

# FORUM

translating research into quality healthcare for Veterans

VA



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Health Services Research & Development Service

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## Commentary

# Time to Use an Equity-Guided Improvement Strategy to Improve the Health of Veterans

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Disparities in health quality<sup>1</sup> and safety<sup>2</sup> are widespread in the United States. While disparities among Veterans tend to be smaller than among non-Veterans, they are not uncommon.<sup>3</sup> For example, Black, Hispanic, and American Indian Veterans with diabetes receive needed testing, screening, and counseling at similarly high rates as white Veterans but are less likely to achieve good HbA1c or blood pressure control.<sup>4</sup>

“A rising tide lifts all boats” is often used to suggest that traditional quality improvement will eventually trickle down and equalize care for all. More commonly, groups often change in parallel, leading to the persistence of gaps. We suggest that integrating equity into quality improvement may be a more effective and efficient way to achieve change. Equity can be used to focus resources on groups in places with the worst health outcomes. It also draws attention to the centrality of not delivering more services but delivering services in a way that optimizes health for patients. Recent research demonstrates that quality improvement strategies can be applied to reduce disparities within VA facilities serving very different populations.<sup>5</sup> It is time to use quality improvement more broadly to reduce disparities and achieve health equity for Veterans.

An Equity-Guided Improvement Strategy is an approach for identifying specific groups of Veterans receiving care in specific VA facilities who are not achieving equitable health outcomes. It can be used to assess whether underperformance in a facility on a particular metric is evenly distributed

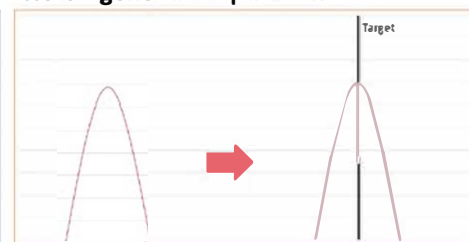
### Homogeneous Population



across a patient population (Homogeneous Population) or underperformance is largely attributable to care received by specific groups (Heterogeneous Population).

This distinction may have important operational implications. If underperformance is evenly distributed across a homogeneous population (Figure, left), traditional quality improvement techniques, which typically take a one-size-fits-all approach, can be applied to redesign care processes and raise average performance to the target level. However, in a heterogeneous population (Figure, right), some groups may already be at target, so altering care processes for them may be unnecessary and disruptive. Instead, care processes that work for groups at target may need to be adapted and translated to work with groups that are below target. For example, dietary counseling that works well for middle-class Veterans with adequate transportation may need to be adapted for Veterans with lower incomes with less access to transportation and take into account the local food environment where Veterans live. In addition, limited quality improvement resources can be focused on just the groups that are below target. Rather

### Heterogeneous Population



than modifying care processes for all patients, effort can be concentrated on enhancing care for the subset farthest from the target.

An Equity-Guided Improvement Strategy is appropriate for improving care in many VA facilities. For example, most serve large numbers of Veterans of Color. In 96 percent of VA hospitals, minority Veterans make up 10 percent or more of patients served; in 18 percent of VA hospitals, the majority of Veterans served are People of Color. In most VA facilities, disparities are not uncommon. We estimate that in over a quarter of all VA hospitals, more than half of the underperformance in control of diabetes or hypertension can be attributed to care received by either Black or Hispanic Veterans. Quality improvement efforts that focus on delivering culturally sensitive counseling to these Veterans in these VA facilities may yield better results than traditional quality improvement.

An Equity-Guided Improvement Strategy is also appropriate in the current pandemic. As in the general population, Veterans of Color are experiencing a disproportionate share of COVID-19 cases likely due in part

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## DEPUTY DIRECTOR'S LETTER



In alignment with the Presidential Executive Order that established a government-wide initiative to increase diversity, equity, inclusion, and accessibility in all parts of the Federal workforce<sup>1</sup> and the mission of the ORD Diversity, Equity and Inclusion (DEI) Workgroup, HSR&D has developed a comprehensive plan to promote a diverse workforce, inclusive work environment, and expand research related to equity in health services research.

HSR&D has been actively exploring innovative projects and funding mechanisms to address these aims and objectives to enhance DEI-related research, and to recruit and retain a more diverse workforce. There have been several accomplishments this year including a pilot by HSR&D's Center for Healthcare Organization and Implementation Research (CHOIR) (led by Dr. Keith McInnes) to introduce medical students from under-represented groups to VA health services research. Given the success of the pilot, this training and mentoring program is being expanded to permit additional medical students to gain experience in health services research with seasoned HSR&D mentors.

HSR&D is also strengthening the pipeline of up-and-coming researchers from under-represented groups interested in health services research. We are internally discussing and planning a new award mechanism to recognize the phenomenal work being conducted by early career investigators in health equity research. Last year's Under Secretary's Award for Outstanding Achievement in Health Services Research to Dr. Donna Washington for her incredible accomplishments in the fields of diversity, equity, and inclusion and women's health was a great start but more is needed to promote and support investigators in the pipeline for their work in equity. A workgroup is being developed to further discuss the details of this new award for early career investigators including the objectives, selection criteria, overall review process, and timeline for this new award. Individuals interested in participating in this new award for early career investigators in equity may contact me at [naomi.tomoyasu@va.gov](mailto:naomi.tomoyasu@va.gov).

In addition to highlighting excellent researchers in the pipeline, additional funds should be committed to enhancing health equity research and a more diverse workforce. In collaboration with the ORD DEI Workgroup, HSR&D will be allocating additional funds to the ORD Minority Supplement Program for early career investigators from under-represented groups. Four out of 10 applicants who were awarded the ORD Minority Supplements are health services researchers. However, given the limited funds for this award, additional applications could not be awarded. To address this need, HSR&D will provide additional support for strong health services applicants who did not get funded through the ORD Minority Supplements.

Lastly, to enhance a more diverse workforce, inclusive work environment, and expand research related to equity in health services research, HSR&D will expand existing and develop new trainings related to diversity, equity, and inclusion for health services researchers. The DEI training plans are part of HSR&D's overall plans to support all investigators who are interested in becoming better leaders, obtaining additional skills related to health services research, and mentoring early career investigators who are interested in research. We are particularly interested in exploring mechanisms to expand diversity among our health services researchers. One new idea generated by the HSR&D DEI Workgroup is the inclusion of personal narratives, or stories, of candidates for training programs such as the HSR&D Career Development awards. These stories can provide valuable and unique information beyond the applicants' or mentors' academic or research credentials. Inclusion of this type of personal information from training awards can better identify candidates with nontraditional histories and provide a better understanding of the paths they took that nurtured their interests in health services research. Much more work is needed to enhance DEI within health services research, and HSR&D fully supports new and innovative ideas such as these related to funding and training.

Naomi Tomoyasu, PhD, Deputy Director, HSR&D

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1. Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government; <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/06/25>

to their service as essential workers and in other jobs that make social distancing more difficult, and to their residence in high density neighborhoods and multigenerational households.<sup>6</sup> In addition, Veterans of Color tested for COVID-19 at VA are more likely to test positive, suggesting that they are facing greater barriers to testing. We identify specific counties served by VA facilities in which Veterans of Color have particularly high positive test rates (**COVID Equity Reports, updated through 6/30/2021**) (available only within VA). Tailored messaging to Veterans of

Color in these neighborhoods may help them overcome barriers to testing and encourage them to come to VA for COVID-19 care and eventual vaccination.

Free of profit motive, able to address many of the social determinants of health that adversely affect Veterans, and rich in data and dedicated providers, VA is ideally situated to use an Equity-Guided Improvement Strategy to ensure equitable outcomes for all who served. Such an approach can help us ensure that all Veterans receive the information, care,

and support they need in the current crisis and for the rest of their lives.

For more information on using an Equity-Guided Improvement Strategy, see the Office of Health Equity SharePoint at **Equity Tools** (available only inside VA). Start with the 3-minute video, *Engaging Healthcare Teams to Eliminate Health Inequities*, developed by the HSR&D Center for Health Equity Research and Promotion. Then, explore the dashboards.

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## Partnered Research Supports the Use of Equity-Guided Improvement to Reduce Disparities Among Veterans

Leslie R. M. Hausmann, PhD, HSR&D Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania

In this issue's lead commentary, Dr. Ernest Moy and Dr. Carolyn Clancy make an excellent case for integrating equity into quality improvement (QI) strategies throughout VA medical facilities. Not only does viewing QI through an equity lens ensure that evidence-based care is reaching Veteran populations who need it the most, but it also provides VA healthcare staff with a strategy to focus resources and QI initiatives where they will potentially have the greatest benefit.

At its core, the equity-guided improvement strategy described by Dr. Moy and Dr. Clancy is aligned with a conceptual framework to advance health equity research that was originally developed by researchers from the HSR&D Center for Health Equity Research and Promotion (CHERP).<sup>1</sup> The framework laid out three generations of research to improve equity within healthcare organizations. First generation research seeks to identify specific healthcare disparities that affect historically marginalized or disadvantaged populations. Second generation research seeks to understand causes of disparities at patient, provider, and system levels. Third generation research seeks to address healthcare disparities through interventions designed to address underlying causes. We have updated the original framework to call for health equity researchers to incorporate factors that impede or facilitate implementation of evidence-based treatments as potential causes of disparities.<sup>2</sup>

The first step of equity-guided improvement is identifying disparities in a specific patient population. If disparities in delivery of evidence-based care are identified within a given VA medical facility, for example, then QI that focuses on the unique needs or barriers to care experienced by an underserved population may be warranted. In such cases, equity-guided improvement would call for healthcare staff to maintain an equity focus as they seek to understand and address causes of their local disparities. Given that

disparities are often rooted in structural biases that put Black, Indigenous People of Color, and women Veterans at higher risk for worse health and healthcare, healthcare staff using an equity-guided improvement strategy should pay special attention to identifying aspects of standard processes that may contribute to members of a certain demographic group being systematically left behind.

Using equity to guide QI has been shown to work. A recently published study led by HSR&D researchers at CHERP supports the use of an equity-guided improvement strategy to identify, understand, and reduce healthcare disparities in VA.<sup>3</sup> VISN 4 first worked with CHERP investigators to develop a VISN 4 disparities dashboard to identify racial disparities among Veterans receiving recommended care for management of chronic diseases (e.g., diabetes and hypertension) and preventive screenings (e.g., mammograms and colorectal cancer screening). The VISN 4 disparities dashboard revealed that recommended levels of blood pressure control among Black Veterans with hypertension were achieved less often than among white Veterans at nearly every facility in VISN 4. VISN 4 then conducted a year-long VISN-wide QI initiative that specifically focused on improving blood pressure control among Black Veterans with severe hypertension (systolic BP  $\geq$  160 or diastolic BP  $\geq$  100 mmHg). In keeping with an equity-guided improvement strategy, the rationale for focusing the initiative on Black Veterans with severe hypertension was that Veterans in this subpopulation had both the highest rates of uncontrolled hypertension and were at substantial risk for developing complications if their blood pressure remained uncontrolled. Also, in keeping with equity-guided improvement, VISN 4 facilities each conducted their own investigation of factors that contributed to disparities in blood pressure control in their local Veteran populations. Although the VISN provided guidance and

centralized support throughout the initiative, facilities were encouraged to develop and implement interventions that were tailored to their local conditions.

Health equity researchers from CHERP were embedded in VISN 4's equity-guided QI initiative to provide subject matter expertise, conduct a process evaluation of the strategies that VISN 4 facilities used to reduce disparities in blood pressure control, and assess the effect of the initiative on clinical outcomes.<sup>3</sup> The results of the evaluation not only showed a reduction of disparities in the percentage of Black vs. white Veterans with severe hypertension over time, but it also offered an in-depth account of 21 different strategies that were used across VISN 4 facilities to improve blood pressure control and reduce disparities. Most facilities implemented multiple strategies, with the most common strategies being provider education, audit and feedback, and structural changes to delivering care (e.g., establishing hypertension-related appointments with pharmacists).

The project in VISN 4 offers a successful model for implementing the equity-guided improvement strategy proposed by Dr. Moy and Dr. Clancy. With support from the VHA Innovator's Network and HSR&D's Research to Impact for Veterans Program, researchers at CHERP have developed a multifaceted Primary Care Equity Dashboard to support the nationwide spread of equity-guided improvement in primary care throughout VA medical facilities. Built using human-centered design principles and refined through iterative testing with clinical stakeholders, the Primary Care Equity Dashboard is designed to meet the needs of QI champions as they plan, design, implement, and evaluate equity-guided QI projects in VA primary care settings. With its user-friendly layout, the Primary Care Equity Dashboard makes it easy to identify disparities in select outpatient VA Electronic Quality Measures by Veteran race and ethnicity,

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# Access, Quality, and Equity of Atrial Fibrillation Care in VA

Utibe R. Essien, MD, MPH, Terrence M.A. Litam, MHA, both with the HSR&D Center for Health Equity Research and Promotion, VA Pittsburgh Health System, Pittsburgh, Pennsylvania

Atrial fibrillation (AF) is the most common cardiac arrhythmia worldwide, affecting as many as 70 million individuals. The prevalence of AF is up to 6 million in the United States, a number that includes as many as 1 million patients cared for in VA over the past decade.<sup>1</sup> AF is associated with increased mortality and morbidity, including congestive heart failure, coronary heart disease, and ischemic stroke, the risk of which increases by five-fold with AF.

Oral anticoagulation (OAC) for non-valvular AF reduces stroke risk by up to 70 percent and is the standard of care for stroke prevention in AF. For decades warfarin was the only OAC therapy available, but its use was challenging. A newer class of direct oral anticoagulants (DOACs) with substantially fewer management challenges was initially approved by the U.S. Food and Drug Administration in 2010 and came into use in VA in 2011. Over time, DOACs, including apixaban, dabigatran, edoxaban, and rivaroxaban, have demonstrated superior clinical and cost effectiveness, safety, and adherence compared to warfarin.

Despite the effectiveness of OAC, racial and ethnic inequities exist in the initiation of such therapy. In prior analyses by our research team using insurance claims and clinical registries, racial and ethnic minorities with AF were less likely than white individuals to be treated with any form of OAC, and DOACs, even controlling for patient sociodemographic and clinical characteristics.<sup>2</sup> These disparities are particularly noteworthy given the fact that racial and ethnic minorities with AF also have higher rates of stroke and mortality than white individuals. VA provides an advantageous environment to examine treatment disparities, as it provides medications to its enrollees through a uniform national drug formulary. Our team thus set out to compare OAC initiation by race/ethnicity for patients with new-onset AF managed in VA.

## Developing our Study Cohort

In 2019, we received pilot funding from the VA VISN 4 Competitive Career Development Fund to develop a cohort of Veterans newly diagnosed with AF from 2010 to 2018. The cohort, now referred to as the Race, Ethnicity and Anticoagulant Choice in Atrial Fibrillation, or REACH-AF, began with 827,502 Veterans with an index AF diagnosis from 2010 to 2018. After several exclusions (for example, patients without continuous VA enrollment or with conditions limiting their use of oral anticoagulation therapy), our cohort included over 250,000 patients. As a final step, we excluded individuals who were diagnosed with AF before 2014, which was prior to when three of the most prescribed DOACs were available in VA, resulting in a cohort of 111,666 Veterans with newly diagnosed AF.

## Identifying Patient, Provider, and Facility Determinants of Disparities

We examined patient, provider, and facility-level characteristics that could be considered potential drivers of the association between race, ethnicity, and OAC/DOAC initiation. We used VA administrative data on race and ethnicity to define this variable as non-Hispanic White, non-Hispanic Black, Hispanic, Asian, or American Indian/Alaska Native (AI/AN). We identified several other baseline patient sociodemographic characteristics, including age at index diagnosis, sex, VA priority group, region, rurality, and area deprivation index. We then examined various clinical factors, including the validated CHA<sub>2</sub>DS<sub>2</sub>-VASc stroke risk and HAS-BLED bleeding risk scores. Using VA clinic stop codes, we identified provider-level variables including the clinical site associated with the index AF diagnosis and whether there was a clinical encounter with a cardiologist within 90 days of the index diagnosis. We also assessed the VA clinical site where the index AF diagnosis was recorded, categorized as VA medical center or community-based outpatient clinic.

## Key Points

- VA has cared for 1 million Veterans with atrial fibrillation (AF) over the past decade.
- Despite the effectiveness of oral anticoagulation (OAC), racial and ethnic inequities exist in the initiation of this therapy. These inequities are concerning because racial and ethnic minorities with AF have higher rates of stroke and mortality than do white individuals.
- The authors share findings from a study that examined patient, provider, and facility-level characteristics that may be potential drivers of the association between race and ethnicity, and the initiation of OAC and direct oral anticoagulants (DOAC).

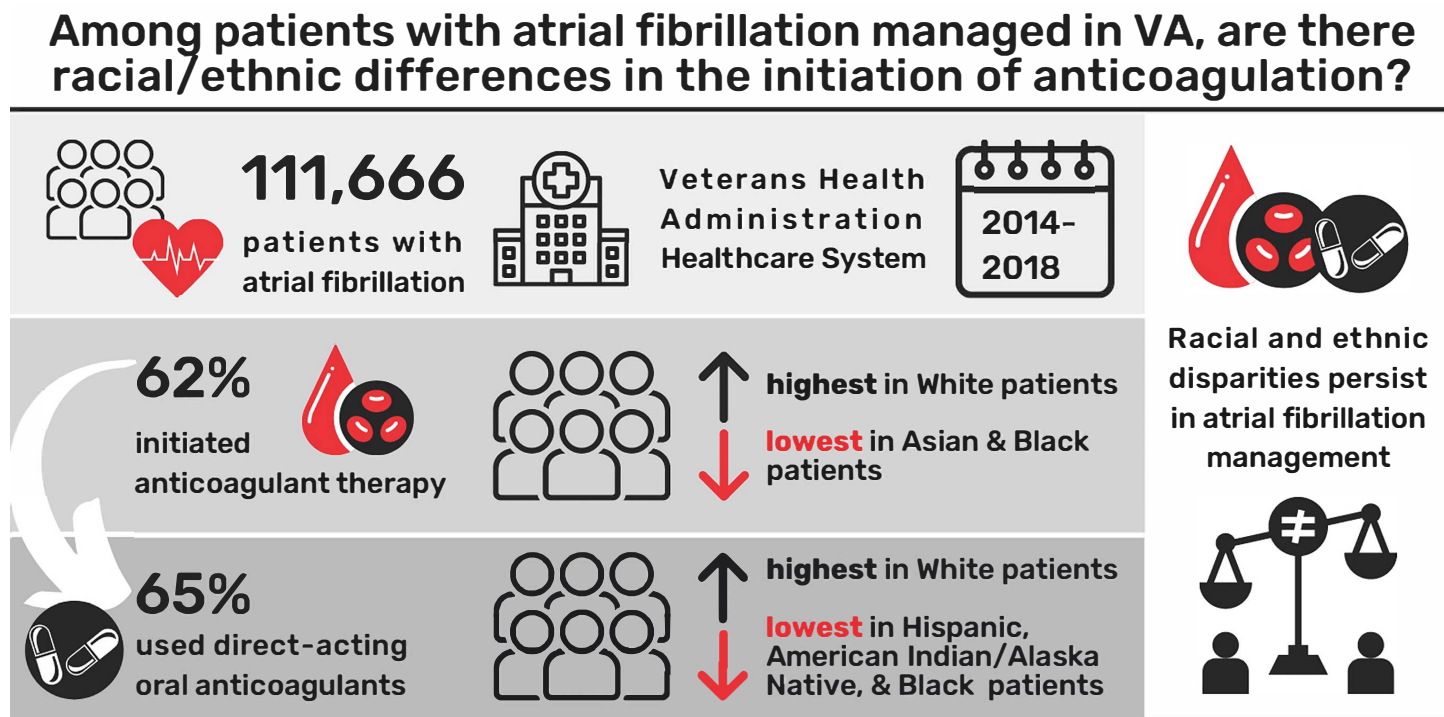
## Results from the REACH-AF Cohort

Of our final cohort, 98 percent were male and 86 percent were white. Other racial and ethnic groups were Black (9 percent), Hispanic (4 percent), Asian (2 percent), and AI/AN (0.5 percent). Overall, 69,590 (62 percent) patients initiated any OAC therapy, varying 10.5 percentage points by race and ethnicity; initiation was lowest in Asian (52 percent) and Black (60 percent) patients and highest in white (63 percent) patients. In our final model adjusting for all patient, provider, and facility factors, the adjusted odds of initiating any OAC therapy were significantly lower for Asian and Black patients (see Figure 1).<sup>3</sup>

Among those who initiated any OAC therapy, 45,381 (65 percent) initiated DOAC. DOAC initiation varied by 7.7 percentage points across race and ethnicity groups and was lowest in Hispanic (58 percent), AI/AN (60 percent), and Black (61 percent) patients and highest in white (66 percent) patients. In models adjusting for all patient, provider, and facility factors, the adjusted odds of initiating DOAC therapy were significantly lower for Hispanic, AI/AN, and Black patients.

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Figure 1. Racial and Ethnic Disparities in Anticoagulation in Veterans with Atrial Fibrillation



Essien UR, Kim N, Hausmann LRM, Mor MK, Good CB, Magnani JW, Litam TMA, Gellad WF, Fine MJ. Disparities in Anticoagulant Therapy Initiation for Incident Atrial Fibrillation by Race/Ethnicity Among Patients in the Veterans Health Administration System, 2014-2018. *JAMA Network Open*. 2021.



### The Path Forward – Ensuring Equitable AF Care

In our national VA study, we found that Black and Asian patients were significantly less likely than white patients to initiate any OAC; among those who initiated OAC, Black, Hispanic, and AI/AN patients were significantly less likely to initiate DOACs. These findings were noteworthy given VA’s uniform drug formulary and low-to-negligible medication co-payments, suggesting that medication cost alone was not responsible for the racial/ethnic disparities we observed. Furthermore, this study extends the data demonstrating that not only are white patients with AF more likely to initiate OACs, racial and ethnic minorities are both not as likely to initiate OAC, in particular more effective DOACs, despite their availability on the VA formulary.

So where do we go from here? In February 2021, our team received funding from VA HSR&D through a Career Development Award entitled, “Access, Quality, and Equity of Anticoagulation in Veterans with Atrial Fibrillation.” This three-aimed study seeks to 1) characterize the association between race, ethnicity, and oral anticoagulant initiation in Veterans with AF; 2) examine stakeholder perceptions of the barriers to and facilitators of equitable oral anticoagulant initiation in Veterans with AF; and 3) design and pilot test an implementation strategy bundle to improve equitable oral anticoagulant initiation in Veterans with AF. Our goal is to use AF as an exemplary model disease through which we can understand and reduce treatment disparities across the VA health system and beyond. These steps can lead our health

system closer to achieving pharmacoequity, a goal where all patients, regardless of race, class, or availability of resources, have access to the highest quality of treatment they need.

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# Very Low Food Security: A Major Threat to Veteran Well-being

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Veterans need adequate access to nutritious food for their health and wellness. However, food insecurity can threaten their ability to achieve this need. Food insecurity is a socio-economic condition in which individuals lack money to purchase adequate, nutritious food. In a study we recently published of post-9/11 Veterans living in low-income households, Veterans described skipping meals or reducing their intake to conserve food for their children and other family members.<sup>1</sup> They also described having to purchase affordable and filling foods that often fell below their nutritional standards or were not items they preferred to eat. These compromises to their diet are consistent with characteristics of individuals living with very low food security – the most severe level of food insecurity.

Food insecurity as described by the U.S. Department of Agriculture (USDA) has different levels of severity (Figure 1.) Most Veterans live with high food security, meaning they have no reported food-access problems or limitations. Marginal food security is the next level of severity and is associated with anxiety over food sufficiency or shortage. Individuals with high and marginal food security are labeled food secure. Low food security is associated with reduced quality, variety, or desirability of diet. Very low food security is also associated with these characteristics along with disrupted eating patterns and reduced food intake. Individuals with low and very low food security are labeled food insecure. Research often categorizes Veterans as either food secure or food insecure based on these labels. However, our research has found important differences between the four levels of severity as they relate to Veterans.

Using data from the 2011-2014 National Health and Nutrition Examination Survey, we compared odds for food insecurity between working-age Veterans (n=155) and non-Veterans (n=310) matched on gender, race/ethnicity, education, and income.<sup>2</sup> We adjusted our logistic regression model for these characteristics along with age, education, marital status, and depression screening score. We could not control for Veteran enrollment in VHA care. We found that Veterans were almost three times more likely to experience very low food security compared to socio-economically matched non-Veterans. This finding suggests that Veterans who are food insecure are suffering from the most extreme level of food insecurity. A possible explanation for the greater odds of very low food security among Veterans may be related to their military training and experience.

In our prior photo-elicitation study, Veterans living in low-income households described rationing their intake as a routine part of their daily life.<sup>1</sup> Many also continued to live by the motto of “making do with what we got” and expressed strong reluctance to seek assistance from food pantries or similar charitable donations. This military ethos needs to be considered when designing and implementing programs to assist Veterans with basic social needs such as food.

Skipping meals and reducing food intake also have negative effects on health and wellness. In a separate analysis using data from the 2007-2016 National Health and Nutrition Examination Survey, we investigated the odds for depression and suicidal ideation among Veterans who reported marginal, low, and very low food security.<sup>3</sup> Adjusting for gender, age, income-to-poverty ratio, race/ethnicity, and education level, we found that Veterans

## Key Points

- Food insecurity is a complex issue and a serious threat to the well-being of many Veterans.
- The U.S. Department of Agriculture categorizes the range of food insecurity as high food security, marginal food security, low food security, and very low food security.
- The authors found that Veterans were almost three times more likely to experience very low food security compared to socio-economically matched non-Veterans.

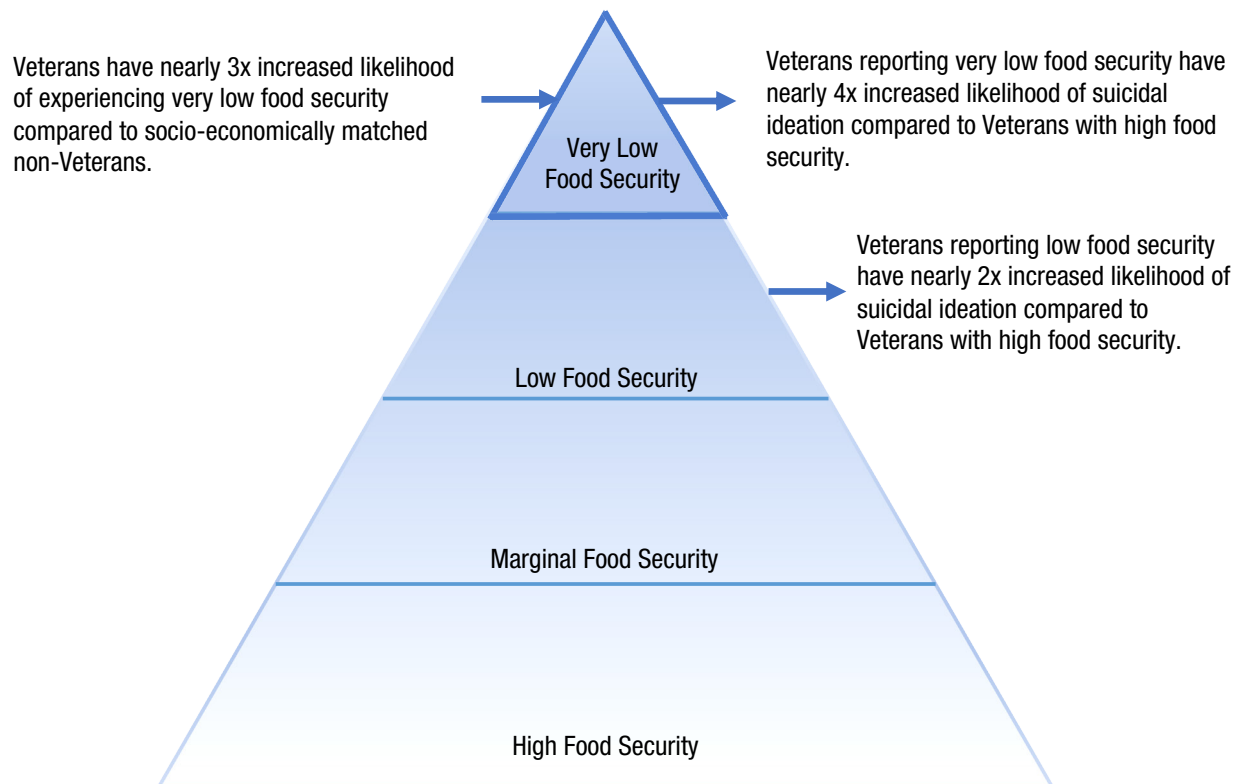
(n=2,630) with marginal, low, and very low food security had significantly increased depression symptoms as reported on the PHQ-9 compared to Veterans who were food secure. Veterans with low food security were also twice as likely to report suicidal ideation, and Veterans with very low food security were almost four times more likely to report suicidal ideation compared to Veterans with high food security. This suggests that suicide screening and intervention programs must consider Veterans’ access to basic needs, as lack of access to adequate food can be a contributing factor to Veteran stress and mental health difficulties.

As research on the associations between food insecurity and Veteran well-being continues to expand, we encourage analysis by levels of food security severity as shared in Figure 1. Otherwise, significant differences may go undetected.

Of equal importance is the need to identify Veterans who are struggling with food insecurity. VHA medical centers and clinics have taken a critical step forward by building food security screening into the electronic health record. Clinicians and other members

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**Figure 1. Risk and Associations of Food Insecurity on Veteran Health and Well-being by Level of Severity**



of patient-aligned care teams can mitigate food insecurity by providing Veterans who screen positive with available resources, while keeping in mind that their needs may go beyond food assistance programs.

Cumulatively, our findings indicate that food insecurity is a complex issue and serious threat to the well-being of Veterans. Research, practice, and policy need to merge to ensure that no Veteran goes hungry.

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# PARTNER-MH: A Peer-led Mental Healthcare Disparity Intervention

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Despite efforts to address mental healthcare inequalities, disparities persist.<sup>1</sup> Individuals of ethnic and racial minority backgrounds are less likely to receive mental health or substance use disorder treatment, and once they enter treatment, they are more likely to receive poor quality care or to terminate treatment prematurely compared to whites. Similar disparities are also present in the VA.<sup>2</sup> While many patient, provider, and healthcare system factors account for these disparities, unproductive patient-provider communication and low patient engagement in care are key drivers. These factors are also modifiable; thus, interventions focused on improving communication and patient engagement in healthcare have the potential to increase health equity. **PARTNER-MH: (Pro-Active, Recovery-oriented Treatment Navigation to Engage Racially Diverse Veterans in Mental Healthcare)** is a mental healthcare intervention focused on modifying these factors for Veterans.

## PARTNER-MH Intervention

PARTNER-MH is a six-month, peer-led, patient navigation program that we are currently pilot testing in a randomized controlled trial at the Roudebush VA Medical Center and affiliated community-based clinics (CBOCS). PARTNER-MH is offered to racial and ethnic minority Veterans across diagnostic categories in VHA outpatient mental health clinics. The program targets Veterans who are relatively new to VHA mental health services because these settings are often the first pathway to specialty mental health services, yet, there is little support to help Veterans navigate these services. PARTNER-MH's goals are: 1) to **engage** Veterans in mental healthcare; 2) to increase **patient activation** by giving Veterans the tools to become active collaborators in their care; and 3) to improve

their **communication** skills, including their participation in shared decision-making. Guided by concepts introduced in the PARTNER-MH Veteran handbook (e.g., information about VHA services, engagement in treatment, mental health visit preparation, and shared decision-making), peer support specialists (peers) meet with Veterans virtually or in person once weekly, bi-weekly, and then monthly.

## Increasing Patient Engagement

Patient engagement refers to patients actively taking steps to gather health information, making decisions about their health conditions and treatment options, and practicing positive healthcare behaviors, such as obtaining preventive care or exercising regularly. Growing evidence suggests that patient engagement can contribute to health equity by improving patient experience and population health.<sup>3</sup> To facilitate minority Veterans' activation and engagement in VA mental health services and work towards mental health equity, we used a three-pronged approach in PARTNER-MH that includes: peer support services, social determinants of health framework, and patient navigation care model.

## VA Peer Support Care Model

We use the VHA peer support care model to facilitate Veterans' empowerment, social support, and behavior change. Peers share a common identity with other Veterans and have first-hand experience with mental health and substance use treatment. This places peers in a unique position to offer support to Veterans.

## Unmet Social Needs Screening

We use a social determinants of health framework to guide our approach to patient engagement. As part of our program, PARTNER-MH peers conduct a screening for Veterans' unmet social needs that might be preventing engagement in care. These include food and housing insecurity as well as social needs such as social isolation and legal support. Once they identify the Veterans' needs, they then connect Veterans to resources in the VA, such as referral to a

## Key Points

- Unproductive patient-provider communication and low patient engagement are key drivers of disparities in mental health and substance use disorder treatment for individuals of ethnic and racial minority backgrounds.
- To address these disparities, PARTNER-MH pilot tested a peer-led patient navigation program for racial and ethnic minority Veterans at Roudebush VA Medical Center.
- PARTNER-MH peers work with Veterans to prepare them for their service visits by setting goals, writing questions in advance, and making a brief summary of their symptoms and experiences with past treatments.

VA social worker or a community-based food pantry or shelter. The social needs screening also serves as a catalyst to engage Veterans in conversations about their social worlds and how their social environment and experiences may affect their health, and to identify Veterans who may need additional support before they reach a crisis point. We also use discussions about what matters to Veterans to help them invest in their mental health treatment and collaborate with their providers to achieve their goals.

## Patient Navigation

To help Veterans make the most of their mental health services, PARTNER-MH peers use their assessment of social needs to navigate Veterans to VHA mental health or other social services by sharing information about available resources and empowering them to use these resources. The education and navigation component of PARTNER-MH has been crucial in our efforts to engage Veterans in mental health services. Due to stigma associated with mental illness, Veterans may not readily discuss their mental health concerns or seek advice from friends and family members. Consequently, many have never learned about the mental health services that may be available to them and are often left to navigate a complex mental healthcare system on their own. In

*Continued on next page*



PARTNER-MH, our goal is to offer the guidance and support needed by these Veterans.

## Improving Patient-Provider Communication and Shared Decision-Making

To support Veterans in making the most of their mental health visits, we focus on improving their communication with their mental health providers and encourage their participation in shared decision-making processes. Our PARTNER-MH peers work with Veterans to prepare for their visits by setting goals for the visit, writing questions in advance, and providing a brief summary of their experience, symptoms, or observations of past treatments that worked or did not work. Veterans use worksheets and role playing to practice these activities and to prepare for interactions with providers.

## What Veterans are Saying about PARTNER-MH

In our ongoing pilot of PARTNER-MH, Veterans have shared how they have benefitted from

the intervention. Below are selected quotes in which they discuss how PARTNER-MH helped them get the most of their mental health treatments and acquire the knowledge, skills, and support needed to improve their mental health and quality of life.

*"[PARTNER-MH] helped me be more focused on what I think I need to work on, how to go about getting services – things that are going to augment the treatment that I'm already getting, and get the most benefit from everything."*

*"I didn't really have any clear-cut ideas about what I should be doing or anything to work towards as far as my mental health is concerned. So, it [PARTNER-MH] did help me organize my thoughts, and my concerns, and get a game plan."*

*"What was the most helpful was understanding how I'm responsible for my own mental health and how to talk to a doctor, and it should be a partnership."*

*"We don't talk about mental health in the communities of people of color. You don't go to anyone and talk about your problems. ... this program not only shows people that they can work through their mental health issues, [but also] there are people that can help. [They] also give them the tools to facilitate it. I feel that this is great because this [mental health] is so taboo, especially amongst men."*

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gender, and urban/rural residence. Because identifying disparities is only the first step towards eliminating them, the Primary Care Equity Dashboard also provides users with resources to help them understand causes of disparities and evidence-based strategies to reduce them. The tool also provides elements that are commonly used in QI initiatives, including patient outlier data that can be used to inform tailoring of interventions for at-risk groups. The tool also provides basic run charts that allow users to examine changes in disparities over time.

Officially introduced on a national scale in February 2021, the Primary Care Equity Dashboard is now accessible to all VA healthcare staff and is being used by at least 200 unique VA staff members located throughout all 18 VISNs and VA Central Office. To guide future enhancements of the tool, members of our CHERP research team are embedded in two demonstration projects being led by QI champions within and outside of VISN 4. The project within VISN 4 is focused on improving statin adherence among Black

Veterans with cardiovascular disease. The project outside of VISN 4 is exploring barriers to diabetes management and use of Whole Health among minority Veterans. Our close observation of how the Primary Care Equity Dashboard is utilized in real-world applications will allow us to continue adapting the tool and to develop training materials that can support a variety of use cases.

Although the early adoption of the Primary Care Equity Dashboard is encouraging, equity dashboards are not a panacea for eliminating health inequities. Additional research and engagement will be needed to facilitate the immense organizational and individual changes necessary to weave a culture of equity throughout VA. Drawing from the social and behavioral sciences to develop strategies to support and sustain changes at multiple levels will be paramount. Research that examines how biases in policies, practices, and clinical algorithms cause or exacerbate disparities will also be essential. Engaging Veterans from historically marginalized or disadvantaged groups as partners in our research and equity-

guided QI initiatives will be crucial. Finally, we will need strong clinical and operations partners to use such research to guide future changes in policy and practice. Putting equity at the center of our mission, thereby making equity-guided improvement the new status quo, will only improve our ability to provide every Veteran with the care and support they deserve.

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# Meeting the Needs of Transgender and Gender Diverse Veterans: Research Can Help Move VHA Forward

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The term transgender refers broadly to people whose gender identity differs from the sex assigned to them at birth. The Veterans Health Administration (VHA) LGBTQ+ Health Program has adopted the phrase “transgender and gender diverse” (TGD) to acknowledge and encompass the diversity of identities and expression among the Veterans that VA serves.

Research about TGD individuals has revealed alarming disparities across several medical conditions (e.g., cardiovascular disease), behavioral risks (e.g., attempted suicide), and social environmental factors (e.g., housing instability) that jeopardize health and well-being. Understanding the unique needs of TGD Veterans who utilize VHA care has been challenging, primarily due to the inability to identify representative samples in healthcare data. Self-identified gender identity – the gold standard assessment – has not historically been collected in VHA’s administrative or electronic health records, forcing reliance on proxy methods, such as International Classification of Disease (ICD) diagnostic codes used for treating gender dysphoria, in order to conduct research.

Through this method, VHA’s health equity research portfolio corroborated findings from studies of non-Veteran TGD individuals, and propelled novel studies that filled crucial gaps in knowledge. For example, studies of VHA TGD Veterans have found high rates of suicidal ideation and suicide attempts, which have commonly been documented among TGD people. However, the linkage of VHA’s Corporate Data Warehouse data with National Death Index data, curated through VHA’s Mortality Data Repository, enabled the first comparative study of mortality among a sample of TGD people in the United States.<sup>1</sup> The findings showed that despite death by suicide being high among all Veterans, TGD Veterans in VHA had over twice the risk of suicide death

than cisgender (non-TGD) Veterans. Moreover, on average, TGD Veterans are dying by suicide at younger ages than their cisgender peers (52 years versus 64 years, respectively), resulting in greater burdens of years of potential life lost to suicide. Additionally, TGD Veterans were over three times as likely to die from homicide than cisgender Veterans; although it should be noted that the estimates were unstable because of the rarity of homicide documented on death certificates. These results confirmed, for the first time, that one of the main public health metrics to gauge community health (i.e., cause-specific mortality) signaled dire disparities for this marginalized population of Veterans.

Discovering drivers of these disparities led to additional VHA research focused on social determinants of health. TGD people appear to experience relentless stigma, including violence, family estrangement, being fired from jobs, and legislative discrimination about what bathrooms they can use or sports they can play. These social adversities endanger health and promote financial strain and housing instability. For instance, housing instability is nearly three times more prevalent among TGD VHA Veterans than non-TGD VHA Veterans. Also, approximately one-third of TGD VHA Veterans had an indicator of financial instability in their medical records and nearly 15 percent screened positive for military sexual trauma.<sup>2</sup> These studies underscore the importance for VA health services researchers to understand the social and structural factors that can both directly and indirectly impact the individual-level health of TGD Veterans.

As research has illuminated social and structural threats to TGD Veterans’ health, over the last decade there have been structural changes to the VHA health system to improve the lives of TGD Veterans. Principal among these changes was VA’s national directive

## Key Points

- Research has revealed disparities across several medical conditions, behavioral risks, and social environmental factors, all of which jeopardize the health and well-being of transgender and gender diverse (TGD) individuals.
- VHA’s health equity research portfolio has corroborated findings from studies of non-Veteran TGD individuals and conducted new studies, revealing the existence of these disparities across the Veteran TGD population as well.
- The authors discuss challenges to undertaking research that will better meet the needs of TGD Veterans.

about healthcare for TGD Veterans in 2011. Shortly thereafter, the establishment of the LGBTQ+ Health Program in VA Central Office created the foundation for several clinical education, training, and resource initiatives. Virtual training through Specialty Care Access Network for Enhancing Community Health Outcomes (SCAN-ECHO), resulted in nearly 900 providers receiving intensive training in TGD healthcare, including gender-affirming hormone therapy. The VHA LGBTQ+ Health Program created a formal e-consultation service on TGD healthcare in 2015, allowing VA providers to receive advice from experts. In 2016, LGBTQ+ Veteran Care Coordinators were appointed at every VA medical center to help ensure care delivery is inclusive and affirming. In 2020, a project to provide nationwide access to gender-affirming vocal coaching through telehealth was launched, which assures that rural TGD Veterans have access to these specialty services. In 2021, a rule change process was initiated to remove a ban on transition-related surgical procedures,

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**Figure 1. Strategies for Engaging Transgender and Gender Diverse (TGD) Veterans in Research**

1	Involve TGD Veterans in all phases of the study and share how TGD Veterans are involved <i>“Knowing that other transgender people are already participating.”</i>
2	Clearly communicate the purpose of conducting the research and the research team’s intentions <i>“The most important thing is to know who the person is and why the study.”</i>
3	Ensure TGD identity will be kept confidential and participation will not impact VA care <i>“Make it clear from the get-go this will not touch our benefits. This will not go on our records.”</i>
4	Mitigate all potential harms to TGD Veterans and the community <i>“If I felt like my participation would harm the transgender community, I would not [participate].”</i>
5	Establish convenient locations, transportation assistance, and compensation for participating <i>“It’s expensive being transgender... I’d say try to pay that person, if possible, a little something.”</i>

Note. Based on in-depth qualitative interviews with TGD Veterans (N=30) engaged in VHA healthcare.

which will enable eligible TGD Veterans to receive safe and equitable care.

Despite progress, substantial research challenges remain to better meet the needs of TGD Veterans. We highlight two of those challenges here. First, enabling VHA to capture self-identified gender identity from patients would provide health services researchers an alternative to relying on ICD codes. ICD codes are problematic for several reasons, including characterizing a person’s gender identity as a medical condition and missing TGD Veterans without ICD codes related to gender dysphoria, resulting in underreporting TGD Veterans in VHA research. Second, engaging TGD Veterans in the research process and in primary data collection is crucial for patient-informed, and ultimately patient-centered, research. Through qualitative interviews with 30 TGD Veterans, we are learning more about the requests – and requirements – that researchers need

to be prepared to meet in forging these partnerships. Preliminary findings demonstrate that researchers should be prepared to involve TGD Veterans in all phases of the study, clearly communicate the research team’s intentions, ensure the confidentiality of TGD identity and that participation will not impact VA care, mitigate potential harms of research, and make research participation convenient (Figure 1).

The TGD population in VHA is rapidly growing and has nearly doubled since 2014 when there were about 5,000 TGD Veterans in the VHA population.<sup>3</sup> VHA researchers, along with operational partners, are trying to better understand how to improve the lives of TGD Veterans we serve. The breadth of needed research is vast – ranging from reproductive health, to effective suicide prevention, to the long-term effects of gender-affirming hormones. Improving the approaches to

addressing TGD Veteran health inequities by increasing data collection on gender identity and working with TGD Veteran stakeholders are critical. Using commitment to health equity as a guide, VHA can become a national leader for high-impact research that reduces disparities, improves healthcare, and promotes well-being for TGD Veterans.

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## Innovation Update

### Ameliorating Racial Unfairness in a VA Algorithm for High-Risk Veterans

Ravi Parikh, MD, MPP, and Amol Navathe, MD, PhD, both with HSR&D's Center for Health Equity Research and Promotion, Philadelphia, Pennsylvania

Predictive algorithms are often used to identify high-risk patients who may benefit from care management programs, palliative care and hospice, or other resources. VA has been on the leading edge of using predictive algorithms to improve care delivery. However, recent evidence suggests that such algorithms may be unintentionally biased against racial and ethnic minorities and socioeconomically disadvantaged populations, although this has never been shown at VA. Our team is collaborating with the Office of Clinical Systems Development and Evaluation and the Office of the VA Chief Improvement & Analytics Officer to investigate how to improve the algorithmic fairness of the Care Assessment Needs (CAN) score – a commonly used VA algorithm that reflects a Veteran's risk of hospitalization or death within a year.

The CAN score was developed over a decade ago when data limitations precluded accurate records on race and ethnicity, and when less sophisticated data and analytic infrastructure were in place. The CAN score is based on routinely collected electronic health record and administrative data in the VA Corporate Data Warehouse (CDW). We used data from 4,332,315 Veterans who were alive and had at least one outpatient primary care encounter in 2016. We first assessed the CAN score for unfairness by comparing the distribution of CAN scores and false-negative rates between Black and white Veterans. We then investigated potential mechanisms behind the unfairness. Finally, we are exploring a variety of statistical and data approaches to reduce unfairness in the CAN score based on novel methodologies.

Our assessment of data from these Veterans revealed the following:

- Black Veterans had lower CAN scores than white Veterans on average.
- The false negative rate was higher for Black Veterans, meaning the CAN score may be underpredicting risk for Black Veterans.
- Differential comorbidity burden is not the primary mechanism behind unfairness.
- After additional matching on age, CAN scores were equivalent between Black and white Veterans, suggesting that the younger age of Black Veterans and different relationships between comorbidities/diseases and death are a primary mechanism of unfairness.
- Various statistical techniques, including weighting, interactions, and fitting separate models by race, have not thus far ameliorated Black-white differences in false-negative rates. This means we likely need more granular data on social determinants of health to generate an equitable risk score.

### Implications

This is the first study to show opportunities to improve the systematic racial fairness in the CAN score, a widely-used VA risk model. The CAN score underestimates mortality risk to some extent for Black Veterans, suggesting that its fairness could be improved. Differences in age distributions are a mechanism of unfairness that may apply to other VA algorithms as well. Rather than applying different statistical techniques, mitigating algorithmic unfairness to improve VA equity may require more than clinical or administrative data. Data on social determinants should be a priority to improve VA healthcare equity.