Assessing the Effectiveness of Policies to Improve Access to Primary Care for Underserved Populations

CASE STUDY ANALYSIS: BALTIMORE CITY, MARYLAND

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ABSTRACT

This case study of Baltimore City, Maryland,[*] is the second in a series of case studies designed to assess the effectiveness of various policy initiatives to expand access to primary care in a region, particularly for underserved populations. Several parts of the city are classified as primary care health professional shortage areas, and many policy initiatives have been implemented to make primary care more accessible, but barriers persist.

For example, Baltimore has a significant number of physicians, but not enough of them provide primary care to low-income and Medicaid-eligible populations in the city. State programs to attract more providers to serve underserved areas and populations have been helpful, but the scale of the programs has been too small to move the needle. Federally qualified health centers (FQHCs) are a critical safety net provider in the city and have benefited from many state-level policy decisions, but school-based health centers (SBHCs) in the city have struggled to expand because of a lack of funding and significant regulatory burdens.

While efforts to improve access to primary care through telehealth are underway, barriers like lack of broadband access or lack of smartphones persist for some subpopulations. Despite several efforts by providers to connect patients with transportation options for primary care, transportation remains one of the biggest barriers to primary care access. The state has made significant strides in making primary care affordable by supporting policies that expand health insurance coverage and affordability. However, the inability of undocumented immigrants to enroll in subsidized health insurance remains a major gap.

The state's innovative Total Cost of Care model and the Maryland Primary Care Program have the long-term potential to improve primary care access in Baltimore, but local stakeholders expressed a need for more local input in designing incentives for further investment in primary care. Local stakeholders also expressed frustration at not having the funding to establish a local forum for planning and implementation of a broad primary care strategy for the city.

INTRODUCTION

It is difficult to overstate the importance of primary care to ensure robust population health outcomes. Evidence shows that not only can primary care prevent illness and death,[1] but it is also associated with reduction in health disparities.[2] Countries with strong primary care systems experience better health outcomes than those with weak primary care systems, including reduced unnecessary hospitalization and less socioeconomic inequality,[3] as well as improved management of chronic diseases.[4] Unfortunately, the United States falls short on many indicators that demonstrate the strength of a nation's primary care system.[5]

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* Baltimore City is separate from Baltimore County; wherever Baltimore is mentioned in this case study, the authors are referring to Baltimore City and not Baltimore County.

To strengthen a primary care system, a threshold issue to consider is how to improve access. The primary care access problem can be divided into five composite and interconnected dimensions, known as the five As: (1) *availability* of primary care clinicians, (2) *accessibility* of primary care services geographically, (3) *accommodation*, such as through appointment availability and hours, (4) *affordability,* and (5) *acceptability,* such as by ensuring comfort and communication between patient and clinician.[6]

In a Milbank Memorial Fund issue brief[7] and five accompanying fact sheets,[8] we assessed the evidence to determine whether policy initiatives that target primary care access have reduced health care disparities. Now, in this series of five case studies, we assess the impact of these policy initiatives at a local level to better understand implementation challenges and successes. The first case study focused on Grant County, New Mexico.[9]

This second case study focuses on efforts to improve access to primary care in Baltimore City, Maryland. Future case studies will focus on one urban and two rural primary care health professional shortage areas with relatively large numbers of minority or low-income populations.

BACKGROUND

Geography and Demographics

Baltimore, the most populous city in Maryland, is located alongside the Chesapeake Bay and has long served as an important port for the east coast of the United States. Baltimore City is a separate legal and political entity from Baltimore County despite their geographic proximity,[10] and Baltimore City has been treated as equivalent to a county since 1851.[11] This case study focuses on Baltimore City (see map).

The city of Baltimore has a population of about 585,700[12] that is roughly 58% Black, 28% white, and 7.8% Hispanic/Latino.[13] The Black population in Baltimore has decreased by 15% since 2010 but remains the largest racial group in the city.[14] While constituting a much smaller share of the total population, Baltimore's Hispanic/Latino population has grown by 77% since 2010.[15] Neighborhood level-data from 2020 show that many residents of color, particularly Black and Hispanic/Latino residents, live in the eastern and western areas of the city.[16]

The average per capita income across the city is $32,699, and the poverty rate is 20% (compared with the national average rate of 11.4%).[17] A significant wealth gap exists between the white residents and the racial and ethnic minority residents of Baltimore City: the median household income for Black residents in 2017 was $33,801, while the median income for white households was almost double at $62,751.[18] Stark income disparities also exist geographically throughout the city. City maps show that pockets of affluence, such as the Fells Point neighborhood (with a median household income of almost $99,000 between 2015 and 2019) lie next to high-poverty areas, such as the Oldtown/Middle East neighborhood (with a median household income of roughly $21,500 between 2015 and 2019).[19]

A 2021 community needs assessment conducted by the Maryland Primary Care Office found that Baltimore City ranked lowest among all 24 Maryland county-level jurisdictions in terms of certain key population health metrics.[20] Twelve areas in the city are currently designated as primary

HPSA scores provide a basis for determining eligibility and resources for several federal and state programs targeting primary care access across the country. The federal government designates areas as primary care HPSAs when they have (1) a low ratio of population to primary care providers (PCPs), (2) a high percentage of population below the federal poverty line, (3) poor infant health quality, and (4) longer travel times to the nearest source of care. The federal government scores HPSAs from zero for the areas with the lowest need to 25 for those with the highest need. HPSA designations can be geographic HPSAs (where the entire population living in that area is experiencing a provider shortage), population HPSAs (where specific populations like low-income populations or Medicaid enrollees in an area are experiencing a provider shortage), or facility HPSAs (facilities like FQHCs are automatically designated as HPSAs, making them eligible for the federal and state programs mentioned earlier).

MUA designations are the basis of eligibility for the FQHC and FQHC Look-Alike programs. MUA designations depend on an Index of Medical Underservice (IMU) score, which is calculated from the (1) number of PCPs per 1,000 people, (2) percentage of population at the federal poverty level, (3) percentage of population over 65, and (4) infant mortality rate. IMU scores fall between 0 and 100, and a score of 62 or below results in a MUA/P designation. Baltimore City has 14 MUA designations with IMU scores ranging from 38.6 to 61.6.[25]

care geographic or population Health Professional Shortage Areas (HPSAs); two of these are designated high needs geographic HPSAs, six are low-income population HPSAs, and four are Medicaid-eligible population HPSAs. About 48% of city residents live in a primary care HPSA. Furthermore, about 75% of Baltimore residents live in a federally designated Medically Underserved Area (MUA), which serves as the basis of eligibility for the federally qualified health center (FQHC) and FQHC Look-Alike programs. (See box.)

While Baltimore residents experience many significant barriers to accessing primary care, lack of health insurance coverage is not necessarily one of these barriers. As of 2020, 6.8% of Baltimore residents under age 65 did not have health insurance, a lower rate than the national uninsured rate of 8.6%.[21,22] This can likely be attributed to multiple factors, including Maryland's decision to expand Medicaid under the Affordable Care Act (ACA) as well as its support for policies to boost health insurance enrollment.[23] In 2020, 32.3% of noninstitutionalized Baltimore residents were enrolled in Medicaid or the Children's Health Insurance Program (CHIP), while 59.1% had private insurance.[24]

Key Stakeholders

A significant number of state and local entities play a role in the provision of primary care services to Baltimore residents.

Governmental Agencies

The **Maryland Department of Health** is divided into multiple offices, some of which are tasked with managing primary care-related initiatives throughout the state. The **Office of Population Health Improvement (OPHI),** within the Department of Health, uses data, federal and state funds, and partnerships with other stakeholders to oversee and implement a number of primary care-related programs.[26] The offices under the OPHI umbrella include the **Primary Care Office,** the **Office of Workforce Development,** the Office of School Health, and the state Community Health Worker (CHW) program.

- The **Primary Care Office** consists of two staff members and is funded solely by the Bureau of Health Workforce within the Health Resources and Services Administration (HRSA) to produce a primary care needs assessment (most recently published in 2021),[27] designate primary care HPSAs in Maryland, administer federal HRSA programs such as the National Health Service Corps (NHSC) in Maryland, and provide technical assistance to FQHCs and other primary care organizations serving underserved communities.[28]

- The **Office of Workforce Development** receives federal and state workforce development funds to bolster the health care workforce in high-need areas, including Baltimore City, through programs such as the State Loan Repayment Program (which is funded by both the federal and state governments), the Maryland Loan Assistance Repayment Program (fully funded by the state), the Conrad 30 (J-1 Visa Waiver) Program, and the Preceptor Tax Credit Program (which provides tax credits for certain health care providers who oversee and mentor trainees).[29]

- The **Office of School Health** works with the Maryland Department of Education to develop standards for and to evaluate health services provided by school nurses.[30] The school nursing program is separate from the school-based health center program, which is currently run through the Maryland Department of Education[31] but will be transferred to the Bureau of Maternal and Child Health at the Maryland Department of Health.[32]

- Beginning in 2019, OPHI also oversees the certification of individual CHWs and the accreditation of CHW training programs, receiving guidance from the **State Community Health Worker Advisory Committee.**[33]

The Total Cost of Care Model

In 1971, the Maryland legislature enacted a law regulating commercial hospital reimbursement rates; in 1977 the state's authority was expanded to include Medicare and Medicaid rates, resulting in an all-payer rate setting system. The state's **Health Services Cost Review Commission** was established as an independent agency to establish hospital rates with the goal of containing costs while improving access to care, health equity, financial stability, and hospital accountability.[34] The commission's authority applies to inpatient services and outpatient services provided at a hospital or on the campus of a hospital.

In 2014, the Centers for Medicare & Medicaid Services entered into a new agreement with Maryland called the All Payer Model (APM) with the goal of moving Maryland hospitals to a global budgeting system while monitoring key quality and utilization measures. Although the APM succeeded in improving quality and decreasing the growth in hospital costs, its effects were limited to hospitals, and it did not provide for coordination across the entire health care system. In 2019, the APM transitioned to the **Total Cost of Care** (TCOC) model encompassing all the health care that patients receive, whether in a hospital or in the community.[35] The TCOC model emphasizes care coordination, team-based care, primary care, and population health improvement. Under its agreement with the federal government, Maryland is required to save $300 million in annual Medicare spending by the end of 2023.

Housed under the Maryland Department of Health, the **Maryland Primary Care Program** (MDPCP) is a key component of the TCOC model. MDPCP is a voluntary program open to all primary care practices and FQHCs in the state.[36] It provides funding and support for practices to transform to a team-based, coordinated primary care model and allows PCPs to play an enhanced role in the prevention and management of chronic diseases. One of the five MDPCP transformation areas is focused on lowering barriers to care, specifically by expanding office hours. Four million Marylanders (two-thirds of the state) receive primary care from the 476 practices participating in MDPCP, which pays them about $150 million in fees to fund these practice transformation activities. Fifty primary care practices and three FQHCs in Baltimore City are part of this program.

The **Community Health Resources Commission (CHRC)** is a quasi-independent commission established in 2005 under the Maryland Department of Health that provides grant funding to help community-based groups expand access to health care resources and foster health equity in underserved areas of the state.[37] Since its inception, the CHRC has provided about $119 million in funding to about 665 organizations. In 2022, it awarded $13.5 million to nine grantees under the "Pathways to Health Equity" established as part of the Maryland Health Equity Resource Act. Three of the nine grants work directly to reduce health disparities in Baltimore City.[38]

In Baltimore, the **Baltimore City Health Department (BCHD)** serves as a central hub for many public health initiatives, including expanding access to primary care. While BCHD does not directly provide primary care, it operates two clinics that provide basic reproductive health, dental, and immunization services. Further, BCHD oversees programs that help improve access to primary care, such as the provision of nonemergency medical transportation services for Medicaid beneficiaries, school nursing services, and maternal and child health services.[39] BCHD also runs the city's **Local Health Improvement Coalition (LHIC),** a state-mandated coalition that brings together stakeholders including hospitals, community-based organizations, and FQHCs to develop a population health framework across the city. The Baltimore LHIC is currently focusing on three issue areas: diabetes management, social determinants of health, and care coordination.[40]

Primary Care Providers

- Fourteen private and two Veterans Affairs hospitals operate within Baltimore City, and multiple hospital systems have affiliated outpatient clinics that provide primary care.[41,42] For example, **Johns Hopkins University** operates clinics both on its Baltimore City hospital campuses and through its affiliated Johns Hopkins Community Physicians, a physician group providing primary care across the state including three clinics in Baltimore City (a fourth clinic transitioned into an FQHC in 2020).[43] MedStar Health runs seven primary care clinics,[44] and **University of Maryland Medical Center** operates one family medicine clinic in Baltimore.[45]

- There are six **FQHC** systems in Baltimore,[46] running 24 service delivery sites in the city and a mobile van.[47] Baltimore Medical System is the largest FQHC in Maryland, serving over 50,000 patients in the Baltimore area each year.[48]

- There are 17 **school-based health centers (SBHCs)** currently operating in Baltimore City schools. Eight of them are operated by Baltimore Medical System, seven by the Baltimore City Health Department, and one by the Rales Center, which is a part of Johns Hopkins School of Medicine.[49]

- **Free clinics** including the Esperanza Center and Shepherd's Clinic provide primary care for low-income or uninsured Baltimore residents.

Nongovernmental Organizations

- **Health Care Access Maryland (HCAM)** is a nonprofit organization that helps uninsured and underinsured residents enroll in both public and ACA marketplace health insurance plans. HCAM also provides care coordination services to help insured residents better understand and use their Medicaid benefits.[50]

- **Central Maryland Area Health Education Center (CMAHEC)** is part of the federal Area Health Education Center program established in 1972 to improve recruitment and retention of PCPs in medically underserved areas. Located within the University of Maryland School of Medicine, CMAHEC is one of three Area Health Education Centers in the state, and its operations extend to six counties and Baltimore City.[51] CMAHEC organizes rotations in underserved areas for health professions students, trains CHWs, conducts continuing education programs, and engages in some community health intervention programs.[52]

Methodology

To better understand how the efforts of the various stakeholders to improve primary care access for underserved Baltimore residents have fared, we conducted 16 qualitative interviews with local PCPs, local and state officials, advocates, and experts with close ties to Baltimore and knowledge of the primary care landscape in the city. Interviews occurred between March 14 and May 18, 2022.

DESCRIPTIVE ANALYSIS AND FINDINGS

1. Availability of Primary Care Clinicians

There Is a Shortage of Primary Care Providers Who Serve Underserved Populations

One public health official observed that although the many renowned and large medical institutions in the city generate a multitude of providers, there is a significant shortage of PCPs who accept Medicaid and treat low-income patients in Baltimore. The PCPs that do practice in the city are not equally distributed: certain neighborhoods have no full-time PCPs, some neighborhoods have one PCP for tens of thousands of people, and other neighborhoods have one PCP for every 20 or so people.[53] While one PCP for every 2,500 patients is seen as an ideal ratio by some, there is evidence that this might still be too many patients per practitioner.[54]

Furthermore, according to a public health official, all of the areas in the city designated as experiencing a provider shortage have shown a further decrease in the number of PCPs in recent years. As a result, existing shortage designations have been expanded to apply to broader swathes of underserved populations.

One stakeholder who coordinates a program that connects emergency room patients with a PCP stated that "it is a struggle every day [to find a PCP]." Another stakeholder who helps low-income patients connect with health care found that Medicaid enrollees experienced wait times of at least four weeks for initial primary care appointments, which they consider to be excessive for this patient population.

Some stakeholders blamed burnout from the COVID-19 pandemic for the loss of providers. At the same time, as one state-level policy advocate put it, "Maryland is a huge exporter of medical professionals." Many medical students and residents who come to train in renowned medical schools and hospitals have no ties to the region and do not stay there. Stakeholders found that recruitment can be a particular challenge for FQHCs given their lower levels of compensation, but once physicians are recruited, turnover is relatively low because these physicians are generally more mission driven. FQHCs that have ties with medical residency programs have also had some success recruiting from them.

Multiple stakeholders also expressed concern about the turnover and vacancies among support staff such as "medical assistants and front desk staff" because of the pandemic and the stress it has placed on them. Many have chosen to leave the health care field altogether. The lack of support staff can be disruptive and diminish the patient experience, and it can add to provider burnout and negatively affect the retention of PCPs in the long run. One FQHC, where a decision was made a few years ago to pay support staff a higher wage than other FQHCs paid, has been able to weather these shortages somewhat better as a result.

State Programs to Improve Recruitment and Retention Have Been Successful, But the Scale of Programs Is Insufficient

Between the Primary Care Office and the Office of force Development, the Maryland Office of Population Health Improvement manages a number of programs to develop the primary care force practicing in underserved areas:

- Federally funded National Health Service Corps (NHSC) scholarship and loan assistance programs place primary care, dental, and mental health clinicians in sites with workforce needs. As of 2021, 83 service sites in Baltimore were eligible to receive NHSC providers, and the city had 45 active NHSC primary care providers (12 physicians, 29 nurse practitioners, and four certified nurse midwives).

- The Maryland Loan Assistance Repayment Program (MLARP) is fully funded by the state and is available for both physicians and PAs. The State Loan Repayment Program (SLRP) is funded by federal government and requires the state to match federal funds. SLRP is applicable to both physicians and physician assistants (PAs) working in primary care or mental health.

  In FY2022, there are 6 MLARP-only recipients in Baltimore, and one of them practices primary care. In FY2022, there are four recipients of both SLRP and MLARP funding in Baltimore, and all of them practice primary care.

- The J-1 visa waiver program is a federal-state collaboration that eases certain immigration restrictions on foreign-trained physicians in return for a three-year commitment to practice in an approved underserved area. Each state can request up to 30 waivers per year, and since 2016, Maryland has annually obtained waivers for at least 29 physicians in both primary care and specialty services. This program has become more competitive every year. In FY2022, there are 46 J-1 physicians practicing in Baltimore.

- The preceptor tax credit program is a state-funded program that gives state income tax credits to physicians, nurse practitioners, and physician assistants who mentor students and trainees at in certain programs in underserved areas of the state. In FY2022, the state approved a total of 123 credits (32 for physicians, 77 for nurse practitioners, and 14 for physician assistants across the state).

These programs are better at filling a few key workforce gaps and are limited in their ability to broadly expand the primary care workforce. One public health official characterized these programs as "very successful" at recruiting and retaining providers but found that the city's needs far exceed the supply of clinicians generated through these programs. The scale of these programs is small, and the providers enrolled in these programs make up less than 10% of all primary care providers in the state. One FQHC stakeholder found that while these programs used to give safety net providers like FQHCs "an edge" in recruitment a few years ago, now the effect is diluted because there are so many sites and few program recipients. Further, the majority of J-1 visa waiver recipients are specialists or focus on inpatient care instead of primary care. Practice sites are often hospitals, which tend to have the necessary resources to hire immigration attorneys to help these physicians and their families gain citizenship, and they choose to expend these resources on specialists over primary care physicians.

Another problem is the lack of a recent assessment of how many clinicians who enrolled in these state-level programs are continuing to serve underserved populations in Maryland. According to a public health official, a 15-year-old assessment found that about 70% of them stayed in Maryland, but the assessment did not look into whether the clinicians were still seeing Medicare and Medicaid populations in underserved areas. Efforts to track providers in 2012 could not be kept up because of the lack of staff and money. Recently, in an effort to improve these data gathering efforts, Maryland became one of the 30 states[55] participating in a national collaborative to better gather and manage this kind of provider retention data (3RNET's Provider Retention & Information System Management, or PRISM).[56]

Potential Long-Term Impact of MDPCP on Improving Primary Care Access for Medicaid and Low-Income Populations

While it is not a traditional workforce development program, in the long run, the MPCP could potentially increase the number of PCPs, particularly those serving Medicaid enrollees and other underserved populations. First, the program provides significant funding and other operational support to primary care practices as they transition to team-based, coordinated care. This can increase earnings for PCPs (practices in the program can make up to twice what they would if they were serving on a fee-for-service basis). The program also has the potential to reduce administrative burdens,[57] making the field more attractive to medical trainees. However, at least one stakeholder involved in primary care delivery found that participation in MDPCP had not yet resulted in the reduction of any administrative burdens. Second, MDPCP provides enhanced payments for PCPs who practice in high-need areas, in the hope that this will create incentives for more PCPs to serve these areas. Third, a condition for participation in MDPCP is that practices have to be open to accepting new

patients. While MDPCP does not have much enforcement authority to ensure practices are accepting new patients, one official found that making it a condition of participation can still help increase access. However, it is important to note that it might be difficult to fully understand how much MDPCP ends up impacting access, because the program does not directly evaluate participants on access measures that can capture the above gains.

Worry about Broader Trends for Careers in Primary Care

While not specific to Maryland or Baltimore City, several stakeholders brought up broader concerns with how the medical field trains, values, and treats PCPs. One provider found that primary care is not given the same importance as other specialized fields. For example, it is "very hard to get promoted and get tenure in primary care," and only about 1% of federal research funding goes to primary care.[58] PCPs also often make significantly less money than their specialist counterparts.[59] One primary care clinician and professor worried that this pay gap prevents those without the privilege of accumulated wealth, as may be the case for students from communities underrepresented in medicine, from pursuing primary care. They also found that this lower level of reimbursement signals "lower relative value of primary care work," and that talented medical students are frequently told that they are "too smart for primary care" in both direct and indirect ways. In a city like Baltimore, with its renowned medical institutions and high-stakes medical research, the draw of specialty medicine can be even more pronounced.

Finally, several stakeholders raised an alarm about the "workforce crisis in primary care" because of provider burnout. One primary care clinician and residency program director said that while doctors who deliver hospital-based services rarely have to handle calls to insurers about medical management issues themselves, PCPs frequently have to place these calls themselves. Several stakeholders pointed to the significant amount of after-hours work like responding to messages and handling medical notes that receives no reimbursement and adds to the burnout. Many PCPs who work with high-need populations in Baltimore experience additional stress from working with diminished resources and not always being able to connect their patients to help with respect to social determinants of health like food and housing.

Even When NPs and PAs Face No State-Level Restrictions on Scope of Practice, Federal Barriers Create Issues

Maryland does not limit NPs and PAs in terms of their ability to treat patients independently, but one NP we spoke to expressed frustrations about gaps in federal laws that impact their ability to fully do their job. They offered two examples. First, under federal law, NPs can only prescribe medication-assisted treatment for substance use disorders to a 100 patients at a time compared to physicians, who can potentially go up to 275 patients at a time.[60] In one Baltimore practice where only NPs hold the necessary permission to write these prescriptions, the NPs are quickly reaching their limit. Second, NPs expressed frustration that Medicare rules require a physician to sign off on certain supplies for patients with diabetes. This rule requires extra patient visits at a clinic where appointments are already hard to come by. While the federal government has made some attempts to fix this issue,[61] the NP reports that there are still access problems.

2. Improving Access to Outpatient Clinics for Underserved Communities

FQHCs Are a Vital Safety Net Provider and Rely on State and Federal Support

FQHCs are community health clinics that primarily serve underserved communities with high rates of uninsured and Medicaid-, CHIP-, and Medicare-eligible individuals.[62] They receive federal grants to provide no- or low-cost primary care services, and they are also eligible to receive enhanced payments for services provided to patients covered under Medicare, Medicaid, and CHIP.[63] Baltimore City is home to six FQHC systems running 33 safety net sites (eight of these are SBHCs, and one is a mobile van) serving about 140,000 patients.[64] On average, close to 90% of the patients receiving FQHC services are either uninsured or covered under Medicare, Medicaid, or CHIP, and almost all are at or below 200% of the federal poverty level.[65] Combined, these FQHCs see about 65% of the estimated 213,000 people in the city who are at or below 200% of the federal poverty level, which makes these clinics the predominant source of health care for the low-income population in Baltimore.[66]

According to FQHC stakeholders, both federal and state government funding have been essential in allowing FQHCs to serve as safety net providers for high-need populations. Maryland's decision in 2014 to expand Medicaid also served as a financial boon to FQHCs. As one FQHC clinician observed, the increase in Medicaid-covered patients led to a "very large expansion of staff and services, both in depth and breadth." One FQHC stakeholder said that today a full third of the center's revenue comes from billing Medicaid and Medicare, while a stakeholder at another FQHC said that "the bulk of its revenue" comes from billing

these public insurers. However, gaps remain in the services eligible for Medicaid and CHIP reimbursement. For example, FQHC officials noted that CHW services and other services to assist this complex patient population with social determinants of health are generally not covered.

The state also provides capital grants to FQHCs for purchasing or expanding buildings and equipment.[67] Further, MDPCP started allowing FQHCs to join the program in 2022, and so far three of the six FQHC systems in the city have joined.[68] These FQHCs are eligible for targeted care management payments and access to organizations that provide technical assistance while they transition toward more team-based and population health-centric primary care.

Successes and Challenges of a University Hospital-Affiliated Clinic Converting to an FQHC

One large university hospital that ran a primary care clinic in Baltimore found that, despite heavy investments, they were unable to sustainably provide the necessary resources to meet the high needs of the communities they served. The university hospital consequently partnered with an existing FQHC system and converted its primary care clinic into an FQHC. While the clinic is now officially a part of the FQHC system, the university hospital continues to supply physicians to the clinic, run a primary care residency program at the site, and provide additional funding to the clinic. While this conversion is recent, some early indicators suggest that it is helping expand access to underserved communities. The clinic now sees a higher proportion of uninsured patients and now sees patients enrolled in all the Medicaid managed care organizations (MCOs), whereas it used to contract with only one Medicaid MCO. The clinic used some of the additional revenue it received from converting to an FQHC to hire additional staff, including case managers, two CHWs, and an additional primary care physician.

In addition, a natural symbiosis can occur when FQHCs house primary care residency programs. One residency program director found that having their residents practice at an FQHC was a huge recruitment incentive, and the residents really valued the experience. In return, one FQHC was able to recruit from the pool of residents in training at its clinics. Partnerships like these can create a sustainable pipeline of providers, with positive downstream effects on access to primary care.

However, some residency program faculty members expressed concerns about whether the goals of teaching and research, particularly of a university hospital-affiliated residency program, can work harmoniously with the clinical goals of an FQHC. One stakeholder familiar with the conversion of the university hospital-based clinic to an FQHC said that it took a lot of work on the part of both the university hospital and the FQHC system to ensure that the residency program at the converted clinic continued to achieve its sometimes disparate goals.

The Role of Hospitals in the Delivery of Primary Care in Baltimore

Every hospital in Baltimore runs or is affiliated with at least one primary care clinic. Some clinics operate directly on the hospital campus while others are located in the community. Maryland's unique TCOC model is expected to create incentives for hospitals to invest more in outpatient primary care in order to improve population health and reduce utilization of inpatient services and the total cost of health care. Hospitals retain any cost savings they are able to generate. One hospital stakeholder mentioned that the hospital used funds received under the TCOC model to "expand home-based primary care and to better serve high-needs pockets." While some hospitals might have already started down this path, the TCOC model does not currently require hospitals to invest any savings they generate under the model into primary care for underserved areas. One stakeholder familiar with the primary care landscape in the city said they have seen hospitals invest in community-based organizations targeting social determinants of health, but there has been no notable investment in improving access to primary care.

The agency that oversees the implementation of the TCOC model is developing requirements for hospitals to reinvest saved revenue in (1) community initiatives and/or (2) primary care, mental health care, and dental care in a designated underserved area. One local stakeholder said that it will be important for these upcoming requirements to be more prescriptive and include the input of those familiar with local population health needs. The stakeholder worried that without more direction, every hospital would independently decide how to reinvest its savings, which could make it difficult to coordinate and achieve population health goals. Likewise, one stakeholder worried that without local community, provider, and health department input on requirements for hospital investment, this effort to improve population health outcomes would end up being piecemeal and ineffective.

As part of the TCOC model, the State of Maryland has a contract with the federal government committing to save the Medicare program about $300 million by 2023. The state will then get to keep these savings for reinvestment into its health care system. Those familiar with the state's efforts on this front worried about the lack of centralized planning in developing a strategy for deploying this money.

The SBHC Model Is Stalled Because of Lack of Funding and Regulatory Barriers

School-based health centers (SBHCs) help children from underserved areas and their families overcome barriers to primary care such as lack of transportation, inability of parents to get time off from work, and unaffordability.[69] SBHCs are separate from school nurses, who generally provide acute care for injuries and illnesses, help with chronic health conditions, and screen for health problems, but do not diagnose and treat illness.[70] SBHCs, on the other hand, have at least one PCP, such as a pediatrician, nurse practitioner, or physician assistant, who can diagnose and treat children.[71] According to one policy expert, "SBHCs are considered an enhancement to school health services," and ideally an SBHC would be well integrated with a robust school nursing program, but both programs are underfunded in Baltimore.

Only 17 of the 167 schools in the city have an SBHC,[72,73] and all but two of these are run by the largest FQHC system in the city, Baltimore Medical System. About 70% of SBHCs in the state are run by FQHCs, and according to one local school health expert, the partnership between the two entities can have many advantages. SBHCs tied to FQHCs can bill Medicaid and CHIP for services provided to the children, and FQHCs that want to establish or expand SBHCs can take advantage of federal grants to do so.[74,75]

Despite the benefits of being sponsored by an FQHC, direct funding for SBHCs in Baltimore City is limited. First, until recently, the state allocated only $2.4 million (recently increased to $9 million)[76] to fund the 90 SBHCs throughout the state,[77] and on average, these funds covered only about a third of the total costs of SBHCs.[78] A 2018 report found that Maryland has significantly less state-level funding for SBHCs than other states with similarly sized SBHC programs.[79] The recent increase to $9 million is a step in the right direction, but according to an SBHC policy expert, this amount is still not sufficient when split between the 90 SBHCs. While Baltimore City does have a $22 million line item for school health, it is unclear how much of this funding is specifically for SBHCs because this line item also includes the school nursing program and several other non-SBHC-related school health funding needs.[80] One SBHC provider said SBHCs tend to run at a loss because they provide services to uninsured children as well as services they cannot bill for (attending school meetings, providing care coordination, and taking care of nonmedical wellness needs of the children they serve).

Aside from worries about funding, regulatory and administrative barriers have made it difficult to establish new SBHCs. SBHCs have to comply with state rules for SBHCs (even if they are not seeking state funding), follow any relevant state loan repayment program rules (if hiring someone through the program), and coordinate with the local health department. While one public health official found that these steps were necessary to balance the interests of safety with that of increasing access to primary care, a local SBHC policy expert found that the documentation required to start an SBHC can rival or even surpass the documentation required for other types of health centers and clinics. While recent legislation expanded the types of SBHC sponsors that can bill Medicaid, historically only SBHCs sponsored by FQHCs, local health departments, and nonhospital outpatient clinics could bill Medicaid;[81] this barrier prevented the hospital systems in the city from establishing SBHCs.

Finally, one SBHC policy expert pointed out that the lack of data about the cost of running an SBHC, particularly when the funding for school nursing and SBHCs bleeds together, makes it difficult to advocate for more funding. They found that a lack of city-level strategy for the deployment of SBHCs might be why Baltimore has not seen a significant expansion in the number of SBHCs in many years.

Local Program Highlights: The Success and Scalability of the Rales Center Model

The Rales Center, a part of the Johns Hopkins Children's Center, was established in 2014 to establish, operate, and evaluate a comprehensive model of school health. The resulting SBHC was launched in 2015, and today some stakeholders refer to it as the "Cadillac of the SBHC model." This SBHC serves almost 1,600 students in the largest elementary/middle school in city, and 99% of its students identify as US-born African American. More than 80% of the students are eligible for reduced-price or free meals and are insured by Medicaid. The students of this school had high rates of several health conditions. For example, about 36% have asthma, which is about twice the state level. In a 2021 evaluation, the Rales Center reported that its SBHC was able to avert an estimated 263 ambulance transports and emergency room visits due to asthma exacerbations. After four years, the center was able to reduce SBHC utilization by 23% "due to a substantial decrease in acute asthma visits.[82]

While one SBHC policy expert said that they did not necessarily believe that every school needs a model as comprehensive as the Rales model, they thought that many schools serving similar student bodies could benefit from such a model. According to the Rales Center, SBHCs like the one it established are unlikely to be sustained by billing revenue alone, and will require additional public and private funding, such as state and local public funds, and support from hospitals and payors.[83]

3. Removing Structural Barriers to Primary Care

State and Local Efforts Improve Access to Telehealth, But It Is a Work in Progress

The pandemic has changed the way providers and patients think about telehealth. One patient advocate found that during the pandemic, the increase in telehealth reimbursement and loosening of regulatory barriers helped patients overcome barriers related to transportation, work hours, and child care.

In 2019, the first year that MDPCP was implemented, only about 30% of enrolled practices regularly used telehealth, but during the pandemic, MDPCP collaborated with external funders and the state medical society to provide free telehealth platforms to every practice in the program. Within a month, 99% of practices had fully implemented telehealth. MDPCP also provided technical assistance to practices on working with patients who found the technology to be challenging. One FQHC stakeholder said that they were able to ramp up to 50% telehealth within three to four weeks of the start of the pandemic.

At the city level, the Baltimore City Health Department partners with MedStar to run a telehealth program focused on senior centers. When patients come to the senior center, program staff help them navigate the telehealth technology. One public health official found that the program worked well particularly because it was set in a location that residents were already visiting to get their blood pressure and other vital signs checked. This helped them feel more comfortable than if they attempted to log in by themselves.

During the pandemic, Baltimore City Public Schools (BCPS) partnered with a health care technology company, K Health, to provide access to telehealth services through a mobile application (app) for students and their families for a full calendar year. The program generated about 900 visits (about 80,000 students are enrolled in BCPS) and was mostly used by Medicaid recipients and undocumented immigrants. About a third of those who used the app decided to purchase a primary care membership once the free year was up because they found the app to be a "lot easier, more accessible, and more affordable" than traditional primary care. The fact that some Medicaid enrollees were willing to pay for an app to access primary care that should have already been available to them under their Medicaid plan raises concerns about the lack of access to primary care under Medicaid. However, because this program was a very small-scale intervention in terms of the proportion of BCPS students enrolled and the free services lasted only a year, it is unclear how much impact programs like these can have on a larger scale.

Despite state and local efforts, one state official described making telehealth accessible to underserved communities as a "work in progress." While broadband access is often seen as more of a challenge in rural places than in urban areas, broadband access is limited in Baltimore. The mayor has hired a digital equity coordinator to help provide better broadband access across the city. BCHD will be part of this effort by extending broadband to senior centers that did not have access before, enabling the many low-income seniors in the city who lack a smartphone or Wi-Fi to access telehealth services.

Transportation Is a Major Barrier, But Several Providers Have Mobilized to Overcome It

Multiple stakeholders cited a lack of affordable, accessible transportation as one of the most significant barriers that underserved Baltimore City residents face in accessing primary care services. Though FQHCs and similar providers in a large city like Baltimore are often located near bus routes, one stakeholder noted that a patient may have to take two or three different buses to reach a clinic. Both cost and travel time were highlighted as barriers to the use of public transportation to the use of public transportation.

BCHD and some providers deploy a variety of strategies to alleviate transportation barriers. BCHD operates a nonemergency medical transportation service for Medicaid beneficiaries that is fully paid for by Medicaid, but the service has several limitations. First, to qualify, patients often need a doctor's note showing medical need. Patients cannot access this service just because they are unable to afford other transportation. Second, parents who have medical appointments cannot bring their children with them. Third, the service needs to be scheduled a day in advance, and according to a patient advocate, it is not a door-to-door experience. Finally, the service is limited to Medicaid enrollees and is not available to uninsured people or those with other types of insurance.

Some local providers offer their own subsidies for public transportation and access to ride-sharing platforms. For example, one provider contracts with Uber Health to transport patients to their primary care appointments. Some PCPs use the additional payments they

receive from MDPCP for serving populations with higher needs to provide ride-sharing vouchers. Further, multiple providers mentioned helping patients fill out any necessary forms to get access to public transportation subsidies.

Mobile clinics can also help improve access.[84] During the COVID-19 pandemic, mobile clinics provided COVID-19 tests and vaccinations, and one provider expressed hope that their organization would continue to use its mobile vaccination clinic after the pandemic to provide a broader set of services. However, a provider stakeholder with a long-standing mobile clinic explained that mobile clinics have their own challenges. For example, they generally must partner with a brick-and-mortar location, such as a soup kitchen or shelter, where they can ensure their staff has access to bathroom facilities.

Difficulties in Finding Primary Care Outside of 9 to 5

Multiple stakeholders referenced the importance of offering after-hours care for the Baltimore residents they serve, the majority of whom may not "have the leisure of…paid time off requests" to go to a primary care appointment. In response, safety net providers have tried to orient their clinical schedules around patients' needs. While federal rules require FQHCs to offer emergency care after hours,[85] some FQHCs in Baltimore offer regular primary care appointments outside of the traditional 9-to-5 window. Primary care practices enrolled in MDPCP are also encouraged to expand access to care by expanding their hours. However, according to providers and patient advocates, these efforts come nowhere close to meeting the demand for after-hours appointments given the general shortage of PCPs and staff. One provider finds that they cannot ask their staff to work extended hours, because many of them are single parents.

4. Making Primary Care More Affordable
State Decisions Have Helped People Get and Use Health Insurance Coverage

One patient advocate identified lack of insurance coverage as the number one obstacle to primary care they have seen over the years. They found that the ACA was instrumental in reducing Maryland's uninsured rate from 13%[86] to 7%.[87] They also credited other state policy decisions in achieving these coverage gains. In 2019, the state legislature passed legislation establishing the Maryland Easy Enrollment Health Insurance Program,[88] which allows people to opt into insurance enrollment while filing their tax return. While enrollment increases in the program's first year were modest, it produced important gains among low-income working adults, who make up a disproportionate share of the uninsured.[89] In 2021, the state enacted a law to provide insurance subsidies for low-income young adults age 18 to 34 and budgeted $20 million for these subsidies.[90] Because this age group is the most likely to be uninsured, this policy serves the dual purpose of increasing the number of people enrolled in insurance plans and drawing young people into the risk pool, which ends up lowering health insurance costs for everyone.[91] While it is too soon to fully assess the success of this initiative, enrollment by young adults increased 6% during the 2022 open enrollment period.[92] These programs suggest that reducing enrollment barriers and lowering premiums can drive up enrollment in health insurance, which in turn helps make primary care more affordable.

Stakeholders familiar with insurance issues said that before the ACA was enacted, confusion about how to use health insurance prevented people from accessing necessary care. Today, they find that the state has "one of the best [ACA marketplace] staffs in the country" and that the health insurance marketplace (Maryland Health Connection) staff help enrollees get the most out of their coverage. In Medicaid, the Maryland Department of Health funds organizations to help Medicaid beneficiaries better understand and use their coverage. One of these organizations relies on CHWs to handle routine education and navigation. One patient advocate found that while these organizations "make Medicaid MCOs look good," they are exclusively government supported. They argue that requiring MCOs to contribute some of their funding could help these organizations increase the scope and scale of their services.

Some Gaps in Affordability Remain

Despite all these coverage gains, undocumented immigrants are barred from Medicaid or subsidized marketplace insurance. Undocumented immigrants can use FQHCs and other safety net providers and take advantage of sliding-scale fees based on their income, but patient advocates have found that worry over documentation and immigration enforcement can be barriers to seeking critical primary care services. One patient advocate mentioned that one insurer has a program that provides very low-cost health coverage specifically to people who are otherwise ineligible for coverage. While they found this program to be immensely helpful, this year only approximately 100 slots were available to them, which is far less than what is needed.

5. Improving Comfort and Communication between Providers and Patients

The State Is Making an Effort to Support CHWs through Certification, But Barriers Persist

A CHW is a "frontline public health worker who is a trusted member of, or has an unusually close understanding of the community served. This trusting relationship enables a CHW to serve as a liaison to, link to, or intermediary between health and social services and the community to facilitate access to services and improve the quality and cultural competence of service delivery."[93] In 2018, the state legislature enabled the certification of CHWs and accreditation of CHW training programs. Since then, the state has certified over a thousand CHWs, about a third of whom work in Baltimore. Stakeholders find that there is a growing interest in CHW certification based on the enthusiasm for renewals as well as the fact that every week more people apply for their initial certifications.

To understand where certified CHWs are employed and how they are paid, the state partnered with the University of Maryland to conduct a survey of CHWs and CHW employers. The results are expected to be published soon. The survey could help identify what kinds of metrics employers are using to evaluate CHWs' impact on their patients. MDPCP also encourages its participating practices to use CHWs and finds that most of them do. Practices apply the additional payments they receive from MDPCP for seeing patients in high-need areas toward hiring CHWs. To fully integrate CHWs into care teams, one residency

program director found that helping residents understand how to best leverage the skills of CHWs can encourage them to better integrate their services into their practices in the future.

One of the biggest barriers to more primary care practices incorporating CHWs is the lack of funding. CHW services cannot be billed to Medicaid in Maryland, and one provider said that they have to rely on grants to maintain CHW funding.

Providers Can Foster Cultural Competency in Their Practices and Connect with Their Communities

Baltimore has been ranked the tenth most segregated city in America.[94] This majority-Black city scores the lowest in Maryland county-level rankings on critical population health outcomes, such as prevalence of diabetes, heart failure, and asthma in young adults.[95] Multiple stakeholders spoke about the need to hire and train providers who can provide culturally sensitive primary care to the city's low-income Black and Latino communities. One FQHC provider spoke about their meticulous hiring process, which includes a behavioral interview, and said that interviewees "have to demonstrate a level of compassion and sensitivity expected for a population that has so many challenges related to social determinants of health." Another FQHC provider spoke about the importance of training providers to speak with patients, not at patients, and to move from "this is my plan for you" to "what's our plan together." Both stakeholders agreed that the implementation of anti-racist tenets and practices needs to be intentional and built into the organization's culture.

Several providers argued that training for cultural competency must start early. One residency program director reported that their program trains residents to look beyond their patients' specific health concerns to other challenges they might be experiencing, like food insecurity, eviction, bill collections, violence, and addiction. The residents of this program are able to take advantage of support staff like CHWs, case managers, and other community organizations to better help patients overcome these challenges. Residents and other providers are also encouraged to participate in the local neighborhood association and conduct community site visits to perform basic services like blood pressure checks and health education. These efforts have gone a long way in establishing comfort and trust between the residents and the patients they serve. The program director also noted that diversifying the residency class can help gain the trust of the communities they serve.

Balancing Clinical Efficiency and Spending Time with Patients, and Where Traditional Access Measures Might Fall Short

Appointment wait times are frequently seen as a handy measure for access, but the safety net providers we spoke to expressed unease with the idea of weighting clinical efficiency so highly over the need to take time to fully address the needs of their complex patient population. Providers said that private practices are driven to see a high volume of patients per day because they are paid on a fee-for-service basis, and FQHCs are driven to do the same because of clinical efficiency goals. University- or hospital-affiliated clinics, on the other hand, have less pressure to see as many patients because they receive financial

support from the university or hospital. At least one FQHC that serves a particularly high-need population expanded appointments from 15 to 30 minutes to better support the complex needs of patients. They found that their providers are happier because they now have more time to devote to each patient's specific needs, and this change has helped with provider retention in the long term. One provider urged for the development of more nuanced access measures that take these concerns into account.

6. A Lot of Independent Activity, But Not Enough Local Coordination

Primary care in Baltimore City involves a large number of FQHCs, many hospitals and their affiliated clinics, a handful of free clinics, several state agencies, a couple of local agencies, an assortment of insurers, and a number of community organizations. However, no forum exists to bring together all these entities to plan for primary care delivery across the city. One public health official said that the many hospitals and private practices in Baltimore are not really obligated to communicate with the local health department or each other as they would have to if they were one of only a few hospitals or clinics in a rural area. Another official said that while most stakeholders in the city recognize the need for better access to public health, they have differing ideas on how to achieve this. Some support the expansion of FQHCs, and some want to focus on workforce development measures, while others think hospitals need to provide better support for primary care. The official worried about the lack of a "greater population health strategy."

Unfortunately, as one official put it, "public health has been underfunded for so long" that there is no bandwidth or capacity to do the kind of convening and organizing work necessary to develop and implement a cohesive primary care strategy. One provider pointed to the Baltimore LHIC as an example of centralized coordination. The LHIC has developed a diabetes regional partnership in the region, bringing together various providers, community partners, state officials, and academic centers to "ramp up high-yield programs related to reducing the incidence of diabetes." The role of the LHIC has waxed and waned with different administrations in the city, but in the latest iteration, it has successfully convened "all of the major players in one spot." However, the scope of the LHIC's work is narrowly drawn and limited to specific projects for which it can obtain funding. The LHIC itself is not a funded entity, which prevents it from engaging in broader activities like population health planning. Yet, one provider thinks that with the necessary funding, the LHIC could be a forum for broadly discussing primary care and other population health needs.

CONCLUSION

Baltimore is bustling with physicians, but unfortunately, residents in underserved areas of the city continue to experience a significant lack of access to primary care providers. This disconnect has many causes. First, while the city's many medical schools and residency programs attract a significant number of trainees, they frequently tend to either leave the area or specialize in something other than primary care. Second, the physicians who do practice primary care in the city are concentrated in primarily white, higher-income areas, leaving gaps in access for those living in primarily Black and low-income neighborhoods and for those enrolled in Medicaid. Third, state-run workforce development programs have been successful in recruitment and retention, but the scale of the programs is so small that they have barely been able to move the needle in terms of improving access to primary care.

FQHCs play an essential role in the delivery of primary care to the city's underserved population, and they have been well supported by various state-level decisions like Medicaid expansion and the capital grants program. However, this same level of support is lacking for another type of safety net provider, SBHCs. SBHCs in the city have struggled to expand and have stalled under lack of funding and significant regulatory burdens. Hospital- and university-affiliated clinics sit in an interesting space within the city. Though they often see low-income or Medicaid-eligible patients, teaching hospitals and universities have found it challenging to sustainably run clinics that specifically cater to these patients, because they tend to take on fewer patients than FQHCs and private practices to focus on other goals like teaching and research.

Various providers and local stakeholders have embarked upon efforts to find ways to reduce structural barriers to primary care through interventions like telehealth, but stakeholders found that barriers like lack of broadband access or lack of smartphones still leave some subpopulations without the ability to use it. Despite this dense urban city's better-than-average public transportation system, almost all stakeholders found that a lack of affordable, efficient transportation remains a barrier for underserved populations.

Maryland has, however, been very successful in terms of tackling at least one type of barrier to access: coverage affordability. Maryland's decisions to expand Medicaid, establish an easy enrollment process, provide subsidies for low-income young adults, and invest in community organizations and partners who can help people enroll and use their coverage have all played a role in keeping the uninsured rate low. That said, the inability of undocumented immigrants to enroll in subsidized health insurance remains a major gap.

In terms of fostering communication and comfort between the provider and patient communities, Maryland has taken the first steps to deploy CHWs by establishing formal certification of CHWs as well as accreditation of CHW training programs. However, it still needs to develop a sustainable financing model for their services. In addition to leveraging CHWs, a number of providers also emphasized the need for training culturally sensitive clinicians who can look beyond the immediate health needs of their patients and help connect them with social services.

The innovative TCOC model and MDPCP both hold great promise in terms of improving the landscape of primary care access in the state and in Baltimore. The TCOC model could successfully create incentives for hospitals to invest more in upstream efforts to improve population health, but they might be more likely to succeed in improving access to primary care if they collaborate with local stakeholders to find an incentive structure that makes sense for the community. The relatively new MDPCP has already recruited many primary care practices in the state and supports their transformation into team-based and coordinated care. While participation in this program does not directly require practices to expand the population they serve, recently implemented incentives might help nudge practices toward serving underserved populations.

Finally, a lot of independent activity occurring at the state and city levels affects access to primary care in Baltimore, but there is insufficient funding to establish and sustain a local forum where stakeholders can come together. Creating a space for local providers, public health officials, and patient advocates to coordinate and plan for population health and primary care goals on a citywide basis could help improve access to primary care for underserved populations.

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