United States Government Accountability Office

Report to Congressional Committees

February 2019

DEFENSE HEALTH CARE

Actions Needed to Determine the Required Size and Readiness of Operational Medical and Dental Forces

GAO-19-206

February 2019

DEFENSE HEALTH CARE

Actions Needed to Determine the Required Size and Readiness of Operational Medical and Dental Forces

GAO Highlights

Highlights of GAO-19-206, a report to congressional committees

Why GAO Did This Study

In recent years, the Senate Armed Services Committee and DOD have raised concerns that the military health system has prioritized peacetime care to the detriment of combat casualty care capability and wartime medical skills.

Senate Report 115-125 included a provision for GAO to review DOD's efforts to address requirements from the National Defense Authorization Act for Fiscal Year 2017 regarding the required numbers of medical and dental personnel and wartime readiness. This report examines the extent to which DOD has (1) determined and reported to Congress on its operational medical and dental personnel requirements, and (2) initiatives to maintain and a methodology to assess the critical wartime readiness of medical providers. GAO reviewed DOD reports and personnel requirements data for fiscal year 2017 and future years, and interviewed senior DOD leaders as well as officials at six military treatment facilities to represent each military department and provide a mix of patient volumes.

What GAO Recommends

GAO is making six recommendations, including that DOD establish joint planning assumptions and a definition, and a method for assessing medical and dental personnel requirements; identify and mitigate limitations in a clinical readiness metric for medical providers; and determine specialties and estimate costs and benefits for applying a readiness metric. DOD concurred with all six recommendations and described implementation steps it plans to take.

View GAO-19-206. For more information, contact Brenda S. Farrell at (202) 512-3604 or farrellb@gao.gov.

What GAO Found

The Department of Defense (DOD) has not determined the required size and composition of its operational medical and dental personnel who support the wartime mission or submitted a complete report to Congress, as required by the National Defense Authorization Act for Fiscal Year 2017. Leaders from the Office of the Secretary of Defense (OSD) disagreed with the military departments' initial estimates of required personnel that were developed to report to Congress. OSD officials cited concerns that the departments had not applied assumptions for operating jointly in a deployed environment and for leveraging efficiencies among personnel and units. GAO found that the military departments applied different planning assumptions in estimating required personnel, such as the definition of "operational" requirements. DOD expects to provide its next update to Congress in February 2019. Until DOD establishes joint planning assumptions for developing medical and dental personnel requirements, including a definition, and a method to assess options for achieving joint efficiencies, DOD will not know whether it has the optimal requirements to achieve its missions.

DOD has begun initiatives to maintain the critical wartime readiness of medical providers. DOD's initiatives have included standardizing and expanding pre-deployment training and developing new policy on medical provider readiness. In addition, department leaders have been directing transformation efforts to improve readiness. However, DOD's methodology is limited with respect to a key initiative that will use a metric to assess medical providers' clinical readiness—a component of wartime readiness. Specifically:

- **DOD does not use complete, accurate, and consistent data that fully demonstrate results.** Source data for the metric have not passed DOD audits for at least 3 years, and the metric does not assess the readiness of reservists who comprise a substantial portion of combat casualty care capability. Also, according to congressional testimony and related research an estimated 25 percent of combat deaths were potentially preventable but were not related to provider readiness. Thus, the metric may not lead to expected improvements in patient outcomes in operational environments. Until DOD identifies and mitigates limitations in the readiness metric data, leaders may not have the best information to support decision-making.
- **DOD has not made decisions about the specialties to which its metric should apply or budgeted for full implementation of the metric.** DOD plans to develop a metric for 72 provider specialties. However, GAO found that 12 specialties do not deploy. According to OSD officials, few of the 72 specialties (i.e., those that practice combat casualty care) rely on highly complex skills that may rapidly degrade without regular practice and would benefit most from a metric. DOD officials stated that the metric's implementation costs may be substantial and the return on investment may differ by specialty. Moreover, DOD has not fully budgeted for implementing the metric by, for example, funding additional training for providers to meet readiness thresholds. Until DOD determines the critical wartime medical specialties to apply its clinical readiness metric and estimates the costs and benefits of applying the metric to each, it will not know if its implementation is being targeted to the areas of greatest return on investment.

Contents

Tables

Figures

Abbreviations

ASD(HA)	Assistant Secretary of Defense for Health Affairs
CAPE	Cost Assessment and Program Evaluation
DHA	Defense Health Agency
DOD	Department of Defense
Health Affairs	Office of the Assistant Secretary of Defense for Health Affairs
KSA	Knowledge, Skills, and Abilities
MHS	Military Health System
MTF	Medical Treatment Facility
NDAA	National Defense Authorization Act
OSD	Office of the Secretary of Defense
OUSD(P&R)	Office of the Under Secretary of Defense for Personnel and Readiness
USD(P&R)	Under Secretary of Defense for Personnel and Readiness

U.S. GOVERNMENT ACCOUNTABILITY OFFICE
441 G St. N.W.
Washington, DC 20548

February 21, 2019

The Honorable James M. Inhofe
Chairman
The Honorable Jack Reed
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Adam Smith
Chairman
The Honorable Mac Thornberry
Ranking Member
Committee on Armed Services
House of Representatives

In recent years, the Senate Armed Services Committee and the Department of Defense (DOD) have raised concerns that the military health system (MHS) has prioritized the delivery of peacetime health care to the detriment of its combat casualty care capability. In contrast to the services more directly related to wartime medical skills, such as trauma surgery and critical care, the most common services delivered in military medical treatment facilities (MTFs)[1]—DOD's hospitals and clinics—are related to pregnancy, childbirth, and pediatrics.[2] Likewise, a DOD-commissioned study has reported that the military departments have historically overstaffed specialties such as pediatrics and obstetrics while understaffing wartime specialties like surgery.[3] Yet, DOD pledged in its most recent MHS strategic plan to deliver both a ready medical force and

[1]In prior reports, we have used "MTF" as an abbreviation for "military treatment facility." We revised the "MTF" abbreviation in this report to stand for "medical treatment facility" in order to be consistent with updated DOD publications, which now define MTFs as medical (rather than military) treatment facilities.

[2]Department of Defense, *Report on Military Health System Modernization: Response to Section 713 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (P.L. 113-291)* (Feb. 8, 2016).

[3]Institute for Defense Analyses, *Medical Total Force Management* (May 2014).

a medically ready force and budgeted approximately $43 billion for fiscal year 2019 for those purposes.[4]

In response to these concerns, in 2015 DOD began taking steps to refocus the MHS and improve its efficiency while fully supporting its operational mission and maintaining the medical readiness of military forces.[5] Key to these efforts has been ensuring that the MHS has the right number of medical and dental personnel with the requisite skills and competencies to deliver health care to servicemembers in support of medical readiness for DOD missions.[6] However, we reported in September 2016 that DOD needed further analysis of the size, readiness, and efficiency of its medical force.[7] In that report, we identified problems with DOD's analyses of the required number of medical personnel and requirements for maintaining active duty medical providers' clinical skills. We made six recommendations, including that DOD conduct a new analysis of the required number of active duty and civilian medical personnel, and identify and mitigate limitations regarding the standard for maintaining providers' clinical skills. DOD concurred with the recommendations but has not fully implemented them as of January 2019. We discuss DOD's actions to address these recommendations throughout this report. A list of related products is also included at the end of this report.

[4]Department of Defense, *The Military Health System Strategic Plan: Achieving a Better, Stronger, and More Relevant Military Health System* (Oct. 8, 2014). According to a DOD report, a ready medical force is defined as having the medical capability to support deployed operations, and a medically ready force is a military force that is medically ready to deploy. Department of Defense, *Report to the Congressional Defense Committees: Section 703 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) "Military Medical Treatment Facilities"* (July 23, 2018). DOD's fiscal year 2019 budget request included $33.7 billion to fund the Defense Health Program (i.e., health care activities, federal civilians, and contractor personnel) and $8.9 billion for military medical personnel. These amounts exclude overseas contingency operations funds and other transfers.

[5]Medical readiness refers to the physical and mental health and fitness of military servicemembers to perform their missions.

[6]For the purposes of this report, operational medical force readiness refers to the ability of medical and dental personnel —based on their numbers, knowledge, skills, and abilities— to meet DOD's operational mission needs and provide those capabilities to combatant commanders.

[7]GAO, *Defense Health Care Reform: DOD Needs Further Analysis of the Size, Readiness, and Efficiency of the Medical Force*, GAO-16-820 (Washington, D.C.: Sept. 21, 2016).

In December 2016, Congress enacted reforms of DOD's health system in the National Defense Authorization Act (NDAA) for Fiscal Year 2017, which included provisions requiring DOD to examine and report on the department's medical and dental personnel requirements. For example, section 721 of the NDAA for Fiscal Year 2017 required that DOD establish a process to define the military medical and dental personnel required to attain operational medical force readiness.[8] Section 721 also required DOD to submit a report to Congress that describes this process, and lists, by position, the medical and dental personnel required. The section will also lift a prohibition on conversion of military medical and dental positions to federal civilian positions—in place since 2008—after the Secretary of Defense submits its report to Congress.

Another section of the NDAA for Fiscal Year 2017—section 725—required DOD to implement measures to maintain the critical wartime medical readiness skills and core competencies of health care providers within the Armed Forces.[9] Critical wartime medical readiness skills and core competencies include clinical and logistical capabilities that relate to the provision of health care and are necessary to accomplish operational requirements.[10] Examples of these capabilities include combat casualty care and diagnosis and treatment of infectious diseases.[11] In an interim report to Congress in response to section 721, DOD defined the goal of operational readiness as the ability to meet and sustain its warfighting capability and provide combatant commands the capabilities to meet mission needs.[12]

[8]Pub. L. No. 114-328, § 721(a) (2016) (codified at 10 U.S.C. § 977).

[9]Pub. L. No. 114-328, § 725 (2016).

[10]The NDAA for Fiscal Year 2017 uses the term "military medical and dental personnel" in section 721 and "health care providers within the Armed Forces" in section 725. For the purposes of this report, we will refer to all personnel from the military departments' health care corps as medical and dental personnel. We will refer to the subset of those medical and dental personnel who treat patients in clinical settings, such as physicians and dentists, as providers.

[11]The other skills or capabilities that Congress defined in section 725 of the NDAA for Fiscal Year 2017 as necessary to meet operational requirements are: medical response to and treatment of injuries sustained from chemical, biological, radiological, nuclear, or explosive incidents; aerospace medicine; undersea medicine; diagnosis, treatment, and rehabilitation of specialized medical conditions; diagnosis and treatment of diseases and injuries that are not related to battle; and humanitarian assistance.

[12]Department of Defense, *Interim Report to Congress in Response to Section 721 of the National Defense Authorization Act for Fiscal Year 2017* (Mar. 26, 2018).

A Senate Armed Services Committee report accompanying a bill for the NDAA for Fiscal Year 2018 includes a provision for us to review DOD's implementation of sections 721 and 725 of the NDAA for Fiscal Year 2017.[13] This report addresses the extent to which DOD has (1) determined and reported to Congress on the size and composition of its operational medical and dental personnel requirements, and (2) initiatives to maintain and a methodology to assess the critical wartime medical readiness of its medical providers.

For objective one, we reviewed and compared draft and interim DOD reports to Congress and related methodologies with section 721 of the NDAA for Fiscal year 2017. We also analyzed and compared DOD's estimates of the medical and dental personnel it requires and the underlying assumptions and processes used to generate them. Specifically, we reviewed two sets of data on required personnel that informed the military departments' Section 721 Draft Report from September 2017, and data on required personnel for future years that the military departments submitted to the Joint Staff Surgeon's Office and then to the Office of the Secretary of Defense (OSD) in May 2018. We compared each of the two data sets with one another, and with the military departments' fiscal year 2017 medical and dental personnel requirements as a baseline to identify any differences in size and composition. To assess the reliability of the military departments' personnel requirements data, we interviewed knowledgeable officials and manually tested the data for errors and omissions. We found the data to be sufficiently reliable for our purposes of drawing comparisons between the military departments and between different iterations of data. Finally, we compared DOD's processes in meeting the requirements of section 721 with principles for reducing fragmentation, overlap, and duplication from our prior work.[14]

For objective two, we reviewed and analyzed DOD's documentation of its initiatives to maintain the wartime medical readiness of its medical providers. Using such documentation, along with information obtained through interviews with OSD, Joint Staff, and military department officials, we categorized and described DOD's initiatives in accordance with the measures in section 725 of the NDAA for Fiscal Year 2017 that DOD is

[13]S. Rep. No. 115-125, at 169-170 (2017).

[14]GAO, *Additional Opportunities to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits*, GAO-18-371SP (Washington, D.C.: Apr. 26, 2018).

required to implement.[15] We did not assess the sufficiency or completeness of these initiatives given that many were not yet mature enough to demonstrate results.

For DOD's key initiative to assess the wartime medical readiness of health care personnel—referred to as the clinical readiness metric—we reviewed documentation of DOD's methodology, including its goals, scope, budget, as well as steps DOD has taken to identify data sources, design and calculate the quantitative metric, establish thresholds, and test the metric and thresholds. We compared this information with our prior work identifying principles for effective performance measurement and with federal internal control standards for analyzing and responding to risks.[16] To better understand individual-level readiness concerns and challenges for DOD and the military departments, we interviewed a nongeneralizable sample of administrators and medical providers at six MTFs. The MTFs were selected to represent each military department and provide a mix of patient volumes.

For both objectives, we identified and reviewed DOD memorandums issued since 2017 and DOD-commissioned reports issued over the past decades that are associated with medical force personnel requirements and readiness. We provide further details on our scope and methodology in appendix I and a selection of the DOD memorandums and reports we reviewed in appendix II.

We conducted this performance audit from January 2018 to February 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

[15]Pub. L. No. 114-328, § 725(b) (2016).

[16]GAO, *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GAO/GGD-96-118 (Washington, D.C.: June 1, 1996); and GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Washington, D.C.: Sept.10, 2014). In GAO/GGD-96-118, we identified key steps and practices of a number of leading public sector organizations that were successfully pursuing management reform initiatives and becoming more results-oriented. For a more recent example of the application of the principles from GAO/GGD-96-118, *see* GAO, *Defense Health Care Reform: Actions Needed to Help Ensure Defense Health Agency Maintains Implementation Progress*, GAO-15-759 (Washington, D.C.: Sept. 10, 2015).

Background

MHS Personnel

The military personnel of DOD's MHS provide care to servicemembers in both deployed and nondeployed settings, and to qualified beneficiaries in the United States and around the world in MTFs—including 51 hospitals, 381 ambulatory care and occupational health clinics, and 247 dental clinics. The care delivered in these settings also serves the MHS goal of ensuring servicemembers are medically ready to deploy and that the medical workforce is ready to deliver health care in support of the full range of military operations, including humanitarian missions. To that end, DOD's medical workforces comprise active and reserve military personnel from the Army, the Navy, and the Air Force, augmented by federal civilian personnel and private sector contractor personnel.[17] Active duty military medical personnel simultaneously support operational medical care and the delivery of beneficiary health care to patients across the globe. Reserve component military medical personnel generally provide services to deployed military personnel, but may also support MTFs when active duty personnel are deployed or otherwise unavailable.

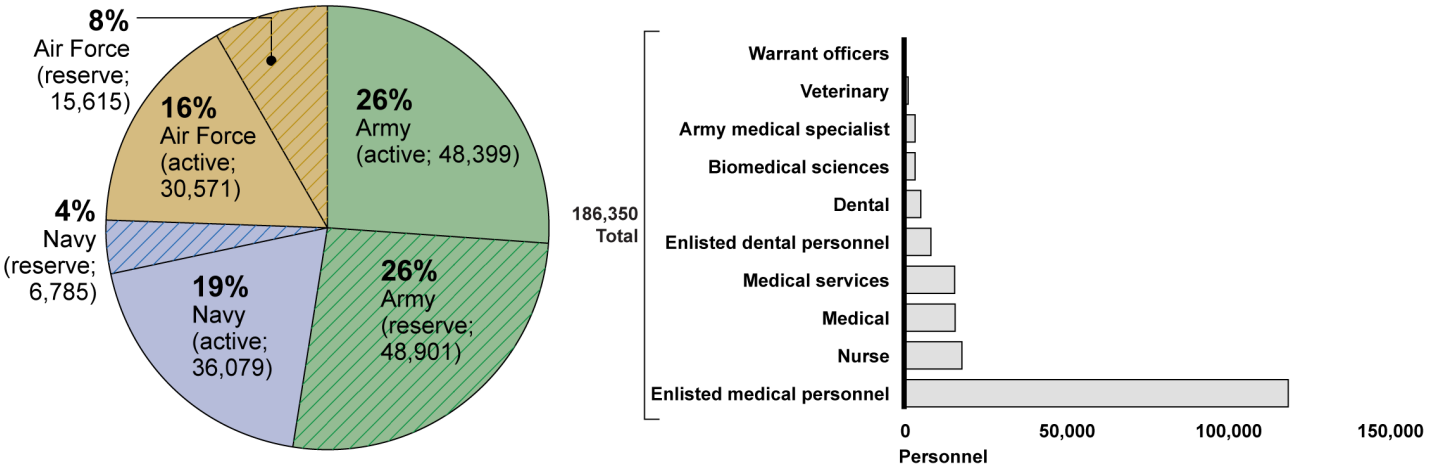
Each department's military medical personnel are grouped into corps of similar specialties, including a medical corps of surgeons and other physicians, a nurse corps, a dental corps, enlisted medical and dental corps (e.g., corpsmen and combat medics who provide first responder care and specialists who assist in medical and dental procedures), and a medical services corps that includes health care administrators, along with scientists and clinicians (e.g., psychologists and podiatrists) in the Army and the Navy. In the Air Force, these types of scientists and clinicians are part of a separate biomedical sciences corps. In addition, the Army maintains a veterinary corps that provides DOD-wide services. For the purposes of this report, we use the term "medical and dental personnel" to refer collectively to the personnel of these various health care corps and specialties.

In fiscal year 2017, DOD's total military medical and dental workforces of 186,350 personnel comprised about 9 percent of its total armed forces

[17]Navy personnel provide health care services to Marine Corps personnel. Federal civilian personnel and private sector contractors, which generally provide beneficiary care within MTFs, comprise a smaller portion of DOD's medical workforces (22% in fiscal year 2017) compared with active and reserve component servicemembers (78% in fiscal year 2017).

end strength.[18] Figure 1 shows DOD's military medical and dental personnel workforces in fiscal year 2017 by active and reserve component. It also shows the composition of these personnel by corps.

Figure 1: Composition of the Department of Defense's Military Medical and Dental Personnel, Fiscal Year 2017



Source: GAO analysis of Department of Defense data. | GAO-19-206

Note: Due to rounding, the total percentages do not add up to 100 percent.

Roles of Operational Medical Care

DOD has established four categories (referred to as roles) of operational medical care provided to servicemembers and other eligible persons.[19] Within these organizational settings, research has estimated that approximately 80 to 84 percent of operational medical care delivered in recent conflicts has been related to disease and nonbattle injuries—such as behavioral health and injuries from sports, physical training, falls, or vehicle accidents. The remaining 20 to 16 percent has been related to battle injuries.[20] The roles of care extend from the forward edge of the

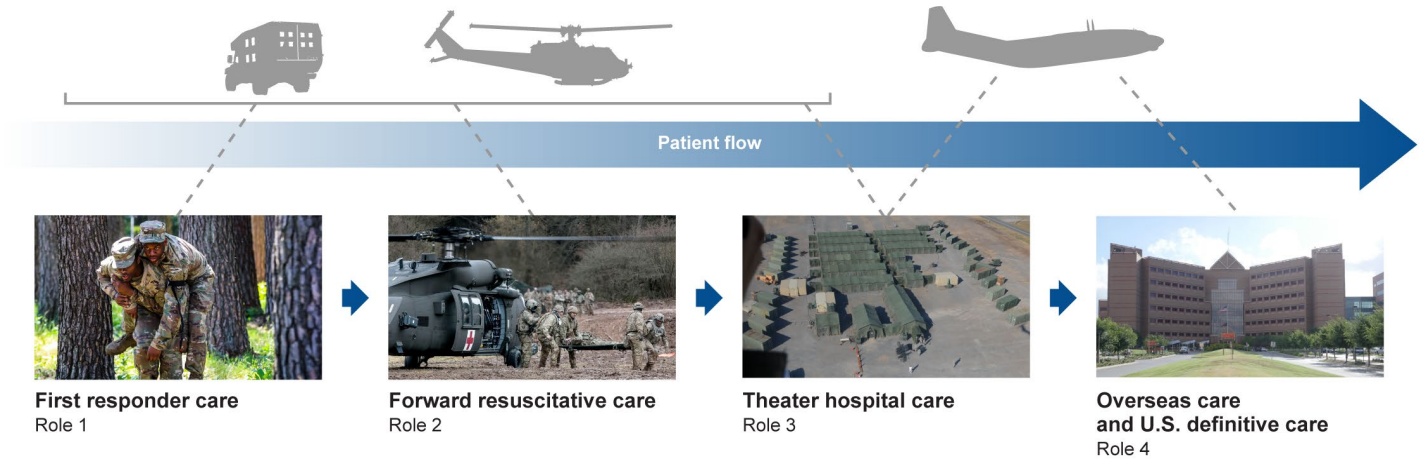
[18]A military service's end strength is the authorized number of military personnel at the end of a fiscal year.

[19]For the purposes of this report, operational medical care and operational medical and dental personnel requirements refer to health care provided via deployable health care platforms in support of war, named or unnamed contingencies, and other operational missions, and the personnel who staff such platforms.

[20]K.G. Hauret , L. Pacha , B.J. Taylor , and B.H. Jones, "Surveillance of Disease and Nonbattle Injuries During US Army Operations in Afghanistan and Iraq," *U.S. Army Medical Department Journal*, vol. 2, no. 16 (2016).

battle area to the United States, with each role providing progressively more intensive treatment. Care in roles 1 through 3 is provided by medical personnel assigned to deployable units. Role 4 care facilities are MTFs that also provide beneficiary medical care in nondeployed settings. In addition to the four roles of medical care, en-route care to transport patients is also provided via casualty evacuation, medical evacuation, and/or aeromedical evacuation from the point of patient injury, illness, or wounding.[21] Figure 2 illustrates the different roles of care.

Figure 2: Roles of Operational Military Medical Care Provided by the Department of Defense's Medical and Dental Forces



Source: GAO analysis; Department of Defense, U.S. Army, and Defense Visual Information Distribution Service (photos). | GAO-19-206

The four roles of care provide progressively more intensive treatment, as detailed:

- Role 1 – First responder care. This role provides immediate medical care and stabilization in preparation for evacuation to the next role of care, and treatment of common acute minor illnesses. Care can be provided by medics or corpsmen, or battalion aid stations.
- Role 2 – Forward resuscitative care. This role provides advanced emergency medical treatment as close to the point of injury as

[21]Casualty evacuation involves the unregulated movement of casualties aboard ships, land vehicles, or aircraft. Medical evacuation is the timely, efficient movement and en-route care by medical personnel of the wounded, injured, or ill persons from the battlefield and/or other locations to and between MTFs. Aeromedical evacuation refers to the movement of patients under medical supervision to and between MTFs by air transportation.

possible to attain stabilization of the patient. In addition, it can provide postsurgical inpatient services, such as critical care nursing and temporary holding. Examples of role 2 units include forward surgical teams, shock trauma platoons, area support medical companies, and combat stress control units.

- Role 3 – Theater hospital care. This role provides the most advanced medical care available outside the United States, such as in Iraq and Afghanistan. Role 3 facilities provide significant preventative and curative health care. Examples include Army combat support hospitals, Air Force theater hospitals, and Navy expeditionary medical facilities.
- Role 4 – U.S. and overseas definitive care. This role provides the full range of preventative, curative, acute, convalescent, restorative and rehabilitative care. Examples of role 4 facilities include MTFs such as Brooke Army Medical Center at Joint Base San Antonio, Texas, and Naval Medical Center Portsmouth at Portsmouth, Virginia.

Readiness Reforms within the MHS

In addition to the section 721 and 725 reforms described previously with regard to the size and readiness of DOD's medical and dental forces, the NDAA for Fiscal Year 2017 enacted a number of other changes to the MHS to improve and maintain operational medical force readiness. For example, the NDAA for Fiscal Year 2017 required DOD to maintain medical centers, hospitals, and ambulatory care centers that provide health services that support medical readiness; establish a Joint Trauma Education and Training Directorate to ensure that the traumatologists of the Armed Forces maintain readiness; and establish a personnel management plan for certain wartime medical specialties in order to maintain the required number of trauma teams.[22] Moreover, to streamline MHS management, improve efficiency, and improve and sustain operational medical force readiness, the NDAA for Fiscal Year 2017 directed the transfer of administrative and management responsibility for the MTFs from the military departments to the Defense Health Agency

[22]Pub. L. No. 114-328, §§ 703 (codified as amended at 10 U.S.C. § 1073d), 708 (2016).

(DHA), to occur no later than September 30, 2021.[23] Specifically, the Director of the DHA will be responsible for the administration of each MTF, including budgetary matters, information technology, health care administration and management, administrative policy and procedure, military medical construction, and any other matters the Secretary of Defense determines appropriate.

Oversight of the MHS

The MHS is a complex organization in which responsibility for the delivery of health care is primarily shared among the military departments—the Army, the Navy, and the Air Force—and the DHA, with oversight from OSD and advice from the Joint Staff. Several officials have responsibility for DOD's medical workforces and their readiness:

- **The Under Secretary of Defense for Personnel and Readiness (USD(P&R))** has overall responsibility for issuing guidance on total workforce management to be used by the DOD components, providing guidance on manpower levels of the components, and developing manpower mix criteria and other information to be used by the components to determine their workforce mix.
- **The Director of Cost Assessment and Program Evaluation (CAPE)** is the principal advisor to the Secretary of Defense and other senior officials in the DOD for independent cost assessment, program evaluation, and analysis. Among other things, the CAPE Director reviews, analyzes, and evaluates programs for the execution of approved strategies and policies and also ensures that information on programs is presented accurately and completely.
- **The Secretaries of the Military Departments and Heads of the Defense Agencies** have overall responsibility for the requirements determination, planning, programming, and budgeting execution for

[23]Pub. L. No. 114-328, § 702(a) (2016) (codified as amended at 10 U.S.C. § 1073c). Section 702 also included a provision for us to review DOD's implementation plan. We subsequently reported in October 2018 that DOD has taken steps through its plan to improve the effectiveness and efficiency of the administration of MTFs. However, to reduce or better manage duplication and improve efficiencies, we recommended that DOD resolve weaknesses in the plan by defining and analyzing operational readiness and installation-specific medical functions for duplication, validating headquarters-level personnel requirements, and identifying the least costly mix of personnel. DOD concurred. GAO, *Defense Health Care: DOD Should Demonstrate How Its Plan to Transfer the Administration of Military Treatment Facilities Will Improve Efficiency*, GAO-19-53 (Washington, D.C.: Oct. 30, 2018).

total workforce management policies and procedures.[24] The Secretaries of each military department are assigned the responsibility for organizing, training and equipping the military forces as directed by the Secretary of Defense as well as responsibilities related to ensuring the readiness of military personnel, and providing military personnel and other authorized resources in support of the combatant commanders and the DHA. The Surgeon General of each respective military department serves as the principal advisor to the Secretary of the military department concerned on all health and medical matters of the military department.

- **The Assistant Secretary of Defense for Health Affairs (ASD(HA))** serves as the principal advisor for all DOD health related policies, programs, and activities.[25] The ASD(HA) has the authority to develop policies, conduct analyses, provide advice, and make recommendations to the USD(P&R), the Secretary of Defense, and others; issue guidance; and provide oversight to the DOD Components on matters pertaining to the MHS. Further, the ASD(HA) prepares and submits a DOD unified medical program budget which includes, among other things, the defense health program budget to provide resources for the DOD MHS.
- **The Director of the DHA** manages, among other things, the execution of policies issued by the ASD(HA) and manages and executes the Defense Health Program appropriation, which partially funds the MHS.[26] In December 2016, Congress expanded the role of the DHA by directing the transfer of responsibility for the administration of each MTF from the military departments to the DHA. By no later than September 30, 2021, the Director of the DHA will be responsible for the administration of each MTF.[27]
- **The Chairman of the Joint Chiefs of Staff**, in coordination with combatant commanders, manages various responsibilities for medical readiness training including predeployment training requirements. The Joint Staff Surgeon serves as the chief medical advisor to the Chairman of the Joint Chiefs of Staff. The Joint Staff Surgeon (or a

[24]10 U.S.C. § 129a(c)(2).

[25]Department of Defense Directive 5136.01, *Assistant Secretary of Defense for Health Affairs (ASD(HA))* (Sept. 30, 2013) (incorporating change 1, Aug. 10, 2017).

[26]In September 2013, the Defense Health Agency was established to support greater integration of clinical and business processes across the MHS.

[27]10 U.S.C. § 1073c(a).

delegated representative) also co-chairs the Joint Medical Readiness Requirements Council. The Council is a decision-making body that focuses on medical readiness issues, initiatives, and requirements that affect warfighters.

Medical and Dental Personnel Requirements and Readiness Studies

In recent years, DOD has published or commissioned numerous studies that focused on improving provider readiness for its medical and dental personnel. For example, the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD(P&R)) and other OSD entities commissioned the Institute for Defense Analyses to conduct a series of studies on medical force management. The institute reported in May 2018 that DOD's medical force faces challenges in maintaining readiness and in May 2014 found that the military medical departments had understaffed operationally-required specialties for at least 20 years.[28]

In 2013, DOD began a multi-year study (referred to as the "Modernization Study") to address perceived weaknesses within the MHS and leverage advances in civilian business practices.[29] The Modernization Study analyzed, among other things, the size and composition of DOD's required military medical personnel, and the clinical currency requirements for various provider specialties. In February 2016, DOD reported on its study results, finding that the military departments have used different planning factors in developing their requirements for medical and dental units and personnel, some of which could be standardized. DOD also found that further work was needed to define medical force readiness, and to measure providers' clinical readiness in particular. Clinical readiness within DOD refers to providers' knowledge, skills, and abilities (KSA) needed in an expeditionary environment that may include combat or other deployments. It is one element of wartime readiness and operational medical force readiness, which also includes the extent to which both individual personnel and units have completed other types of military training and tasks in support of readiness to deploy. In September 2016, we reported on DOD's Modernization Study and recommended that the department identify and mitigate limitations

[28]Institute for Defense Analyses, *Medical Total Force Management: Assessing Readiness and Cost* (May 2018); Institute for Defense Analyses, *Medical Total Force Management* (May 2014).

[29]Department of Defense, *Report on Military Health System Modernization: Response to Section 713 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (P.L. 113-291)* (Feb. 8, 2016).

regarding its standard for maintaining providers' clinical skills, including improving the accuracy of information concerning providers' workloads.[30] For more information about these DOD studies and others, see appendix II.

DOD Has Not Yet Determined or Reported to Congress the Size and Composition of its Operational Medical and Dental Personnel Requirements

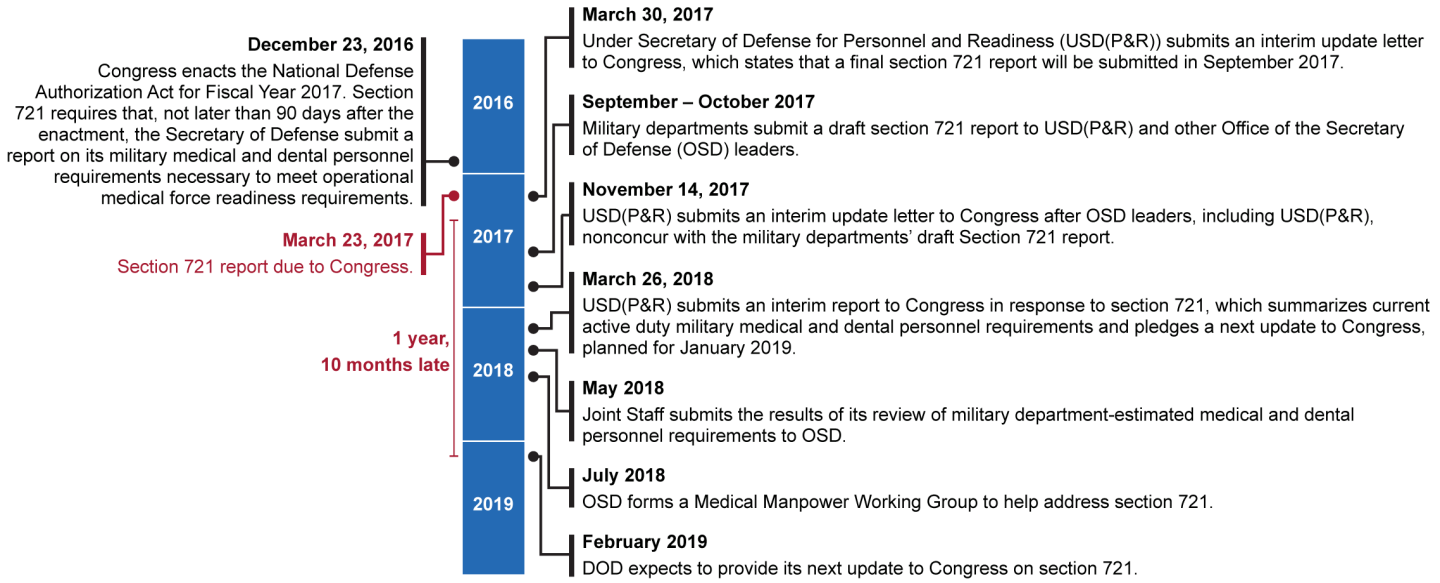
DOD Has Not Determined Medical and Dental Personnel Requirements or Submitted a Complete Report to Congress

DOD has not yet determined the size and composition of its operational medical and dental personnel requirements, nor has it submitted a complete report to Congress to satisfy section 721 of the NDAA for Fiscal Year 2017.[31] This section requires DOD to submit a report describing the process used to define the military medical and dental personnel requirements necessary to meet operational medical force readiness requirements and a list of those requirements to Congress. At the time of our review, OSD was working with the military departments to agree on a methodology to determine these requirements. Figure 3 illustrates DOD's actions to address section 721 since the NDAA for Fiscal Year 2017 was enacted in December 2016.

[30]GAO-16-820.

[31]Pub. L. No. 114-328, § 721(b) (2016).

Figure 3: Timeline of Department of Defense Actions to Address Section 721 of the National Defense Authorization Act for Fiscal Year 2017



Source: GAO analysis of Pub. L. No. 114-328 and Department of Defense (DOD) information. | GAO-19-206

Initially, to address section 721, each military department used its existing force-sizing processes and assumptions to estimate and list the military medical and dental personnel required to achieve operational medical force readiness. The Army's, the Navy's, and the Air Force's estimated personnel requirements resulting from those processes and assumptions in September 2017 represented 98 percent, 100 percent, and 86 percent of each respective department's fiscal year 2017 medical and dental personnel requirements for the active and reserve components.[32] The military departments compiled their separate estimates along with a narrative of their underlying processes and assumptions to form a draft report (hereafter, the Military Departments' 721 Draft Report), which they presented to OSD leaders for review and approval from September to October 2017. According to military department officials involved in estimating the requirements and drafting the report, they and their

[32]In other words, for the Army and the Air Force, their initial estimates of personnel required for achieving operational medical force readiness (i.e., their initial section 721 estimates) were less than their total military medical and dental personnel requirements in place for fiscal year 2017 by 2 percent and 14 percent, respectively. The Navy's initial estimate was identical to its total medical and dental personnel requirements in place for fiscal year 2017.

Surgeons General believed the draft report presented an accurate assessment of their future operational medical and dental personnel requirements and would fully address section 721 once approved by OSD leaders and submitted to Congress.

However, OSD leaders did not concur with the Military Departments' 721 Draft Report. OUSD(P&R) then submitted an interim letter to Congress on November 14, 2017 that promised a final report by February 2018. Senior OSD leaders cited concerns that the numbers and types of requirements listed in the Military Departments' 721 Draft Report were not based on a methodology that used appropriate and consistent assumptions. Specifically, OUSD(P&R) officials documented concerns that the requirements did not correctly apply assumptions from DOD's policies on workforce management for determining that an activity must be performed by a military servicemember rather than a federal civilian employee or a private sector contractor (i.e., commonly referred to within DOD as "military essential").[33] As a result, OUSD(P&R) officials explained to us that the military departments assumed that more position-level requirements than necessary were military essential, and that medical and dental personnel requirements may have been overstated.[34]

In addition to their concerns that the military departments determined more requirements to be military essential than were necessary, OUSD(P&R) officials stated that the military departments had not applied assumptions for operating jointly in a deployed environment. Thus, these officials stated that the military departments' requirements contained potential overlap and duplication of roles among positions. Likewise, the

[33]Department of Defense Directive 1100.4, *Guidance for Manpower Management* (Feb. 12, 2005); Department of Defense Instruction 1100.22, *Policy and Procedures for Determining Workforce Mix* (Apr. 12, 2010) (incorporating change 1, Dec. 1, 2017).

[34]We identified similar concerns as the officials from the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD(P&R) in our November 2018 report. Specifically, we reported that the military departments have not assessed the extent to which federal civilian and private contractor personnel can be used to meet identified operational medical personnel requirements. Further, we reported that after the military departments determine their operational medical personnel requirements, they generally designate all such positions as military essential, and do not, according to officials, formally assess the extent to which civilians or contractors could fill these positions. We recommended that DOD perform an assessment of the suitability of federal civilian and contractor personnel to provide operational medical care and incorporate the results into relevant policies, if warranted. DOD concurred with the recommendation but has not yet implemented it. GAO, *Defense Health Care: Additional Assessments Needed to Better Ensure an Efficient Total Workforce*, GAO-19-102 (Washington, D.C.: Nov. 27, 2018).

CAPE Director stated that he believed the methodology the military departments used in preparing their 721 Draft Report did not apply assumptions to leverage joint efficiencies among personnel and the units they would support. Specifically, the CAPE Director believed the military departments did not account for any overlap and duplication across personnel requirements.

However, military department officials stated that they are concerned that OSD entities may be seeking efficiencies that would introduce an unacceptable level of risk in their ability to provide medical and dental capabilities in the event of a major regional conflict with a near-peer adversary. For example, officials from each military department stated that any future conflicts could necessitate a larger presence of operational medical and dental personnel in the theater of operations than what was needed in Afghanistan and Iraq in the conflicts that began in 2001 and 2003, respectively. One reason for a larger presence relates to a planning assumption that patient evacuation to role four MTFs outside the theater of operations will be limited and casualties will be more numerous. Another reason, according to military department officials, is that a future conflict is more likely to be multi-domain (e.g., air, maritime, and land), thereby limiting the ability of one department to supplement another with medical capabilities.

Further, the CAPE Director stated that the military departments' estimated requirements assumed that some medical and dental specialties can substitute for others to meet deployment needs—a practice that the Deputy Secretary of Defense proscribed in guidance responding to section 721 of the NDAA for Fiscal Year 2017.[35] Officials from CAPE, OUSD(P&R), and the military departments stated that substitutions are an inappropriate assumption for requirements planning. Beyond requirements planning, OSD officials also stated that substitutions are inappropriate for sourcing personnel to fill deployment needs, and believe the practice is risky and unnecessary. On the other hand, some other military department officials and officials from the Office of the ASD(HA) (hereafter, Health Affairs) stated that they believe such substitutions are essential and prudent given challenges with recruitment and retention of physicians in high-demand specialties. For example, as we reported in February 2018, the Navy and the Air Force have had persistent shortages

[35]Deputy Secretary of Defense Memorandum, *Military Health System Reforms* (Mar. 31, 2017).

of critical care physicians—a type of specialty that provides combat casualty care.[36] For our current review, we found that both military departments permit other physician specialties to substitute as a critical care physician on deployment. The Air Force, for example, requires a critical care physician for each of its critical care air transport teams (a role 2 unit that evacuates patients), but permits eight other types of physician specialists or sub-specialists to substitute. These substitute physicians have some, but not all, of the same training as a critical care physician (i.e., they lack a fellowship in critical care).

Absent consensus on the personnel required for operational medical force readiness, DOD issued an interim report to Congress in March 2018 in response to section 721 of the NDAA for Fiscal Year 2017—about 1 year after the report was due.[37] The interim report provided a high-level summary of the military departments' active duty personnel requirements as of fiscal year 2017. DOD did not conclude in the report that the stated requirements were those needed to support operational medical force readiness or satisfy section 721. According to the CAPE Director, additional work is needed to determine the correct requirements and arrive at a unified departmental position. To that end, in June 2018, the USD(P&R) announced that, within the next 30 days, CAPE would launch a Medical Manpower Working Group to undertake the "hard work required" to address section 721 by establishing a single process to define the military medical and dental personnel necessary to meet operational medical force readiness requirements.[38] DOD expects to provide its next update to Congress in February 2019.

Military Departments' Requirements Estimates Were Based on Assumptions That Differed

In their efforts to achieve a determination and consensus on the future medical and dental personnel they require for operational medical force readiness, each military department submitted its own revised estimate in May 2018 to the CAPE Director. The Joint Staff Surgeon's Office reviewed the estimates to verify their sufficiency. However, Joint Staff

[36]GAO, *Military Personnel: Additional Actions Needed to Address Gaps in Military Physician Specialties*, GAO-18-77 (Washington, D.C.: Feb. 28, 2018).

[37]Department of Defense, *Substantive Interim Report to the Armed Services Committees of the Senate and House of Representatives: Section 721 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328), Authority to Convert Military Medical and Dental Positions to Civilian Medical and Dental Positions* (Mar. 26, 2018).

[38]Under Secretary of Defense for Personnel and Readiness, *Zero-Based Review of Military Department Medical Manpower* (Jun. 15, 2018).

officials stated to us that they did not determine whether the requirements may have exceeded the numbers needed for operational medical force readiness for each military department's planning scenario, nor did they have the ability to do so.

In comparing the military departments' May 2018 personnel requirements with their initial estimates from September 2017 that we previously discussed above, we found that that they applied different definitions for personnel requirements that are "operational." Specifically:

- The Navy's May 2018 and September 2017 estimates were identical. The estimates included the Navy's entire active duty and reserve force structure for medical and dental personnel, including positions in nondeployable units.
- The Army's and the Air Force's May 2018 estimates were less than their September 2017 estimates. The May estimates included active duty and reserve personnel requirements in deployable units and, for the Air Force, overseas MTFs. In contrast, the Army's and the Air Force's September 2017 estimates included active and reserve personnel requirements in all unit types.[39]

On the basis of our review of the military departments' May 2018 personnel requirements estimates, including supporting data and documentation from the departments, along with interviews with officials, we found that these estimates were based on assumptions that differed (see table 1).

Table 1: Examples of Assumptions Applied by the Departments of the Army, the Navy, and the Air Force in May 2018 Estimates of Medical and Dental Personnel Requirements

Description of assumption	Army	Navy	Air Force
Inclusion of individuals accounts[a]	✗	✓	✗
Adjustments applied to reflect achievability and affordability	✓	✗[b]	✓
Inclusion of role 4 medical treatment facility personnel[c]	✗	✓	✓
Inclusion of generating force (e.g., training cadre, headquarters staff)	✗	✓	✗
Treatment of casualties from other military departments	✓	✗	✓
Treatment of federal civilians and private contractors	✓	✗	✗

[39]As described earlier in this report, personnel in the military departments' deployable units provide care in the first three roles of care—from point of injury, to forward resuscitative care, to care in theater hospitals. Personnel in nondeployed units provide role 4 care in DOD's MTFs.

Description of assumption	Army	Navy	Air Force
Inclusion of specialties that deploy to fill jobs outside their nondeployed scope of practice (i.e., personnel substitution)	✗	✓[d]	✗
Identification of requirements that may be subject to civilian conversion	✗	✗	✓

Legend: ✓ = yes; ✗ = no.

Sources: GAO analysis of Department of Defense data and information provided through interviews with officials from the Departments of the Army, Navy, and Air Force. | GAO-19-206

[a]An individuals account is a defense planning and programming category that includes unstructured spaces for transients, students, trainees, cadets and midshipmen, and holdees. Also referred to as Student, Trainees/Transients, Prisoners/Patients, and Transients, Trainees, Holdees and Students in various DOD components.

[b]The Navy applies its adjustments toward funding authorized billets rather than toward requirements.

[c]DOD's role 4 care medical treatment facility (MTF) personnel provide the full range of preventative, curative, acute, convalescent, restorative, and rehabilitative care to servicemembers and beneficiaries in nondeployed settings in the United States and overseas. Care in roles 1 through 3 is provided by medical personnel assigned to deployable units.

[d]The Navy's inclusion of specialties that deploy to fill jobs outside their nondeployed scope of practice appeared to be limited to their nondeployed units only, which includes those in overseas MTFs.

As shown in table 1, we found that none of the military departments' requirements estimates for deployable personnel appeared to rely upon the ability to substitute one type of specialty for another for deployment purposes. This is consistent with guidance from the Deputy Secretary of Defense stating that requirements should not be based upon substitutions.[40] However, the military departments' estimates for required nondeployed personnel appear to apply assumptions regarding substitution. For example, none of the military departments' deployable units requires a dermatologist, yet the military departments' estimates of nondeployable force requirements included dermatologists. According to military department officials, their dermatologists are required to deploy as general medical officers, among other roles.

Determining its operational medical and dental personnel requirements has been a longstanding challenge for DOD that the department and we have reported on. In 1994, DOD concluded a study of its medical requirements (the "733 Study") and reported that physician requirements,

[40]Deputy Secretary of Defense Memorandum, *Military Health System Reforms* (Mar. 31, 2017).

in particular, could be reduced by 24 percent.[41] However, we reported in June 1996 that each military department used its own model to determine medical personnel requirements instead of adopting the 733 Study's results, offsetting nearly all of the reductions estimated in the 733 Study.[42] Based on another study conducted from 2004 through 2007 and referred to as the "Medical Readiness Review," DOD concluded that 22,302 medical requirements were not military essential and could be converted to civilian positions. We reported in February 2008 that the military-to-civilian conversions DOD subsequently performed generated significant turmoil within the military departments' medical workforce.[43] The conversions also caused gaps in capability and MTF capacity when the military departments could not backfill the military personnel with civilians in a timely fashion. Congress prohibited military-to-civilian conversions of medical and dental positions in the NDAA for Fiscal Year 2008[44]—which will be lifted when DOD submits its report to Congress for section 721. More recently, in 2016, DOD reported that there are substantial differences between the military departments in how each translates planning scenarios into requirements for medical units and personnel, some of which could be standardized.[45] For further information on these and other reports, see appendix II.

Despite its efforts to estimate its operational medical and dental personnel requirements, DOD has not yet determined the size and composition of the operational medical and dental personnel it requires or

[41]DOD's 733 Study was named for and completed in response to section 733 of the National Defense Authorization Act for Fiscal Years 1992 and 1993. Pub. L. No. 102-190, § 733 (1991). The Act required, among other things, that DOD conduct a systematic review of the military medical system needed to support U.S. forces during a war or other conflict and identify ways of improving the cost-effectiveness of medical care delivered during peacetime. In June 1996, we reported on the results of DOD's 733 Study. GAO, *Wartime Medical Care: Personnel Requirements Still Not Resolved*, GAO/NSIAD-96-173 (Washington, D.C.: June 28, 1996).

[42]In June 1996, we reported that major differences between the results of the service models and the 733 Study occurred because the military departments made different assumptions about the personnel needed for medical readiness. The military departments assumed that a much higher number of medical personnel were needed for such training and rotation. GAO/NSIAD-96-173.

[43]GAO, *Military Personnel: Guidance Needed for Any Future Conversions of Military Medical Positions to Civilian Positions*, GAO-08-370R (Washington, D.C.: Feb. 8, 2008).

[44]Pub. L. No. 110-181, § 721 (2008) (amended by Pub. L. No. 111-84, § 701 (2009)).

[45]Department of Defense, *Report on Military Health System Modernization* (2016).

reported to Congress, as mandated in section 721 of the NDAA for Fiscal Year 2017. DOD has not done so because it has not yet established a unified position on the size and composition of such forces to fully address section 721. On the basis of our analysis, we found two reasons for this. Specifically:

- *DOD does not have joint planning assumptions for developing medical and dental personnel requirements.* Such assumptions could help facilitate OSD-level reviews to determine potential areas of overlap, duplication, or fragmentation. For example, the military departments and OSD lack, as one assumption, a common definition for "operational medical force readiness requirements" and how this term applies to personnel levels. The military departments and OSD entities disagree about whether this term should include reserve component personnel in addition to the active components, and personnel who are not among the first to deploy. Military department officials told us that they were unsure what the term "operational medical force readiness requirements" means, as it was undefined in section 721 of the NDAA for Fiscal Year 2017. As another example of the lack of joint planning assumptions, the military departments and OSD entities do not agree about the extent to which substituting certain medical and dental specialties for others should be applied to requirements planning.
- *DOD lacks a method to assess options for achieving joint efficiencies in medical and dental personnel requirements, including an assessment of risks*. Such options could include potential areas for reducing overlap and duplication among positions and units. In our prior work, we reported the need for agencies to take actions to reduce, eliminate, or better manage fragmented, overlapping, or duplicative functions.[46] Doing so can help identify opportunities to achieve greater efficiency and effectiveness. OSD officials agreed that coordination among the military departments as they develop and finalize their medical and dental personnel requirements would be beneficial for understanding how their respective medical and dental personnel can be complementary in a joint environment, and where overlap and duplication is or is not appropriate in assessing an acceptable level of risk to their mission.

According to an official from Health Affairs involved in drafting DOD's February 2019 update to Congress on its efforts concerning section 721,

[46]GAO-18-371SP.

OSD envisions a new process that will result in some joint assumptions and lower and upper bounds for operational medical and dental personnel requirements. This will be a positive step; however, details regarding this new process, including associated timeframes, are unclear at this point. Until it establishes joint planning assumptions, including a definition of "operational" medical and dental forces, DOD will not be able to apply consistent assumptions to determine medical and dental personnel requirements. Also, without a method for assessing options for joint efficiencies in medical and dental personnel requirements, the department will not know whether it has an optimal size and composition of medical and dental personnel for achieving its missions within acceptable risk levels. Moreover, until DOD applies joint planning assumptions and a method for assessing efficiencies and risk, and uses their application to determine and report operational medical and dental requirements to Congress, the department will be further delayed in fulfilling section 721 of the NDAA for Fiscal Year 2017. Until such time, DOD will be unable to carry out section 977(b) of title 10 of the United States Code, which, when effective, will allow the conversion of military medical or dental positions to civilian positions if the Secretary of Defense determines that the position is not necessary to meet operational medical force readiness requirements.

DOD Has Initiatives to Maintain the Critical Wartime Readiness of Military Medical Providers, but Its Methodology for Assessing Clinical Readiness is Limited

DOD has begun several initiatives to maintain the critical wartime readiness of military medical providers, such as developing policy, involving leaders, and realigning governance structures. However, the department's methodology for assessing the clinical readiness of its providers is limited. In particular, the methodology does not yet provide complete, accurate, and consistent data or fully demonstrate results. Further, DOD has not determined the medical specialties to which its clinical readiness metric will apply or fully budgeted for the cost of implementing the metric.

DOD Has Begun Several Initiatives to Maintain the Critical Wartime Readiness of Military Medical Providers

In its latest strategic plan for the MHS in 2014, DOD reaffirmed its longstanding commitment to medical readiness.[47] Stating that medical readiness is the reason for the MHS mission, DOD pledged in its strategic plan to deliver both a ready medical force and a medically ready force.[48] More recently, section 725 of the NDAA for Fiscal Year 2017 mandated reforms to DOD's MHS to improve readiness.[49] Specifically, section 725 requires DOD to implement measures to maintain the critical wartime medical readiness skills and core competencies of health care providers and ensure the medical readiness of the armed forces. To that end, DOD has begun a number of initiatives. In June 2017, DOD convened a working group with representatives from the military departments, Health Affairs, and the DHA to address section 725. The group's goal was to review existing readiness initiatives across the MHS for medical providers and servicemembers and make adjustments or implement additional efforts where needed. In December 2017, the group concluded its review by issuing an information paper within the department describing the results of its review and plans for addressing section 725.[50]

We found that DOD's initiatives to maintain the wartime readiness of its medical personnel can be generally summarized by four categories of approaches, as shown in table 2 below. To make this determination, we reviewed DOD's section 725 information paper, a draft policy, and other DOD reports. We also interviewed DOD officials, and they agreed with our categorization.

[47]Department of Defense, *The Military Health System Strategic Plan: Achieving a Better, Stronger, and More Relevant Military Health System* (Oct. 8, 2014).

[48]According to a DOD report, a ready medical force is defined as having the medical capability to support deployed operations, and a medically ready force is a military force that is medically ready to deploy. Department of Defense, *Report to the Congressional Defense Committees: Section 703 of the National Defense Authorization Act for Fiscal Year 2017 (Public Law 114-328) "Military Medical Treatment Facilities"* (July 23, 2018).

[49]Pub. L No. 114-328, § 725 (2016).

[50]Department of Defense, NDAA MHS Program Management Office, Information Paper on NDAA Section 725 (Dec. 23, 2017).

Table 2: Examples of Department of Defense (DOD) Initiatives to Maintain the Wartime Readiness of Medical Personnel

Approach	Effort
Developing new policy	In 2018, the Office of the Assistant Secretary of Defense for Health Affairs began developing a new DOD Instruction entitled "Maintaining the Readiness and Core Competencies of Medical Providers of the Armed Forces."[a] According to a draft version of the instruction, it will be DOD policy to accomplish its readiness objectives through prioritizing medical services at medical treatment facilities (MTF); adjusting authorized strengths; ensuring proper alignment and structure of the military health system (MHS); and recruiting, training, and retaining medical specialists to support mission requirements.
Involving top leaders and realigning governance structures	Department leaders have been directing transformation efforts within the MHS to prioritize and improve readiness. They have also focused a number of governance bodies on efforts to maintain wartime readiness of providers. For example, in 2018, DOD established a Joint Medical Readiness Requirements Council composed of the Joint Staff Surgeon and surgeons general of the military departments, with the Director of the Defense Health Agency and the Assistant Secretary of Defense for Health Affairs as advisors.
Planning for changes to health services and infrastructure	In June 2018, DOD submitted a plan to Congress[b] that described efforts to transfer the administration and management of its MTFs from the military departments to the Defense Health Agency in response to section 702 of the National Defense Authorization Act (NDAA) for Fiscal Year 2017.[c] Subsequently, in July 2018, DOD submitted another report to Congress regarding changes to its MHS infrastructure. This report established the framework DOD will use to restructure and realign the footprint of its MTFs in accordance with section 1073(d) of title 10 of the United States Code, as added by subsection (a) of section 703 of the NDAA for Fiscal Year 2017.[d]
Standardizing and expanding predeployment readiness training	The military departments have collaborated since 2017 on a series of provider readiness and training checklists that they refer to collectively as "joint readiness reporting metrics." One of the checklist items, or "metrics," is a metric to assess providers' clinical readiness, which DOD is in the process of establishing and piloting as a key initiative. DOD is using this clinical readiness metric to assess medical providers' patient care workload at MTFs to determine their clinical currency and competency, and to decide whether additional readiness training may be needed prior to deployment. By implementing the checklists, which will include the clinical readiness metric, DOD will standardize predeployment training from individual to unit-levels of readiness-related tasks. The military departments are also working to expand training opportunities for medical providers to improve their clinical readiness for wartime missions by securing new partnerships with civilian medical centers and the Department of Veterans Affairs, and investing in additional simulated training.

Source: GAO Analysis of DOD Information. | GAO-19-206

[a]Department of Defense Instruction 64XX.01, *Maintaining the Readiness and Core Competencies of Medical Providers of the Armed Forces* (DRAFT as of Aug. 27, 2018).

[b]Department of Defense, *Report to the Armed Services Committees of the Senate and House of Representatives*, *Final Plan to Implement Section 1073c of Title 10, United States Code, Final Report* (June. 30, 2018). Section 702 of the NDAA for Fiscal Year 2017 required that DOD provide the final report on the plan to the House and Senate Armed Services Committees no later than March 1, 2018. Pub. L. No. 114-328, § 702(e)(2) (2016).

[c]Pub. L. No. 114-328, § 702 (2016).

[d]Pub. L No. 114-328, § 703 (2016).

DOD Has a Methodology for Assessing Clinical Readiness, but Its Data Are Unreliable and the Scope and Budget Are Undetermined

DOD Established a Methodology for Assessing Providers' Clinical Readiness

To help maintain the wartime readiness of its medical providers, DOD established and is piloting a clinical readiness metric as a key initiative. DOD began testing this metric for general surgeons and orthopedic surgeons in 2018, and is planning to expand it to other provider specialties as discussed later in this report. DOD is using the metric to assess each provider's patient care workload at MTFs against a desired threshold in order to determine his or her clinical currency and competency. In addition, DOD plans to use the metric in combination with periodic knowledge assessments and predeployment skills assessments to determine whether additional training may be needed prior to deployment.[51] The day-to-day patient care that providers deliver in MTFs is a crucial component of their predeployment readiness training. Although practicing patient care in MTFs gives providers clinical opportunities to sustain their readiness skills, DOD has reported that MTFs predominantly serve a young and healthy population, which generally does not provide the type of cases and experience needed for treating combat casualties on deployment.[52] To that end, DOD helps providers sustain their highly specialized skills through partnerships with civilian hospitals. DOD has further reported that providers can obtain additional clinical experience through "just-in-time" training at civilian trauma centers; however, even the training at these civilian trauma centers does not provide the mix of patient cases or experience in polytrauma (i.e., trauma to multiple body parts and organs) needed for combat casualty care.

For these reasons, DOD officials told us that the clinical readiness metric was designed to help reveal gaps in providers' clinical readiness at MTFs

[51]DOD's clinical readiness metric was developed in response to findings from its Modernization Study, which included eight recommendations for further study and analysis in a wide range of areas, such as defining medical force readiness. Department of Defense, *Report on Military Health System Modernization* (2016).

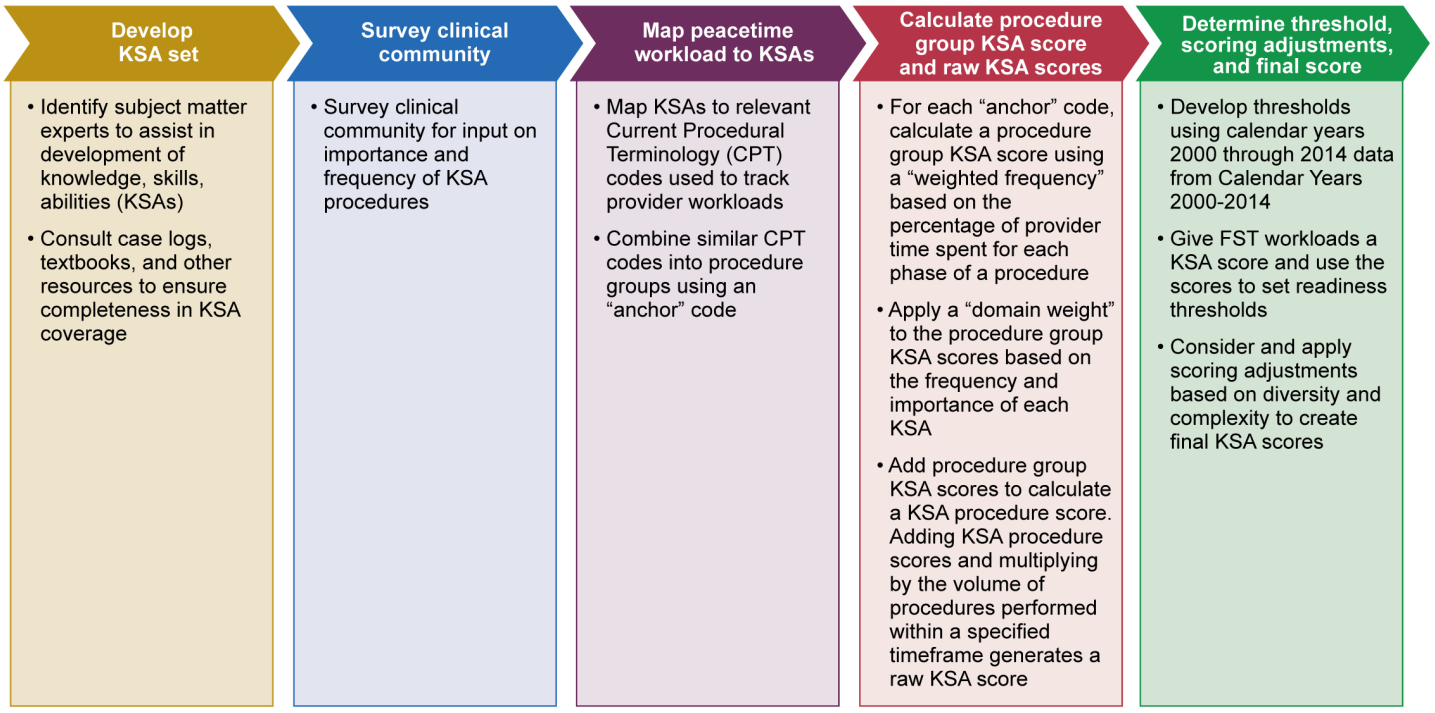
[52]Department of Defense, *Report on Military Health System Modernization* (2016).

before they deploy. Providers will record data for the metric and monitor their own progress toward a readiness threshold. In addition, MTF administrators, DHA officials, and military department and OSD leaders will monitor the data and the readiness gaps that the metric reveals. In turn, officials stated that OSD, DHA, and the military departments can help to mitigate providers' readiness gaps through various means. One of these means, according to officials, will be to send providers to civilian hospitals for more experience, while hiring civilian employees to backfill their open positions at MTFs. Another means would be to fund additional provider training that could include patient care simulations.

DOD's clinical readiness metric is a point score derived from the procedure codes that providers record in their assigned MTF over a period of time.[53] For each procedure code, DOD assigns a corresponding point value based on factors such as complexity. In addition, the procedure codes and their point values correspond with sets of clinical KSAs that DOD has identified as being required of selected provider specialties in deployed settings. Figure 4 below illustrates the calculation of the clinical readiness metric and its relationship with KSAs.

[53]DOD plans to apply the same metric and approach not just to individual providers but also to assess the available workload at each MTF for the purposes of identifying challenges with appropriate levels of provider staffing (surpluses or shortages).

Figure 4: Department of Defense Methodology for Calculating Clinical Readiness Metrics for Medical Providers



Source: Department of Defense. | GAO-19-206

DOD's methodology for assessing providers' clinical readiness through the development of a metric includes positive elements, such as investing leadership and resources, identifying outcomes, gathering stakeholder input, and piloting the metric.

- **Providing leadership and resources.** Senior officials from OSD's CAPE and Health Affairs have provided guidance and oversight into the development of the readiness metric. Additionally, DOD has devoted resources to the clinical readiness metric initiative. Specifically, DOD spent approximately $1.7 million on the initiative through fiscal year 2018 and has budgeted about $4 million through fiscal year 2021 to expand the approach to providers in other specialties. The total budgetary investment of $5.7 million includes contract support costs, such as surveying military surgeons and developing a database. As discussed later in this report, DOD's budget for the metric does not include funding additional training that providers may need to meet readiness thresholds, or hiring civilian employees to backfill open positions at MTFs when providers leave to attend training.

- **Identifying desired outcomes**. According to DOD officials, the clinical readiness metric can help providers and MTFs align their daily practices with deployed clinical readiness needs. Specifically, officials told us that analyzing the historical workload at each MTF can ensure these facilities are not overstaffed and encourage a higher level of readiness among the medical providers by providing them with an appropriate workload.
- **Ensuring stakeholder input.** DOD developed its clinical readiness metric and the KSAs with input from Army, Navy, and Air Force subject matter experts, as well as civilian experts from the American College of Surgeons.
- **Conducting a pilot.** DOD is piloting the clinical readiness metric in six MTFs to test its feasibility and determine what effect there might be, if any, on health care access, safety, or costs. In the initial 90 days of the pilot, the first two participating MTFs reported an increase in the percentage of providers meeting the clinical readiness metric threshold without negative effects.[54]

Data for DOD's Clinical Readiness Metric Methodology Are Unreliable, Incomplete, and Not Tied to Desired Outcomes

Despite the positive aspects of DOD's clinical readiness metric initiative, its current methodology does not use accurate, consistent, and complete data. DOD relies, as its sole data source, upon the procedural codes that providers enter in MTF records to document patient care when calculating the clinical readiness metric score. However, procedural coding data from MTF records are of questionable reliability and accuracy. According to DOD's internal audits over the past 3 years, the military departments have not passed reliability thresholds for procedural coding data. In 2017, inpatient procedure codes were approximately 86 percent accurate overall, while outpatient procedure codes were about 33 percent accurate. Over the prior 3 years of audits, inpatient code accuracy rose from 72 percent in 2015 but outpatient code accuracy fell from 73 percent in 2015, in part due to changes to the coding system between the 2016 and 2017 audits. These levels of accuracy do not meet the DOD-set

[54]The first 90 day pilot period included results reporting from two of the six pilot MTFs for orthopedic and general surgeons. The pilot MTFs include Walter Reed National Military Medical Center, Bethesda, Maryland; and Fort Belvoir Community Hospital, Fort Belvoir, Virginia in the first phase. The next four MTFs in the pilot will include the 96th Medical Group, Eglin Air Force Base, Florida; David Grant Medical Center, Travis Air Force Base, California; Naval Hospital Camp Pendleton, Marine Corps Base Camp Pendleton, California; and William Beaumont Army Medical Center, Fort Bliss, Texas. We interviewed personnel from one of these pilot MTFs—David Grant Medical Center—and five other MTFs listed in appendix I.

minimum expected coding accuracy standard for experienced professional coders of 97 percent.[55]

Furthermore, officials we spoke to from the military departments and the Uniformed Services University acknowledged that the clinical readiness metric currently does not capture data from work done outside the MTFs. For example, many physicians, nurses and enlisted personnel perform additional work outside their assigned MTFs in civilian hospitals, but the clinical readiness metric does not consistently account for this experience because of limits in data collection capability. The framework also does not capture data for all parts of the military medical and dental provider community. Specifically, the clinical readiness metric does not apply to reserve component providers, which comprise nearly half of DOD's general and orthopedic surgeons—a substantial portion of DOD's combat casualty care capability.[56] According to DOD officials, they are not yet planning to expand the metric to its reservists because at this time, there is no feasible way of doing so.

DOD's clinical readiness metric was developed to assess and improve providers' wartime readiness and facilitate DOD's ability to right-size its MTF staffing. In addition, by increasing providers' wartime readiness, the metric is ultimately intended to improve patient safety and outcomes at the MTFs, according to DOD officials. OSD officials stated that another desired outcome of the metric will be to achieve critical improvement in medical and dental personnel retention by increasing training and workloads, thereby improving workforce morale and satisfaction.

However, as currently designed, the metric may not achieve its full potential for demonstrating results to decision makers because data are not linked to patient safety and outcomes or to the retention of providers. Moreover, the question of whether patient safety and outcomes can be improved in an operational environment through increased provider readiness is unclear. According to congressional testimony by an Army official and related research, the survival rates for individuals wounded in Iraq and Afghanistan have been greater than 90 percent, but an

[55]Department of Defense Instruction 6040.42, *Management Standards for Medical Coding of DOD Health Records* (June 8, 2016).

[56]Combat casualty care capability, for the purposes of this report, refers to the following specialties of medical providers: general surgery, anesthesia (physicians and nurse anesthetists), orthopedic surgery, critical care (physicians and nurses), and emergency medicine (physicians and nurses).

estimated 25 percent of combat-related deaths were potentially preventable, having occurred before the patient reached a surgeon.[57] Rather than citing a need for improvement in the clinical readiness of providers, a study by a panel of experts found that these preventable deaths in Iraq and Afghanistan required strategies to mitigate hemorrhaging and shorter times from the point of injury to surgical intervention.[58] Thus, the current readiness metric may not result in the expected improvements in an operational environment given recent experiences.

Our prior work has found that, in designing and implementing a performance measurement system, leading organizations ensure that data are complete, accurate, and consistent enough to document performance and support decision-making.[59] Such organizations also ensure that their performance measures demonstrate results. Further, according to *Standards for Internal Control in the Federal Government*, analyzing the significance of risks to achieving an agency's objectives provides a basis for responding to the risks.[60]

Although DOD has taken some positive steps to improve the accuracy of its clinical readiness measures, it has not developed a plan to identify and mitigate limitations in the framework's data. OSD, project management, and service medical officials we spoke with acknowledged that the lack of linkage with outcome-oriented data is an area that they would like to improve upon. Their priority is to implement the metric and to seek

[57]Lieutenant Colonel Robert L. Mabry, MD, U.S. Army, *Defense Medical Readiness,* testimony before the House Armed Services Committee Subcommittee on Military Personnel, 114th Cong., 2nd sess., February 26, 2016.

[58]B. J. Eastridge, MD; R.L. Mabry, MD; P. Seguin, MD; J. Cantrell, MD; T. Tops, MD; P. Uribe, MD; O. Mallett; T. Zubko; L. Oetjen-Gerdes; T. E. Rasmussen, MD; F. K. Butler, MD; R.S. Kotwal, MD; J.B. Holcomb, MD; C. Wade, PhD; H. Champion, MD; M. Lawnick; L. Moores, MD; L.H. Blackbourne, MD, "Death on the Battlefield (2001-2011): Implications for the Future of Combat Casualty Care," *Journal of Trauma and Acute Care Surgery,* vol. 73, no. 6 (2012).

[59]GAO, *Defense Logistics: Improved Performance Measures and Information Needed for Assessing Asset Visibility Initiatives,* GAO-17-183 (Washington, D.C.: Mar. 16, 2017); GAO, *Tax Administration: IRS Needs to Further Refine Its Tax Filing Season Performance Measure*, GAO-03-143 (Washington, D.C.: Nov. 22, 2002); GAO, *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GGD-96-118 (Washington, D.C.: June 1, 1996).

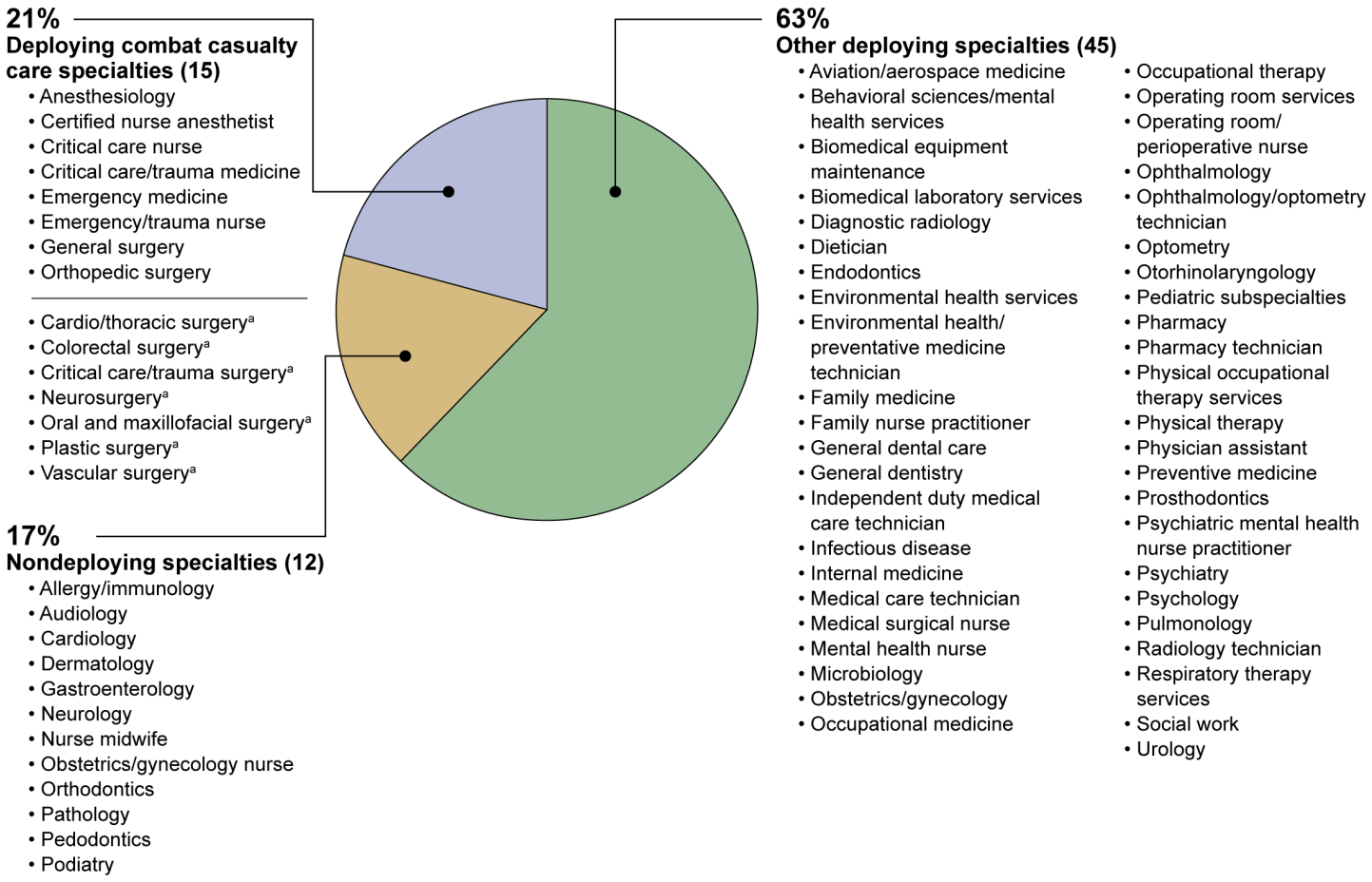
[60]GAO, *Standards for Internal Control in the Federal Government,* GAO-14-704G (Washington, D.C.: Sept.10, 2014).

improvements in the future. However, as previously described, the data for DOD's clinical readiness metric methodology are unreliable, incomplete with respect to reserve providers and patient care workload performed outside of MTFs, and are not tied to all desired outcomes. Until DOD identifies and mitigates these limitations in the data for its clinical readiness metric, military leaders may not have the best possible information to support decision-making. Additionally, DOD leaders may not know whether improvements to clinical readiness levels are linked to other desired results, such as improved patient outcomes and provider retention.

DOD Has Not Determined the Medical Specialties to Which It Will Apply a Clinical Readiness Metric or Budgeted for Implementation of the Metric

DOD has not yet decided to which medical specialties it will apply a clinical readiness metric or budgeted fully for the cost of implementing the metric to additional specialties and providing the additional training they may require to meet readiness thresholds. According to officials from DOD's clinical readiness project management office, DOD stakeholders agreed at the outset of their development efforts that combat casualty care specialties were their first priority for establishing KSAs and a related metric and thresholds for readiness. DOD plans to assess the feasibility of expanding the clinical readiness metric to family medicine, internal medicine, and infectious disease specialties. DOD officials stated that their plan is to eventually develop a metric and threshold for the specialties where currency and proficiency is variable, according to experts, among the 72 specialties that are common among the military departments. Our analysis of the list of 72 found that 12 of these specialties generally do not deploy (see figure 5). Therefore, DOD's readiness metric may not necessarily be as relevant to these occupations.

Figure 5: Department of Defense Medical Provider Specialties That Are Part of Deploying Units



Source: GAO analysis of Department of Defense information. | GAO-19-206

Note: Due to rounding, the total percentages do not add up to 100 percent.

[a]Although specialty and subspecialty surgeons are not considered to be combat casualty care specialties, we are including them in this category for illustrative purposes because of their ability to substitute on deployment in approved circumstances for general surgeons, which is a combat casualty care specialty.

OSD officials we spoke with stated that they believe only a small number of those specialties use skill sets that are highly complex and perishable (i.e., skills that may degrade if not regularly practiced) for performing high-risk procedures—namely, the combat casualty care specialties for which the metric was initially designed. Thus, the officials stated that a clinical readiness metric may not be as beneficial for other types of provider specialties as it will be for assessing and improving combat casualty care providers' wartime readiness and for right-sizing MTF staffing.

Accordingly, they stated that the return on investment for the clinical readiness metric may differ by provider specialty.

Apart from the new clinical readiness metric in development, MTFs and clinical supervisors and leaders told us they already have administrative processes to collect information that helps gauge readiness of assigned health care providers. For example, each MTF ensures that providers meet credentialing and privileging requirements to permit them to treat patients at that facility.[61] Additionally, MTF officials told us they rely on mechanisms such as provider records or case logs, and hold periodic formal and informal assessments to evaluate providers' currency and competency. Further, MTF administrators are required to track an interim measurement as a proxy for physicians' clinical readiness by comparing physicians' workloads, or productivity, against civilian standards set by the Medical Group Management Association. Moreover, the military departments also have requirements for ensuring that physicians have the appropriate credentials and clinical competence.[62] Some OSD officials stated that they consider these existing indicators of competence to be sufficient to measure clinical readiness, arguing that, for example, the credentialing process is already based on a professional expectation of readiness for a provider to perform his or her role. These officials also indicated that they think it is more important to prioritize DOD's

[61]During the credentialing process, the MTF staff collects and reviews information, such as a physician's professional training, malpractice history, peer recommendations, and other documents regarding their professional background, to determine whether the physician has suitable clinical abilities and experience to practice at the MTF. During the privileging process, the MTF staff determines which specific health care services—known as clinical privileges—the physician should be allowed to provide, based on the physicians' clinical competence to provide the service and the specific capabilities of the MTF.

[62]GAO, *DOD Health Care: Actions Needed to Help Ensure Full Compliance and Complete Documentation for Physician Credentialing and Privileging,* GAO-12-31 (Washington, D.C.: Dec. 15, 2011). We recommended that DOD identify and address existing inconsistencies between DOD's and the military departments' physician credentialing and privileging requirements. DOD concurred with these recommendations, and officials reported taking steps to standardize the credentialing and privileging processes across DOD. However, none of our recommendations have been implemented.

substantial shortfalls in required medical personnel first, and then focus on improving readiness.[63]

Additionally, some MTF officials we interviewed discussed several concerns associated with the clinical readiness metric, including potential undesired consequences. For example, some officials expressed concern that applying the metric would increase the administrative burden on personnel at multiple levels given the amount of data they already record and evaluate, as described above. Other MTF officials expressed concern about the effect of spending more time away from their assigned MTF to attend training. Specifically, these officials stated that applying the metric could lead to the need to hire more civilians to offset any reduction in available military medical personnel undergoing training.[64]

According to OSD officials, the full implementation cost of the clinical readiness metric for general and orthopedic surgeons, and eventually for other specialties, will substantially exceed the approximately $5.7 million investment in developing the metric and conducting the ongoing pilot. Such costs will include providing additional training to physicians to meet the readiness thresholds, and hiring civilians to backfill military personnel from the MTFs to attend training. However, DOD has not determined or budgeted for these costs nor decided upon the additional specialties to which it will expand the clinical readiness metric and over what timeframe.

Our prior work has found that leading organizations ensure that the numbers of performance metrics they select are limited to the vital few.[65]

[63]In February 2018, we reported on shortfalls in physician authorizations and end strengths, finding that the military departments' approach to filing the gaps is not fully addressing the issue. We recommended that the secretaries of the military departments develop strategies for recruitment, training, and retention to address key gaps in a coordinated manner. GAO-18-77. At the time of our report, DOD had not implemented our recommendations. However, DOD's interim report for section 708(d) of the NDAA for Fiscal Year 2017 identifies continued gaps in physicians and directs the military departments to revise accession programs and improve accession rates in order fill such gaps and meet requirements.

[64]Some MTF officials noted the potential need to hire more federal civilian employees as a particular concern due to hiring impediments that challenge them in filling vacancies. We reported in November 2018 on challenges DOD faces with hiring civilians to staff its MTFs, including extended hiring times compared to the private sector, restrictions on the civilian hiring of retired military personnel, and salaries that were not competitive with the private sector. GAO-19-102.

[65]GAO-03-143; GGD-96-118.

Organizations that seek to manage an excessive number of performance metrics may risk creating a confusing excess of data that will obscure rather than clarify performance issues. Limiting the number of metrics helps ensure that the costs involved do not become prohibitive. Further, according to federal standards for internal control, it is important for organizations to consider costs versus benefits in balancing resource allocation in relation to the areas of greatest risk, complexity, or other factors relevant to achieving the entity's objectives.[66]

DOD has moved ahead with the clinical readiness metric without first determining all the critical wartime specialties that perform high-risk, high-acuity procedures using perishable skills, or determining to which of those its readiness metric should apply. DOD officials we spoke with acknowledged that there will be considerable time and financial resources involved in implementing the metric. Further, they stated that the return on investment may differ by specialty. Likewise, DOD agrees that it has not fully considered the costs and benefits of expanding the clinical readiness metric to additional specialties, beyond those costs associated with general and orthopedic surgeons, as previously described. Until DOD determines the critical wartime specialties to which its clinical readiness metric should be applied and estimates the costs and benefits associated with implementing the metric for each, it will not know whether implementation is targeting areas of greatest return on investment.

Conclusions

The military health system is one of DOD's most important and costly enterprises, with over 186,000 servicemembers and an annual budget of about $43 billion devoted to supporting its mission. Through its investments in health care, DOD has pledged to maintain a ready medical force that can deploy and deliver health services anytime and anywhere to ensure the medical readiness of its armed forces. Accordingly, and to their credit, determining the right size and composition of operational medical and dental personnel and pursuing approaches for maintaining and measuring wartime readiness are issues that have elicited sustained attention from DOD's senior leaders. However, several challenges have hampered progress toward efficient and effective outcomes with respect to requirements and readiness.

[66]GAO-14-704G.

First, the military departments have applied separate and different processes and assumptions to develop operational medical and dental personnel requirements, despite a prior DOD report finding and OSD leaders' concerns about the need for consistency and joint collaboration. Without establishing and using joint planning assumptions and a method to assess options for efficiency and associated risks, the department may not be able to know whether it has an optimal size and composition of medical and dental personnel to achieve its missions.

Second, DOD has initiated a number of efforts to maintain providers' clinical readiness for wartime, such as standardizing and expanding predeployment readiness training. However, DOD's methodology for assessing clinical readiness lacks some key elements, such as data that are reliable and complete, a determination about the specialties to which a metric should apply, and a full budget for implementation costs. Until DOD identifies and mitigates limitations in the data, determines the specialties to which a metric should apply, and assesses the costs and benefits associated with implementing a metric for each, it will not know whether it is targeting areas of greatest return on investment.

Recommendations for Executive Action

We are making the following six recommendations to DOD:

The Secretary of Defense should ensure that the Under Secretary of Defense for Personnel and Readiness, in coordination with the Director, CAPE, the Joint Staff Surgeon, and the secretaries of the military departments, establish joint planning assumptions for developing operational medical and dental personnel requirements, including a definition of what forces should and should not be identified as "operational." (Recommendation 1)

The Secretary of Defense should ensure that the Under Secretary of Defense for Personnel and Readiness, in coordination with the Director of Cost Assessment and Program Evaluation, the Joint Staff Surgeon, and the secretaries of the military departments, establish a method to assess options for achieving joint efficiencies in medical and dental personnel requirements and any associated risks. (Recommendation 2)

The Secretary of Defense should ensure that the Under Secretary of Defense for Personnel and Readiness, in coordination with the Director of Cost Assessment and Program Evaluation, the Joint Staff Surgeon, and the secretaries of the military departments, apply joint planning assumptions and a method for assessing efficiencies and risk, use these

to determine operational medical and dental requirements, and report to Congress. (Recommendation 3)

The Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs, in coordination with the Surgeons General of the military departments, identify and mitigate limitations in the clinical readiness metric, such as data reliability, a lack of complete information on reserve component providers and patient care workload performed outside of MTFs, and the lack of linkage between the metric and patient care and retention outcomes. (Recommendation 4)

The Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs, in coordination with the Surgeons General of the military departments and the Director of the Defense Health Agency, determines which critical wartime specialties perform high-risk, high-acuity procedures and rely upon perishable skill sets and use this information to prioritize specialties to which the clinical readiness metric could be expanded (Recommendation 5).

The Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs, in coordination with each of the Surgeons General of the military departments and the Director of the Defense Health Agency, estimates the cost and benefits, by specialty, of implementing a clinical readiness metric and use that information to determine whether DOD's approach should be revised. Costs to be considered should include those needed to provide additional training for medical personnel to achieve clinical readiness thresholds and to hire additional civilian personnel in MTFs to backfill military providers who leave to attend training. (Recommendation 6)

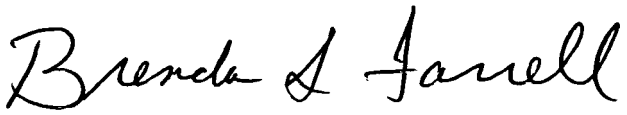
Agency Comments and Our Evaluation

In written comments on a draft of this report, DOD concurred with our six recommendations concerning actions needed to determine the required size and readiness of operational medical and dental forces. In addition, DOD provided clarifying comments detailing implementation steps for three of the six recommendations. DOD's comments are reprinted in appendix III. DOD also provided technical comments on the draft report, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, the Under Secretary of Defense for Personnel and Readiness, the Assistant Secretary of Defense for

Health Affairs, the Director of Cost Assessment and Program Evaluation, the Director of the Defense Health Agency, and the Secretaries of the Army, the Navy, and the Air Force. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-3604 or farrellb@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.



Brenda S. Farrell
Director
Defense Capabilities and Management

Appendix I: Objectives, Scope, and Methodology

This report addresses the extent to which the Department of Defense (DOD) has (1) determined and reported to Congress on the size and composition of its operational medical and dental personnel requirements, and (2) initiatives to maintain and a methodology to assess the critical wartime medical readiness of its medical providers.

To address our first objective, we reviewed DOD's interim and draft reports to Congress in response to section 721 of the National Defense Authorization Act (NDAA) for Fiscal Year 2017. Specifically, we reviewed DOD's three interim reports dated March 30, 2017, November 14, 2017, and March 26, 2018.[1] We also reviewed a draft report that the military departments presented to Office of the Secretary of Defense (OSD) entities for review from September through October 2017 (hereafter, the Military Departments' 721 Draft Report). Although that draft report was not approved by OSD or submitted to Congress, we determined that it was appropriate to review given its significance to the department's process and methodology for responding to section 721.

We compared DOD's reports and related methodologies with the elements of section 721 of the NDAA for Fiscal Year 2017.[2] Those elements called for the Secretary of Defense to, among other things, submit a report to Congress no later than March 23, 2017 that includes (1) a description of the process established under 10 U.S.C. § 977, as added by subsection 721(a), to define the military medical and dental personnel required to meet requirements for operational medical force readiness, and (2) a complete list, by position, of the military medical and dental personnel required to meet operational medical force readiness requirements.

In comparing DOD's reports and methodologies with the elements in the statute, we analyzed the military departments' estimates of required medical and dental personnel and the underlying assumptions and processes used to generate them. Specifically, we reviewed data on required personnel that informed the Military Departments' 721 Draft

[1]Department of Defense, *Interim Response to Section 721 of the National Defense Authorization Act for Fiscal Year 2017* (Mar. 30, 2017); Department of Defense, *Interim* Report Pursuant to Section 721 of the National Defense Authorization Act for Fiscal Year 2017 (Nov. 14, 2017); and Department of Defense, *Interim Report to Congress in Response to Section 721 of the National Defense Authorization Act for Fiscal Year 2017* (Mar. 26, 2018).

[2]Pub. L. No. 114-328, § 721(b) (2016).

Report from September 2017, and data on required personnel for future years that the military departments submitted to the Joint Staff Surgeon's Office and then to OSD in May 2018. At the time of our report, these May 2018 data were the most recent estimates of the military departments' medical and dental personnel requirements for addressing section 721. We compared the processes and assumptions that the military departments used for their May 2018 requirements estimates, submitted to OSD with a memorandum issued by the Deputy Secretary of Defense proscribing the inclusion of substitutions, workarounds, and peacetime benefits in the final section 721 requirements.[3]

We compared each of the two sets of data on required medical and dental personnel from September 2017 and May 2018 to identify any differences in size and composition. For the September 2017 data, in particular, we also drew comparisons with data on the military departments' fiscal year 2017 required personnel as a baseline to determine whether each department's estimated personnel requirements were less than, the same as, or greater than their respective requirements in place for that fiscal year.

We assessed the reliability of these data on military medical and dental personnel requirements by interviewing relevant personnel responsible for maintaining and overseeing the systems that supplied the data and manually checking the data for errors or omissions. Through these methods, we obtained information on the systems' ability to record, track, and report on these data, as well as on the quality control measures in place. We found the requirements data to be sufficiently reliable for the purposes of drawing comparisons between the military departments' and between different iterations of data.

Finally, we compared DOD's processes in meeting the requirements of section 721 and developing requirements for medical and dental personnel against principles for reducing fragmentation, overlap, and duplication from our prior work.[4] In our prior work, we have reported the need for agencies to assess how, if at all, any fragmented, overlapping, or duplicative functions are related and how they are being coordinated

[3]Deputy Secretary of Defense Memorandum, *Military Health System Reforms* (Mar. 31, 2017).

[4]GAO, *2018 Annual Report: Additional Opportunities to Reduce Fragmentation, Overlap, and Duplication and Achieve Other Financial Benefits*, GAO-18-371SP (Washington, D.C.: Apr. 26, 2018).

between agencies. Understanding this relationship helps to inform decisions about whether and how to increase efficiency or reduce or better manage fragmentation, overlap, or duplication. We also interviewed officials from the military departments, the Joint Staff Surgeon's Office, Office of the Under Secretary of Defense for Personnel and Readiness (OUSD(P&R)), and the Director, Cost Assessment and Program Evaluation, who are developing and reviewing the medical and dental personnel requirements for section 721, to understand the process and procedures they used, and any concerns and challenges they perceived in addressing the statute.

To address our second objective, we reviewed and analyzed documents identified by DOD in developing its initiatives to maintain the critical wartime medical readiness of its medical providers, including an information paper that DOD officials prepared summarizing actions taken to address section 725 of the NDAA for Fiscal Year 2017.[5] Section 725 called for the Secretary of Defense to implement measures to maintain the critical wartime medical readiness skills and core competencies of health care providers within the Armed Forces by no later than December 23, 2017.[6] To understand actions taken to maintain the critical wartime readiness and core competencies of health care personnel within the military departments, we also reviewed and analyzed memorandums issued by DOD leaders regarding the improvement of medical force readiness and the realignment of military health system (MHS) governance structures, and a draft DOD instruction from the Assistant Secretary of Defense for Health Affairs.[7] We corroborated our understanding of DOD's initiatives and documents by interviewing officials from the OUSD(P&R), the Assistant Secretary of Defense for Health Affairs (Health Affairs), Joint Staff, and the military departments.

We compared DOD's initiatives and documentation regarding maintaining critical wartime medical readiness skills and core competencies of health care providers with the measures in section 725 of the NDAA for Fiscal Year 2017 that DOD is required to implement. We did not assess the

[5]Department of Defense, *Information Paper on NDAA Section 725, Adjustment of Medical Services, Personnel Authorized Strengths, and Infrastructure in Military Health System to Maintain Readiness and Core Competencies of Health Care Providers* (Dec. 23, 2017).

[6]Pub. L. No. 114-328, § 725 (2016).

[7]Department of Defense Instruction 64XX.01*, Maintaining the Readiness and Core Competencies of Medical Providers of the Armed Forces* (DRAFT as of Aug. 27, 2018).

sufficiency or completeness of these initiatives, however, as many were not yet mature enough to demonstrate results. We categorized DOD's initiatives into four general approaches: planning for changes to health services and infrastructure, expanding and standardizing pre-deployment clinical training opportunities, developing new policy, and realigning governance structures.

For DOD's key initiative to assess the wartime medical readiness of health care personnel—referred to as the clinical readiness metric—we reviewed documentation of DOD's methodology, including its goals, scope, budget, and steps DOD has taken to identify data sources, design and calculate the quantitative metric, establish thresholds, and test the metric and thresholds. To further our understanding of how the clinical readiness metric fits within DOD's goals, we reviewed the department's strategic plan for the MHS.[8] We also interviewed officials from the Defense Health Agency (DHA), Uniformed Services University of the Health Sciences, and the military departments to better understand the methodology and DOD's efforts to pilot and implement the metric at medical treatment facilities (MTFs).

To identify the reliability of DOD's data source for calculating its clinical readiness metric—that is, the clinical procedure codes that providers enter into MTF records—we reviewed documentation of DOD-commissioned audits for fiscal years 2015 through 2017. To understand the scope of DOD's clinical readiness metric initiative, we gathered and reviewed internal DOD reports and briefing slides about the physician specialties to which the metric will apply and the MTFs identified for piloting the metric.

We compared the information we reviewed on the clinical readiness project methodology with criteria on effective performance measurement systems of leading organizations from our prior work to identify the extent

[8]Department of Defense, *The Military Health System Strategic Plan: Achieving a Better, Stronger, and More Relevant Military Health System* (Oct. 8, 2014).

to which DOD's methodology met key elements.[9] Those elements call for (1) using data that are complete, accurate, and consistent enough to document performance and support decision-making, and (2) ensuring measures demonstrate results and are limited to the vital few. Organizations that seek to manage an excessive number of performance metrics may risk creating a confusing excess of data that will obscure rather than clarify performance issues. Limiting the number of metrics helps ensure that the costs involved do not become prohibitive. We also compared DOD's methodology with federal internal control standards, which state that agencies should analyze the significance of risks to achieving their objectives in order to provide a basis for responding to the risks.[10] These standards also state that it is important for organizations to consider costs versus benefits in balancing the resource allocation in relation to the areas of greatest risk, complexity, or other factors relevant to achieving the entity's objectives.

To better understand individual-level readiness concerns and challenges for DOD and the military departments, we interviewed a nongeneralizable sample of administrators and medical providers at six MTFs—two each from the Army, the Navy, and the Air Force—to allow a cross-section of views concerning the MTF's current process for ensuring and sustaining a provider's individual readiness and his or her deployment requirements.[11] We selected two MTFs from each of the three military departments based on consideration of volume as measured by average daily patient load and MTF bed size, which we obtained from the DHA. For each MTF, we interviewed officials responsible for the leadership and management of

[9]GAO, *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GAO/GGD-96-118 (Washington, D.C.: June 1, 1996). In GAO/GGD-96-118, we identified key steps and practices of a number of leading public sector organizations that were successfully pursuing management reform initiatives and becoming more results-oriented. For a more recent example of the application of the principles from GAO/GGD-96-118, see GAO, *Defense Health Care Reform: Actions Needed to Help Ensure Defense Health Agency Maintains Implementation Progress*, GAO-15-759 (Washington, D.C.: Sept. 10, 2015).

[10]GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Washington, D.C.: Sept.10, 2014).

[11]We selected the following six MTFs for interviews: (1) Brooke Army Medical Center in Joint Base San Antonio, Texas; (2) Carl R. Darnall Army Medical Center in Ft. Hood, Texas; (3) Naval Medical Center Portsmouth in Portsmouth, Virginia; (4) Naval Hospital Twentynine Palms in Twentynine Palms, California; (5) David Grant Medical Center in Travis Air Force Base, California; and (6) Air Force Hospital Langley in Hampton, Virginia.

MTF personnel and operations and requested and reviewed relevant documentation.

For both of our objectives, we identified and reviewed DOD memorandums issued since 2017 and DOD-commissioned reports issued over the past decades that are associated with medical force personnel requirements and readiness. We provide a summary of the DOD memorandums and reports we reviewed in appendix II.

We conducted this performance audit from January 2018 through February 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Department of Defense Memorandums, Studies, and Reports Related to Medical Force Personnel Requirements and Readiness

As discussed throughout this report, determining military medical and dental personnel requirements and defining medical force readiness has been an area of focus within the Department of Defense (DOD) over the past several years as it takes steps to modernization the military health system. Toward that end, DOD has issued a number of memorandums and commissioned and produced reports that have addressed issues associated with medical force personnel requirements and readiness, as discussed below.

DOD Memorandums

Since January 2017, DOD has issued a series of memorandums, including those listed in table 3 below, related to medical and dental personnel requirements and improving medical readiness skills and core competencies of military health care providers.

Table 3: Department of Defense (DOD) Memorandums Related to Medical Readiness Skills and Core Competencies of Military Health Care Providers

Date	Memorandum	Summary
January 17, 2017	Deputy Secretary of Defense Memorandum, *Military Health System Modernization Study and Other Reforms*	Directs the Under Secretary of Defense for Personnel and Readiness (USD(P&R)) to address the restructuring or realignment of military medical treatment facilities consistent with section 703 of the National Defense Authorization Act (NDAA) for Fiscal Year 2017, as well as work on reforms related to medical readiness, budget issues for military medical treatment facilities, and administration of the Defense Health Agency and military medical treatment facilities.
March 31, 2017	Deputy Secretary of Defense Memorandum, *Military Health System Reforms*	Directs the USD(P&R), with Joint Staff support and in coordination with the military departments, to determine the military medical and dental personnel requirements needed to meet the operational medical force readiness requirements outlined by section 721 of the NDAA for Fiscal Year 2017 without consideration of substitutions, work-arounds, and peacetime benefit requirements.
February 21, 2018	Under Secretary of Defense for Personnel and Readiness Memorandum, *Authorities and Responsibilities of Military Treatment Facility Leaders, Service Leaders, and the Military Medical Departments*	Outlines how, in accordance with section 702 of the NDAA for Fiscal Year 2017, DOD will transition administration of the military medical treatment facilities from the military medical departments to the Defense Health Agency (DHA), including delegating the responsibility for setting readiness requirements with the military departments and giving DHA responsibility to provide venues to meet readiness needs, including through military-civilian partnership.
February 23, 2018	Under Secretary of Defense for Personnel and Readiness Memorandum, *Expansion Plan to Expedite Knowledge, Skills, and Abilities Development*	Outlines an Expansion Plan to expedite knowledge, skills, and abilities (KSA) development for surgical communities and any remaining medical specialty care communities, and includes three milestone goals: March 2018 to finalize KSA criteria for general and orthopedic surgeons, April 2018 to create a KSA Program Office, and December 2018 to expand KSAs for remaining medical specialty care communities via the KSA Program Office.

Date	Memorandum	Summary
February 28, 2018	Deputy Secretary of Defense Memorandum, *Requirements and Readiness for the Medical Force*	Directs the military departments to review the readiness posture of their medical forces and to examine service manpower implications associated with the transition of the administration and management of military medical treatment facilities to the DHA, as directed by section 702 of the NDAA for Fiscal Year 2017.
April 17, 2018	Office of the Under Secretary of Defense for Personnel and Readiness Memorandum, *Establishment of a Knowledge, Skills, and Abilities Program Management Office*	Establishes the KSA Program Management Office (PMO) within 30 days of the date of the memorandum and directs the KSA PMO to establish a standardized method to define baseline KSA for critical wartime medical specialists and communities within 6 months of the memorandum issue date.
May 4, 2018	Assistant Secretary of Defense for Health Affairs Memorandum, *Way Forward for Military Health System Measures for Fiscal Year 2019*	Outlines performance measures for the military health system for Fiscal Year 2019, including measures intended to improve readiness, such as the percentage of providers meeting KSAs (referred to earlier in this report as the clinical readiness metric) for general surgery and orthopedic surgery.
May 22, 2018	Under Secretary of Defense for Personnel and Readiness Memorandum, *Construct for Implementation of Section 702*	Establishes guidance for implementation of section 702 of the NDAA for Fiscal Year 2017, including, among other things, guidance for how DOD's operational readiness measures will be implemented. Readiness-related guidance includes requirements for the Director of the DHA to provide opportunities within military treatment facilities for military medical personnel to obtain and maintain currency in clinical KSAs or establish partnerships with civilian facilities or Veterans Affairs for the same purpose. Military treatment facility directors determine capacity of their military treatment facility to support readiness and health care services. States that service commanders will 1) ensure that personnel maintain their currency in clinical KSAs, and 2) communicate operational requirements to DHA to allow DHA to plan around personnel reassignments.
June 15, 2018	Under Secretary of Defense for Personnel and Readiness Memorandum, *Zero-Based Review of Military Department Medical Manpower*	Establishes that the office of Cost Assessment and Program Evaluation will launch a Medical Manpower Working Group, co-chaired by the USD(P&R), to establish a single process by which to define the military medical and dental personnel requirements necessary to meet operational medical force readiness requirements. Requests that each military department conduct a zero-based review of its "above MTF" level medical manpower in order to implement section 702 of the NDAA for Fiscal Year 2017 and submit the final report no later than September 1, 2018.
July 5, 2018	Assistant Secretary of Defense for Health Affairs Memorandum, *Accession and Retention Plans for Trauma-related Wartime Medical Specialties*	Section 708(d) of the NDAA for Fiscal Year 2017 required DOD to create a personnel management plan for trauma-related and other wartime medical specialties identified by the Secretary of Defense. This memorandum requests military department input in creating the plan. In particular, the memorandum instructs the departments to focus on closing the personnel gap in the identified medical specialties, namely aerospace medicine; anesthesiology; cardiothoracic surgery; emergency medicine; general medicine; general surgery; orthopedic surgery; preventive medicine; psychiatry; pulmonary medicine; critical care; nurse anesthesiology; and critical care nursing.

Source: GAO review of DOD memorandums. | GAO-19-206

DOD-Commissioned Studies

Since June 2013, DOD has commissioned the following four studies, shown in table 4, from the Institute for Defense Analyses related to medical force requirements and capabilities, including one that made four recommendations for improving medical readiness skills and core competencies of military health care providers.

Table 4. Institute for Defense Analyses Reports for the Department of Defense (DOD) Related to Medical Force Requirements and Capabilities

Date	Report	Summary
June 2013	Institute for Defense Analyses, *Medical Requirements and Deployments*	This study evaluated medical cost growth in the U.S. military, finding that: 1) military medical requirements have incorporated some lessons from the wars in Afghanistan and Iraq, 2) the specialty mix is more aligned with operational requirements but that significant overages remain, and 3) large portions of medical requirements may not be military essential. The study did not make any recommendations.
July 2016	Institute for Defense Analyses, *Essential Medical Capabilities and Medical Readiness*	The Institute for Defense Analysis conducted this study in response to the Military Compensation and Retirement Modernization Commission's January 2015 report. The study examined questions about medical readiness and essential medical capabilities, concluding, among other things, that DOD is developing medical readiness concepts but that confusion exists over missions.
August 2017	Institute for Defense Analyses, *Medical Readiness within Inpatient Platforms*	The Institute for Defense Analyses conducted this study in response to a request from the Director, Cost Assessment and Program Evaluation, to assess the ability of military hospitals to support essential medical capabilities. The study concluded that the military health system's current case volume and mix is not sufficient to maintain the skills needed by medical providers for the combat casualty care mission and suggested DOD close the workload gap by increasing the military health system's role in the civilian trauma care system.
May 2018	Institute for Defense Analyses, *Medical Total Force Management: Assessing Readiness and Cost*	The Institute for Defense Analyses conducted this study in response to a request from DOD's Total Force Manpower and Resources Office to assess military-to-civilian conversion planning. The study reached four conclusions and made four recommendations, including that DOD measure and report individual and team clinical readiness, and expand the clinical readiness-related workload available to active component military medical personnel.

Source: GAO review of Institute for Defense Analyses reports. | GAO-19-206

Other Related DOD Reports

As discussed earlier in this report, determining its operational medical and dental personnel requirements has been a longstanding challenge for DOD. Over the past decades, DOD has issued a number of reports on medical force personnel requirements as well as medical force readiness (see table 5).

Table 5. Department of Defense (DOD) Reports Related to Medical Force Personnel Requirements and Readiness

Date	Report	Summary
April 1994	DOD, *733 Study Responsive to Section 733 of the National Defense Authorization Act for Fiscal Years 1992 and 1993 (P.L 102-190, December 5, 1991)*	Section 733 of the National Defense Authorization Act for Fiscal Years 1992 and 1993 directed, among other things, that DOD determine the size and composition of the military medical system needed to support U.S. forces during a war or other conflict and identify ways of improving the cost-effectiveness of medical care delivered during peacetime. The study's analysis of requirements for physicians projected to fiscal year 1999 concluded that the population of 19,100 active and reserve component physicians could be reduced by 24 percent while still meeting requirements to treat casualties in two nearly simultaneous major regional conflicts. It concluded that the population of 12,600 active component physicians alone could be reduced by as much as 50 percent while still meeting the need.
November 20, 2007	Booz, Allen, Hamilton, *Final Report: A Summary of the Medical Readiness Review*	This report summarizes DOD's Medical Readiness Review, conducted from 2004 to 2007, that issued regular reports and recommendations on military force requirements, strengthening future medical readiness capabilities, and institutionalizing an analytic process for determining requirements. One analysis conducted by the MRR found that, in the period under examination, 22,302 medical requirements were not military essential and could be converted to civilian or contractor positions.
January 29, 2015	DOD Military Compensation and Retirement Modernization Commission, *Report of the Military Compensation and Retirement Modernization Commission Final Report*	The Military Compensation and Retirement Modernization Commission was established by the National Defense Authorization Act (NDAA) for Fiscal Year 2013, as amended by the NDAA for Fiscal Year 2014, to provide the President of the United States and the Congress specific recommendations to modernize pay and benefits of the Uniformed Services. The Commission found that it may be difficult to maintain the readiness of DOD's medical capabilities under the current peacetime military health system. As such, the Commission recommended that DOD ensure service members receive the best possible combat casualty care by creating a joint readiness command, new standards for essential medical capabilities, and innovative tools to attract readiness-related medical cases to military hospitals.
May 29, 2015	DOD Military Health System Modernization Study Team, *Military Health System Modernization Study Team Report*	Section 713 of the Carl Levin and Howard P. "Buck" McKeon NDAA for Fiscal Year 2015 required DOD to report on its efforts to improve its healthcare delivery. The resulting DOD report concluded that more work is needed to address the question of how to best measure DOD's medical readiness, noting a lack of existing guidelines. The study recommended, among other things, that an objective definition for medical force readiness be established, that the cost of medical force readiness be studied, and that an MHS-wide productivity floor be set.

Source: GAO review DOD reports. | GAO-19-206

Appendix III: Comments from the Department of Defense

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

Ms. Brenda Farrell
Director, Defense Capabilities Management
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

FEB 1 2019

Dear Ms. Farrell:

This is the Department of Defense (DoD) response to the Government Accountability Office (GAO) Draft Report, GAO-19-206, "Defense Health Care: Actions Needed to Determine the Required Size and Readiness of Operational Medical and Dental Forces," dated January 17, 2019 (GAO Code 102525).

Thank you for the opportunity to review and comment on the draft report. The DoD concurs with all six recommendations, with the following clarifying comments:

Recommendation 3: Concur with Comment: As the Department develops and publishes the assumptions and planning factors for determining the size and composition of the medical force structure, Service processes will be engaged to ensure that final force structures address unique Service requirements.

Recommendation 5: Concur with Comment. Based on the initial expansion of the Clinical Readiness metric beyond the Combat Casualty Care Team, the Department will refine its methodologies for further prioritization.

Recommendation 6: Concur with Comment: The Department agrees that its efforts should be informed by effectiveness and intends to monitor the efficacy of the metric during application. These analyses will be refined by the results of the implementation of the Clinical Readiness Metric to ensure that the metric remains relevant and helps achieve enhanced medical clinical readiness.

Additional technical comments regarding the report's content are included as an enclosure. The technical comments have also been submitted directly to the GAO.

My point of contact and the Primary Action Officer for this issue is Colonel John Mitchell. Col Mitchell can be reached at (703) 681-8310 or john.p.mitchell2.mil@mail.mil.

Sincerely,

for Tom McCaffery
Principal Deputy Assistant Secretary of Defense (Health Affairs)

Enclosures:
1) Department of Defense Comment to the GAO Recommendation
2) Department of Defense Technical Comments

2

GAO DRAFT REPORT DATED JANUARY 17, 2019
GAO-19-206 (GAO CODE 102525)

"DEFENSE ACQUISITION WORKFORCE: ACTIONS NEEDED TO DETERMINE THE REQUIRED SIZE AND READINESS OF OPERATIONAL MEDICAL AND DENTAL FORCES"

DEPARTMENT OF DEFENSE COMMENTS TO THE GAO RECOMMENDATION

RECOMMENDATION 1: The GAO recommends that the Secretary of Defense should ensure that the Under Secretary of Defense for Personnel and Readiness (USD(P&R)), in coordination with the Director, CAPE, the Joint Staff Surgeon, and the secretaries of the military departments establish joint planning assumptions for developing operational medical and dental personnel requirements, including a definition of what forces should and should not be identified as "operational."

DoD RESPONSE: Concur.

RECOMMENDATION 2: The GAO recommends that The Secretary of Defense should ensure that the USD(P&R), in coordination with the Director, CAPE, the Joint Staff Surgeon, and the secretaries of the military departments establish a method to assess options for achieving joint efficiencies in medical and dental personnel requirements and any associated risks.

DoD RESPONSE: Concur.

RECOMMENDATION 3: The GAO recommends that The Secretary of Defense should ensure that the USD(P&R), in coordination with the Director, CAPE, the Joint Staff Surgeon, and the secretaries of the military departments apply joint planning assumptions and a method for assessing efficiencies and risk, and use them to determine operational medical and dental requirements and report them to Congress.

DoD RESPONSE: Concur with Comment: As the Department develops and publishes the assumptions and planning factors for determining the size and composition of the medical force

1

structure, Service processes will be engaged to ensure that final force structures address unique Service requirements.

RECOMMENDATION 4: The GAO recommends that the Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs, in coordination with the Surgeons General of the military departments identify and mitigate limitations in the clinical readiness metric, such as data reliability, a lack of complete information on reserve component providers and patient care workload performed outside of MTFs, and the lack of linkage between the metric and patient care and retention outcomes.

DoD RESPONSE: Concur.

RECOMMENDATION 5: The GAO recommends that the Secretary of Defense should ensure that the Assistant Secretary of Defense for Health Affairs (ASD(HA)), in coordination with the Surgeons General of the military departments and the Director of the Defense Health Agency (DHA), determines which critical wartime specialties perform high-risk, high-acuity procedures and rely upon perishable skill sets and use this information to prioritize specialties to which the clinical readiness metric could be expanded.

DoD RESPONSE: Concur with Comment. Based on the initial expansion of the Clinical Readiness metric beyond the Combat Casualty Care Team, the Department will refine its methodologies for further prioritization.

RECOMMENDATION 6: The GAO recommends that the Secretary of Defense should ensure that the ASD(HA), in coordination with each of the Surgeons General of the military departments and the Director of the DHA, estimates the cost and benefits, by specialty, of implementing a clinical readiness metric and use that information to determine whether DOD's approach should be revised. Cost to be considered should include those needed to provide additional training for medical personnel to achieve clinical readiness thresholds and to hire additional civilian personnel in Military Treatment Facilities to backfill military providers who leave to attend training.

DoD RESPONSE: Concur with Comment: The Department agrees that its efforts should be informed by effectiveness and intends to monitor the efficacy of the metric during application. These analyses will be refined by the results of the implementation of the Clinical Readiness Metric to ensure that the metric remains relevant and helps achieve enhanced medical clinical readiness.

3

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

Brenda S. Farrell, (202) 512-3604 or FarrellB@gao.gov

Staff Acknowledgments

In addition to the contact named above, Lori Atkinson (Assistant Director), Melissa Blanco (Analyst in Charge), Alexandra Gonzalez, Ashley Houston, Amie Lesser, Sean Sannwaldt, Mike Silver, and Lillian Yob made key contributions to this report.

Related GAO Products

Defense Health Care: Additional Assessments Needed to Better Ensure an Efficient Total Workforce. GAO-19-102. Washington, D.C.: November 27, 2018.

Defense Health Care: DOD Should Demonstrate How Its Plan to Transfer the Administration of Military Treatment Facilities Will Improve Efficiency. GAO-19-53. Washington, D.C.: October 30, 2018.

Defense Health Care: Expanded Use of Quality Measures Could Enhance Oversight of Provider Performance. GAO-18-574. Washington, D.C.: September 17, 2018.

New Trauma Care System: DOD Should Fully Incorporate Leading Practices into Its Planning for Effective Implementation. GAO-18-300. Washington, D.C.: March 19, 2018.

Military Personnel: Additional Actions Needed to Address Gaps in Military Physician Specialties. GAO-18-77. Washington, D.C.: February 28, 2018.

Defense Health Reform: Steps Taken to Plan the Transfer of the Administration of the Military Treatment Facilities to the Defense Health Agency, but Work Remains to Finalize the Plan. GAO-17-791R. Washington, D.C.: September 29, 2017.

Defense Health Care Reform: DOD Needs Further Analysis of the Size, Readiness, and Efficiency of the Medical Force. GAO-16-820. Washington, D.C.: September 21, 2016.

Human Capital: Additional Steps Needed to Help Determine the Right Size and Composition of DOD's Total Workforce. GAO-13-470. Washington, D.C.: May 29, 2013.

DOD Health Care: Actions Needed to Help Ensure Full Compliance and Complete Documentation for Physician Credentialing and Privileging. GAO-12-31. Washington, D.C.: December 15, 2011.

Military Personnel: DOD Addressing Challenges in Iraq and Afghanistan but Opportunities Exist to Enhance the Planning Process for Army Medical Personnel Requirements. GAO-11-163. Washington, D.C.: February 10, 2011.

Military Personnel: Enhanced Collaboration and Process Improvements Needed for Determining Military Treatment Facility Medical Personnel Requirements. GAO-10-696. Washington, D.C.: July 29, 2010.

Military Personnel: Status of Accession, Retention, and End Strength for Military Medical Officers and Preliminary Observations Regarding Accession and Retention Challenges. GAO-09-469R. Washington, D.C.: April 16, 2009.

Military Personnel: Guidance Needed for Any Future Conversions of Military Medical Positions to Civilian Positions. GAO-08-370R. Washington, D.C.: February 8, 2008.

Military Personnel: Military Departments Need to Ensure That Full Costs of Converting Military Health Care Positions to Civilian Positions Are Reported to Congress. GAO-06-642. Washington, D.C.: May 1, 2006.