## VIEWPOINT

# Intensive Behavioral Counseling in Cardiovascular Care



## Opportunities to Improve Health Equity

Alyssa M. Vela, PhD,<sup>a,\*</sup> Allison E. Gaffey, PhD,<sup>b\*</sup> Allison J. Carroll, PhD,<sup>c</sup> Casey E. Cavanagh, PhD,<sup>d</sup> LaPrincess C. Brewer, MD, MPH,<sup>e,f</sup> Laura L. Hayman, PhD, MSN,<sup>g</sup> Matthew M. Burg, PhD<sup>b,h</sup>

s stated by the American College of Cardiology, diversity and inclusion are issues that are central to quality patient care, and innovation and advancements are essential to improve health equity and ensure equitable cardiovascular care and cardiovascular health for all. Yet, in the United States, health and well-being are limited by profound social, environmental, and systemic inequities. Historically excluded people, including men and women of under-represented races and ethnicities are more likely to experience extreme disadvantages, including structural racism, food deserts and insecurity, unsafe neighborhoods, and difficulties accessing and maintaining routine health care. These barriers are routinely encountered throughout the lifespan, contribute to a greater confluence of cardiovascular risk factors-tobacco use, obesity, physical inactivity, poor sleep quantity and quality, high blood pressure, high blood sugar, and high cholesterol-

From the <sup>a</sup>Division of Cardiac Surgery, Department of Surgery, Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA; <sup>b</sup>Section of Cardiovascular Medicine, Department of Internal Medicine, Yale School of Medicine, New Haven, Connecticut, USA; <sup>c</sup>Department of Psychiatry and Behavioral Sciences, Northwestern University Feinberg School of Medicine, Chicago, Illinois, USA; <sup>d</sup>Department of Psychiatry and Neurobehavioral Sciences, University of Virginia School of Medicine, Charlottesville, Virginia, USA; <sup>e</sup>Department of Cardiovascular Medicine, Mayo Clinic College of Medicine, Rochester, Minnesota, USA; <sup>f</sup>Center for Health Equity and Community Engagement Research, Mayo Clinic,

Rochester, Minnesota, USA; <sup>8</sup>Department of Nursing, Manning College of Nursing and Health Sciences, University of Massachusetts Boston, Boston, Massachusetts, USA; and the <sup>h</sup>Department of Anesthesiology, Yale School of Medicine, New Haven, Connecticut, USA. \*Drs Vela and Gaffey are co-first authors.

The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the Author Center. leading to greater cardiovascular morbidity and mortality.  $^{1}$ 

In a global case-control study from over 50 countries, behavioral and lifestyle factors together accounted for at least 90% of population attributable risk for a first acute myocardial infarction among men and women.2 Thus, attenuating cardiovascular risk at large, and particularly among the groups that are most vulnerable to cardiovascular health inequities, requires addressing these factors. Intensive behavioral counseling (IBC) is an empirically validated, evidence-based approach for primary and secondary cardiovascular disease prevention that applies the science of motivation and behavior change to support cardiovascular health through group or individual interventions over the course of 6 to 18 months. Given the high prevalence of cardiovascular risk factors in the United States, most adults would likely benefit from IBC. Furthermore, as demonstrated in the primary care context, the inclusion of IBC as part of an integrated treatment approach to care, can improve the equitable provision of care to members of historically excluded and minoritized groups. Thus, to promote health equity, IBC for cardiovascular risk reduction must be available and accessible to all, adaptable to various health care settings, and sustainable.

IBC interventions, as defined by the United States Preventive Services Task Force (USPSTF), are preventive services designed to promote health behaviors. More specifically, IBC interventions are intended to change and improve health behaviors regarding diet, physical activity, and other cardiovascular health metrics. Importantly, IBC is also safe and effective for members of historically excluded and minoritized groups. A recent systematic review of U.S.-based clinical trials examining IBC to improve

FIGURE 1 Intensive Behavioral Counseling for Cardiovascular Health Equity					
Factor	Dose	Setting  O  IIII	Providers	Delivery	Research
Current status	1 visit/year	Only primary care	Only primary care clinicians	Coverage of telehealth services is receding, particularly for audio- only services	The USPSTF recommendation for IBC is grade B (moderate certainty)
Evidence	12 sessions/ 12 months, 6 hours in total	Patients at risk of CVD and with CVD are seen in specialty care (e.g., cardiology), inpatient settings, FQHCs, and mental health clinics	Diverse healthcare professionals: masters- and doctoral- level counselors, RNs, RDs, and PTs	Telehealth delivery of IBC interventions are effective and increase healthcare access	Variability in the types of interventions, measurement, and outcomes
Recommendation	Increase number of IBC visits covered	Expand IBC coverage to all clinical care and community-based settings	Expand clinicians qualified to provide and bill for IBC	Continue to cover IBC virtually, by video and phone-only telehealth	Use standardized measures, incorporate new technologies, and assess SDOH

CVD = cardiovascular disease; FQHC = Federally Qualified Health Center; IBC = intensive behavioral counseling; PT = physical therapist; RD = registered dietician; RN = registered nurse; SDOH = social determinants of health; USPSTF = United States Preventive Services Task Force.

diet and physical activity among diverse participants with elevated lipids and blood pressure found promising effects of IBC, with no differences in outcomes by race or ethnicity.<sup>3</sup>

In 2020, the USPSTF expanded prior recommendations concerning IBC to include adults at increased risk for cardiovascular disease, even if weight status is within the normal range, with a focus on diet and physical activity.4 This recommendation was based on a systematic review of 94 randomized controlled trials that represented over 50,000 patients. The review indicated that behavioral interventions reduced the risk for incident cardiovascular events by 20%, changes that were commensurate with small but significant reductions in cardiovascular risk factors, including blood pressure, cholesterol, blood glucose, and adiposity.5 The behavioral counseling interventions reviewed were delivered in either group or individual sessions, at a medium-to high intensity, for a median of 12 appointments over the course of 12 months, and with an average of 6 hours over 6 to 18 months. Interventions included motivational interviewing and standard behavioral change techniques (ie, goal setting, problem-solving, and selfmonitoring). As important as the primary results,

this report also revealed that IBC resulted in little to no risk of serious harm.<sup>5</sup>

The Centers for Medicare and Medicaid Services (CMS) provides reimbursement for behavioral counseling interventions for patients at risk of cardiovascular disease (CVD).6 However, reimbursement is limited on several fronts: only 1 visit per year is covered for Medicare beneficiaries, reimbursement rates for clinicians are low, and counseling must be performed in a primary care setting. Moreover, advanced-level clinicians who are not nurse practitioners or physician assistants, most notably doctoral-level psychologists–the group that has developed and pioneered these health behavior strategies-are not included as eligible providers for this coverage. In contrast to CMS, the USPSTF recommendations indicate that behavioral counseling can be delivered by a range of health care professionals, including masters- and doctoral-level counselors, nurses, registered dieticians, and physical therapists (Figure 1).<sup>3-5</sup>

CMS policies concerning behavioral counseling for CVD prevention are also poised to incur excessive burden on those groups who experience health inequities. Specifically, while CMS expanded payment

3

Vela et al

for telehealth services in response to the COVID-19 pandemic, coverage is receding as CMS increasingly requires co-pays and limited reimbursement for audio-only services. With these rollbacks, which are contrary to the evidence base supporting the benefits of telehealth for better health care access, people who are disproportionately historically excluded or underinsured will suffer undue consequences.

To improve the public health and address historic health inequities, it is essential that barriers for accessing this counseling be reduced for all, so that this approach to CVD risk reduction be more widely available and accessible, adequately reimbursed, and conducted by practitioners with the appropriate training and expertise in using this approach (ie, psychologists). Clinics, health care systems, and payers must work individually and together to increase access to IBC for the millions of patients at risk for or living with CVD.

While CMS coverage has historically limited IBC use to primary care settings, expanding the settings in which it is offered is essential to increasing access and improving cardiovascular disease prevention. IBC could be expanded to all types of health care and community-based settings, including specialty care clinics (eg, cardiology), inpatient settings (eg, hospitalization after first myocardial infarction), federally qualified health care centers, and mental and behavioral health clinics (eg, a hospital-based psychology clinic). Furthermore, to truly increase access and reduce disparities, IBC should be offered virtually via video and phone-only telehealth, modalities that have a strong evidence base in behavioral interventions. The use of these telehealth modalities has been associated with increased engagement by diverse patient groups, including those who are historically marginalized, and is supported by USPSTF guidelines.3,7

To increase access to IBC, it is also essential that CMS expand who is qualified to provide and bill for these services. Consistent with USPSTF recommendations, there is an opportunity to expand IBC service providers to be inclusive of all master's and doctoral level providers trained in behavioral methods. This includes, but is not limited to, psychologists, counselors, and clinical social workers. Such expansion could also include other licensed and trained professionals, such as registered dieticians and physical therapists, as indicated by USPSTF guidelines. While USPSTF indicates that primary care physicians can provide behavioral counseling or refer elsewhere, a recent report indicated that the provision of all

expected care by a primary care clinician would take 27 hours per day. The expansion of eligible clinicians by CMS could be a part of significantly reducing this burden.

Despite this evidence, the USPSTF's recommendation for IBC is grade B or of moderate certainty, due in large part to the significant variability of interventions and inconsistency in measurement and outcomes.5 For example, reporting of behavioral outcomes such as physical activity and diet, lack standardization, which limited the interpretation of effects. Critically important is the utilization of new technologies, such as wearable activity trackers, which may provide more objective data on outcomes. Furthermore, there are limited data on social determinants of health and other inequities,9 contextual factors which are likely to impact the effectiveness of these interventions. A better understanding of these factors and inequities may inform the development of low-intensity approaches or community-informed interventions. For example, the FAITH! Trial offers an exemplar for how communityinformed interventions may be developed and implemented to improve cardiovascular health among African Americans. 10 Other limitations relate to small sample sizes, few replication studies, and relatively few studies examining long-term outcomes. Addressing the aforementioned limitations in research studies will strengthen the evidence base for behavioral counseling interventions, and even more critically, enable expansion of these interventions to address cardiovascular disease-related health inequities and elevate the quality of evidence supporting recommendations for IBC.

The American College of Cardiology Health Equity Taskforce defines health equity in cardiology as "a human right that allows everyone to achieve the best attainable cardiovascular health and outcomes by overcoming all avoidable barriers." Improving IBC access is a key opportunity to reduce barriers and support cardiovascular health equity. IBC is an evidence-based approach for addressing key risk factors for CVD incidence, progression, and mortality that has been recognized by USPSTF and CMS. The significant CMS-imposed limitations on the settings and clinicians who are eligible to offer this critical preventive care demonstrate the immense promise and opportunities for providers and systems to unite in addressing these restrictions and using the available evidence-base to meet the goal of reducing cardiovascular risk and disease inequity.

## **FUNDING SUPPORT AND AUTHOR DISCLOSURES**

Dr Gaffey was supported by a VA VISN1 Career Development Award and a grant from the National Institutes of Health/National Heart, Lung, and Blood Institute (1K23HL168233-01) during the development of this manuscript. Dr Brewer was supported by the American Heart Association-Amos Medical Faculty Development Program (grant no. 19AMFDP35040005), the Robert A. Winn Career Development Award (Bristol-Myers Squibb Foundation), the National Institutes of Health (NIH)/National Institute on Minority Health and Health Disparities (NIMHD) (Grant No. P50MD017342), the Clinical and Translational Science Awards (CTSA) (Grant No. UL1 TR000135) from the National Center for Advancing Translational Sciences (NCATS) to Mayo Clinic and the Centers for Disease Control and Prevention (CDC; grant no. CDC-DP18-1817) during the implementation of this work. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of NCATS, NIH, or CDC. The funding bodies had no role in study design; in the collection, analysis, and interpretation of data; writing of the manuscript; and in the decision to submit the manuscript for publication. Dr Hayman was partially supported by the UMass Center for Clinical and Translational Sciences (CTSA) (Grant No 1 54 TR001453), from the National Center for Advancing Translational Sciences (NCATS) and the American Heart Association (Grant No. 23AIREA1047891) during the development of this manuscript. All other authors have reported that they have no relationships relevant to the contents of this paper to disclose.

ADDRESS FOR CORRESPONDENCE: Dr Alyssa M. Vela, Bluhm Cardiovascular Institute of Northwestern, 676 N St. Clair, Suite 730, Chicago, Illinois 60611, USA. E-mail: Alyssa.vela@nm.org.@healthpsychphd.

#### REFERENCES

- **1.** Itchhaporia D. Paving the way for health equity in cardiology: why does it matter? *J Am Coll Cardiol.* 2021;77(20):2613–2616.
- **2.** Yusuf S, Hawken S, Ôunpuu S, et al. Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. *Lancet*. 2004;364(9438):937-952.
- **3.** Krist AH, Davidson KW, Mangione CM, et al. Behavioral counseling interventions to promote a healthy diet and physical activity for cardiovascular disease prevention in adults with cardiovascular risk factors: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2020;324(20):2069-2075
- **4.** Kharmats AY, Pilla SJ, Sevick MA. USPSTF recommendations for behavioral counseling in adults with cardiovascular disease risk factors:

- are we ready? *JAMA Netw Open.* 2020;3(11): e2029682.
- 5. O'Connor EA, Evans CV, Rushkin MC, Redmond N, Lin JS. Behavioral counseling to promote a healthy diet and physical activity for cardiovascular disease prevention in adults with cardiovascular risk factors: updated evidence report and systematic review for the US Preventive Services Task Force. JAMA. 2020;324(20):2076-2094.
- **6.** Centers for Medicare & Medicaid Services. *National Coverage Determination: Intensive Behavioral Therapy for Cardiovascular Disease (210.11)*. Centers for Medicare & Medicaid Services Medicare Coverage Database; 2011.
- 7. U.S. Department of Health and Human Services.
  Telehealth Policy Changes After the COVID-19
  Public Health Emergency. 2022. https://
  telehealth.hhs.gov/providers/telehealth-policy/

- policy-changes-after-the-covid-19-public-health-
- **8.** Porter J, Boyd C, Skandari MR, Laiteerapong N. Revisiting the time needed to provide adult primary care. *J Gen Intern Med*. 2023;38(1):147–155.
- **9.** Teshale AB, Htun HL, Owen A, et al. The role of social determinants of health in cardiovascular diseases: an umbrella review. *J Am Heart Assoc.* 2023;12:e029765.
- **10.** Brewer LC, Jenkins S, Hayes SN, et al. Community-based, cluster-randomized pilot trial of a cardiovascular mobile health intervention: preliminary findings of the FAITH! trial. *Circulation*. 2022;146(3):175–190.

**KEY WORDS** behavioral counseling, health equity, under-represented races/ethnicities