Decision Brief: Eliminating Racial and Ethnic Health Disparities in the Military Health System

Michael-Anne Browne, MD
Chair, Health Systems Subcommittee
September 11, 2023

Overview

- Membership
- Tasking
- Summary of Activities to Date
- Report Overview
- Findings and Recommendations

Membership

CHAIR
Michael-Anne Browne, MD*

Maria Caban Alizondo, PhD, MA*

David Classen, MD

Robert Kaplan, PhD, MS

Catherine McCann, PhD, MS

Rhonda Medows, MD*

Jayakanth Srinivasan, PhD, MS

***Board Member**

Tasking

On May 12, 2022, the Assistant Secretary of Defense for Health Affairs directed the Defense Health Board ("the Board") to **provide recommendations to address racial and ethnic health disparities within the Military Health System (MHS).**

Tasking: Background

- 24% of Active Duty personnel self-identify as a racial minority
- 16% of Active Duty personnel self-identify with Hispanic ethnicity
- Many MHS studies document disparate health outcomes across race and ethnicity over a range of conditions and age groups
- Physical and mental health inequities exist despite the MHS' universal health care benefit

Tasking: Objectives and Scope

- Review the existing literature on disparities in health outcomes of Active Duty Service members and other MHS beneficiaries by race and ethnicity. Compare those disparities to those experienced in other U.S. health care systems.
- Identify systemic barriers to eliminating racial and ethnic health outcome disparities within the MHS, considering policy, processes, staffing, and training.
- Provide recommendations to address health disparities by race and ethnicity within the MHS.

Summary of Activities to Date (1/4)

Meeting Date	Discussion Topics
Mar 30, 2022: DHB Meeting	Racial and Ethnic Health Disparities in the MHS
Jun 28, 2022: Subcommittee Kickoff Meeting	• Expansion on racial and ethnic health disparities in the MHS • Improving Health Equity via Recruiting, Retention and Education at Uniformed Services University of the Health Sciences
Jul 27, 2022: HS Meeting	• MHS Data Systems and Race/Ethnicity Data • Addressing Racial and Ethnic Health Disparities in the U.S.
Aug 10, 2022: DHB Meeting	• Update of report to DHB members • Veterans Health Administration efforts to promote health equity
Aug 24, 2022: HS Meeting	• Health outcome disparities in the MHS • Efforts to address health disparities at Naval Medical Center Portsmouth
Sep 28, 2022: HS Meeting	DoD Inspector General advisory on non-compliant race coding values in the MHS Data Repository
Oct 26, 2022: HS Meeting	• NPIC and NSQIP reporting on MHS race and ethnicity data • Racial and ethnic disparities in maternal health research and recommendations

Summary of Activities to Date (2/4)

Meeting Date	Discussion Topics
Nov 30, 2022: DHB Meeting	• Report update to DHB members: Emerging themes • Data collection and availability issues
Dec 5, 2022: HS Meeting	Mental Health Disparities Research: • Psychiatric Conditions During Pregnancy and Postpartum • Minority Adolescent Mental Health Diagnosis Differences
Jan – Feb 2023: Informational Teleconferences	Cleveland Clinic; Institute for Healthcare Improvement; Rush University; Kaiser Permanente; Boston Medical Center; Providence
Jan 19, 2023: HS Meeting	• Mayo Clinic Health Equity Initiatives • Potential Recommendations
Feb 16, 2023: HS Meeting	• Overview of informational teleconferences • Report Development: Outline and Recommendations
Mar 2, 2023: Visit to Naval Medical Center San Diego	NMCSD initiatives to identify and address racial and ethnic health outcome disparities
Mar 16, 2023: HS Meeting	Report Development: Outline, Recommendations, and Background

Summary of Activities to Date (3/4)

Meeting Date	Discussion Topics
March 22, 2023: DHB Meeting	Report update to DHB members: Emerging Findings and Recommendations
April 12, 2023: HS Meeting	Report Development: Findings and Recommendations
April 26, 2023: HS Meeting	Report Development: Findings and Recommendations
May 10, 2023: HS Meeting	Report Development: Recommendations & Social Determinants of Health
May 24, 2023: HS Meeting	Report Development: Recommendations & Data Use
May 26, 2023: Informational Teleconference	TCON with Dr. Terry Adirim, former Under Secretary of Defense (Health Affairs) to inform Leadership and Structure for Sustainability chapter
June 7, 2023: HS Meeting	Report Development: Recommendations & Leadership Chapter
June 28, 2023: DHB Meeting	Report update to DHB members: Emerging Findings and Recommendations
July 12, 2023: HS Meeting	DHA Medical Affairs briefing on efforts to integrate race and ethnicity data within MHS GENESIS and concerns related to accuracy of DEERS

Summary of Activities to Date (4/4)

Meeting Date	Discussion Topics
July 26, 2023: HS Meeting	Report Development: Findings and Recommendations
August 9, 2023: HS Meeting	Full Report Discussion
August 23, 2023: HS Meeting	Findings and Recommendations & Executive Summary Discussion

Defense Health Board Report

Eliminating Racial and Ethnic Health Disparities in the Military Health System

September 11, 2023

PRE-DECISIONAL DRAFT

Definitions

- Ethnicity
- Genetic Ancestry
- Health Disparity
- Health Equity
- Race
- Social Determinants of Health
- Underrepresented in Medicine
- Underrepresented Population

Report Overview

- Review of MHS health disparities literature
- Problems with MHS race and ethnicity data
- High impact medical conditions for immediate action
- Data use and misuse
- Social Determinants of Health
- Training and workforce initiatives to promote better health outcomes
- Leadership accountability and proposal for sustainable progress

MHS Health Disparities Literature Review

- Review included 58 published articles or DHA information briefs
- Some studies observe more narrow or absence of racial and ethnic disparities in the MHS compared to other U.S. health systems
- MHS universal health coverage does not mean universal access to care
- Many MHS disparities studies are one-time data pulls conducted by individuals with little institutional support
- Statistically significant disparities in maternal health outcomes by race warrant immediate attention and action
- Race and ethnicity data for beneficiaries are often missing or incorrect

Federal Race and Ethnicity Data Standards – OMB SPD 15

- 1977: Office of Management and Budget (OMB) Statistical Policy Directive 15 (SPD 15) established federal standards for maintaining, collecting, and presenting data on race and ethnicity
- 1997: OMB SPD 15 updated following review by Interagency Committee for the Review of the Racial and Ethnic Standards:
    1. The "Asian or Pacific Islander" category will be separated into two categories – "Asian" and "Native Hawaiian or Other Pacific Islander,"
    2. The term "Hispanic" will be changed to "Hispanic or Latino."
- Current Race Categories: American Indian or Alaska Native; Asian; Black or African American; Native Hawaiian or Other Pacific Islander; White
- Current Ethnicity Categories: "Hispanic or Latino" & "Not Hispanic or Latino"
- OMB SPD 15 states "self-identification is the preferred means of obtaining information about an individual's race and ethnicity," but this is not a requirement

Service Member and Retiree Race and Ethnicity Data

- Service members required to self-identify race and ethnicity upon accession into the Armed Forces
- DD Form 1966 - Allows for more than one race response
- Service personnel offices provide these data to Defense Manpower Data Center (DMDC)

DD Form 1966 "Record of Military Processing – Armed Forces of the United States"

7. A. ETHNICITY *(X one)*	7. B. RACE *(Check all that apply)*
☐ (1) HISPANIC OR LATINO	☐ (1) AMERICAN INDIAN/ ALASKA NATIVE
☐ (2) NOT HISPANIC OR LATINO	☐ (2) ASIAN
	☐ (3) BLACK OR AFRICAN AMERICAN
	☐ (4) NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
	☐ (5) WHITE

DEERS Race and Ethnicity Data

- DMDC operates the Defense Enrollment Eligibility Reporting System (DEERS), DoD's enrollment and eligibility system
- Race and ethnicity data are mostly available for Service members and retirees, but data imputation can lead to errors for dependents. The Health Systems Subcommittee learned:
  1. DEERS copies race and ethnicity of Sponsor to blank dependent records
  2. Real-Time Automated Personnel Identification System (RAPIDS) data entry personnel do not always confirm race and ethnicity of dependent at enrollment
- DD 1172-2: Application for ID Card/DEERS Enrollment does not have a field for race or ethnicity
- DEERS is the source of race and ethnicity data for many MHS databases

DEERS Race and Ethnicity Categories

- DMDC receives Service member race and ethnicity data from Service personnel offices
- Regroups “Asian” and “Native Hawaiian or Other Pacific Islander” into a single “Asian or Pacific Islander” category
- Currently does not comply with OMB SPD 15
- Plan to begin updating legacy records to display OMB SPD 15 compliant categories in December 2023

DEERS Race and Ethnicity Categories
White
Asian or Pacific Islander
Black
American Indian or Alaskan Native
Other
Unknown

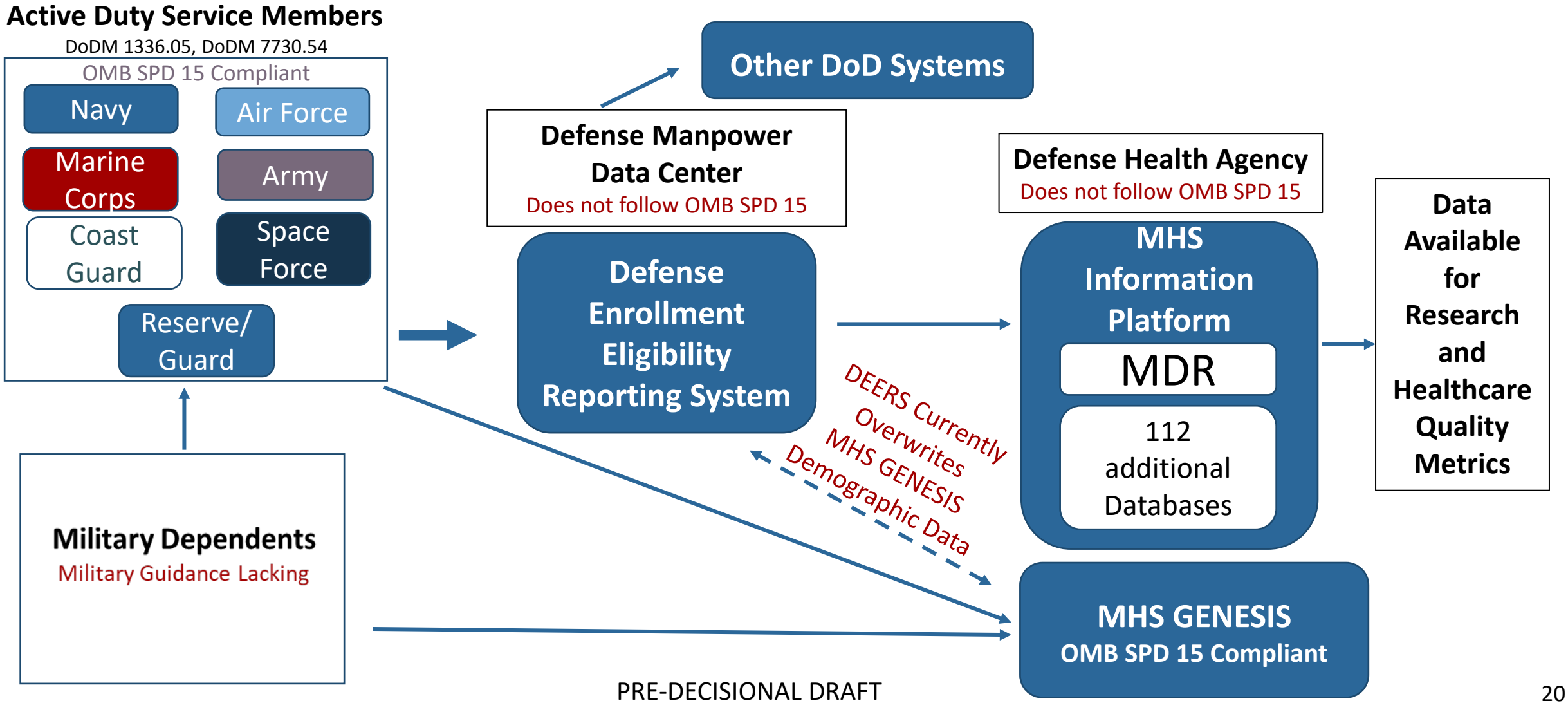
MHS Race and Ethnicity Data

- Military Health System Data Repository (MDR) – centralized data repository for MHS health care data including Direct Care and Purchased Care
- MDR race and ethnicity data dependent on DEERS data
- Most MHS disparities research based on MDR data
- Race categories not compliant with OMB SPD 15

From MDR Data Dictionary (September 2023)

Description
White
Asian or Pacific Islander
Black
American Indian or Alaskan Native
Other
Unknown

DoD Race and Ethnicity Data Flow



Race and Ethnicity Data Use and Misuse

- Studies show the inappropriate use of race in clinical decision algorithms and medical equipment design can lead to significant errors that contribute to disparate health outcomes
- Assumptions built into Artificial Intelligence can magnify health disparities
- Race and ethnicity data can be used appropriately to inform clinical decision-making for individuals, but must be placed in context

Social Determinants of Health

- MHS beneficiaries' life experiences affect their current health status
- Social Determinants of Health (SDOH) explain much of the variation, including by race and ethnicity
- SDOH data is essential to addressing beneficiary health
- Even with MHS universal health benefits, SDOH impact health across all domains among current Service members and beneficiaries

Training and Workforce

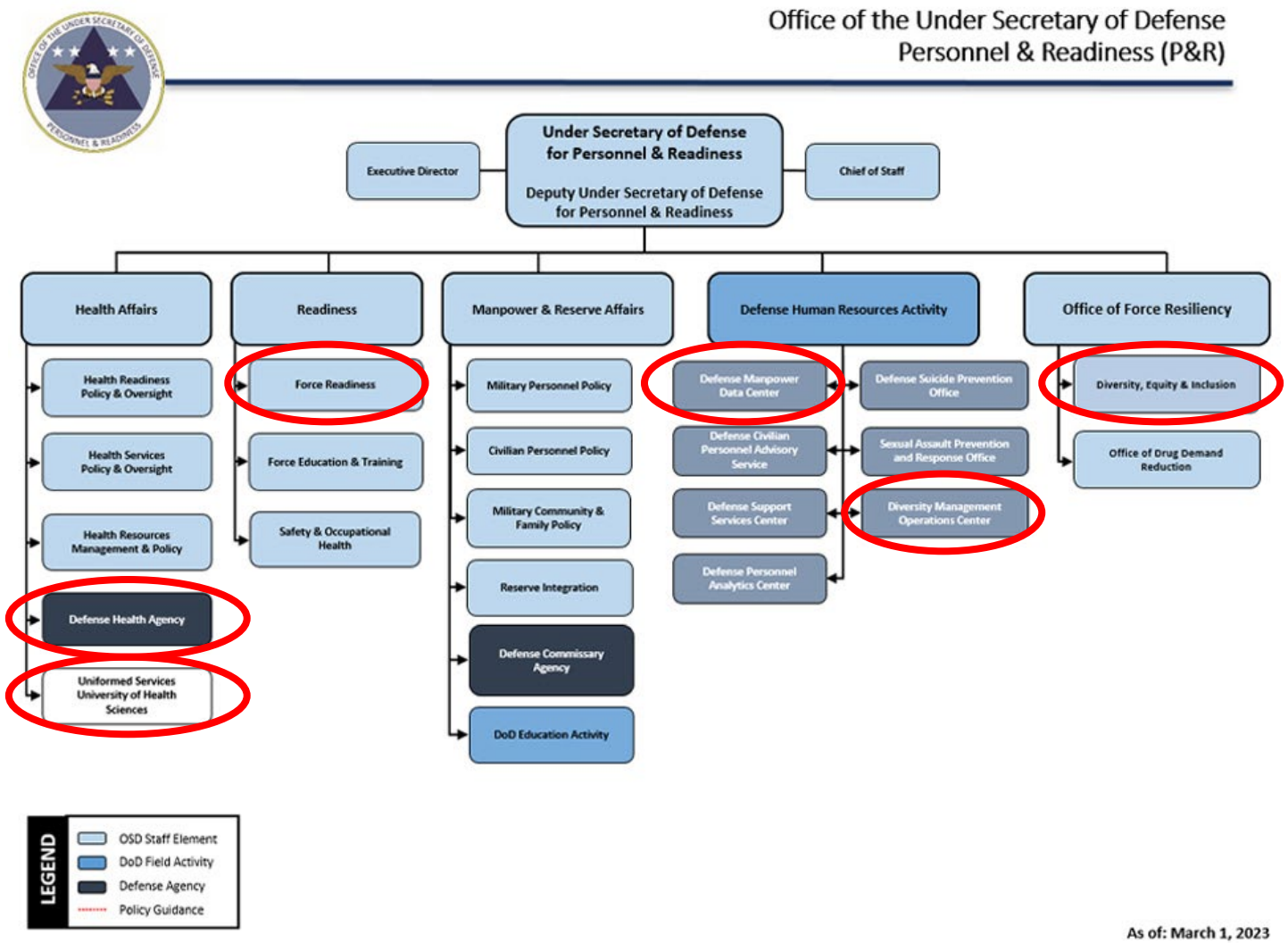
- Increased patient-provider racial and ethnic concordance according to patient preference enables a better patient care experience through improved communication, greater cultural competency or humility, and reduced implicit bias
- Health care patient-provider racial and ethnic concordance is not a panacea, and many factors impact outcomes
- It is important to expand the recruiting pipeline for pre-health careers and STEM among institutions whose students represent the ethnic, racial, and geographic diversity of the nation

References: (Shen, 2018; Takeshita, 2020; Saha, 2020)

Leadership, Accountability, and Structure for Sustainable Progress

- Lack of a central authority and governance specific to racial and ethnic health disparities within DHA has led to uneven efforts to measure and reduce these disparities
- Best Practices suggest institutions should:
  - Designate accountable leaders and establish a reporting structure
  - Implement a framework for analysis of health equity within the organization
  - Proactively look for disparities through primary research and revisiting conclusions derived from standard statistical analyses
  - Engage with institution leadership, health care providers, patients, and community leaders to identify community needs and institutional capabilities
  - Establish goals at the organizational level to reduce disparities and measure progress in eliminating any disparities

Under Secretary of Defense for Personnel & Readiness



Findings and Recommendations

Finding 1

MHS data systems do not fully capture race and ethnicity data to fully describe the beneficiary population. Most MHS family member beneficiaries either have an incorrect or missing value for race and ethnicity in MHS data systems. Others have their race and ethnicity inferred from their active-duty Sponsor. The Defense Enrollment Eligibility Reporting System (DEERS), which serves as DoD's personnel, enrollment, and eligibility system, is the source of race and ethnicity data for the MHS GENESIS system. But Service members and beneficiaries are currently unable to view or edit race and ethnicity in their DEERS record. When a beneficiary or clinic staff attempts to update MHS GENESIS with more accurate race or ethnicity data, the fields are overwritten by DEERS at the next update. Studies using current MHS data, therefore, are often unable to determine whether disparities exist or do not exist.

As of January 1, 2023, the Joint Commission (JC) requires hospitals and other health care programs to collect race and ethnicity for all patients. The Office of Management and Budget (OMB) Statistical Policy Directive 15 (SPD 15) states that self-reported race and ethnicity data is the preferred method for collecting these data. The JC encourages organizations to use the five race and two ethnicity categories from OMB SPD 15, at a minimum. DEERS does not comply with the OMB reporting requirement because: (1) it combines the "Asian" and "Native Hawaiian or Pacific Islander" into a combined "Asian or Pacific Islander" category; (2) it includes a race category of "Other."

Recommendations 1A – 1C

Short-term Recommendations:

1.A. Conform to the JC requirement by collecting self-identified race and ethnicity data for all beneficiaries, not just active-duty Service members. Harmonize all race and ethnicity data between all administrative data sources, including MHS GENESIS.

1.B. Empower Service members and beneficiaries to view, self-identify, and correct their race and ethnicity data.

1.C. Conform with the OMB SPD 15 Federal Minimum Standards for Race and Ethnicity by:

- Separating the "Asian or Pacific Islander" category into the two OMB compliant categories "Asian" and "Native Hawaiian or other Pacific Islander."
- Replacing the "Other" category with "Multiracial" and eliminating the "Unknown" category.

Recommendations 1D – 1E

1.D. Require health facility staff to assist patients and help them update their data when they review their MHS GENESIS race and ethnicity data.

Long-term recommendation:

1.E. Replace DEERS with a modern personnel and beneficiary database that communicates with the medical system and allows for beneficiary self-service updates to demographic information.

Finding 2

Most of the literature on MHS health equity/disparities has been created by ad hoc, individual-initiated, one-time data analyses, or local Quality Improvement projects. These are neither cumulative nor systematic efforts. The MHS' and DHA's centralized outcomes tracking – internally and through external reporting in national registries – does not include racial and ethnic stratification or make such analyses easy to access.

The subcommittee observed high variation in outcomes across MHS sites including mental health, maternal health, and surgical outcomes. Such high variation may have a disproportionate impact on racial and ethnic minority groups, particularly those also experiencing adverse Social Determinants of Health. Without racial and ethnic stratification of patient outcomes, the subcommittee could not identify sites whose disparities were attributable to race and ethnicity. These data limitations prevented the subcommittee from making more targeted recommendations.

Recommendations 2A – 2C

2.A. Include racial and ethnic stratification of results in all patient care reporting (e.g., Joint Commission metrics, NCQA, HEDIS, registry reports, Patient-Reported Outcome Measures) as well as analysis of progress in reducing disparities.

2.B. Identify and designate a centralized group of epidemiologists, statisticians, and analysts such as the Armed Forces Health Surveillance Division, to perform analysis of potential racial and ethnic disparities. This group should stay abreast of findings in the civilian sector, and be a resource for other analysts and clinicians in the MHS who want to conduct their own assessments of racial and ethnic disparities.

2.C. Design initiatives and countermeasures to improve overall health outcomes by incorporating specific interventions (by race, ethnicity, region, Sponsor rank, or other factors) to reduce and eliminate known disparities and prevent future disparities when new treatments are introduced.

Recommendations 2D – 2E

2.D. Work with all national registries that the MHS participates in, such as NPIC and NSQIP, to allow MHS systemwide race and ethnicity reporting. This will help to inform actions to decrease the variation in outcomes between facilities throughout as well as overall disparities.

2.E. Standardize to best practice throughout the MHS to reduce variation and improve outcomes across the MHS.

Finding 3

When selecting clinical areas for improvement efforts, target areas with the largest potential impact for MHS beneficiaries.

Recommendations 3A-3B

3. A. Address maternal health urgently to adopt known best practices in the MHS systemwide to reduce the demonstrated racial disparities in maternal health outcomes in the MHS.

3. B. Prioritize clinical areas for improvement in disparities by those which have the greatest likely impact:

- Clinical conditions that affect a large population
- Clinical conditions that affect large number of actual or quality of life-years lost
- Clinical conditions that impact readiness of the force
- Clinical areas of known racial or ethnic disparity. Preliminary evidence suggests the existence of disparities by race and ethnicity in these areas:
  i. Cardiovascular (e.g., hypertension, heart disease, diabetes)
  ii. Obstetrics (e.g., maternal and infant health)
  iii. Pediatrics (e.g., vaccination, well-child visits, obesity)
  iv. Oncology (e.g., screening and outcomes)
  v. Mental Health (e.g., access and outcomes)

Finding 4

Race and ethnicity are relevant variables for some health conditions and should be carefully considered in the context of all variables affecting patients' health. Artificial Intelligence (AI) and Clinical Decision Support (CDS) tools have great potential to improve clinical treatments and health outcomes. However, biases in the underlying data stemming from study design, data collection and entry, algorithm choice, and dissemination of results can contribute to health disparities. Some medical risk calculators, decision-making tools, and equipment in use by MHS health care personnel introduce inappropriate or unjustified racial and ethnic bias.

Recommendations 4A – 4C

4.A. Create a centralized mechanism within the MHS to review data use, new protocols, and equipment to prevent inappropriate incorporation of race-based algorithms in MHS clinical practice. At a minimum, AI algorithms and CDS tools should include individual patient symptoms, family history, and genetic screening results.

4.B. Use this mechanism to review, replace, or eliminate existing race-biased tools, protocols, AI, Machine Learning algorithms, and equipment with the best-performing race-agnostic alternatives.

4.C. Develop, implement, and monitor clinical guidelines that include the outcome of AI and CDS tools, to be applied in the context of individual patients' symptoms, family history, and genetic screening results.

Finding 5

Most studies of MHS racial and ethnic health disparities omit other potential explanatory variables - such as socioeconomic status (approximated as rank in the MHS), geographic location (e.g., urban/rural), or primary language. Such variables may correlate with race and ethnicity and their omission limits the interpretation and response to research findings.

Recommendations 5A – 5B

5.A. Include socioeconomic status (or surrogates thereof), a measure of regional health services availability, and beneficiary's primary language in all DoD-conducted and DoD-funded research on disparities.

5.B. Include patients and participants from diverse populations in DoD-supported clinical trials and health research.

Finding 6

Evidence shows that up to 50% of variation in health outcomes is attributable to Social Determinants of Health (SDOH) factors. SDOH screenings are required and must be supported by other data to truly capture the lived experience of MHS beneficiaries who attempt to access and receive care, and manage their health.

Recommendations 6A – 6C

6.A. Institute SDOH screenings and documentation of SDOH indicators of MHS beneficiaries by integrating annual standardized SDOH screening tools and workflows in MHS GENESIS, particularly in adult primary care, pediatrics, and obstetrics. The MHS should use best practice standardized SDOH measurement tools and ensure that the collected SDOH data are embedded within MHS GENESIS. These tools should be kept current through regular updates. Recorded data must be accessible and reportable.

6.B. Use Patient-reported outcome metrics and patient-reported experience metrics, in addition to SDOH screenings, to better understand the experience of MHS beneficiaries as they navigate the MHS.

6.C. Offer trainings to clinicians on SDOH and appropriate documentation in the medical record. Incorporate this into health professional education.

Recommendations 6D – 6E

6.D. Proactively analyze results of SDOH screenings MHS-wide, throughout the Direct Care system, by Market, MTF, and TRICARE region, and then promote resources and interventions to address the needs of MHS beneficiaries.

6.E. Promote culturally appropriate health literacy initiatives designed for specific audiences at each location based on health outcomes data, community input, and best practice health messaging.

Finding 7

All virtual visits in the MHS revenue, registration, and scheduling system require entering the patient's preferred language, but in-person visits have no such requirement. Therefore, clinic staff spend time during the appointment attempting to connect to interpretation services or serving as interpreters themselves. Language barriers can contribute to adverse patient experience, a driver of variation in health outcomes.

Recommendation 7

7. Request and enter the patient's preferred language as a required field when making in-person appointments. Ensure appropriate interpretation services are available for all visits.

Finding 8

While data are limited on the direct impact of health equity training initiatives on health outcomes, some training methods appear to promote empathy and reduce bias which can improve health outcomes.

Recommendation 8

8. Carefully consider the qualities of any health equity training before implementing it and use vendors only with a proven record of delivering effective health equity training. Effectiveness should be measured by the training's impact on reducing racial and ethnic disparities in patient outcomes and experiences.

Finding 9

Increased clinician-patient racial and ethnicity concordance can lead to improved patient care experiences through better communication, greater cultural competency, and reduced inadvertent implicit bias. The U.S. Government has committed to expanding ROTC programs to more minority-serving institutions (MSI) with Science, Technology, Engineering, and Mathematics (STEM) programs as a pathway for careers in the Military Services for more underrepresented racial and ethnic minority groups.

Recommendations 9A – 9D

9.A. Ensure criteria for ROTC program expansion at MSIs such as Historically Black Colleges and Universities, Hispanic-serving institutions, and Tribal Colleges and Universities include nursing, pre-medical, and other pre-health career curricula.

9.B. Promote workforce diversity through recruitment activities with academic organizations focused on race and ethnicities underrepresented in medicine.

9.C. Collaborate with existing groups that are already promoting workforce racial and ethnic diversity in healthcare.

9.D. Assess the effectiveness of these efforts by documenting changes in the supply of underrepresented clinicians in medicine.

Recommendations 9E – 9F

9.E. Measure impact of interventions to increase clinician-patient race and ethnicity concordance by a range of stratifications including location and clinical service type.

9.F. Leverage Virtual Health to broaden the geographic range of options for patients to select health care providers of their racial and ethnic preference.

Finding 10

The Joint Commission (JC) requires the following actions to reduce health care disparities:

- Designate an individual to lead activities to reduce disparities for the organization's patients
- Assess patients' health-related social needs
- Stratify quality and safety data by sociodemographic characteristics
- Develop a written action plan to address disparities
- Inform leaders and staff about progress to reduce disparities at least annually

The DHB's review of best practices and the recommendation of the U.S. Centers for Medicare & Medicaid Services (CMS) to reduce health care disparities also stress leadership, and sustained commitment effort at all organizational levels.

Recommendations 10A – 10C

10.A. Commit to achieving the goal of eliminating any racial and ethnic health disparities among all MHS beneficiaries by:

- Measuring disparities
- Setting goals to reduce disparities by specific dates
- Allocating sufficient resources to eliminate disparities
- Regularly assessing progress

10.B. Ensure racial and ethnic stratification is included in all health care quality reporting, e.g., Joint Commission metrics, NCQA, HEDIS, registry reports, Patient-Reported Outcome Measures, and patient experience.

10.C. Add a racial and ethnic stratification to medical and dental readiness reports to monitor disparities in readiness. If disparities are found, hold leaders with command authority accountable to address and eliminate persistent racial and ethnic disparities in medical and dental readiness.

Recommendations 10D – 10F

10.D. Assign the Under Secretary of Defense for Personnel and Readiness (USD(P&R)) as the accountable leader for health disparities. Establish a chartered Health Equity Committee by the end of Fiscal Year 2024 to support the USD(P&R), and to monitor and guide the implementation of the recommendations in this report by a targeted date. The Committee will:

- Report progress toward eliminating health disparities
- Include representative groups
- Report back to the Defense Health Board in three years

10.E. Assign the Assistant Secretary of Defense for Health Affairs (ASD(HA)) to report health outcomes, stratified by race and ethnicity, and report on ongoing initiatives to eliminate disparities, to the USD(P&R) no less than annually. The ASD(HA) should do this by submitting an annual health disparities report card to the Committee and USD(P&R). MHS should report Clinical Quality, Health Outcomes, and Patient-Reported Outcomes by race and ethnicity at least quarterly to the ASD(HA).

10.F. Incorporate Health Equity performance metrics and goals into quality and patient incentive programs for personnel providing care and managing military health services, such as those found in the Integrated Resourcing and Incentive System.

Questions