Evaluating Coverage Needs for Cardiovascular and Cerebrovascular Disease among Communities of Color in the District of Columbia

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Whitman-Walker Institute is working in collaboration with Whitman-Walker Health, a Federally Qualified Health Center with clinic locations in Wards 1 and 8, to examine disparities in prevention of and treatment of cardiovascular and cerebrovascular disease (CVD) among communities of color in the District of Columbia (DC). The purpose of this project is to help implement the DCHBX Working Group's recommendations for using cost-sharing reforms to address disparities by race and ethnicity in CVD incidence, prevalence, and outcomes. As the experiences and needs of communities of color are not monolithic and vary in relation to factors such as geography, sexual orientation, and gender/gender identity, Whitman-Walker has also identified other relevant equity considerations to ensure that our recommendations reflect a comprehensive assessment of elements that relate to the effective prevention and treatment of CVD.

Analysis of Publicly Available Data

Initially, we conducted an analysis of publicly available data and literature regarding CVD nationally and in the District. According to the American Heart Association, CVD remained the leading cause of death in the United States in 2020, with 41 percent of US deaths attributed to the disease. CVD is particularly prevalent in the District of Columbia, where it is the leading cause of death, positioning the District as the seventh highest death rate from CVD in the country. Across the United States and within the District of Columbia, the rates of CVD and related mortality are disproportionately high among Black communities and other communities of color. According to a report from Georgetown University, the rate of Black people in DC who die from heart disease is 2.5 times higher than their white counterparts, despite an overall downward trend in heart disease across the city. These disparities are most striking between Wards 3 and 8, where the CVD death rates are four times higher in Ward 8 than in Ward 3. The rate of death due to stroke is two times higher for Black DC residents when compared to white residents. These disparities are a result of increased risk factors for CVD among Black people in the District due to tobacco use, high blood pressure, chronic stress, diet, and lack of exercise. Despite similarly high risk factor profiles, Latinx communities nationally and in the District have historically maintained a low prevalence of CVD; however, some research examining this "Latino paradox" has found higher rates of CVD among this population, prompting a reevaluation of data collection methods to account for cultural factors such as immigration and acculturation.

For communities of color, structural racism is a fundamental driver of disparities in CVD across the United States, as the manifestations of racism, such as poverty, housing instability, violence, and other social determinants of health, contribute to chronic stress and CVD. In the District, research has shown that lack of access to fresh food, violence in community spaces designated for physical activity, and targeted advertising by tobacco companies in communities of color play a critical role in the disparate rates of CVD.

Structural racism continues to perpetuate disparities in the medical prevention and treatment of CVD. A nationwide study found that, though Black people received more antihypertensive medications, they had a lower blood pressure control rate compared to white people. This was attributed to a "one size fits all" method of treatment that does not address or consider other factors that contribute to higher blood pressure for Black populations, such as lack of access to parks or healthy foods. Similarly, research has found that Black people were less likely to be prescribed statins to treat high cholesterol, a critical intervention in the prevention of CVD, due to a variety of factors including lack of insurance and medical distrust leading to low adherence. A nationwide study found that people of color and uninsured patients

were less likely to receive both counseling and medication for tobacco cessation due to inequities in health insurance coverage and cost.

Research examining cardiovascular disease among sexual and gender minority populations has indicated that LGBTQIA+ adults experience disparities across risk factors. Tobacco use among LGBTQIA+ adults is higher than among non-LGBTQIA+ adults and is increasing. In particular, sexual minority women are reported to be more likely to use tobacco than heterosexual women and men and sexual minority men. Data on tobacco use in transgender adults is limited, though research has determined a higher prevalence of tobacco use in transgender adults compared to cisgender adults. Disparities in hypertension vary across LGBTQIA+ populations, with sexual minority men reporting higher blood pressure than heterosexual men and bisexual men reporting two times higher rates of hypertension than heterosexual men. Studies assessing high cholesterol within the LGBTQIA+ community are limited; however, transgender people on hormone replacement therapy may require additional screening for hyperlipidemia. For sexual and gender minorities, risk of cardiovascular disease is further driven by homophobia, transphobia, disproportionate burden of comorbidities like HIV, and other psychosocial stressors such as discrimination and violence. For LGBTQIA+ communities of color, these systems of oppression overlap with structural racism to further exacerbate risk of CVD. Further research is necessary to better understand the source of disparities in CVD among sexual and gender minorities and address these disparities within CVD treatment guidelines and practice.

The available data make clear that there is a shocking disparity in CVD prevention and treatment across the nation and in the District, with Black populations experiencing disproportionate impact. These disparities exist due to a variety of social determinants of health, and insurance coverage issues—including cost—are frequently barriers to critical care.

Review of Clinical Guidelines

We reviewed publicly available clinical guidelines for the prevention of and treatment of cardiovascular and cerebrovascular disease risk factors. As cerebrovascular disease and cardiovascular disease share the same risk factors, we focused on cardiovascular disease for the purposes of this analysis. Guidelines issued by the American Heart Association recommend regular evaluation of CVD risk for all adults 40-75 years of age and the pursuit of nonpharmacological interventions, such as increased physical activity and a healthy diet, prior to pharmacological interventions. Medical nutrition therapy (MNT) is an intervention that has been proven effective in encouraging a healthier diet for individuals at high risk of and individuals with cardiovascular disease. Cost is a barrier in seeking MNT, as it is often covered for treatment of diabetes but not treatment of other CVD risk factors. Pharmacological interventions for CVD, once required, should address the root causes of cardiovascular risk where possible, such as hypertension, high cholesterol, obesity, tobacco use, and diabetes. For the purposes of this analysis, we focused on hypertension, high cholesterol, and tobacco use, as these are the most common risk factors, and cost-sharing for diabetes has previously been addressed by HBX.

According to the American Academy of Family Physicians, diagnosis of hypertension requires two or more blood pressure readings on two or more occasions that meet the criteria for hypertension, either through ambulatory or home blood pressure measurements. If this criterion is met, lifestyle modifications should be suggested in combination with antihypertensive medications, including thiazide diuretics, calcium channel blockers, angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor blockers, and beta blockers. Follow-up testing of blood pressure should occur after one month and as frequently as determined by the clinician dependent upon the outcomes of treatment. Guidance from the American Heart Association recommends similar pharmacological treatments as well as consideration of structural determinants of health. Specifically, AHA guidance recommends any combination of medicines for non-

Black patients regardless of comorbidities but recommends diuretics and calcium channel blockers as a first line therapy for populations of African descent with no comorbidities. This recommendation is based on the only CVD clinical outcomes trial that examined the efficacy of different classes of hypertensive agents and found that diuretics were most effective in lowering blood pressure in Black participants. In recent years, this method of race-based prescribing has been questioned and implicated as a potential reason for less than optimal blood pressure control among Black patients. Instead, researchers recommend tailoring hypertension treatment regimens to the individual rather than by race. Overall, guidance for treatment of hypertension recognizes disparate outcomes across races but is woefully lacking in the consideration of racism as a driver of these outcomes.

For high cholesterol, the American Heart Association recommends screening for lipid disorders every 4-6 years for adults ages 20 and older with traditional risk factors. As individuals age, screenings are recommended more frequently with intervals of testing depending upon risk and familial history. For individuals with high cholesterol, lifestyle modifications should be introduced as a primary intervention and/or use of statin therapy as a secondary pharmacological intervention. In cases of patients with a history of cardiac events, statins may be provided in conjunction with nonstatin drugs, such as cholesterol-absorption inhibitors and PCSK9 inhibitors. Once pharmacological treatment has begun, follow-up testing should occur after 3 months and, as necessary, in 3-month intervals moving forward. Race and ethnicity are considered in estimations of high cholesterol risk, intensity of treatment, and lipid drug use. For example, guidelines state that individuals who identify as East Asian have an increased sensitivity to statins. Despite disproportionate rates of high cholesterol, doctors continue to prescribe statins at a lower rate for Black populations and, when statins are administered, they are less likely to be prescribed at the correct dose to reduce cholesterol to target. This disparity in achieving lower cholesterol outcomes is attributed to the lack of research exploring the use of statin therapy in people of color, despite higher rates of high cholesterol in these same communities.

The U.S. Preventive Services Task Force has issued guidance on interventions for tobacco cessation for adults that recommends a combination of behavioral interventions and pharmacotherapy. Behavioral interventions include medical advice, individual counseling, group counseling, telephone counseling and other phone-based interventions. Ideally, treatment should include a combination of pharmacotherapies and at least four or more behavioral counseling sessions with 90 to 300 minutes of total contact time. For pharmacological intervention, guidelines recommend the availability of all FDA-approved pharmacotherapies, including bupropion, nicotine gum, nicotine inhalers, nicotine nasal spray, and the nicotine patch. Studies have shown that behavioral interventions, such as advice and counseling, should be tailored to the individual's circumstances to maximize efficacy.

For care post-cardiac event, guidelines recommend the use of cardiac rehabilitation, a supervised program that encourages physical activity, education about healthy living, and counseling to relieve stress. Studies demonstrate that cardiac rehabilitation decreases the chance of death due to a heart attack in the 5 years after a cardiac event by 35 percent. Despite its efficacy, cardiac rehabilitation is underutilized due to patient-level barriers such as inadequate health insurance coverage, high cost-sharing, and transportation costs. Pharmacological interventions are also critical for post-event care and may include aspirin, beta blockers, platelet inhibitors, or anticoagulants.

Qualitative Interviews with Mental and Medical Health Providers

We conducted qualitative interviews with three medical and behavioral health providers at Whitman-Walker Health to ascertain their experiences in providing care and barriers to care for patients at risk of or diagnosed with CVD. Providers confirmed that insurance coverage and cost remain a barrier for

treatment of hypertension, high cholesterol, and tobacco use. They recommended no-cost preventive primary care and specialist visits and no-cost provision of frequently prescribed generics to treat hypertension and high cholesterol. To monitor hypertension at home, providers supported no-cost coverage of blood pressure monitors. Providers expressed challenges in the inconsistency of insurance coverage of smoking cessation pharmacotherapy across DCHBX plans and a lack of coverage for behavioral health treatments for tobacco use, such as counseling. Often due to the excessive cost of behavioral treatments for tobacco use, providers refer patients to no-cost smoking cessation wellness programs in the District; however, these programs may have a waitlist, an insufficient number of programs/providers that are congruent with the individual's needs (e.g., appropriate competency in working with LGBTQIA+ people, accessible transportation, child care), or other barriers that result in a delay in treatment.

Overall, providers recommended a comprehensive approach to the prevention of CVD that addresses many core risk factors, including diet, exercise, and sleep. Such an approach may include insurance coverage of dieticians/nutritionists for individuals at risk of CVD (as is often covered for diabetes) and programs that incentivize participation in nutrition courses and/or exercise programs.

For post-event care, providers strongly recommended no-cost coverage of cardiac rehabilitation, as many patients do not undergo cardiac rehabilitation due to lack insurance coverage. Providers also recommended no-cost coverage of post-event medications, including aspirin, beta blockers, Plavix (platelet inhibitors), and Eliquis (anticoagulants).

Coverage Recommendations

Cost remains a barrier in the prevention and treatment of CVD. According to the American Heart Association, a substantial portion of patients treated for CVD have been unable to seek care or delayed care due to financial reasons.

Whitman-Walker recommends that DCHBX consider, to the degree possible, establishing zero cost-sharing for the classes of medications to treat hypertension, high cholesterol, tobacco use, and CVD post-cardiac event. Specifically, we recommend that DCHBX establish a requirement of no cost-sharing for the medication classes/groups listed in Table 2 of the Appendix.

We also recommend that the deductible be waived for new patient assessments/screenings and regular follow up visits for both primary care, cardiology, medical nutrition, and behavioral health for the purposes of tobacco cessation (see treatment scenarios below). We suggest that follow-up appointments be covered with no cost-sharing with no limit on the number of visits to allow physicians and patients to determine a regimen that works best for care. Laboratory tests and imaging across visits should also be covered at no cost-sharing to allow continued monitoring of CVD risk factors and exclusion of other medical conditions prior to treatment. Additionally, at-home blood pressure monitoring materials, such as an at-home blood pressure cuff, should be covered at zero cost-sharing.

Appendix: All Medications and Services Related to the Prevention and Treatment of Cardiovascular Disease

Table 1: ICD Codes

Condition	ICD-10 Code	Code Description
Cardiovascular disease	I11	Hypertensive heart disease
	I20-25	Ischemic heart diseases
	I26-27	Pulmonary embolism and other pulmonary heart diseases
	I30-52	Other forms of heart disease
	I70-79	Diseases of arteries, arterioles, and capillaries
Cerebrovascular disease	I60-69	Cerebrovascular disease
Tobacco use	Z72.0	Tobacco use
	F17	Nicotine dependence

Table 2: Medication Classes/Groups

Condition	Medication Classes/Groups at Zero Cost-Sharing
Hypertension	Thiazide diuretics Calcium channel blockers Angiotensin-converting enzyme (ACE) inhibitors Angiotensin receptor blockers Beta blockers
Hypercholesterolemia	Statins Cholesterol absorption inhibitors PCSK9 inhibitors
Tobacco use	Nicotine replacement therapies Antidepressants (only Bupropion) Nicotine receptor partial agonist (Varenicline)
Post-event care	Aspirin (NSAIDs) Beta blockers Platelet inhibitors (Plavix) Anticoagulants (Eliquis)

Table 3: Laboratory Tests

Laboratory Tests at Zero Cost-Sharing	CPT Code
Blood pressure reading (by a physician or self-monitoring)	99211, 99473, 99474
Urinalysis	81000, 81002, 81003
Blood cell count	85025, 85007
Blood chemistry	80053
Lipid panel	80061
Nicotine test	80307, 80323
Troponin testing	84484, 84512
Imaging at Zero Cost-Sharing	**CPT Code**
Electrocardiogram	93000, 93005, 93010
Computerized tomography (CT) scan	70450, 70460, 70470

Table 4: Treatment Scenarios

Unlimited New and Follow Up Visits at Zero Cost-Sharing

Visit Type	CPT Code	Service Type	Specialty	Description
New, follow up	99202, 99203, 99204, 99205, 99211, 99212, 99213, 99214, 99215, 99242, 99243, 99244, 99245, 99441, 99442, 99443, 93798, 93797	Primary Care	Internal Medicine/Infectious Disease/Family Medicine/Cardiology	New medical visit; New patient, screening/assessment; Evaluation and management; cardiac rehabilitation
New or Follow-up	99211, 99473, 99474, 81000, 81002, 81003, 85025, 85007, 80053, 80061, 80307, 80323, 84484, 84512, 93000, 93005, 93010, 70450, 70460, 70470	Primary Care	Internal Medicine/Infectious Disease/Family Medicine/Cardiology	Laboratory tests and/or imaging
New, follow up	99406, 99407, 99078	Counseling	Smoking and Tobacco Cessation Counseling Visits	New patient, screening/assessment, follow up
New, follow up	97802, 97803, 97804	Medical Nutrition Therapy	Medical Nutrition Therapy	New visit, follow up and management