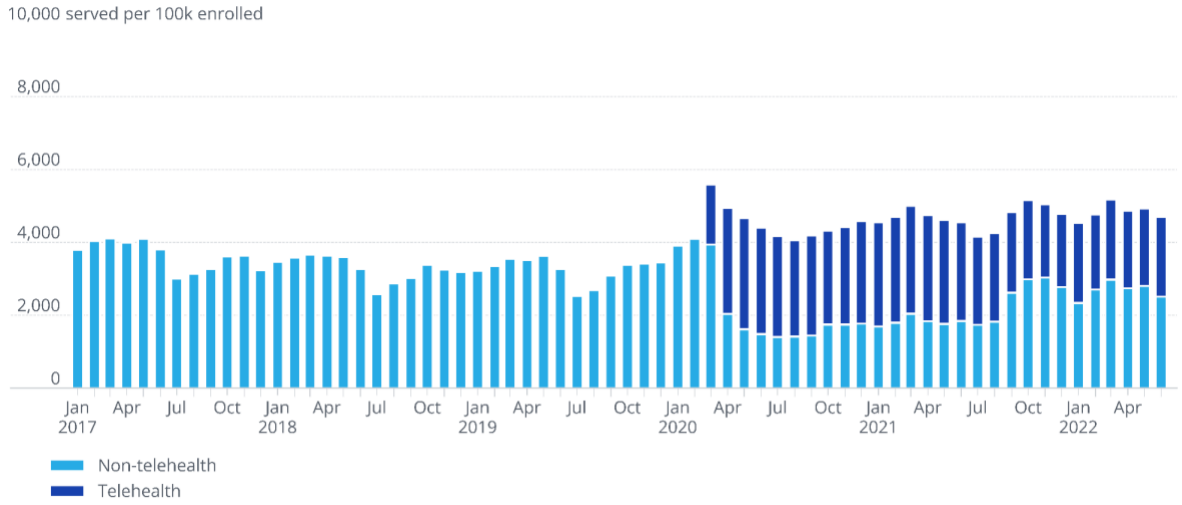

Figure 24. Child (0-17) Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim (with or without telehealth procedure modifiers GT / 95) for mental health rehabilitation services (MHRS), freestanding mental health clinic services, or behavioral health stabilization (crisis) services; federally qualified health center (FQHC) behavioral health services; other licensed practitioner (OLP) behavioral health services; or adult substance abuse rehabilitation services (ASARS) and recovery support services (RSS).[158]

[158] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 12/8/2022.

Adjusted total beneficiaries receiving adult substance use rehabilitation services (ASARS) or recovery support services (RSS), by delivery method

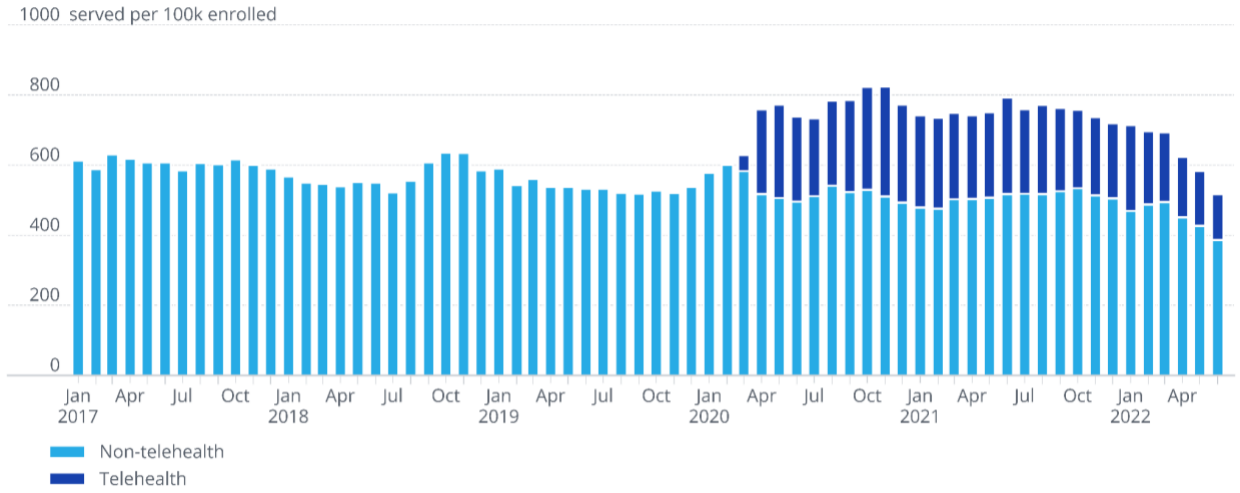

Figure 25. Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim (with or without telehealth procedure modifiers GT / 95) for adult substance abuse rehabilitation services (ASARS) and recovery support services (RSS).[159]

Adjusted total beneficiaries receiving behavioral health services from a federally qualified health center (FQHC), by delivery method

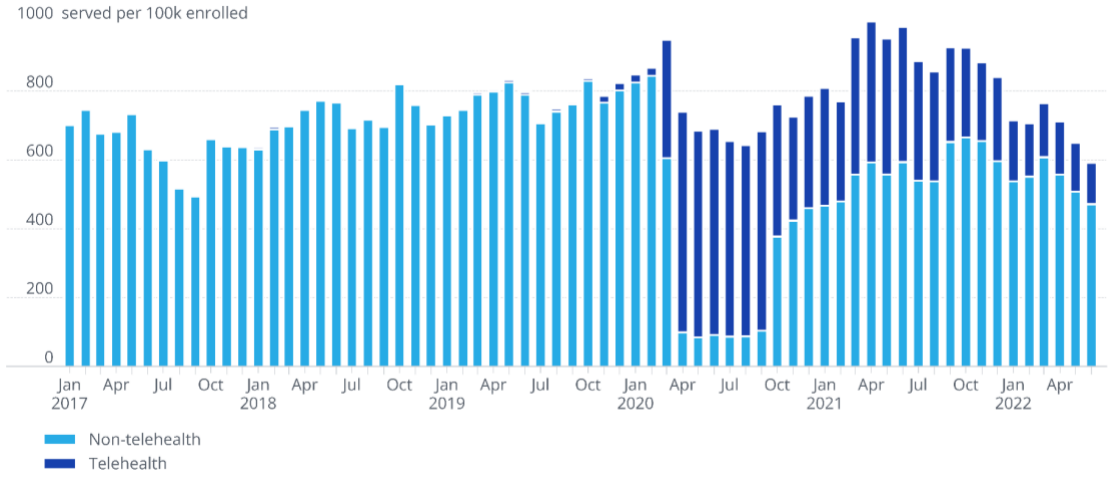

Figure 26. Deduplicated count of Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim for behavioral health services in a federally qualified health center (FQHC).[160]

[159] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

[160] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

Adjusted total beneficiaries receiving mental health rehabilitation services (MHRS), free standing mental health clinic services, or behavioral health stabilization services, by delivery method

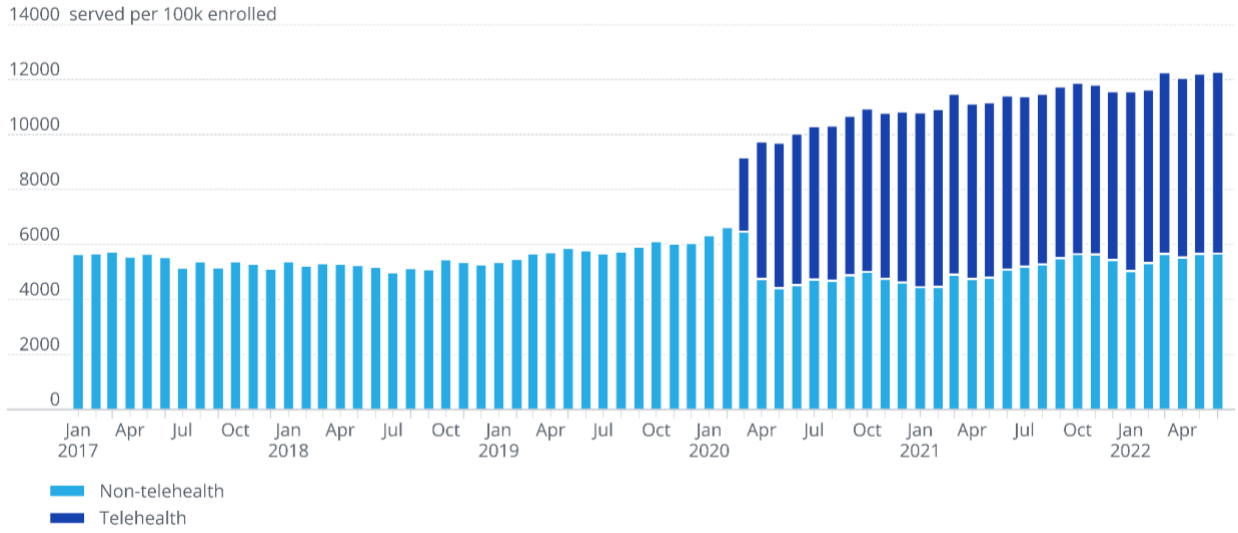

Figure 27. Deduplicated count of Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim for mental health rehabilitation services (MHRS), freestanding mental health clinic services, or behavioral health stabilization (crisis) services).[161]

Adjusted total beneficiaries receiving behavioral health services from an other licensed practitioner (OLP), by delivery method

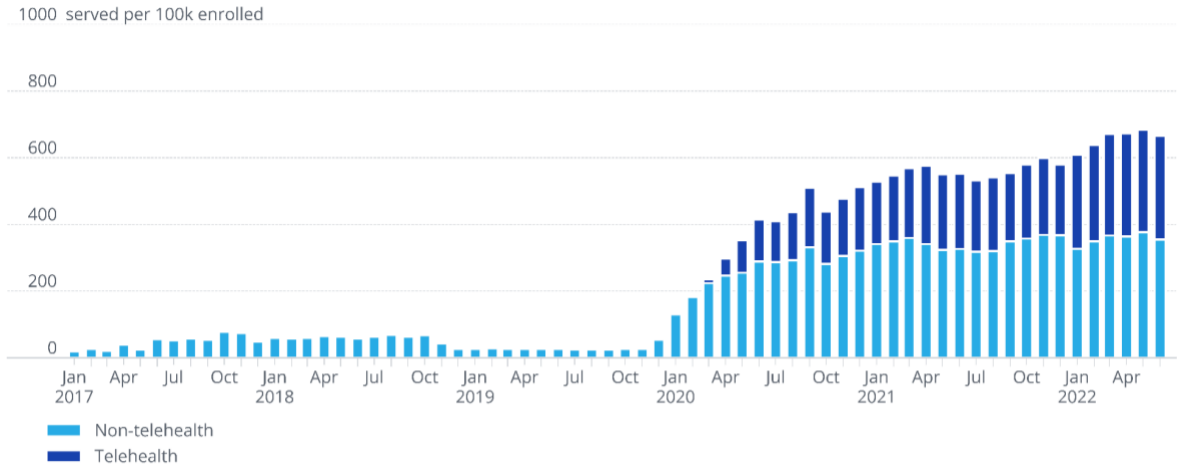

Figure 28. Medicaid beneficiaries in D.C. (adjusted per 100,000 people enrolled) with at least one paid claim (with or without telehealth procedure modifiers GT / 95) for behavioral health services from other licensed practitioner (OLP) behavioral health services.[162]

[161] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

[162] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 11/21/2022.

Adjusted total adult beneficiaries with a visit to the emergency department for behavioral health

Figure 29. Adult Medicaid beneficiaries in D.C. (adjusted per 100,000 adults enrolled) with at least one paid claim for an emergency department outpatient visit with MH or SUD as the primary diagnosis, excluding ED visits leading to an inpatient stay.[163]

Adjusted total child beneficiaries with a visit to the emergency department for behavioral health

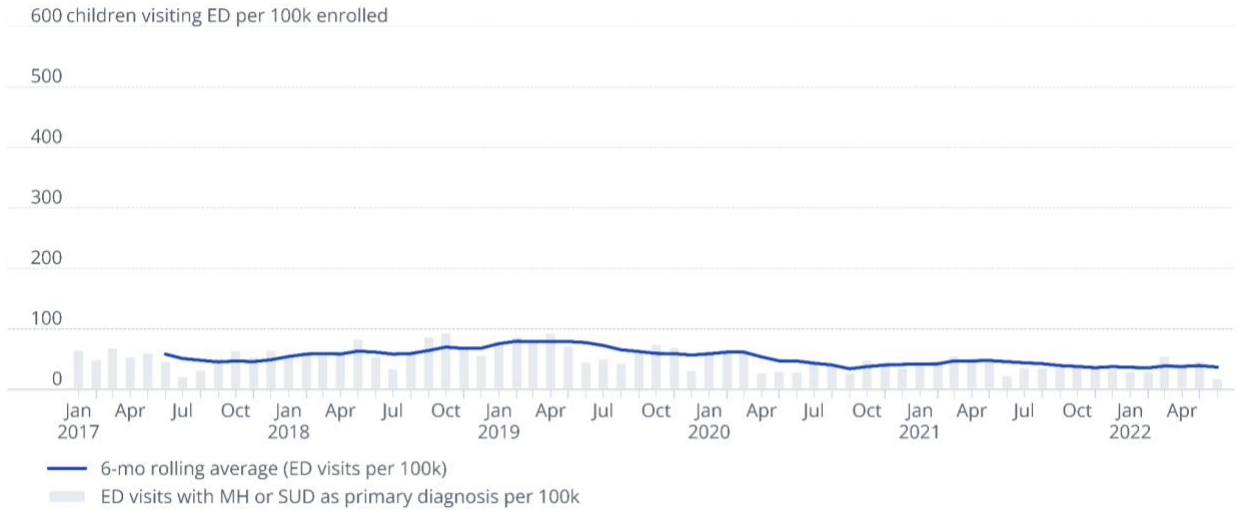

Figure 30. Child Medicaid beneficiaries in D.C. (adjusted per 100,000 children enrolled) with at least one paid claim for an emergency department outpatient visit with MH or SUD as the primary diagnosis, excluding ED visits leading to an inpatient stay.[164]

[163] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 12/8/2022.

[164] Source: District of Columbia Department of Health Care Finance (DHCF) Medicaid Management Information System (MMIS) data extracted 12/8/2022.

Total hours the Comprehensive Psychiatric Emergency Program (CPEP) spent "at capacity"

Figure 31. Total number of hours where "at capacity" was marked as the reason that the comprehensive psychiatric emergency program (CPEP) was on diversion, with no new admissions.[165]

Total operating psychiatric bed space across D.C. Hospital Association member facilities

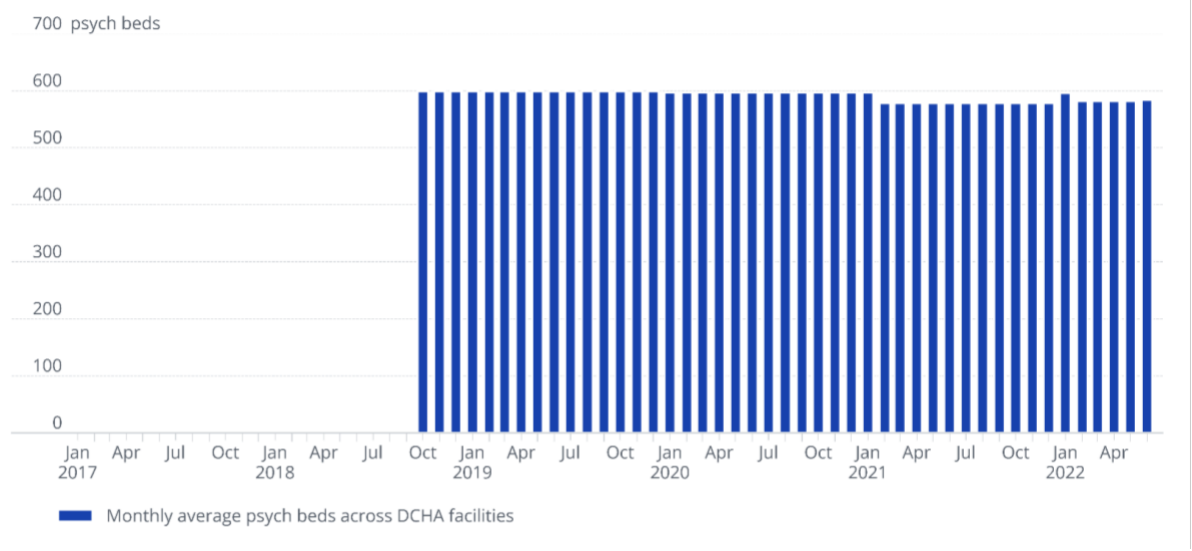

Figure 32. Average operating psychiatric beds per month aggregated across all D.C. Hospital Association Member facilities, including Children's National Hospital, George Washington University Hospital, Howard University Hospital, MedStar Georgetown University Hospital, MedStar Washington Hospital Center, Psychiatric Institute of Washington, D.C., Saint Elizabeths Hospital, Sibley Memorial Hospital, and United Medical Center.[166]

[165] Source: DBH Executive Dashboard data extracted 11/3/2022

[166] Source: D.C. Hospital Association Monthly Utilization data extracted 11/7/2022

Total adults receiving substance use disorder services within the DBH system

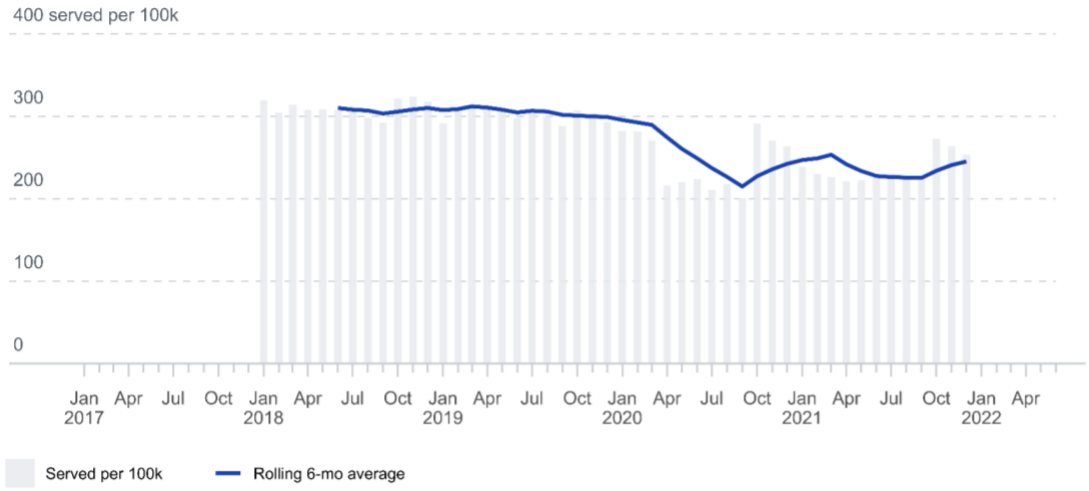

Figure 33. Deduplicated monthly count of adults (18+) with at least one paid claim for substance use disorder services within the DBH system.[167]

[167] Source: DBH Utilization Dashboard data extracted 10/12/2022

Agency Comments

On February 9, 2023, we sent a draft copy of this report to the Department of Behavioral Health (DBH) for review and written comment. DBH responded with comments on February 27, 2023. Agency comments are included here in their entirety.

Office of the Director

February 27, 2023

The Honorable Kathleen Patterson
District of Columbia Auditor
Office of the District of Columbia Auditor
1331 Pennsylvania Avenue NW Suite 800 South
Washington, DC 20004

Dear Ms. Patterson,

Thank you for providing the Department of Behavioral Health (DBH) with the draft report entitled "COVID-19 & Behavioral Health in the District of Columbia". We appreciate the opportunity to comment on the recommendations that relate to DBH.

At the outset of the pandemic, DBH recognized the emotional and mental health dimensions and set up a COVID-19 dashboard with key metrics to track the impact on service delivery and the demand for mental health services. The Bowser Administration and DBH made policy and budget decisions based on an analysis of this data and related metrics to maintain ongoing access to care and to establish or enhance services to meet the demand.

Mayor Muriel Bowser invested an additional $40 million in federal and local funds to support access to services, including crisis support; a new 24-hour Mental Health Hotline; a new virtual support program for parents and caregivers; counseling for health practitioners and other frontline workers, and greater care coordination for our most vulnerable residents with complex physical and behavioral health care needs.

In FY 22, there was a 36 percent increase in the utilization of publicly funded mental health services compared to pre-pandemic FY 19. During the same period, there was a 10 percent increase in the number of people who received substance use disorder services after a decline during the height of the pandemic.

Following guidance from the Department of Health Care Finance (DHCF), DBH-certified providers quickly pivoted to greater use of telehealth to deliver services. The table below shows how telehealth helped maintain ongoing access to care and address new demands. Telehealth usage for behavioral health services increased from nearly non-existent in pre-pandemic FY 19 to nearly half of the expenditures for mental health services in FY 22. The data also shows a significant difference in the use of telehealth for mental health services compared to substance use disorder services. To create more access to telehealth, Mayor Bowser added $2.6 million to

the DBH budget to purchase devices and Internet access, with the majority targeted for clients of substance use disorder services.

Use of Telehealth	FY19	FY20	FY21	FY22
Mental Health Services				
People served by telehealth	24	22,410	32,907	35,861
Medicaid telehealth expenditures	$4,845	$50,911,216	$117,550,444	$142,470,528
Substance Use Disorder Services				
People served by telehealth	0	1,543	2,173	1,694
Medicaid telehealth expenditures	$0	$724,321	$2,447,722	$2,204,974

I now would like to comment on the specific recommendations in the report:

1. *The D.C. government should continue supporting and expanding telehealth services.*

Agree. The DHCF issued regulations that maintained the expansion of telehealth services established during the public health emergency. Effective use of telehealth during and post pandemic has helped to meet the demand for behavioral health services.

2. *The D.C. government should continue publishing Medicaid trends, and make the existing Department of Behavioral Health (DBH) dashboards into publicly available and long-term platforms.*

Agree. DBH now makes publicly available on its website the Mental Health and Substance Use Report on Expenditures and Services (MHEASURES) which is a comprehensive overview of the usage of community-based mental health and substance use disorder services. Published semiannually on January 15 and June 15 of each fiscal year, MHEASURES provides a summary of key agency measures related to service cost, utilization, and access to the public behavioral health system. It is used to identify utilization trends. The following information is contained:

- Enrollment data by age group
- Service utilization by age group
- Utilization by service type/level of care
- Percent of adult consumers with Serious Mental Illness (SMI) and children and youth with Serious Emotional Disturbances (SED)
- Cost and utilization data
- Funding Source

The COVID-19 dashboard contains the following data points:

- Suicide/crisis-related calls
- Mental Health Hotline clinical calls
- Community Response Team calls
- Admissions to the CPEP, the DBH-operated emergency psychiatric facility
- Mental health services enrollment
- Substance Use Disorder services enrollment
- COVID-19 related deaths at Saint Elizabeths Hospital and among consumers and clients

Building on the COVID-19 dashboard and other metrics, DBH anticipates that it could implement a public dashboard within 90 days.

3. *DBH should build on existing public-private working groups to identify and generate shared metrics for behavioral health needs across the District.*

Agree. DBH will identify and initiate engagement with existing public-private working groups over the next 90 days and will be better able to estimate a timeframe for implementation after determining interest and capacity.

4. *DBH should coordinate with care providers across the District to define data sources and metrics to track needs for behavioral health services, especially among youth.*

Agree. As the state authority for the publicly funded behavioral health services, DBH will work with certified providers to define data sources and metrics. In addition, DBH will communicate within the next 90 days to existing partners including the DC Hospital Association, DC Primary Care Association, DC Behavioral Health Association, the DC Coalition of Disability Service Providers, and others to discuss coordination of data reporting and sharing.

5. *The D.C. government should develop reporting with specific data requirements for those providing behavioral health services in the District for both public and private systems, including:*

a. Counts of individuals served, grouped by age and type of service
b. Capacity of each service provider across each domain
c. Length of wait time to receive care/services (beyond DBH and Medicaid)
d. Attrition from waiting lists (e.g., enrolled but never seen)

Agree. As the state authority for the publicly funded behavioral health services, DBH will work with certified providers to develop such reporting with specific data requirements. DBH will collaborate with the DHCF within the next 90 days to communicate with existing partners including the DC Hospital Association, DC Primary Care Association, the DC Behavioral Health Association, the DC Coalition of Disability Service Providers, and others to discuss challenges and requirements to collecting and reporting specific data requirements. In addition, DBH will implement a real time interface with CRISP DC to

share and receive health information with both public and private providers during this fiscal year.

We appreciated the collaborative relationship with the audit team and look forward to working with you on these recommendations.

Kindest Regards,

Barbara J. Bazron, Ph.D.
Director, DC Department of Behavioral Health

ODCA Response to Agency Comments

The Office of the D.C. Auditor greatly appreciates the communication and collaboration throughout this audit with Department of Behavioral Health Director Barbara J. Bazron, Chief of Staff Phyllis Jones, and the entire team at DBH. We are pleased to see that the agency agrees with all of the recommendations made in this report.

The DBH response notes the agency's work throughout the COVID pandemic to build and share data internally with government colleagues. It is particularly exciting to see their commitment to make the information more broadly available. The letter notes, "DBH anticipates that it could implement a public dashboard within 90 days."

Similarly, on the report recommendation that DBH seek to work with the private as well as the public sector to gather and share information on behavioral health needs, DBH states their commitment to pursue such a partnership: "DBH will identify and initiate engagement with existing public-private working groups over the next 90 days and will be better able to estimate a timeframe for implementation after determining interest and capacity."

In addition to thanking the Department of Behavioral Health for their collaboration, we extend our thanks to Dr. Ellie Graeden and her team at the Georgetown University Center for Global Health Science and Security for a comprehensive examination of what the data can tell us today about the impact COVID-19 has had on behavioral health and the provision of services in the District of Columbia. This analysis underscores the importance of collecting and sharing data on health care needs as a step toward improved health outcomes for District residents.

About ODCA

The mission of the Office of the District of Columbia Auditor (ODCA) is to support the Council of the District of Columbia by making sound recommendations that improve the effectiveness, efficiency, and accountability of the District government.

To fulfill our mission, we conduct performance audits, non-audit reviews, and revenue certifications. The residents of the District of Columbia are one of our primary customers and we strive to keep the residents of the District of Columbia informed on how their government is operating and how their tax money is being spent.

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