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Research Report

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Quality and Patient Safety Review Processes in Military Treatment Facilities and Operational Clinical Services

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About This Report

The U.S. military relies on the Military Health System (MHS) to deliver safe, high-quality care to service members, ensuring the readiness of individual service members and lethality of the force. To date, however, little has been known about the extent to which clinical quality management (CQM)—processes to ensure that safe, high-quality care is delivered—have been consistently integrated at military treatment facilities (MTFs) and in operational clinical services (OCS) settings. The Office of the Under Secretary of Defense[1] for Personnel and Readiness, in response to a requirement articulated in the Fiscal Year 2023 National Defense Authorization Act, asked RAND to conduct an independent, objective analysis of the CQM processes under the direct care component of the TRICARE program (i.e., MTFs and OCSs) and identify opportunities for strengthening quality and patient safety review throughout the MHS. This report presents the findings of RAND's analysis, as well as several recommendations. The research reported here was completed in September 2025 and underwent security review with the sponsor and the Defense Office of Prepublication and Security Review before public release.

RAND National Security Research Division

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[1] Executive Order 14347, signed September 5, 2025, authorized the use of Department of War as a secondary name for the Department of Defense. This publication was written before that order was released and thus refers to the secretary and department by their current statutory names under Public Law 81-216, National Security Act Amendments of 1949.

Summary

The U.S. military relies on the medical readiness of individual service members for its overall readiness and lethality. The Military Health System (MHS) provides health care to service members, family members, and other beneficiaries at military treatment facilities (MTFs) and through TRICARE-contracted private-sector facilities and providers. The MHS also provides health care to service members within operational settings. Care delivered in these operational settings, referred to as operational clinical services (OCSs), and at MTFs is considered direct care. Whereas MTFs are fixed or permanent medical facilities, established for the purpose of delivering medical and dental care to eligible individuals (Department of Defense Instruction [DoDI] 6025.13, 2023), OCSs are "clinical and clinical support services on ships and planes, in deployed settings, and in all other circumstances outside an MTF" (DoDI 6025.13, 2023). OCSs can be provided in temporary, mobile, or permanent locations, varying widely in their infrastructure and capabilities depending on the operational needs, resources, and setting. Across direct care settings, the MHS relies on clinical quality management (CQM) processes to ensure that safe, high-quality care is delivered to service members. To date, however, it has been difficult to understand how these quality and patient safety processes vary across MTFs and OCS settings.

The Fiscal Year (FY) 2023 National Defense Authorization Act (NDAA) required in Section 706 that a federally funded research and development center conduct "an analysis of the quality and patient safety process for health care provided under the direct care component of the TRICARE program and develop recommendations for the Secretary based on such analysis" (U.S. House of Representatives, 2022b). Prompted by this requirement, the Office of the Under Secretary of Defense[2] for Personnel and Readiness asked RAND to conduct this assessment. Specifically, we sought to conduct an objective assessment of the quality and patient safety review processes for care delivered in MTFs and OCS settings and identify potential opportunities for improvement. This report presents the findings of RAND's analysis, as well as several recommendations.

Approach

We conducted an assessment of the seven quality and patient safety review processes outlined in the FY 2023 NDAA: credentialing and privileging; quality assurance (QA), standard of care (SOC), and incident review; health care provider accountability; clinical quality metrics transparency; eliminating variation in clinical quality metrics; applying CQM to operational settings; and CQM organizational roles and responsibilities. We used two key methods: (1) developing and deploying an internal assessment (mandated by the FY 2023 NDAA) in which representatives from five U.S.

[2] Executive Order 14347, signed September 5, 2025, authorized the use of Department of War as a secondary name for the Department of Defense. This publication was written before that order was released and thus refers to the secretary and department by their current statutory names under Public Law 81-216, National Security Act Amendments of 1949.

Department of Defense (DoD) organizations (the Assistant Secretary of Defense for Health Affairs; the Director of the Defense Health Agency [DHA]; and the Surgeons General of the Army, Navy, and Air Force) reported the ways in which they ensure that service members receive high-quality, safe care and (2) conducting qualitative interviews with 216 personnel across 19 MTFs and OCS settings who had a role in either overseeing CQM processes or providing care.

Key Findings

Integrating information learned from the internal assessment and qualitative interviews, we identified five key findings.

Complete Lists of Active OCS Settings Are Not Readily Available, Which Makes Routine Monitoring of Quality and Patient Safety Challenging

As of June 2024, complete lists of active OCS settings were unavailable for any service branch. Information received about active OCS settings was incomplete and inconsistent, in contrast with DHA's comprehensive lists of MTFs. Reasons for the lack of maintained lists of OCS settings include overlapping responsibilities, the sensitive nature of some locations, and the dynamic demands of military missions. This information gap hinders effective monitoring of care in operational environments and prevents accurate metrics on health care quality and patient safety for OCSs.

Given OCS Settings' Diverse Operational Contexts and Capacities, Applying One Standard Across Settings May Not Be Appropriate

OCS settings exhibit significant variability in infrastructure, ranging from permanent facilities to mobile setups, such as planes and tents, with durations varying from permanent to temporary. In garrison or training environments, OCS providers primarily focus on primary care and physical therapy, while in deployed settings, they may deliver acute care under challenging conditions with limited resources. Respondents indicated that applying a uniform standard for QA and patient safety across OCS settings is inappropriate because of their diverse operational contexts and resource constraints, making accreditation by organizations such as the Joint Commission often unfeasible. Consequently, a flexible oversight approach tailored to the specific demands of each OCS setting is necessary, with internal inspection activities being site specific and not uniformly focused on quality and safety.

MTFs Have Robust Quality and Patient Safety Processes Across Multiple Domains, with Some Opportunities for Improvement

We synthesized findings into an overall assessment by domain, highlighting strengths and opportunities for improvement in line with a learning health system approach (Table S.1). Domains were marked as strengths when MTFs consistently reported having established processes, while

opportunities for improvement were noted based on frequent mentions across service branches or where processes were inconsistent with the internal assessment.

Table S.1. Assessment of Quality and Patient Safety Review Processes for MTFs

Process	MTF Assessment	Justification
Credentialing and privileging	Strength	There is a consistent and systematic process, including use of Centralized Credentials Quality Assurance System (CCQAS) and shared files for documentation.
QA, SOC, and incident review	Strength	There is consistent integration of providers into QA processes, including monitoring and maintaining SOC through peer review, patient safety reporting and incident review, dissemination and implementation of guidance from clinical departments, MTF leadership, service branch medical leadership, and DHA.
Health care provider accountability	Strength	There are consistent processes and timelines for health care provider accountability when individual providers were determined to have caused patient harm or not met SOC. Some respondents described challenges sharing some aspects of peer review and adverse actions determinations across MTFs.
Clinical quality metric transparency	Strength	There are consistent measuring, reporting, and monitoring metrics related to both clinical quality and patient safety. Metrics are widely shared with other providers, staff and leadership, and the public via health.mil and other publicly available resources. There is some variation in the level and degree of sharing metrics directly with patients.
Eliminating variation in clinical quality metrics	Opportunity for improvement	There are robust processes for eliminating variation in clinical quality metrics, including the Ready Reliable Care initiative. There are concerns about variations in the translation of DHA policy to MTF level; frontline staff are not always aware of resources to support standardization. There are frustrations with technical issues affecting standardization in systems such as the electronic health record.
CQM organizational roles and responsibilities	Opportunity for improvement	There are clear roles and responsibilities across all aspects of CQM. There are concerns about short staffing and high turnover among military personnel, which disrupts CQM efforts. Additionally, organizational culture and institutional memory are difficult to sustain without civilian staff, but civilian staff hiring processes are notably onerous.

NOTE: We did not include “applying CQM to operational settings” in this table because it does not apply to MTF settings.

OCS Settings Varied Widely in Their Quality and Patient Safety Processes, with Several Opportunities for Improvement

We also conducted a parallel assessment of OCS settings (Table S.2) using the same approach as described for MTFs. We identified additional opportunities for improvement in OCS settings compared with MTFs, largely because OCS settings had less-developed infrastructure and defined processes to execute quality and patient safety review processes in operational settings.

Table S.2. Assessment of Quality and Patient Safety Review Processes for OCSs

Process	OCS Assessment	Justification
Credentialing and privileging	Strength	Clearly established processes are followed across service branches. Some Navy OCS settings, which handle credentialing and privileging for OCS providers, are drastically less resourced compared with MTF counterparts.
QA, SOC, and incident review	Opportunity for improvement	Consistent processes are in place in OCS settings co-located on an installation with an MTF. Processes are much less consistent in forward locations, particularly deployed locations. Major issues can be reported up the chain of command, but there is uncertainty about how those reports are integrated into larger QA efforts. The internal assessment indicated that processes are in place, yet interviews noted challenges with implementing or executing processes.
Health care provider accountability	Opportunity for improvement	There are similar approaches for accountability as MTFs, providing opportunities for remediation and reporting up the chain of command when needed. In forward or deployed locations, there are substantial challenges to documentation, communication, and personnel availability that can hamper effective and timely accountability processes, which is inconsistent with the internal assessment.
Clinical quality metric transparency	Opportunity for improvement	There is consistent description of metrics to assess readiness to complete the operational mission rather than clinical quality metrics. Measurement, reporting, and monitoring of clinical quality and patient safety metrics did not systematically occur in most OCS settings, which is counter to the internal assessment, although the assessment noted that some of these processes are being developed.
Eliminating variation in clinical quality metrics	Opportunity for improvement	Providers use clinical practice guidelines and strive to meet SOC but also emphasize the challenges of doing so in some operational settings. Accreditations for OCS settings on installations are in progress at some locations but generally incomplete. There are concerns that broad application of standardization efforts are impractical, potentially counterproductive, and overly restrictive, particularly in forward settings, which is counter to the internal assessment, although the assessment noted that some of these processes are being developed.
CQM organizational roles and responsibilities	Opportunity for improvement	There were consistent descriptions of who was responsible for various components of the quality and patient safety process, even if those processes could not always be carried out according to plan because of the limitations of the setting. There are concerns resulting from a dual command structure, with oversight from both medical and operational command and ultimate authority lying with operational command with varying degrees of expertise in medical care.

Improvements to Systems and Staffing Are Needed to Strengthen Quality and Patient Safety Processes

We identified significant infrastructure issues present in OCS settings, particularly regarding credentialing, QA, accountability, and clinical quality metric transparency. Accessibility problems with such systems as CCQAS, Health Assessment Lite Operations, and Theater Medical Data Store hinder documentation and oversight, limiting OCS settings' visibility into provider credentialing and complicating consistent patient encounter documentation because of issues with MHS GENESIS (the electronic health record used across MTFs) and operational electronic health records. Staffing challenges for both CQM personnel and providers in MTFs and OCS settings appear substantial and likely to persist, exacerbated by shortages, high turnover, and deployments, which can lead to inefficiencies and increased workloads that raise the risk of errors. Although civilian staff in CQM roles are seen as crucial for maintaining quality and patient safety, hiring complexities further complicate the situation.

Recommendations

Each service branch should maintain a list of active OCS settings and routinely provide this information to the Office of the Assistant Secretary of Defense for Health Affairs (OASD[HA]). To support improvements in patient safety and quality in the MHS, the services should compile and maintain a list of active OCS settings and routinely report (e.g., quarterly) this information to OASD(HA). DoD could leverage the MTF data collection infrastructure to produce a standardized, active list of OCS settings.

DoD should clarify requirements for quality and patient safety for different types of OCS settings given their unique types of locations. OASD(HA) should task a new or existing working group that includes representation from OASD(HA), DHA, and each of the services with the responsibility of developing and implementing a framework for producing clearer CQM requirements for OCS settings. We provide a preliminary illustration of such a framework in this report, characterizing a sample set of different types of OCS settings along with an indication of the level of CQM activities that could be required.

DoD should address CQM institutional knowledge loss by improving systems and staffing. Two complementary approaches can help mitigate knowledge loss across the MHS: (1) Implement comprehensive knowledge management systems and processes, which can provide a competitive advantage compared to adversaries (Singh and Gupta, 2021); and (2) investigate strategies to increase civilian staffing in CQM roles both at MTFs and in OCS settings.

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Chapter 1

Introduction

The U.S. military relies on the medical readiness of individual service members for its overall readiness and lethality. The Military Health System (MHS) provides health care to service members, family members, and other beneficiaries at military treatment facilities (MTFs) and through TRICARE-contracted private-sector facilities and providers. The MHS also provides health care to service members within operational settings. Direct care includes care delivered by the military at MTFs and in operational clinical services (OCS) settings. Whereas MTFs are fixed or permanent medical facilities, established for the purpose of delivering medical and dental care to eligible individuals (Department of Defense Instruction [DoDI] 6025.13, 2023),[3] OCSs[4] are "clinical and clinical support services on ships and planes, in deployed settings, and in all other circumstances outside an MTF" (DoDI 6025.13, 2023). OCSs can be delivered in temporary, mobile, or permanent settings, and their capabilities can vary widely, depending on the operational needs, resources, and location; they may be situated in temporary structures and provide care in austere settings.

Across settings, the MHS relies on clinical quality management (CQM) processes to ensure that safe, high-quality care is delivered to service members. To date, however, it has been difficult to understand how these quality and patient safety processes vary across MTFs and OCS settings. Recent reports and events have identified areas for improvement. For example, a 2022 report found that MTFs did not always adhere to some CQM procedures, such as verifying all licenses before privileging a provider or reviewing patient safety reports (PSRs) in a timely manner (U.S. Government Accountability Office [GAO], 2022). A hearing on March 30, 2022, hosted by the Subcommittee on Military Personnel of the Committee on Armed Services, U.S. House of Representatives, sought clarity on patient safety and quality of care in the MHS. The hearing included testimonies regarding less-than-optimal health care—one from a service member who had lost a limb and one from a family member of a deceased service member—and statements from the services, the Defense Health Agency (DHA), and GAO (U.S. House of Representatives, 2022a). Furthermore, a 2024 GAO report revealed shortcomings in DHA's actions to restrict providers identified as having issues with the quality of their care (GAO, 2024a).

Subsequently, the Fiscal Year (FY) 2023 National Defense Authorization Act (NDAA) required in Section 706 that a federally funded research and development center conduct "an analysis of the quality and patient safety process for health care provided under the direct care component of the TRICARE program and develop recommendations for the Secretary based on such analysis" (U.S.

[3] In May 2025, DoDI 6025.13 was updated with administrative and language changes to comply with Executive Order 14173. Because that update was released just prior to completion of this report, we reference the 2023 version that was active at the time of our assessment throughout this report.

[4] OCS settings include Operational Healthcare Units, which are not formally defined in DoDI or Defense Health Agency Procedures Manual (DHA-PM) guidance.

House of Representatives, 2022b). Prompted by this requirement, the Office of the Under Secretary of Defense[5] for Personnel and Readiness asked RAND to conduct this assessment. Specifically, we sought to conduct an objective assessment of the quality and patient safety review processes for care delivered in MTFs and OCS settings and identify potential opportunities for improvement.

This report presents the findings of RAND's analysis, as well as several recommendations. In this chapter, we provide an overview of health care oversight and delivery in the MHS, background information on patient safety and CQM in the military, a brief summary of the methods used in our analysis, and a preview of the report structure.

Military Health Care Oversight and Delivery

The Office of the Assistant Secretary of Defense for Health Affairs (OASD[HA]); DHA; and the Surgeons General (SGs) of the Army, Navy, and Air Force all have important roles in the oversight and delivery of health care to service members. U.S. Department of Defense (DoD) Directive 5136.01 (2013) authorizes OASD(HA) to oversee all DoD health-related policies and programs and ensure the execution of DoD's medical mission. This includes establishing and enforcing policies, procedures, and standards of DoD health and medical programs, as well as reviewing and evaluating their implementation. OASD(HA) also oversees DoD funding related to health and medical resources.

DHA is a combat support agency charged with informing policy and developing guidance regarding health care services at MTFs, at dental treatment facilities, and in operational settings (DHA Administrative Instruction 5136.01, 2021). DHA is responsible for health care delivery to service members, retirees, and their family members within the Army, Navy, and Air Force. The agency also oversees TRICARE, conducts medical research, and manages military medical education and training (DHA, 2024).

SGs of the Army, Navy, and Air Force are accountable for the success of CQM in their departments as it pertains to all health care provided in OCS settings. SGs are also expected to establish CQM capability and guidance within their respective departments, specifically in OCS settings, to meet the requirements outlined by DHA (DoDI 6025.13, 2023). DoD instructions note that the implementation of CQM standards and procedures should be comparable to those in MTFs "to the extent practicable," with any deviations documented. Written guidance on determining practicability under given circumstances or alternative procedures to follow when CQM standards are found to be impracticable were not identified. To address practicability and efficiency concerns, OCS CQM capabilities may also include support from DHA and collaboration between an MTF director and department medical commander at the installation level to ensure effective CQM program implementation (DoDI 6025.13, 2023). Together with the DHA director, the SGs of each service support OASD(HA) by implementing and executing effective CQM across the MHS (DHA-PM 6025.13, 2019a).

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Unique Nature of OCS Settings

OCS settings differ from MTFs in key ways. OCS settings predominantly provide care to service members, whereas MTFs typically serve other beneficiaries as well. Furthermore, OCS settings operate across a wider range of conditions in comparison to MTFs. Although some OCSs are delivered in settings co-located with MTFs and thus may have access to the administrative and clinical resources of MTFs, other OCSs are delivered in austere environments, which are "characterized by resource limitations in caregiver numbers, knowledge, skill, or ability; diagnostic capabilities; equipment, supplies, or medication quantity, quality, or availability; or the ability to evacuate patients given the time or distance to definitive care" (Pamplin et al., 2019). The extent to which service members receive high-quality, safe care in OCS settings is unclear because of challenges in monitoring and assessing care delivery across settings (e.g., differences in documenting in the electronic health record).

Some process variability in OCS settings may be justified because of the austere environment, but much less is known about the care delivered in these settings compared with MTFs. A 2024 GAO report highlighted the unique challenges that providers face in operational environments, such as limited resources and high-pressure conditions, and it identified gaps in current policies that did not address the specific circumstances of these settings. For example, the report noted that DoDI 6025.13 instructed the military departments to update provider privileging and evaluation policies, including for OCS providers, but that the departments had yet to do so (GAO, 2024b).

Patient Safety and Clinical Quality Management

Patient safety and quality improvement initiatives aimed at reducing errors and improving health care reliability are critically important. Patient safety events, or medical errors, are a significant public health concern in civilian health care settings and one of the leading causes of death in the United States (estimated at 200,000 deaths annually) (Rodziewicz et al., 2024). Common types of patient safety events are patient falls, medication errors, diagnostic errors, equipment failures, and communication breakdowns. Costs associated with patient safety events in civilian settings, including lost productivity and litigation, are an estimated minimum of $20 billion annually.

As with civilian settings, patient safety events in military settings can also incur substantial costs for DoD, due to a change resulting from the FY 2020 NDAA that allows service members to file medical malpractice claims. According to the 2024 Annual Evaluation of the TRICARE Program, in FY 2023, more than 67,000 patient safety events were documented in the Joint Patient Safety Reporting (JPSR) system, a 9 percent decrease from FY 2022. A total of 6,800 of these events resulted in harm to a patient, of which 84 resulted in severe harm, permanent harm, or death. DHA attributed the severe harm and deaths to patient falls, wrong-site surgeries, unintended retained foreign objects, and delays in treatment (DHA, 2024). It should be noted that these data are not directly comparable to the civilian health care system because of differences in patient populations, surgical volume, and reporting practices. For example, the MHS serves a younger, healthier population but also encourages a culture of reporting any patient safety event to support ongoing learning and improvement.

CQM activities are a primary avenue for quality improvement efforts within the MHS, with an aim to ensure that high-quality, safe care is delivered consistently across settings. DoDI 6025.13

(2023) outlines policies, procedures, and responsibilities related to CQM, and a complementary procedure manual, DHA-PM 6025.13 (2019a), identifies DHA as the entity responsible for establishing procedures for managing CQM activities in the MHS and contains seven volumes that describe CQM in the MHS (Figure 1.1). Together, these two core documents establish the policies and procedures for CQM programs regarding patient safety, health care risk management, credentialing and privileging, accreditation and compliance, clinical measurement, and clinical quality improvement.

Figure 1.1. Clinical Quality Management in the Military Health System

At a broader scale, a guiding principle for the MHS is the Quadruple Aim, which focuses on increased readiness of military members; better health among all beneficiaries; better care or the provision of safe, quality care; and lower per capita costs or efficient use of resources (Malish et al., 2021). Ready Reliable Care is a program that awards innovations that help develop the MHS into a High Reliability Organization, guided by four domains of change: leadership commitment, culture of safety, continuous process improvement, and patient centeredness (MHS, 2024a). Innovations could also help the MHS create a learning health care system, emphasized in DoDI 2025.13 and defined as a health system that leverages data and research to continuously improve (Agency for Healthcare Research and Quality, 2019). This approach recognizes that all health care systems have opportunities to systematically enhance quality and patient safety.

DHA also reports quality metrics both internally and publicly. In addition to the annual evaluation of the TRICARE program (DHA, 2024), DHA participates in the Joint Commission, which conducts independent accreditation inspections; the U.S. Centers for Medicare & Medicaid Services Care Compare; and the Leapfrog Hospital Safety Grade program, which evaluates hospitals on a range of safety measures (Aker, 2025). In May 2025, 16 MTFs, representing 73 percent of eligible MTFs, received an "A" rating from the Leapfrog program (DHA Communications and Public

Affairs Division, 2025). MHS also reports to three national quality registries: the National Surgical Quality Improvement Program (NSQIP), the National Perinatal Information Center, and the Healthcare Effectiveness Data and Information Set (HEDIS) (Aker, 2025). To our knowledge, OCS settings largely do not participate in these programs.

Despite these robust efforts, CQM processes used across the MHS vary across MTFs and OCS settings, and specific improvements may be needed to support quality and patient safety.

Approach for This Analysis and Methods Summary

The FY 2023 NDAA explicitly stated that the required analysis should include an assessment of seven quality and patient safety review process elements, including compliance with process elements in some cases. Consistent with this, we sought to examine the extent to which CQM is integrated throughout the quality and patient safety review process and identify potential opportunities for improvement. Table 1.1 lists each process element, the requirement provided in the NDAA, and the chapter in which we provide relevant findings. Note that these assessment domains are slightly different than the MHS's CQM areas highlighted in Figure 1.1.

Table 1.1. Quality and Patient Safety Review Processes Assessed in This Report

Process	Requirement in FY 2023 NDAA	Chapter
Credentialing and privileging	The procedures under such component regarding credentialing and privileging for health care providers (and an assessment of compliance with such procedures)	2
Quality assurance (QA), standard of care (SOC), and incident review	The processes under such component for QA, SOC, and incident review (and an assessment of compliance with such processes)	3
Health care provider accountability	The accountability processes under such component for health care providers who are found to have not met a required SOC	4
Clinical quality metric transparency	The transparency activities carried out under such component, including an assessment of the publication of clinical quality metrics (at the level of military medical treatment facilities and other operational medical units of DoD) and a comparison with similar metrics for non-DoD health care entities	5
Eliminating variation in clinical quality metrics	The standardization activities carried under such component, including activities aimed at eliminating unwarranted variation in clinical quality metrics at the level of military medical treatment facilities and other operational medical units of the department	6
Applying CQM to operational settings	The implementation under such component of the requirements of Section 744 of the NDAA for FY 2021, including with respect to health care delivery on ships and planes, in deployed settings, and in all other circumstances outside of military medical treatment facilities	2–6
CQM organizational roles and responsibilities	The organizational roles and responsibilities of MHS entities involved in CQM functions under such component, including the Assistant Secretary of Defense for Health Affairs (ASD[HA]); the DHA director; and the SGs of the Army, Navy, and Air Force, each of whom shall conduct and submit to the federally funded research and development center an internal assessment of the respective entity regarding each element set forth under this paragraph	2–6

NOTE: Drawn from NDAA FY 2023, Section 706 (U.S. House of Representatives, 2022b).

We developed an evaluation plan describing our approach prior to executing our methods, which allowed us to incorporate sponsor and stakeholder input. We executed this analysis using two key methods: (1) developing and deploying an internal assessment (mandated by the FY 2023 NDAA) in which representatives from five DoD organizations (the ASD[HA]; the DHA director; and the SGs of the Army, Navy, and Air Force) reported the ways in which they ensure that service members receive high-quality, safe care and (2) conducting qualitative interviews with 216 personnel across 19 MTFs and OCS settings who had a role in either overseeing CQM processes or providing care.

The internal assessment sought to provide information about the policies guiding the quality and patient safety review process and processes to implement them from the perspective of key DoD leadership. The assessment included four primary questions that asked about the current processes for MTFs and OCS settings related to each domain; evidence of compliance with credentialing and privileging requirements for providers; evidence of compliance with QA, SOC, and incident review; and processes to assess performance, mitigate poor performance, and plan for improvement across the domains. The SG assessment included four additional questions about service-specific policy guidance, evidence of adherence to service-specific policy guidance, and any differences in policy guidance between MTFs and OCS settings. The internal assessment questions are provided in Appendix A.

The qualitative interviews sought to provide an understanding of how the quality and patient safety review process is implemented in a range of settings, identify the degree of variability across settings, and identify whether variations indicated opportunities for improvement. We selected ten MTFs and nine locations with OCSs to conduct our qualitative interviews. For MTFs, we were able to use a list of active facilities and maximize variability across service branch, enrollment size, geographic location, and patient safety reporting rates. As of June 2024, however, selection of locations with OCSs was complicated by the lack of a comprehensive list of OCS settings, partially due to (1) diffuse and overlapping responsibility and authority over OCSs across the globe, necessitating intensive information gathering; (2) the sensitive nature of some locations; and (3) the dynamic demands of missions across the combatant commands. We did, however, select OCS settings to maximize variability in service branch, geographic location, type of OCS setting (e.g., on installations, in deployed environments, on ships, on planes), and whether the OCS were delivered in a setting co-located with an MTF.

We aimed to interview ten to 15 staff at each MTF and six to 15 at each OCS setting, allowing for fewer respondents in OCS settings because they tend to have fewer medical staff. We developed seven semi-structured interview guides: five for interviews with MTF representatives (patient safety, risk management, quality, provider oversight, or senior leader) and two for OCS representatives (on site, oversight). Interview guides and details on data collection, data analysis, and respondent characteristics can be found in Appendix B.

Organization of This Report

We integrated findings from the two methods briefly described above (internal assessment and qualitative interviews) to examine the extent to which CQM is integrated throughout the quality and patient safety review process and identify potential opportunities for improvement, and we provide our findings in Chapters 2 through 6. Each chapter focuses on one or more of the target CQM domains, as indicated in Table 1.1. For each domain, we first integrate and synthesize information from the internal assessment to delineate perspectives provided by OASD(HA), DHA, and the SGs about the CQM domain and ways that the domain was reflected in their efforts to create a learning health care system. We then present information from the qualitative interviews, including describing similarities and differences between internal assessment responses and interviews from site visits. Where possible, we also compared and contrasted quality and safety review processes within each

service branch to identify consistency in these practices across services. Appendixes C through G provide additional supportive findings for each chapter. Chapter 7 summarizes key findings; provides a summary assessment for each domain, indicating areas of strength and opportunities for improvement; and provides recommendations on how to improve direct care provided to service members.

Chapter 2

Credentialing and Privileging

In this chapter, we provide an assessment of "the procedures under [the direct care component of TRICARE] regarding credentialing and privileging for health care providers (and an assessment of compliance with such procedures)" (U.S. House of Representatives, 2022b). We present synthesized findings from the OASD(HA), DHA, and SGs' internal assessments and then describe findings from qualitative interviews regarding processes at MTFs and OCS settings. Appendix C supplements this chapter with additional details on context, impacts, and challenges.

Key Findings: Credentialing and Privileging

- Credentialing and privileging in MTFs across service branches were consistent, with clear processes for verifying credentials and references and confirming skills and abilities. Some respondents expressed concerns about inadequate staffing slowing the pace of initial credentialing and privileging.
- Army and Air Force OCS settings rely on MTFs for their credentialing and privileging. Although this generally works seamlessly, for prolonged deployments, skill maintenance and accompanying documentation can be challenging.
- Navy OCS settings largely conduct their own credentialing and privileging. They face the same challenges with documentation and skill maintenance as the other service branches but also have additional challenges as a result of relatively limited staffing in OCS settings.

Background

Credentialing and privileging are intended to establish quality and competence among staff performing clinical services within an institution. **Credentialing** involves the verification of a provider's qualifications, including educational background, certifications, and licenses through primary source verification. The purpose of this process is to ensure that all providers are who they claim to be and have the necessary training and licenses for their roles. Credentialing applies broadly to all health care providers, active-duty military providers, DoD government civilian providers, and contracted providers.

Privileging refers to the granting of authorization for a provider to perform specific procedures or services based on demonstrated competency and credentials. Privileging typically applies to providers who are expected to carry out specific clinical functions, such as physicians, nurse practitioners, and physician assistants. It involves assessing the provider's training and experience, current competence, health status, and judgment to perform delineated privileges for care (MHS, 2023a).

Although credentialing and privileging are separate processes, they are interconnected. For relevant providers, initial credentialing is a prerequisite for subsequent privileging. Credentialing and

privileging are important to ensure that providers are qualified and competent to deliver safe, quality care.

Internal Assessment

The internal assessments completed by OASD(HA), DHA, and service branch SGs related to credentialing and privileging were aligned. The OASD(HA) and DHA responses to the internal assessment suggest that they are responsible for MTF oversight exclusively. Responses related to responsibility for credentialing and privileging of providers in OCS settings varied. The internal assessment also asked how elements of a learning health care system were applied to each CQM program, including performance assessment, strategies for mitigating poor performance, and improvement planning. Table 2.1 summarizes the internal assessment responses.

Table 2.1. Summary of Responses from Internal Assessment on Credentialing and Privileging Across MTFs and OCS settings

Site Type	Theme	Stakeholder Responses
MTF	Responsibility and procedures	• OASD(HA): Develops high-level policy related to CQM • DHA: Creates procedures that allow for the implementation of OASD(HA)'s policy, including using a common electronic platform for storing provider information needed for credentialing and privileging[a]
	Learning health system	• DHA: Conducts ongoing audit and surveillance activities to identify opportunities for mitigation
OCS	Responsibility and procedures	• OASD(HA): Services responsible for credentialing and privileging • Air Force and Army: Collaborates with and rely on DHA MTFs for these functions • Navy: Maintains a credentialing and privileging program for providers in OCS settings, which they based on Bureau of Medicine and Surgery Instruction 6010.30
	Learning health system	• Service branches: Did not list independent learning health care system activities

[a] This common electronic platform is the Centralized Credentials Quality Assurance System (CCQAS), using the Centralized Credentials Verification Service for "primary source verifications of provider credentials to all MTFs" and the National Practitioner Data Bank (NPDB) Continuous Query for "all privileged providers and nurses" and the inclusion of Focused Professional Practice Evaluations (FPPEs) and Ongoing Professional Practice Evaluations (OPPEs) in CCQAS.

MTF Processes

Findings from our interview respondents were consistent with results from our internal assessment. As described by our respondents, the credentialing and privileging process involves close coordination among various clinical department directors, MTF leadership, and credentialing boards and committees, ensuring integration of new providers and monitoring of existing providers.

Roles and Responsibilities

All MTFs we visited had an on-site credentialing and privileging office. Respondents consistently described a chain of command for updating, reviewing, and approving all required documentation. Respondents noted the potential for delays to happen if individuals are not designated to oversee the process. Table 2.2 summarizes the roles and responsibilities discussed by respondents.

Table 2.2. Summary of Roles and Responsibilities in MTF Credentialing and Privileging Processes

Theme	Details
On-site credentialing and privileging office	• Medical staff professionals keep reviews up to date. • Staff size ranges from 2 to 13 personnel.
Committees or groups	• Convene to discuss and review credentials and privileges • Variety of names, including Medical Executive Committee and Credentialing Committee (or Board or Function)
Review and approval	• Clinical department heads ensure appropriate review, particularly peer review by someone who is as similar as possible as the provider under review and practices with the same set of privileges. • MTF chief of staff or deputy chief of medical staff
Privileging authority	• MTF director bears ultimate responsibility. • MTF director may be supported by deputy commander.

Applicability of These Processes

Respondents consistently reported that all MTF health care providers are credentialed; their documentation, experiences, and references are checked. Some providers are also privileged. Privileging applies only to licensed independent practitioners (for example, physicians, nurse practitioners, clinical psychologists, dentists, and physician assistants). These providers are "permitted by law and service regulations to provide care, treatment and services, without direction or supervision, within the scope of the individual's license and consistent with individually granted clinical privileges" (MHS, 2012).

Respondents described several types of licensed independent practitioners, their credentialing and privileging requirements, and timing (Table 2.3).

Table 2.3. Summary of Credentialing and Privileging Requirements for Licensed Independent Practitioners

Provider Type	Requirement
All active-duty or civilian providers	• Initiate upon arrival in the MHS
Active-duty providers undergoing permanent change of station movements	• Initiate upon arrival at their new duty station
Civilian providers, including those who have previously practiced at another MTF	• Must have credentials verified and privileges granted at any subsequent MTF at which they provide care
Visiting or temporary clinicians (providers from external institutions seeking to provide care within the MHS[a])	• Must be credentialed and privileged

[a] These providers typically have non-clinical primary positions outside the MHS and seek to maintain their clinical skills in an MTF.

Credentialed, non-privileged providers (for example, registered nurses, licensed vocational nurses, registered dental hygienists, and independent duty corpsmen/independent duty medical technicians/medics) must work within their scope of practice and licensure.

Credentialing

Respondents consistently shared that the credentialing and privileging process begins with credentialing, overseen by the MTF's medical staff professionals and verified through DHA's Centralized Credentials Verification Service (Crosland, 2024). At regular intervals, some credentials are re-verified, as appropriate; timing depends on the expiration dates and renewal requirements for various licensures and certifications. These processes were generally perceived to work well, although some concerns were raised about occasional delays in the process, which could have substantial implications for providers' ability to provide care. Credentialing processes are summarized in Table 2.4.

Table 2.4. Summary of MTF Credentialing Processes

Theme	Details	Additional Context
Credentialing	• Medical staff professionals collect credentials and references; they initiate primary verification through Centralized Credentials Verification Service. • Administrative staff may help support process at larger facilities.	• Most respondents were satisfied with Centralized Credentials Verification Service. • Delays in credentialing can affect providers' ability to deliver care. • Interfacility Credentials Transfer Brief is used to facilitate provider transfers and streamline credentialing and privileging process.
Verification	• Central Verification Office uses Centralized Credentials Verification Service to verify postgraduate degrees, fellowships, residencies, board certifications, state licenses, and the NPDB.[a] • Medical staff professionals must review verified credentials to ensure that the provider meets regulatory requirements.	• Centralizing components of credentialing can complicate communication with external entities. • Use of contracting companies for staffing can cause credentialing delays.
Re-verification	• Medical staff professionals and providers receive notification of upcoming expiration through CCQAS. • Staff overseeing providers typically get notifications 30, 60, or 90 days in advance; some high-volume sites set notifications to 120 days ahead.	• Notifications are not always consistently sent to staff as reminders.
Continuous NPDB monitoring	• DHA conducts ongoing checks for provider file updates and issues documented about providers. • Some documents (e.g., Drug Enforcement Agency certification, clinical references) must be verified by medical staff professionals.	• The database can automatically flag performance concerns among providers working outside MTFs.

[a] NPDB is a database operated by the U.S. Department of Health and Human Services to track information regarding medical malpractice and adverse actions for health care providers.

Privileging

Respondents consistently shared that once credentials have been verified, providers submit an application requesting relevant privileges to the credentialing and privileging office along with relevant supporting information to demonstrate their competence in performing the types of care or procedures for which they would like to be privileged. Privileging processes are summarized in Table 2.5.

Table 2.5. Summary of MTF Privileging Processes

Theme	Details	Additional Context
Submission	• Provider submits application requesting specific privileges. • Medical staff professionals in credentialing and privileging office receive credentials, licenses (as part of credentialing), any relevant training or certification they may have received, and performance data. • Providers' continuing medical education is reviewed.	• Databases including the NPDB, List of Excluded Individuals and Entities from the Federal Health and Human Services, and the TRICARE sanctions list are checked.
Review	• Head of provider's clinical department assesses whether the provider's training, experience, and performance data warrant core privileges (e.g., skills and procedures applicable to all providers within the role or specialty) and whether any additional specific privileges are warranted (e.g., for certain specialized procedures).	• Recommendation regarding privileging is provided to the chief medical officer (CMO) of the MTF and medical staff professionals. • Some MTFs have a credentialing committee that meets regularly to discuss providers, approve credentials and privileges, and, if needed, make determinations on any limitations. • Smaller MTFs may conduct reviews on an as-needed basis.
Length of privileges	• Across service branches, initial privileges are typically awarded for 1 year.	• Privilege renewals can be for up to 2 years.
Monitoring	• Newly privileged providers undergo a FPPE in which peer providers assess and ensure the provider's competence. • FPPE generally lasts 6 months. • After completing FPPE, privileged providers engage in OPPEs, which continuously assess provider competence and identify trends that may indicate the need for additional focused training, education, or review. • FPPE, OPPE, and Performance Appraisal Reports are interconnected and can be leveraged to identify problems early on.	• Clinical department heads can adjust length or extend, depending on provider performance and prior experience. • FPPE and OPPE are often monitored by credentialing and privileging staff; this could also be used for other quality and safety processes (see Chapters 3 and 4).

Theme	Details	Additional Context
Peer review	• Typically 4–6 notes are reviewed monthly by a peer to assess whether SOC was met for care provided (discussed in Chapter 3). • Notes are reviewed in aggregate every six months, constituting the OPPE. • OPPEs are then collected in Performance Appraisal Reports and are guided by standardized forms provided by DHA (but can be customized to the MTF[a]).	• It is important for peer review to be conducted by someone with similar training and experience. • "Practice of one" providers may need to engage peer reviewers from other MTFs. • Peer review may vary from MTF to MTF, despite efforts at standardization.
Renewal and Performance Appraisal Reports	• Provider submits application to renew clinical privileges. • Clinical supervisor completes Performance Appraisal Report. • Performance Appraisal Reports provide a general evaluation of the provider and an overview of the types and volume of care provided since the last renewal. This provides supporting evidence of current clinical competency relevant to request for clinical privileges. • Clinical references must also be provided, even if provider remains at same MTF. • M2 (MHS Management Analysis and Reporting Tool) database helps assess volume of procedures. • Upon renewal, privileges may be awarded for up to 2 years.	• Reports may comment on professionalism and SOC. • Reports ensure that providers practice with sufficient volume and quality to justify privileging renewal.

[a] For example, if a new tool had been introduced for nurses, nurse peer reviews could include assessment of the use of that tool for several months.

Documentation Systems

Documentation for credentialing and privileging process is completed using several different systems, which are consistent across MTFs. We summarize these systems in Table 2.6.

Table 2.6. Summary of Documentation Systems Used by MTFs

Theme	Details	Additional Context
CCQAS	• Serves as a centralized, web-based repository for verified credentials including education, licenses, training certification, and previous employment references for both military and civilian providers • Automates review and approval of privileging applications and renewals • Some MTFs store Performance Appraisal Reports in CCQAS; others store in local share drives. • Maintains records for all credentialed providers, whether privileged or not • Informs and documents the activity of risk management committees (see Chapters 3 and 4), such as when a provider does not meet the SOC	• Critical to executing credentialing and privileging in a timely manner • Helps respondents with accessibility, transparency, and quickly understanding privileges granted • Technical issues impact performance (notifications are not always sent as planned). • Training could be improved.
Competency Assessment File	• Unique files are created for each provider at the MTF describing their credentials and privileges. • Files are held locally for each provider and were typically described as being stored on local shared drives (e.g., CarePoint, SharePoint). • Some MTFs store printed files in file cabinets in case electronic systems are not functional or need to be shared with other MTFs upon request.	• Performance Activity Reports for privileged providers and Clinical Assessment Reviews for nurses (annual evaluations) are often stored in Competency Assessment File on local shared drives.
OPPE/FPPE	• Completed OPPEs are uploaded into CCQAS. • Interim information that ultimately composes the OPPE, including peer reviews, is often kept locally, in a spreadsheet. • Some respondents reported filling out forms stored on local shared drives. • The entire historical record is not always visible.	• Local storage of information comprising OPPEs can create challenges if concerns are identified between OPPEs and providers transfer to other MTFs mid-cycle. Lack of full visibility can conceal previous evaluations that raise performance concerns.
Formal and informal communication	• Reminders and updates are shared among command personnel to ensure timely action on credentialing matters. • Communication may include texts, calls, or stopping by someone else's office.	• Automatic CCQAS notifications are only sent once.

Reporting and Monitoring

Respondents shared that CCQAS has greatly facilitated reporting of the credentialing and privileging processes to various stakeholder groups. It ensures transparency and consistency in the types of documentation required for each provider, allowing personnel to log in and view comprehensive information about provider qualifications and privileges at any given time. For instance, respondents described using CCQAS to pull reports of expiring credentials and privileges at the 30-, 60-, 90-, and sometimes 120-day mark. These consolidated reports are used by various MTF leadership and committees in order to assess compliance with requirements and determine the need

for further actions related to credentialing and privileging. Several respondents noted that the 90-day reminder also includes a link to an e-application for providers to renew their privileges. CCQAS also reports the outcomes of risk management committees, thus completing the feedback loop and informing future credentialing and privileging actions.

Monitoring of the credentialing and privileging process is important for ensuring that these vital components of patient safety and high-quality care are completed correctly and in a timely fashion. Respondents described using the timeline for credentialing and privileging as one measure to understand how well the process is working and whether changes are needed. However, it is important to note that the timeline varies seasonally—for instance, in spring, when many permanent change of station requests happen. In addition, not all providers are vital to providing care at the MTF (e.g., those who hold other primary jobs and seek to provide care in an MTF to maintain their skills). Those individuals' credentialing and privileging requests may take lower priority. For these reasons, identifying a single metric to assess the credentialing and privileging process would be challenging.

Processes in OCS Settings

Although many of the same processes and structures are used for credentialing and privileging in MTFs and OCS settings, we identified specific components that are unique to OCS settings. Generally, among OCS settings, credentialing and privileging procedures for the Army and Air Force are similar, while the Navy has slightly different procedures. Findings from our interview respondents were consistent with results from our internal assessment.

Roles and Responsibilities

Across OCS settings, in all military branches, respondents described having medical staff professionals to support the administrative aspects of credentialing and privileging and ensure that CCQAS is accurately maintained. For the Army and Air Force, the other roles and responsibilities related to credentialing and privileging are aligned with those described in Table 2.2. Respondents shared that within the Army and Air Force, the responsible party for credentialing and privileging processes is the same as in an MTF, with the MTF director as the ultimate privileging authority. For Navy OCS settings, credentialing and privileging is managed and overseen by the relevant upper-echelon-level command.

Applicability of These Processes

Respondents shared that, as with MTFs, all individuals who provide OCS care must be credentialed, although only licensed independent practitioners are privileged. Table 2.3 summarizes their requirements.

OCS settings may also utilize credentialed, non-privileged providers, such as physical therapists and mental health counselors, who must work within their scope of practice and licensure. Particularly relevant to OCSs, respondents from each military branch also described another group of non-privileged providers: Army medics, Air Force independent duty medical technicians, and Naval

independent duty corpsmen. In deployed settings in particular, they may be the only medical providers. When in garrison, they may also provide care in MTF clinics if privileged in that MTF. Table 2.7 summarizes details of these providers.

Table 2.7. Examples of Non-Privileged OCS Providers

Provider Type	Detail
Physical therapists and mental health counselors	• Hired by individual units, commands, or squadrons
Army medics, Air Force independent duty medical technicians, and Naval independent duty corpsmen	• Certified and attended school within their service branch to provide care • Provide basic primary care and sick call and are trained to provide emergency care in the field, including for trauma and battlefield injuries • Certifications are documented and verified to ensure that these providers have gone through specific training in order to carry out their duties. • Practice under a supervising licensed independent practitioner • Typically required to see a certain minimum volume of patients to maintain their certification

Credentialing

In general, credentialing for OCS providers in the Air Force and Army is done through MTFs and follows the process described in Table 2.3. Respondents reported that OCS settings are typically small and sometimes mobile and do not have their own staff to perform credentialing, so providers rely on the MTF that they are affiliated with for credentialing. The MTF then monitors their credentials and privileges through the same channels and responsible providers as in MTF settings. As with MTFs, delays with the credentialing and privileging process can cause care delivery problems.

In contrast, the Navy conducts credentialing for its OCS providers on the operational side at the respective upper-echelon-level commands. The exception to these processes is that Naval dentists in OCS settings are verified and approved first at the MTF and then undergo an Interfacility Credentials Transfer Brief to the relevant OCS setting.

Respondents with responsibility for oversight of Navy OCS settings shared that although this process is streamlined and works well for those working within Navy OCS settings, it can be burdensome for those in upper-echelon-level commands who are responsible for credentialing and privileging. Such settings typically have fewer personnel compared with the DHA resources available when credentialing and privileging takes place through an MTF. Respondents also shared that this process can also be financially burdensome, since the costs for primary source verification are borne by the Navy rather than by DHA.

Privileging

Across military branches, respondents shared that, in general, providers' scope of practice within OCS settings is much narrower than the scope of practice within an MTF setting. For the Army and

Air Force, privileging for OCS providers is conducted by the MTF. This process is identical to the process described for MTFs in Table 2.4. Once providers complete the MTF credentialing and privileging process, they can request an Interfacility Credentials Transfer Brief to the OCS command (DoDI 6025.13, 2023), which is reviewed initially by the equivalent of the clinical department director within an MTF (for example, command surgeon for physicians, a senior physician assistant for physician assistants, or a nursing commander for nurses). At some sites, OCS settings were co-located on an installation with an MTF. In many of these settings, OCS providers only conducted clinical care within the MTF. They used their OCS time for lower-level work that is not considered clinical (e.g., education, wellness checks, or low-level "sick call") or for administrative duties. In such cases, an Interfacility Credentials Transfer Brief to the OCS setting was not needed. In contrast, the Navy OCS privileging process occurs at the respective upper-echelon-level commands rather than within the MTFs. For instance, in our internal assessment, the process for identifying the privileging authority was described as follows:

> Chief, BUMED [Bureau of Medicine and Surgery] oversees program policy and oversees its implementation and coordination by designating The Medical Officer of the Marine Corps (TMO), the command surgeons, Commander U.S. Fleet Forces Command (COMUSFLTFORCOM), and Commander Naval Special Warfare Command (COMNAVSPECWAR) as privileging authorities per OPNAVINST [Office of the Chief of Naval Operations Instruction] 6320.7B.

Navy OCS providers who also provide care in MTFs then obtain an Interfacility Credentials Transfer Brief to the MTF.

Although peer review and performance appraisals were largely the same across service branches, a few substantial differences were noted. In co-located OCS settings, respondents mentioned a difference between how military providers and contracted providers underwent peer review. In OCS settings that are not co-located on an installation with an MTF, particularly deployed settings, regular and rigorous peer review was widely acknowledged to be challenging. When deployed, many providers may be the only medical provider (or one of a very limited number), which can limit oversight and review of competencies. Instead, individual providers must know their limits and meet the needs of the patients they encounter in OCS settings.

For non–co-located OCS settings, respondents generally reported that peer review for Air Force and Army OCS providers is done in MTF settings once back in garrison, given the limitations in scope and variations in volume of care in OCS settings. Navy OCS providers, in contrast, do not rely on MTFs for OCS provider peer review. Rather, operational medical commands for Navy OCS providers manage peer review within the OCS setting whenever possible and elevate to higher echelon medical command authorities for peer review when an appropriate peer reviewer is not available within the OCS setting. Respondents also shared that there are some types of care that likely only happen in OCS settings during wartime that are practically impossible to peer review. Table 2.8 summarizes privileging processes in OCS settings.

Table 2.8. Summary of Privileging Processes in OCS settings

Theme	Details	Additional Context
Submission, review, and reward	• Army and Air Force: Same process as MTF • Navy: Conducted by respective upper-echelon-level commands on the operational side	• Army and Air Force: Conducted by MTF
Post-verification (FPPE/OPPE)	• Army and Air Force: OCS providers are overseen by the MTF that has done their credentialing and privileging and included within that MTF's normal peer review process. • Army and Air Force: Can request an Interfacility Credentials Transfer Brief to OCS settings via CCQAS • Navy OCS providers who provide care in MTFs obtain an Interfacility Credentials Transfer Brief to the MTF.	• Army and Air Force: Interfacility Credentials Transfer Brief helps avoid duplicative credentialing and privileging documentation and verification processes. • Navy: OCS medical providers' FPPE and OPPE are managed through their respective higher-echelon-level medical command authority. • OCS medical providers who also provide care in MTF settings when in garrison may use the opportunity to maintain clinical skills that they would not otherwise use regularly in OCS settings.
Peer review	• Across military branches, once privileged, providers go through an FPPE and then an OPPE cycle every 6 months. • Review may be done continuously for OCS settings co-located on an installation with an MTF. • Air Force: Contracted providers receive peer reviews through their contracting company in accordance with the terms of the contract. • Navy: OCS provider peer review is done within the OCS setting when possible and elevated to upper-echelon medical commands when an appropriate peer reviewer is not available within the OCS setting. • OCS providers in settings not co-located with an MTF (i.e., deployed settings) may have substantial barriers to peer review, especially if deployed for more than 6 months.	• Upon returning from deployment, some providers may not have maintained sufficient volume to maintain a privilege and might need to go back on an FPPE after returning to the MTF. • Air Force: Contracted provider peer reviews are not part of MTF peer review; findings are not discussed with either medical or operational command. • Oversight and review of competencies may be less structured and systematic in OCS settings than in MTFs.

Documentation Systems

Across service branches and settings, OCS respondents reported that credentialing and privileging processes are documented within CCQAS, although CCQAS is often inaccessible in deployed settings. However, documentation of patient care, an important component of credentialing and privileging, was noted to be a challenge in OCS settings. A concern for many respondents was that MHS GENESIS (the electronic health record used across MTFs) is inaccessible in field settings.

Some respondents reported that MHS GENESIS is owned by DHA and perceived that this is why the "operational side" is not able to use it. We note that MHS GENESIS-Theater is currently under development but not yet operational (Defense Healthcare Management Systems Program Executive Office, 2025b).

Respondents across service branches also consistently reported that accessing the operational medical record, the Health Assessment Lite Operations (HALO), can be challenging, especially with poor or inconsistent internet access. This can lead to inconsistently documented patient care notes. Respondents indicated that deployment also affects OPPE, peer review, and reminders to complete documentation, although Air Force and Army may experience fewer impacts when they use processes that leverage MTF capabilities. Table 2.9 summarizes documentation systems used in OCS settings.

Table 2.9. Summary of Documentation Systems Used for Credentialing and Privileging in OCS Settings

Theme	Details	Additional Context
CCQAS	• Web-based system used across service branches and settings	• Unable to be used in deployed settings
Theater Medical Data Store	• Theater Medical Data Store[a] is a web-based system providing access to individual medical records in operational environments as well as Level 4 facilities.	• Receives data from Theater Medical Information Program—Joint (TMIP-J) applications
TMIP-J[b]	• TMIP-J[c] is a joint system, shared by all service branches, that integrates software from medical applications to provide medical personnel with access to vital patient information in deployed environments.	• TMIP-J is composed of many applications, including the Armed Forces Health Longitudinal Technology Application (AHLTA)-Theater.
AHLTA-Theater	• Operational version of AHLTA electronic medical record	• Replaced by HALO, but historical documents are accessible through the Theater Medical Data Store
HALO	• Electronic medical record for field settings, used across service branches • Access to HALO can be challenging in deployed settings.	• May fill out paper Standard Form 600 for upload to medical record in garrison • High patient volumes and severe injuries can result in no documentation.
OPPE and peer review	• Across service branches, OPPE and peer review may be delayed due to deployment. • Oversight for provider activities shifts to the operational command upon deployment.	• There is a relative lack of visibility into provider activities once providers are not working within an MTF setting. • Inconsistent documentation means that there may be a dearth of provider notes that can be peer reviewed.

Theme	Details	Additional Context
Performance Appraisal Reports	• These reports are sometimes not completed due to lack of oversight and clarity about responsibility for completing them in OCS settings. • MTF may request a Memorandum for the Record (described as a document to record information that might not be recorded elsewhere); this would include similar information as the Performance Appraisal Report (patient volume, procedures done, etc.).	• A Memorandum for the Record would fail to capture qualitative factors that Performance Appraisal Reports often include, such as timeliness, ethical judgments, and professionalism.
Formal and informal communication	• Air Force and Army: Can rely on robust MTF mechanisms to provide continual reminders • Navy: Limited personnel and limited documentation reminders	

[a] Defense Healthcare Management Systems Program Executive Office, 2024.
[b] Although none of our respondents mentioned the TMIP-J, many described using the Theater Medical Data Store, which is used to access TMIP-J data.
[c] Defense Healthcare Management Systems Program Executive Office, 2025a.

Several Air Force respondents in one OCS setting shared that when providers return from deployment, their operational command should send them back with a Performance Appraisal Report documenting how many patients they saw, the types of procedures done, etc., during deployment. In the absence of such a report, MTFs may request a Memorandum for the Record, which should contain similar information.

Reporting and Monitoring

The major reporting requirement for credentialing and privileging is generating CCQAS reports to ensure that those in charge of these processes (MTF or OCS settings) are aware of any expiring credentials and/or privileges. The reports generated are the same for OCS providers as for MTF providers and generally on the same time frame. There are challenges with executing this requirement in deployed settings given CCQAS accessibility issues.

Similarities and Differences Across MTFs and OCS Settings

In general, the processes and procedures for credentialing and privileging, as described by respondents, were largely consistent among MTFs. Despite some minor differences in details, such as naming convention across sites, the differences were in line with DHA-PM and DoDI regulations and typically occurred where those regulations do not specify.

The processes in OCS settings were consistent with MTFs; Army and Air Force OCS providers are credentialed and privileged through their home MTF. However, Navy OCS providers (except for dentists) are credentialed and privileged through their respective upper-echelon commands. Navy

OCS respondents within those upper-echelon commands shared that they tend to have fewer personnel and resources compared with MTFs. The majority described the challenges of trying to maintain the same credentialing and privileging processes with much fewer staff and resources than would be available within the DHA system, as well as the risk those challenges may pose to optimizing these processes.

A challenge for OCS settings across all service branches is the lack of access to CCQAS and MHS GENESIS in the field and inconsistent procedures for documentation in field settings. Even if peer review is occurring in many OCS settings outside of garrison, inconsistent access to electronic documentation systems means that providers do not develop consistent approaches to documentation. Even when patient care is documented on paper, respondents were generally unsure of how or whether those paper records were transferred to the electronic record. This not only makes peer review nearly impossible but also leaves gaps in documentation of patient care.

Chapter 3

Quality Assurance, Incident Review, and Standard of Care

In this chapter, we provide an assessment of the QA portion of "the processes under [the direct care component of TRICARE] for QA, SOC, and incident review and an assessment of compliance with such processes." We present synthesized findings from the OASD(HA), DHA, and SGs' internal assessments and then describe findings from qualitative interviews. Appendix D supplements this chapter with additional details on context, impacts, and challenges.

Key Findings: Quality Assurance, Incident Review, and Standard of Care

- MTF settings consistently report clear and systematic processes and procedures for QA, including patient safety, SOC, and risk management. However, harmonization of instructions and guidance across DHA and each service, and greater specificity in those instructions, would support long-term sustainability of QA efforts.
- OCS respondents reported challenges to many QA components, particularly in non–co-located settings. Respondents cited difficulties documenting patient care and patient safety events due to problems with internet access, inconsistently functional equipment, and lack of clear and consistent processes for documentation and reporting. Operational contexts also mean rapidly changing settings along with limited resources and personnel, creating challenges to SOC determinations due to inconsistent and situationally constrained reviews. Finally, the dual chains of command in OCS settings can create confusion about oversight and responsibility, particularly in non–co-located settings.
- OCS respondents described mismatches between the training they received, which largely focuses on trauma, and the care they largely provide, which is focused on primary care and acute care. At the same time, OCS providers did not always have sufficient repetition of skills that might be vital in trauma situations, such as intravenous placement. This can result in OCS providers feeling less than optimally prepared for both types of care.
- Particularly when going to locations outside the continental United States (OCONUS), misalignment between the resources, equipment, and facilities expected versus those available upon arrival can substantially hamper OCS settings' ability to provide care.

Background

QA was broadly interpreted according to the definition in DoDI 6025.13 as "a program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met" (DoDI 6025.13, 2023). SOC was interpreted in accordance with the definition in DHA-PM 6025.13 as "healthcare judgments and actions of a health care provider generally accepted in the discipline or specialty involved as reasonable and appropriate" (DHA-PM 6025.13, 2019a). Incident review was interpreted to refer to any processes in place to

track and review patient safety events, defined in DHA-PM 6025.13 as "incident[s] or condition[s] that could have resulted, or did result, in harm to a patient" (DHA-PM 6025.13, 2019a). SOC was interpreted in accordance with the definition in DHA-PM 6025.13 as "healthcare judgments and actions of a health care provider generally accepted in the discipline or specialty involved as reasonable and appropriate" (DHA-PM 6025.13, 2019a).

Depending on the severity of the event and whether there are concerns about provider behavior, incident review can touch on QA, SOC, patient safety, and even risk management. Therefore, this report sometimes groups discussion about incident review along these dimensions.

Internal Assessment

Similar to credentialing and privileging, OASD(HA) is responsible for developing policy in the areas of QA, SOC determinations, patient safety events, and incident review. DHA develops and implements processes for MTF that align with these policies, and OASD(HA) reported that it develops metrics to "monitor, evaluate, and improve DHA CQM programs." For OCS settings, all service branches indicated that patient safety events should be reported and reviewed, although there was variability in whether they collaborated with others in reviewing the reports. Taken together, the service branches noted that they aim to address incident review, QA, and SOC and that factors such as manpower or collaboration with MTFs might limit the ability to adequately account for these CQM components. Table 3.1 summarizes the internal assessment responses.

Table 3.1. Summary of Responses from Internal Assessment on Quality Assurance, Standard of Care, and Incident Review Across MTFs and OCS Settings

Site Type	Theme	Stakeholder Responses
MTF	Responsibility and procedures	• OASD(HA): Develops high-level policy related to CQM • DHA: Develops and implements procedures that align with OASD(HA) developed policies
	QA, incident review, and SOC processes	• DHA: Risk management and patient safety programs ensure compliance. Risk management tracks and monitors compliance metrics and generates reports, accessible through dashboards. Oversight is provided through the DoD Risk Management Working Group. • DHA: Patient safety utilizes the DHA Safety Event Reporting and Corrective Actions tool to provide overview of patient safety trends and share lessons learned across networks. Data are shared annually through the DoD Patient Safety Annual Summary.
	Learning health system	• DHA: Conducts continuous monitoring through its Patient Safety Program of compliance with reporting requirements (e.g., JPSR) across networks and MTFs • DHA: Creates mitigation and improvement plans through the Patient Safety Annual Plan and in reports after systemic analyses

Site Type	Theme	Stakeholder Responses
OCS	Responsibility and procedures	• Army: Actively collaborates between commands and service branches on patient safety • Air Force: Collaborates with MTFs on incident and SOC reviews and collaborates with commands and MTFs in cases of deployment • Navy: Marine Corps leadership and Navy Health Services (in Fleet Forces Command) have access to and review events in the JPSR system.
	QA, incident review, and SOC processes	• Army: Shares risk management data through the MHS Health Care Risk Management Working Group with services, OASD(HA), and DHA (quarterly) • Army: SOC related to incident review and QA • Air Force: Aligns QA program with DoD and DHA policy; educates OCS providers; processes are performed with MTFs (via CQM programs like JPSR) • Air Force: Air Force Medical Command Operational Quality provides due process, including an external peer review for providers undergoing an SOC review • Navy: Noted interrelationship of processes; will complete a QA investigation if a JPSR event results in harm, will also seek to understand whether SOC is met and report to NPDB if warranted
	Learning health system	• No service branch provided examples that demonstrated learning health care system elements for QA. • Air Force: QA was performed in conjunction with MTFs through elements of its CQM programs.

MTF Processes

Our interview findings were consistent with the findings from our internal assessment for MTFs. As described by respondents, QA is a broad umbrella of activities that begins with credentialing and privileging (Chapter 2) and is underpinned by policies established by DHA, the service branches, and MTF leadership, as well as the SOC for health care delivery. Patient safety plays a key role in ensuring that potential threats to quality are identified and reviewed. In instances of patient harm, a risk management department assesses, mitigates, and addresses potential threats to maintaining the quality of care.

Throughout this section, many of the tables presented are organized by each component described: QA, patient safety, incident review, SOC, and risk management, according to the definitions delineated above.

Roles and Responsibilities

In this section, we detail how respondents described the staff roles and responsibilities related to QA, incident review, and SOC at MTFs, which include leadership, clinical departments, and committees formed to support these programs. Respondents across all service branches consistently reported that QA within an MTF is generally the responsibility of the MTF director, with substantial

support from clinical quality leadership. For patient safety, the chief quality officer plays a large role in leadership.

As reported by respondents, SOC is a level of care that all providers are expected to provide. However, respondents consistently emphasized that there is no single standard that can be applied across all providers in all situations. The standard differs based on a variety of factors, including provider experience and training, patient factors, and contextual factors, such as available equipment. Within the QA realm, and as discussed in this chapter, SOC refers to that level of care that all providers should provide. In cases where that SOC is not met, relevant investigations are shared with key roles including risk management leadership and staff, the SG of the service branch, and DHA leadership. Risk management processes are discussed briefly in this chapter and in greater depth in Chapter 4.

Respondents repeatedly emphasized the importance between separating patient safety and risk management. In particular, they specifically noted that patient safety managers (also known as patient safety specialists) should not play a role in SOC reviews. This is because patient safety focuses on understanding system factors that contributed to a patient safety event and to encourage a Just Culture related to patient safety. Risk management mitigates adverse events and maintains the integrity of health care operations.

Table 3.2 summarizes roles and responsibilities related to QA, incident review and SOC for the MTFs in our study. Ideally, these roles should exist at all MTFs. However, our respondents noted that smaller MTFs have fewer personnel overall. Moreover, "multi-hatting," when a single individual takes on multiple roles, was common at the MTFs in our study. Finally, respondents shared that some roles may remain vacant due to a lack of personnel to fill them. Together, these factors can pose challenges to effectively carrying out all the roles related to QA, incident review, and SOC.

Table 3.2. Summary of Roles and Responsibilities in MTF Quality Assurance, Incident Review, and Standard of Care Processes

Theme	Details	Additional Context
QA		
Clinical quality leadership	• Commanding officer with substantial oversight from the CMO/MTF chief of the medical staff • May include deputy director for quality and safety, director of clinical quality, chief of CQM, and chief quality officer • Provide direction for the various components of QA • Decide which metrics are important and either address internally or elevate to leadership if needed	• Support from the CMO and senior enlisted advisors
Clinical quality staff	• Typically include credentialing and privileging (discussed in Chapter 2), patient safety, quality, and risk management • Range from 3 to 30 individuals	• Purposefully housed within the same leadership structure to support collaboration and communication, which is vital due to overlapping components and shared responsibilities
Specialty roles	• MTFs participating in the NSQIP noted the importance of having a dedicated staff member (usually a nurse) for NSQIP data collection and analysis to monitor and prevent surgical complications. • For OCONUS locations, International SOS, an organization providing health care support outside the United States, can conduct quality review.	• International SOS does not share results of its quality reviews.
Committees and meetings	• Committees may include Medical Executive Committee, Credentialing Committee, Quality Council, Professional Staff, Pharmacy Committee, Medication Review Committee, and Coding Committee. • Meetings may include daily morning leadership huddles, daily safety huddles, weekly or biweekly leadership rounds, morbidity and mortality conferences, and environment of care rounds.	• Some meetings serve as mechanisms for reducing variation in clinical quality metrics across sites as part of the Ready Reliable Care Safety Communication Bundle (see Chapter 6). • See Table 3.3.

Theme	Details	Additional Context
Challenges	• Staff turnover can hamper QA efforts and undermine long-term sustainability. • Staffing shortages can impact remaining staff through additional duties, contribute to burnout, and pose risks to quality maintenance. • Multiple levels of oversight can lead to conflicting guidance. • There is concern over guidance to combine quality and risk management efforts.	• Civilian leadership or longer assignment duration could improve continuity, although slow hiring processes are also an issue. • Smaller MTFs are more vulnerable to staffing challenges; these could especially benefit from role centralization or support from DHA.
Patient Safety		
Chief quality officer (or equivalent)	• Leads Just Culture Initiative, setting the tone that QA and patient safety reporting are not punitive, but part of learning and improvement • Responsible for ensuring that staff are trained in Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS), a program aimed at improving communication across medical staff to support patient safety	
Patient safety manager	• Oversees the systematic review of all patient safety events (usually daily) to assess potential harm levels for each event, assigns investigators as required, monitors progress, develops mitigation strategies from ongoing patient safety reviews, and reports findings to various committees	• Sometimes also called the patient safety specialist • Vacancies of this role can lead to less patient safety reporting and monitoring.
Patient safety advisors/advocates	• Quality of investigations depends on the individual's bandwidth and whether the MTF has adequate staffing.	• Volunteer role; no additional compensation
Committees and meetings	• May include daily leadership huddles, weekly/biweekly patient safety rounds, monthly Quality Council meetings, and Environment of Care meetings	• See Table 3.3.
Challenges	• Overwhelmed staff may be prone to errors and less likely to report events. • Changes in DHA and service branch leadership can reduce staff ability to focus on patient safety.	• Cultural aspect of patient safety initiatives depends on staffing continuity.
SOC		
MTF leadership and clinical department leadership	• Establish SOC at the MTF and in the department • Conduct regular peer reviews • Monitor peer reviews and any needed mitigation	
Credentialing and privileging staff	• Responsible for monitoring SOC through peer reviews and OPPEs	• Supporting identification of potential peer reviews when SOC reviews are needed

Theme	Details	Additional Context
Risk management leadership and staff	• Patient safety or other quality staff will share incidents in which SOC review is needed. • Manage SOC reviews and report findings to Medical Executive Committee and Credentialing Committee	• See Table 3.3.
SOC peer reviewers	• Selected by MTF chief of medical staff SOC (with support from credentialing and privileging staff) and appointed by the privileging authority • Ideally have the same level of experience and type of training and provide care in the same setting as the individual undergoing a SOC review	• Smaller MTFs may not always be able to identify peer reviewers locally. They may reach out to a similar MTF to support SOC review.
SG of the service and DHA leadership	• Make the final decisions on some types of actions following SOC and QA investigation reviews	• Reporting to the NPDB is determined by DHA based on recommendations from the privileging authority or their delegate.
Risk Management		
DHA	• Guides and oversees processes and offices responsible for risk management; integrates patient safety reporting systems, QA investigations, credentialing oversight, and collaboration across departments	
Risk management staff	• Work closely with credentialing staff, quality managers, and patient safety offices to identify gaps in care and recommend corrective action • Informally track events for internal communication • Store formal documentation on shared drives (e.g., CarePoint, SharePoint); may include standardized forms, overseen by DHA • Oversee investigations into potentially compensable events, ensuring compliance with SOC and risk management protocols • Upload certification and case details to DHA, along with statements, peer reviews, and Significantly Involved Provider notification memos	• When investigations escalate to higher echelons of command, MTF directors and Credentialing Committee can play a role to determine outcomes, especially when it relates to adverse credentialing actions for a provider (see Chapter 4).
Health Care Risk Management Quality Directorate	• Complements credentialing efforts by identifying trends that deviate from standard operating procedures (SOPs), analyzing incidents, and recommending systemic changes to improve patient safety	
Meetings and committees	• May include weekly meetings, preventive risk management, Quality and Safety Office, and biweekly meetings	• See Table 3.3.

MTF respondents described regular meetings and standing committees that support QA activities through regular touchpoints on such issues as patient safety concerns and prioritizing interventions. Some of these are more formalized and described in Table 3.3, although this is not an exhaustive list; furthermore, specific meetings or committees may be known by different titles at different sites. Other recurring meetings include daily leadership huddles, weekly or biweekly patient safety rounds, weekly meetings to update case statuses, training and ensuring compliance with Joint Commission standards, and biweekly meetings among MTF provider staff supervisors.

Table 3.3. Examples of Committees and Meetings to Support Quality Assurance, Patient Safety, Standard of Care, and Risk Management Processes

Title	Description	QA	Patient Safety	SOC	Risk Management
Medical Executive Committee (at least monthly)	Expansive meetings that include C-suite leadership along with QA leaders; may include discussions about adverse actions	X	X	X	X
Credentialing Committee (or Credentials Committee or Credentials Function)	Reviews issues that affect provider credentialing and privileging; includes discussion of SOC findings and resultant actions	X		X	X
Quality Council (at least monthly)	Includes MTF clinical quality leadership and clinical department leadership to review quality metrics and monitor progress on quality improvement initiatives, including ongoing PSRs	X	X		
Professional Staff (ProStaff)	Includes all hospital providers; venue to disseminate training and education, share updates and progress on QA, and solicit provider feedback	X	X	X	
Pharmacy Committee	Reviews medication use, including narcotics, to ensure safety and compliance	X	X		
Medication Review Committee	Monitors medication usage, including antibiotic stewardship	X	X		
Coding Committee	Reviews provider coding to ensure that it meets coding standards	X			
Environment of Care	Includes patient safety and facilities leadership to track environmental hazards, such as tripping and fall risks		X		

Title	Description	QA	Patient Safety	SOC	Risk Management
Preventive risk management	Review cases based on the Joint Commission's ten criteria, highlight efforts to proactively address potential risks				X
Quality and Safety Office collaboration with risk management	Address potentially compensable events, improve performance, and ensure compliance with accreditation standards, such as the Joint Commission				X

Respondents raised multiple concerns about issues that affect QA efforts, including the challenges of receiving staffing and guidance from multiple sources of oversight that sometimes conflict. Respondents also shared concerns with staffing shortages and turnover, similar to those described in the QA section above. Patient safety may be particularly impacted given the importance of organizational culture in ensuring continuous monitoring for such events.

Applicability of These Processes

Respondents consistently reported QA and patient safety as a responsibility of everybody within the organization and therefore an important aspect of an MTF's organizational culture. Across service branches, MTF respondents discussed the importance of becoming a High Reliability Organization, instilling a Just Culture approach, and using TeamSTEPPS during onboarding (Agency for Healthcare Research and Quality, undated). Each of these efforts targeting organizational culture also served as a tool to target unwanted variation in clinical quality at the level of the MTF (see Chapter 6).

According to our respondents, all providers are responsible for maintaining the SOC for their role based on their experience, training, and available equipment. However, SOC reviews typically apply only to certain individuals (such as those identified as significantly involved providers in a potentially compensable event or those experiencing problems with substance use that affect their work). Providers themselves are subject to the risk management process; respondents contrasted this with patient safety events, in which individuals would only be identified as part of reviews that focus on systemic factors. Table 3.4 summarizes the applicability of QA, incident review, and SOC processes.

Table 3.4. Summary of the Applicability of MTF Quality Assurance, Incident Review, and Standard of Care Processes

Theme	Details
QA	
All staff	• Organization-wide responsibility across all roles
Organization	• All service branches: goal of making progress toward becoming a High Reliability Organization by focusing on systemic improvements and reliability and the Ready Reliable Care approach
MTF leadership	• Provide oversight and assume overall responsibility for QA • Provide guidance and direction as needed for specific components of QA as issues are elevated to them • Incorporate Just Culture and TeamSTEPPS as an important component of the onboarding processes, providing all staff with the same mental model for improving teamwork around QA and patient safety
Clinical departmental leadership	• Manage QA processes for providers within their department
Individual providers	• Ensure that the quality of the care provided is in accordance with their professional scope • Specific components of QA may apply only to specific people.
Patient safety and incident review	
All staff	• Carry out a Just Culture approach, meaning that everyone, from cleaning staff to the CMO, can and should report safety events
Patient safety managers or quality managers	• Oversee patient safety reporting and investigation process, report trends, and elevate harm events to risk management and MTF leadership • Track patient safety reporting rates (a lower use of anonymity when reporting might be indicative of an open and honest safety culture) and ensure that PSRs are not used to levy personal attacks • May help to report events on behalf of others who may be busy or do not know how
SOC review	
All providers	• Providers maintain SOC for their role based on their experience, training, and available equipment. • SOC reviews are reserved for significantly involved providers in a potentially compensable event or those experiencing problems that affect their work (e.g., substance use).
Risk management	
Individual providers	• May be identified in systemic patient safety events

Quality Assurance Processes

Respondents shared that QA is an overarching concept that covers all aspects of providing high-quality care. It includes the processes for all components of QA, described in greater detail in the respective sections on patient safety, SOC, and risk management below. Respondents routinely

described important components of QA in MTF settings, including staff empowerment, staff training, accreditation, monitoring, and collaboration. Table 3.5 summarizes QA processes in MTFs.

Table 3.5. Summary of MTF Quality Assurance Processes

Theme	Details	Additional Context
Staff empowerment	• Organizational culture helps ensure that staff feel responsibility for QA and empowered to carry out its components. Embodied in use of programs such as TeamSTEPPS, Just Culture, and Ready Reliable Care to make progress toward becoming a High Reliability Organization.	• Includes ensuring staff training, accreditation, monitoring, and collaboration
Staff training	• Carried out through systematic onboarding to ensure that MTF processes and procedures are understood	• Verification of provider education and skills through credentialing and privileging processes is vital.
Accreditation	• Conducted through the Joint Commission to ensure compliance with established standards for quality of care (Chapter 6)	• MTF laboratories have additional accreditations through the Clinical Laboratory Improvement Program and the College of American Pathology.
Monitoring	• Identifies potential deficiencies and ensures that corrective actions are implemented	• May include mock inspections by the Joint Commission, regular peer reviews and OPPE, and audits or chart review by clinic managers and department leads to check completion of documentation standards, conduct of tracers, and use of data from the JPSR system, Operating Room Debrief Implementation Tool, and Interactive Customer Evaluation/Joint Outpatient Experience Survey
Collaboration	• Collaboration occurs among all MTF staff, between providers and leaders, and between various departments.	• Pharmacy staff–prescriber communication ensures that medications are dispensed in the correct dosage, using the correct form of the medication, and to the correct patient.
Challenges	• Staffing turnover, burden, and shortages • Long-term attention to SOP details • Implementing too many programs at once	• Participant fatigue and program overlap are common. • Short-term solutions are often pursued at the expense of sustainability.

An Army leader from an MTF[6] described the QA process as "like an immune system for the hospital." However, some respondents raised concerns related to effective implementation of QA processes, including staffing burden, long-term follow-through, and a tendency to implement programs without recognizing overlap.

Patient Safety and Incident Review Processes

As described by respondents, quality management and patient safety processes are integrated, ensuring collaboration and swift responses to patient safety events. MTF respondents consistently described a clear process for reporting and reviewing patient safety events and said that they believed that most cases were reported through the JPSR system. However, respondents shared a few variations in event identification that relied on verbal or email reporting or information from patient experience surveys. Patient safety managers (or patient safety specialists) review PSR submissions, assign investigators, and use the findings to make recommendations. Respondents shared that for straightforward issues, the case may then be closed. More complicated issues, including potentially compensable events, may be escalated to the Patient Safety Review Committee and shared with risk management to open their own investigation. Table 3.6 summarizes patient safety and incident review processes.

Table 3.6. Summary of MTF Patient Safety and Incident Review Processes

Theme	Details	Additional Context
Clear process	• The JPSR system is the main avenue for reporting. • Patient safety events are reviewed daily.	• Responses are integrated and swift.
Other methods to identify patient safety events	• Verbal or email reports are sent to leadership. • Patient experience surveys, such as Joint Outpatient Experience Survey or Interactive Customer Evaluation, are used. • The Operating Room Debrief Implementation Tool is used for reporting issues that happen during a surgical case, including patient safety, equipment, and facilities issues.	• Once aware, leadership would notify the MTF patient safety manager or equivalent, who would enter the event into the JPSR to ensure documentation. • Provider needle sticks are reported to Occupational Health, not to the JPSR system.

[6] Although all MTFs are overseen by DHA, we wanted to indicate the service branch affiliation of the respondent. To indicate this, we use shorthand for brevity throughout the remainder of the report. We use "Army MTF respondent" to indicate that an individual is an Army respondent from an MTF, "Navy MTF respondent" to indicate a Navy respondent from an MTF, and "Air Force MTF respondent" to signify an Air Force respondent from an MTF.

Theme	Details	Additional Context
Review	• Patient safety managers (or patient safety specialists) typically receive a notification when a PSR is submitted, and they review to ensure that there are no urgent issues.	• Managers reported reviewing all PSRs from the prior 24 hours on a daily basis, conducting the first-level review to categorize by harm level (e.g., no harm, near miss, harm). • Most events constitute no harm.
Investigation	• Manager assigns investigator, typically from the department where the incident occurred. • Findings reported to manager, who works with clinical departments, the quality management team, and process improvement leaders to implement changes to support recommendations.	• Investigations vary in intensity; they generally consist of gathering information from involved parties to understand what happened and determine the cause of the patient safety event.
Potentially compensable events	• Harm events or those reaching the patient are elevated to potentially compensable events and shared with risk management to begin SOC reviews. • Sentinel events have additional reporting requirements,[a] including mandatory reporting within 48 hours to DoD and the Joint Commission and initiation of a root cause analysis.	• Concern that DHA emphasis on reviewing all PSRs for potentially compensable events could shift focus from systems-based (non-punitive) review to risk management review. • Concerns were raised about undermining Just Culture and creating fear of reporting patient safety events.

[a] A *sentinel event* is defined as "a patient safety event that results in death, permanent harm, or severe temporary harm" (Joint Commission, undated).

As described by respondents, harm events or potentially compensable events can trigger different levels of reporting and review. Respondents also shared concerns that some efforts to systematically review patient safety events for their potential to be potentially compensable events may shift the mission of patient safety from a systems-based review to an individual-level, potentially punitive review. They shared that this evolution could harm the Just Culture approach and instill a fear of reporting patient safety events.

Standard of Care Review

Respondents' discussions regarding SOC review typically began with descriptions of how SOC is established. Standards were described from a variety of sources, including DoD, DHA, each service branch, MTF-specific policies, clinic-specific policies, and standards and clinical practice guidelines established by professional societies.

Respondents reported that SOC is typically maintained as providers complete any continuing medical education requirements and undergo peer reviews and OPPEs as part of maintaining their credentialing and privileging. For any potentially compensable event, all significantly involved providers are identified and undergo a SOC review by a peer reviewer. Once the SOC review is

complete, the Medical Executive Committee makes a recommendation regarding actions to hold providers accountable (see Chapter 4). Table 3.7 summarizes SOC review processes in MTFs.

Table 3.7. Summary of MTF Standard of Care Review Processes

Theme	Details	Additional Context
Peer review	• Monthly reviews feed into six-month OPPEs, amounting to a periodic SOC review. • Reviews are collected in Performance Appraisal Reports and guided by standardized forms, which typically begin by asking whether the provider has met the SOC.	• Reviews can serve as an early warning system for MTFs, allowing providers to intervene to maintain the SOC even before a potentially compensable event is identified.
Formal SOC review	• Initiated with the identification of potentially compensable events • Credentialing and privileging staff help identify a suitable peer reviewer, who is assigned by MTF chief of the medical staff/CMO. • Peer reviewer reviews all documentation and medical records related to the case and completes an SOC assessment form with a determination of whether the SOC was met. • Initial reviews are expected within two weeks; case files should be closed within 180 days.	• Finding peer reviewers who are at the same MTF and with similar training and experience can be challenging, especially with staffing shortages or staffing at some MTFs that skews to a more junior level. • The process is consistent with requirements laid out by DHA and is viewed by respondents as clear and standardized.
Medical Executive Committee action	• Findings are presented to the committee, including the MTF chief of the medical staff.	• If the determination is that the SOC was not met, the committee can make a range of recommendations to the CMO and MTF director (see Chapter 4).

Risk Management

Respondents shared that the risk management process begins when an event is identified as having caused harm or raised concerns about SOC. An event may be identified through the patient safety team or a patient complaint. The CMO initiates the risk management process. Table 3.8 summarizes the risk management process in MTFs.

Table 3.8. Summary of MTF Risk Management Processes

Theme	Details	Additional Context
Patient safety team	• An event is identified that caused harm or raised SOC concerns. • The provider is notified and may need to submit a statement in a designated time frame.	• Event is shared with risk management, which begins its own separate investigation. Patient safety incident review and investigation would continue.
Patient communication	• Patient advocates and assistance response teams may act as intermediaries. • These personnel ensure that patient complaints are reviewed and escalated appropriately.	• Processes include communication with patients and families regarding outcomes and lessons learned. • Specifics regarding provider accountability actions are not shared.
CMO	• CMO initiates risk management process. • CMO notifies providers and commanders.	• Cases involving significant harm or death require additional documentation and can be submitted to higher echelons of command for adjudication and review.
Risk management staff	• Risk management staff conduct reviews of cases and often use algorithms to determine whether an event qualifies as a potentially compensable event.	• If harm is identified, risk management staff determine whether SOC was met and identify systemic failures. • Risk management staff share findings with relevant stakeholders and brief staff on lessons learned and remediation strategies.

Documentation Systems

As described by respondents, many tools are used to document various components of QA.

Tools to Support QA

- **Performance Appraisal Reports.** Monthly peer reviews, typically held by clinical departments
- **Competency Assessment Files.** Providers' credentials and privileges; stored locally
- **CCQAS.** Web-based tool documenting credentials, privileges, adverse action, and risk management
- **JPSR system.** Reporting and monitoring patient safety events
- **Operating Room Briefing and Debriefing Audit Tool.** Documenting and reporting anomalies during surgical procedures
- **Potentially compensable event algorithm tool.** Identifying patient safety events to refer to risk management
- **Process improvement approaches (e.g., Lean, Six Sigma, Plan-Do-Check-Act cycle, A3 problem-solving method).** Often include tools to support systematic monitoring, documentation, and measurement of resultant process change
- **Electronic health records (e.g., MHS GENESIS and Dentrix).** Within MHS GENESIS, multiple respondents reported using such tools as Discern to create reports to monitor QA components.
- **MediaLab.** Online tool to track variances in laboratory findings
- **DHA systems (e.g., DHA Dashboard, Ready Reliable Care Portal).** Documentation and review of QA components

Respondents from every MTF reported that patient safety events are documented in the JPSR system. CCQAS is used to document completion of OPPE/FPPEs and to document the results of SOC reviews. Several respondents at one Navy MTF described using an electronic system called the Bridge for tracking and documenting peer reviews, although it is not clear whether this is a local solution or a local name for the shared drives used throughout DHA.

Respondents noted that documentation systems for risk management can be tailored to ensure tracking, review, and communication of patient safety events and potentially compensable events. Table 3.9 summarizes documentation systems used by MTFs for QA, patient safety, SOC review, and risk management.

Table 3.9. Examples of MTF Documentation Systems

Theme	Details
QA	
Tools	• Performance Appraisal Reports, Competency Assessment Files, CCQAS, JPSR system, Operating Room Briefing and Debriefing Audit Tool, potentially compensable event algorithm, A3 problem-solving method,[a] electronic health records, DHA systems (e.g., DHA Dashboard, Ready Reliable Care Portal)
Peer review	• Peer review typically uses a template that is standardized across the department and MTF. • Individual peer reviews are typically stored locally on shared drives and then compiled regularly for OPPEs, which are documented in CCQAS.
Challenges	• Completing patient notes within a set time • Obtaining records from other medical facilities • Learning curve of MHS GENESIS
Patient safety and incident review	
Reporting	• JPSR: Every MTF computer has the JPSR icon on it, and any staff member with DoD-issued identification is able to file a report. • All types of patient safety events, from no-harm to potentially compensable events, should initially be reported using the same form in the JPSR system, as should the outcome of any PSR.
Challenges	• It can take substantial time to fill out the JPSR form for more complex events. • Access and timing-out problems can occur if the JPSR form is not completed in one sitting. • It is logistically difficult for departments with high volumes of events to report (e.g., pharmacy). • Information about events can be fragmented in GENESIS and CCQAS.
SOC review	
CCQAS	• CCQAS is used to document completion of OPPE/FPPEs and SOC reviews.
Secure shared drives (e.g., CarePoint, SharePoint)	• Monthly peer reviews that underlie OPPEs are documented in Competency Assessment Files and maintained on secure shared drives. • Data underlying SOC reviews are also documented on secure shared drives.

Theme	Details
Risk management	
Informal	• Excel trackers are used to track progress and communicate updates to relevant stakeholders.
Secure shared drives and standardized forms	• Information related to patient safety events and potentially compensable events is securely documented in CCQAS and on shared drives (e.g., CarePoint, SharePoint).

[a] Lean Enterprise Institute, undated.

Although respondents noted that peer reviews within an MTF tend to follow a template, the template is flexible enough to allow for departmental or role-based changes if emerging deficiencies need to be monitored. For instance, if a new tool is introduced for nurses, peer reviews for nurses may include assessment of that tool for the first few months.

Challenges raised by respondents included timely documentation and getting medical records from facilities outside the direct care component of the TRICARE program (i.e., MTFs and OCS settings), primarily facilities providing care through TRICARE-contracted civilian-sector providers. Difficulty with completing patient notes within a certain period of time was largely attributed to understaffing and provider burden, despite the importance of timely note completion for clinical care and legal requirements. Several respondents in various MTFs perceived that the introduction of MHS GENESIS has been accompanied by a steep learning curve, which was perceived by a Navy MTF respondent as contributing to burnout.

Respondents shared some challenges with the JPSR system, including the amount of time needed to complete the form; technical problems, such as timing out if someone stepped away and did not complete the entire form in one sitting; and logistical barriers for high-volume departments that lead to batch entering. Some respondents emphasized that although MHS GENESIS, as the electronic health record, will have relevant patient care information and can help support information reported in the JPSR system, it is not a tool to document patient safety events. Furthermore, although adverse events are documented in CCQAS, it only notes the action taken. The paper trail detailing the events is maintained on shared drives (e.g., CarePoint, SharePoint).

Reporting and Monitoring

Reporting and monitoring of QA processes was described as a cooperative process across clinical departments and leadership. Different measures are selected and monitored by various groups within the MTF (Table 3.10) to monitor MTF progress, benchmark metrics, and compare performance with other organizations (including other MTFs), as discussed further in Chapter 6. Regular inspections also monitor for QA issues, and processes are reported to both patients and providers as needed.

As described by respondents, there is also a wide range of reporting about patient safety events that occurs throughout the MTF, including through regular meetings, reports about potentially compensable events, provider engagement, and reports to patients. Patient safety events are monitored over time, through monitoring of measures with a focus on trends and patterns.

Respondents shared that the MTF's risk management staff are responsible for managing the SOC review process and monitoring review processes to ensure each step is completed in a timely fashion. For risk management, respondents described a tiered approach, with staff monitoring cases both formally and informally, holding meetings to share information, and working with the CMO as that person oversees the process (initiating reviews, generating forms, and notifying relevant providers and department chiefs). Table 3.10 summarizes reporting and monitoring systems used at MTFs.

Table 3.10. Summary of MTF Reporting and Monitoring Systems

Theme	Details
QA	
Measures selected and monitored	• HEDIS; Patient Experience (through Interactive Customer Evaluation, Joint Outpatient Experience Survey and the Tricare Inpatient Satisfaction Survey); Leapfrog; ORYX measures (from the Joint Commission); NSQIP; JPSR system data; U.S. Centers for Medicare & Medicaid Services Hospital Compare; credentialing and privileging measures (e.g., number of providers in FPPE, monitoring and evaluation, and Impaired Healthcare Provider Program)
Regular inspections	• Service branch SGs, Joint Commission surveys, College of American Pathology (for laboratory) • The Air Force uses the Inspector General Evaluation Management System to monitor compliance with Air Force standards.
Reporting to patients	• Reporting to patients is most relevant for patient safety events. • Respondents described collecting metrics of patient experience and conducting MTF-specific meetings of patients and families to provide input on their care.
Reporting to providers	• Changes in MTF procedures are disseminated through various committees that report throughout the MTF. • Committees are often used as a way to report QA processes to leadership. • Individual providers involved in various QA components are notified through their clinical department chair and relevant members of MTF clinical quality leadership.
Challenges	• There was one report of difficulty monitoring HEDIS and other quality metrics not being reliable since onboarding of MHS GENESIS. • Acquiring data to calculate performance metrics can be challenging, especially obtaining documentation for care outside MTFs. • Frequent deployment or reassignment creates difficulties with assigning continuity of care metrics and can affect MTF performance ratings. • The volume of data can be overwhelming. • It can be difficult to interpret and react to the clinical quality data available.
Patient safety and incident review	
Regular meetings	• Meeting attendees provide updates, report trends, and monitor progress on mitigation strategies and potential performance improvement efforts (see the "Roles and Responsibilities" section later in this chapter).

Theme	Details
Potentially compensable events	• Certain categories are DoD-reportable events. • Sentinel events must be reported to DoD through the OASD(HA). • Reports bring DHA resources, including legal support, to help MTFs address events.
Provider engagement	• Providers involved in PSRs are informed and engaged through their clinical department. • If a person who submits a PSR identifies themselves in the report, they will be informed of the outcome of the process (e.g., what was changed as a result). • Regular "Good Catch" awards recognize staff for actions that prevent a potential patient safety event from reaching the patient.
Reports to patients	• Reports to patients occur through providers, patient advocates, and health care resolutions specialists. • Respondents widely noted that no-harm and near-miss events (i.e., events that do not reach the patient) are unlikely to be disclosed to patients. • Specific details of investigations (e.g., provider accountability) are not reported.
Measure tracking	• Measure tracking includes percentage of PSRs closed out within 30 days, number of overall PSRs reported over a period of time (e.g., monthly), ratio of near-miss to harm events, rate of anonymous reporting, overall trends in types of events being reported, compliance with DHA reporting requirements, and Leapfrog metrics. • Tracking is used for a variety of purposes, including anonymous reporting, sustained improving, and comparisons with other organizations.
JPSR trends	• When trends do not align with existing policies, it signals the need to revisit and update policies and procedures.
Challenges	• Timeliness of connection between data monitoring and decisionmaking is a challenge.
SOC review	
Meetings	• Risk management meets weekly with the CMO and other hospital leadership to review all pending SOC cases.
Provider engagement	• Providers undergoing SOC reviews are notified of the review by quality management leadership as well as MTF leadership, such as the MTF chief of the medical Staff or deputy director of quality and safety.
Sharing lessons learned from SOC reviews	• Lessons are shared, when relevant, at monthly ProStaff meetings and with Quality Committee meetings.
Risk management	
Tiered approach to tracking	• Risk managers across MTFs shared that they use Excel trackers to monitor progress and communicate within the MTF. • Systems such as CCQAS and CarePoint are used to document outcomes and investigations. • Formal systems allow risk management personnel to securely store and track events that cause harm to patients or raise other SOC concerns and identify trends.
Regular meetings	• MTF risk management staff hold regular meetings to review pending cases with quality management and risk management teams to update stakeholders and share information across departments.

Respondents shared perceived challenges to reporting and monitoring QA processes in MTFs. One challenge related to issues with monitoring HEDIS and other quality metrics with MHS GENESIS, and other challenges pertained to acquiring data needed to accurately calculate performance metrics. Respondents also described difficulties with continuity of care metrics due to frequent deployment and reassignment. Other reported challenges largely pertain to acquiring data needed to accurately calculate performance metrics, especially for care that occurs outside MTFs.

OCS Processes

Our findings from the internal assessment were largely consistent with findings from our interview respondents, particularly for OCS settings co-located on installations with an MTF. The farther afield from an MTF our OCS settings were, the less consistency there was with some QA processes, such as patient safety reporting and documentation. In addition, although OCS leaders' descriptions of processes were often consistent with findings from our internal assessment, frontline providers were sometimes unable to describe the entire process and limited their responses to the piece of the process for which they had visibility. For instance, they might have experience documenting an event in the OCS setting but might not be aware of what happened to that documentation afterward.

Settings Co-Located with an MTF

In OCS settings co-located on installations with an MTF, respondents reported that OCSs were limited to low-level behavioral health care, such as counseling, basic primary care (e.g., providing minor first aid a sick call), and athletic training or noninvasive physical therapy (e.g., injury prevention). Any care that might pose any greater risk should be taking place in the MTF clinic or hospital, and any resulting QA issues would then be reported through normal MTF channels, with MTF patient safety staff taking on the same roles and responsibilities described above. Respondents from several Army and Air Force OCS settings shared that this is part of the memorandum of understanding (MOU) and memorandum of agreement (MOA) agreements that their OCS settings have with MTFs. These memoranda are critical for determining privileges, credentials, and the scope of oversight between MTFs and OCS settings.

Leaders in co-located OCS settings also expressed concern that because the onus is on the operational command to notify the MTF that there is an OCS provider, there could be providers who have somehow been missed by MTF review bodies and could be operating without supervision. This Air Force MTF respondent on a base with several OCS settings reported the following:

> Where my worry is too is that's all I know about. We don't hire these individuals. We don't have command and control over these individuals. Commanders can hire whoever they have a budget and have an authorization for. They might hire somebody, and I don't know about them. And are they out there working without having verified credentials? That's where CMOs and the hospital side worries about OCS.

Non–Co-Located OCS Settings

In OCS settings not co-located with an MTF, QA processes were described as being much more variable, in part due to the variety of potential care provided, which can range from training exercises with low acuity sick call, routine primary care, and occasional urgent care to combat settings with severe trauma and mass casualty events. This heterogeneous care in a sometimes unstable (and even temporary) environment poses challenges to QA processes, as described by one Navy OCS respondent:

> Within all that, how do you determine quality? We don't have a board, don't have a review group. So many factors play into that even if we brought it back to the hospital type review, we don't have a group I can review that through who's going to understand all the nuances. I'm gonna spend all that time just explaining the situation.

Because the QA processes for OCS settings co-located on installations with an MTF essentially mirror the MTF process, we focus on processes for QA components at **non–co-located OCS settings** for the remainder of this section, unless explicitly stated. These may range from continental United States (CONUS) settings where OCS providers are largely providing primary and acute care services and have relatively easy access to MTFs or local hospital facilities for more serious issues to OCONUS deployed settings where OCS providers must cover a wide range of care, including trauma care, during extended exercises while set up in temporary field tents.

Roles and Responsibilities

In the section below, we describe important roles and responsibilities related to QA, patient safety, SOC, and risk management processes. Respondents told us that QA responsibility and oversight in most OCS settings (outside co-located sites) is handled dually by military command and OCS medical command. Respondents in all service branches shared that operational commanders' understanding of and interest in medical operations is variable and has a significant impact on QA. All service branches described this as a tension in providing care in OCS settings. Patient safety responsibilities fall under the same chain(s) of command as for overall QA processes, and the dual oversight caused lack of awareness among some providers.

Respondents noted the important role of local commanders related to SOC, although providers in non–co-located OCS settings reported inconsistent peer review processes. For risk management, several OCS respondents from various service branches noted that their service branch SG would ultimately be involved based on their chain of command, yet deployed command has ultimate decisionmaking authority over actions taken with providers. However, roles and responsibilities often fall to a provider's home station credentialing office or MTF. Table 3.11 summarizes the roles and responsibilities in OCS settings, as characterized by our interview respondents.

Table 3.11. Summary of Roles and Responsibilities in OCS Quality Assurance, Incident Review, and Standard of Care Processes

Theme	Details
QA	
Operational and medical command	• Dual oversight occurs through the military command structure unit with input and guidance from OCS medical command. • Across all service branches, the process begins with initial reporting to medical leadership in the local unit (for instance, the officer in charge, the senior medical officer, or a supervisor). • Operational commanders play a critical role in deciding how to prioritize medical operations versus other operational responsibilities. • Medical leadership in OCS settings can describe potential issues with QA and make recommendations, but final decisions regarding remediation and disposition of poorly performing providers are made by operational command, not medical command; operational command may not have training specific to medical decisionmaking. • Concerns about providers escalate through the medical chain of command first • Serious issues would be escalated to the operational command to whom the ultimate authority and decisionmaking falls.
Host nation care oversight	• OCS respondents in OCONUS locations also noted that when patients receive care in host nation hospitals and there are concerns about the quality of care provided, those concerns are reported to International SOS, an organization that oversees QA for host nation hospital care.
Challenges	• Many OCS settings are small with few medical providers, which may provide little oversight, mentorship, or guidance. • Dearth of oversight may particularly impact younger providers and can result in a lack of guidance for how operational and medical commands work together. • Lack of manpower in OCS settings can lead to vacancies in key roles that could support QA and inability to retain checks and balances in QA. • Having a chain of command on both the medical and operational sides creates confusion about oversight and responsibility, as well as lack of clarity about appropriate QA processes. • Several respondents across service branches noted that the transition of QA responsibilities in operational settings out of DHA's scope has created a dual system with significant variance, increasing risk. • Conflicting instructions can delay care, particularly for urgent situations, such as suicide.
Patient safety and incident review	
Operational and medical command	• Same as for QA, above • Medics, independent duty corpsmen, and independent duty medical technicians we interviewed were typically only aware of their own responsibility to report patient safety events to the next person in their chain of command, but they did not have visibility into what happens to those reports and how they are reviewed. • In contrast, respondents in OCS medical leadership positions were able to describe specific roles and meetings tasked with reviewing some aspects of patient safety in OCS settings.

Theme	Details
Committees and meetings	• Army: Surgeon Joint Task Force holds weekly meetings to review all trauma cases and ensure best practices. • Navy: Some OCS settings, particularly larger settings, have a Medical Executive Committee to support patient safety and QA activities.
Challenges	• In deployed settings with a very small number of providers and a lack of established processes, patients (service members) may lack effective avenues to advocate for themselves beyond speaking up directly. • Limited medical personnel can pose risks if the sole provider is not competent. Patients may fear rank intimidation that could result in suppressing reports.
SOC review	
Local commanders	• Local commanders ensure that providers are properly trained and that their documentation is up to date, particularly prior to deployment. • Local commanders help maintain regular peer review, which feeds into SOC.
Challenges	• Respondents at non–co-located OCS settings reported that peer review can be irregular and inconsistent, if it happened at all. • Limited personnel on site can constrict the ability to identify peer reviewers.
Risk Management	
SG of the service	• The SG has authority for such decisions as NPDB reporting.
Challenges	• OCS settings lack many of the risk management office organizations that MTFs have. The Air Force and Army may rely on providers' service or home station for issues related to SOC or adverse events. The Navy would rely on relevant upper-echelon medical commands to support.

Applicability of These Processes

Respondents across all service branches agreed that providers are primarily responsible for upholding QA, patient safety, SOC, and risk management processes (Table 3.12). That said, OCS settings, particularly those not connected to an MTF, pose difficult situations in terms of practicing in harsh environments, staffing challenges that limit what roles are filled locally, and issues with dual oversight. Table 3.12 summarizes to whom the QA, patient safety, SOC, and risk management processes apply.

Table 3.12. Summary of the Applicability of Quality Assurance, Patient Safety, Standard of Care, and Risk Management Processes in OCS Settings

Theme	Details
QA	
Providers	• At the most fundamental level, all OCS providers are responsible for ensuring that they adhere to QA processes.
Challenges	• Respondents consistently reported confusion about where responsibility lies for overseeing QA in OCS settings. • It is very difficult to provide care and monitor quality in adverse environments.
Patient safety and incident review	
Providers	• OCS respondents consistently reported that patient safety events should be monitored and reported by anyone who observes one. • Teamwork and the collaborative nature of OCS settings, which are often small sites with limited staff working in close quarters to one another, help encourage people to speak up if they see something.
Challenge	• OCS providers typically do not have the capacity to take on additional responsibilities, particularly in austere settings.
SOC review	
Providers	• Providers are responsible for upholding the SOC required for their position and role. • Upholding SOC includes participating in important unit trainings and reviews.
Challenge	• Dual oversight means that requests from medical leadership in some OCS settings are not deemed as important as requests from operational command.
Risk management	
Providers	• Providers are responsible for following local policies and procedures for SOC.
Challenge	• OCS settings often lack local risk management personnel. The Army and Air Force often rely on MTFs for oversight of SOC and risk management reviews. The Navy relies on relevant upper-echelon-level commands for these activities.

Quality Assurance Processes

There are few formalized processes for QA in OCS settings, in part because of substantial challenges in maintaining a formal framework in a smaller setting but also because OCS settings in some ways obviate the need for such processes. Table 3.13 summarizes QA processes in OCS settings. There is significant variation in capabilities and processes across OCS settings. Some are brick-and-mortar facilities with established protocols and processes, while others are temporary field tents with dirt floors that are set up for a few weeks and thus lack tried-and-true procedures and require tailored, flexible approaches.

Respondents consistently described factors that can facilitate QA in OCS settings, such as generally healthy populations and immediate availability of care, as well as challenges attributable to

staffing issues and complexities of working in more challenging environments. Table 3.13 summarizes the QA processes used in OCS settings.

Table 3.13. Summary of Quality Assurance Processes in OCS Settings

Theme	Details	Additional Context
Staff training, collaboration, and traditional QA processes	• Some components exist but are necessarily less formalized.	• There are substantial challenges to implementing systematic and rigorous QA. • Sustainment of clinical skills is a challenge, particularly in deployment.
Patient care capabilities and processes	• Patient care processes in deployed environments differ significantly from those in garrison. • Patients are lower acuity, patient volume is inconsistent (though mostly low), and there is a relatively small number of providers.	• There is greater uncertainty and fewer equipment, personnel, and facilities than at MTFs. • Replicating MTF QA structures would likely be overkill in a setting where the scope and acuity of services is generally limited.
Reviews and verification	• Inspections and reviews of medical teams occur before they are cleared to deploy. • Many existing reviews are single-point-in-time appraisals; reviews are viewed by some as placing little attention on sustainment of skills over time.	• Reviews include verification of trauma certifications, such as Advanced Trauma Life Support and Tactical Combat Casualty Care. • Army: Uses Team Validation checks and Individual Critical Task Lists • Navy: Uses Mission Essential Task Lists • Air Force: Uses the Comprehensive Medical Readiness Program
Advantages	• Service members are screened before deployment. • OCS providers develop strong relationships with service members. • There is high availability of providers, clinic, and assets.	• Only the healthiest populations are deployed. • Strong relationships enhance quality of care. • Clinics are open and nearby for service members to visit; assets such as blood are readily available.
Challenges	• Spaces are small and limited . • Staffing is a challenge. • Some checklist (verification) tasks are vague. • Working across governments and military agencies (OCONUS) has complexities. • Medical planners may not have necessary medical expertise.	• There is limited privacy for patient care. • There is limited bandwidth and capacity to maintain important training. • Some checklists lack the specificity required to understand how to meet requirements or improve on any identified deficiencies • Foreign hospitals may not have expected quality of care or equipment (OCONUS).

Patient Safety Processes

Outside of co-located OCS settings, OCS respondents consistently shared that they do not have a formalized way to report patient safety events. Those events tend to be infrequent, but conditions in operational settings, such as limited communication and staffing, can decrease capabilities to conduct

patient safety review processes. Most OCS respondents shared that they had not experienced the need to report a patient safety event beyond their local provider group, and they said that most issues were handled collaboratively on site. Table 3.14 summarizes patient safety and incident review processes used in OCS settings.

Table 3.14. Summary of Patient Safety and Incident Review Processes in OCS Settings

Theme	Details	Additional Context
Reporting events	• All respondents told us that patient safety events should be reported up the chain of command. • Patient safety events in such settings are infrequent due to low volumes of care.	• Minor incidents, such as near-miss or no-harm events, are typically addressed locally among the providers without being elevated. • Major incidents are more likely to be reported, but reporting typically happens informally via emails through the command structure.
Investigations	• Active-duty deaths or sentinel events are reported to DHA as required.	• Active-duty deaths or sentinel events involve a thorough investigation, including a root cause analysis, but lower-severity harm may involve less-formal analysis.
Reporting systemic issues	• Issues can be raised through the chain of command. • Serious concerns with individual providers' SOC could be raised with the provider's privileging authority.	• Depending on the severity and level of priority determined by command leadership, corrective action may be taken, such as additional training or education for all staff or specific staff or changes in policies, equipment, or facilities.
Challenges	• Reporting is often delayed due to communications conditions in operational settings. • Some operational risks cannot be fully mitigated, such as emergent situations. • Avenues for reporting at MTFs may not exist at OCS settings. • Lessons learned from prior combat situations may not have been carried forward.	• Reporting delays can affect accuracy of details. • In the Navy, an analogue to the JPSR system is in development but may face limitations in the field. • Training exercises are often perceived as low risk.

Standard of Care Processes

OCS respondents typically shared that establishing SOC is done using the same approaches as in MTFs, including ensuring credentials and privileges, training on skills needed for the setting, and guidance and policy from service branch medical leadership: the Navy Bureau of Medicine and Surgery, U.S. Army Medical Command, and Air Force Medical Command. However, some respondents shared that sometimes the guidance can be vague, making it difficult to assess SOC and, more importantly, difficult to improve without a specific target. Respondents repeatedly stressed that many OCS settings are in austere environments with substantial resources and personnel constraints.

Investigations would be limited, and dual oversight means that removal of providers who do not meet SOC would happen only through operational command. Table 3.15 summarizes SOC review processes in OCS settings.

Table 3.15. Summary of Standard of Care Review Processes in OCS Settings

Theme	Details	Additional Context
Establishing SOC	• The same approaches as for MTFs are used. • Guidance is provided by service branch leadership.	• Some guidance can be too vague to be actionable.
Variability	• SOC is highly dependent on provider training and education as well as the context in which care is delivered, including the facilities and equipment available.	• It can be difficult for someone not in the OCS setting to understand what was and was not appropriate given the circumstances.
Elevating concerns	• Concerns can be elevated up the chain of command, and any reviews would focus on whether individuals acted within scope for their credentialing and privileging level and whether appropriate care was rendered. • Only major issues are likely to be discussed; minor issues, near-miss events, and no-harm events are unlikely to be reported, even informally.	• Concerns typically go through medical departmental leadership first—for instance, a concern with a physician assistant would go through the lead physician assistant and be escalated through to the division physician assistant. • Concerns are escalated to the commander only when the infraction is particularly severe or egregious.
Investigations and oversight	• OCS settings do not generally have the personnel and leadership roles necessary to carry out SOC investigation functions. • Army and Air Force operational medical commands do not have direct oversight (including hiring and firing oversight) for personnel in OCS settings. • Medical personnel in Navy OCS settings are overseen by their respective upper-echelon medical commands.	• Providers not meeting SOC may be removed from patient care duties, although respondents also shared that this would likely be in partnership with MTFs as well as with operational command.
Challenges	• It is difficult to train for an environment in which the SOC conditions may be different than at an MTF.	• When a medical incident occurs during training exercises near an MTF where care that meets SOC could be delivered, medical providers might not have practiced skills needed for that environment.

Risk Management Processes

Respondents in OCS settings often shared that risk management processes are intertwined with command structures and credentialing authorities for OCS providers and with providers' home station. Army and Air Force respondents emphasized that OCS settings often lack dedicated risk management personnel and formal risk management capabilities and thus rely on local MTFs, member home stations, and service-level processes for risk management. When an adverse event or potentially compensable event occurs at in an OCS setting, it is typically assessed by the command surgeon, and if a case meets risk management criteria, it is reported to the provider's credentialing authority at the provider's home station MTF. The role of OCS settings in these cases is to provide preliminary reviews and focus on gathering supporting documentation. The MTF's risk management office then formally reviews the case, conducts a SOC review, and recommends an outcome.

For Navy OCS settings, risk management is managed by their respective upper echelon commands. In the case of a SOC review, the SG makes the final SOC determination for PCEs and any applicable payment reporting requirement.

Documentation Systems

Below, we describe how QA, patient safety, SOC, and risk management processes are documented.

Quality Assurance

Respondents described important tools used to support documentation of QA in OCS settings.

Tools to Support QA in OCS Settings

- **After Action Reports.** Conducted following an exercise or training expedition with a goal of evaluating and improving processes. Respondents shared that this is the most frequent way that a patient safety event or SOC issue in the field could be reported to command.
- **Process improvement approaches (e.g., Lean, Six Sigma, Plan-Do-Check-Act cycle).** Often include tools to support systematic monitoring, documentation, and measurement of process change
- **Medical Operational Data System.** Used for tracking Army medic training
- **Independent Duty Corpsmen Reporting System.** Used to track independent duty corpsmen chart reviews
- **Competency Assessment Files.** Contain providers' credentials and privileges; stored locally
- **Joint Trauma System.** Used to document all trauma cases in deployment settings. These cases are reviewed by the treating team and shared via weekly updates.
- **Commander's Critical Information Requirements.** Documents casualties or fatalities
- **Disease Nonbattle Injury Tracking.** Used to monitor injury patterns and trends at the battalion level. These reports are shared to help prepare for future missions.
- **MyBids.** Used for tracking contractor performance reviews
- **Defense Medical Human Resources System Internet.** Has a Utilization app that tracks productivity of some OCS contracted providers (who was seen, how much time spent, for what purpose)

Systems to document QA, patient safety, SOC, and risk management tend to be more informal in OCS settings than at MTFs. Across all these processes, our respondents reported technological challenges on an ongoing basis that may reinforce paper charting, reporting delays, and local storage of files. Documentation of SOC in OCS settings was generally described as ensuring that training, review, and validations relevant to the mission are completed. Respondents shared different systems used to document training across service branches and for some provider types. Table 3.16 summarizes documentation systems used by OCS settings for QA, patient safety, SOC, and risk management.

Table 3.16. Examples of Systems for Documentation of QA Activities in OCS Settings

Theme	Details
QA	
Tools	• After Action Reports, Medical Operational Data System, Independent Duty Corpsman Reporting System, Competency Assessment Files, Joint Trauma System, Commander's Critical Information Requirements, Disease Nonbattle Injury Tracking, MyBids, Defense Medical Human Resources Internet
Paper charting	• Paper was the most common documentation method, particularly in tents, ships, and any areas with inconsistent or nonexistent internet. • Some respondents believed that paper notes would be uploaded to MHS GENESIS after deployment but were not sure who was responsible for doing that.
Variability	• There is no mandate or checklist to ensure that documentation (paper or electronic) is consistently completed and uploaded to MHS GENESIS or any other central repository.
Challenges	• There is an inability to access internet and document in MHS GENESIS. • HALO access can be difficult.
Patient safety and incident review	
Reporting	• JPSR: It is possible to also enter a patient safety event into the JPSR system upon returning from the field. • Several respondents reported being told that MTFs might reject field-side patient safety incidents because those incidents are unrelated to clinics. • Navy: The Active Duty Tracking tool online could be used for patient safety reporting in the field, but none of our respondents had used it to report patient safety events, and they were unsure whether events reported in this tool would be incorporated into the JPSR system. • Army respondents shared their understanding that efforts are underway to develop a reporting system for operational settings, but it is still in development.
Informal channels	• OCS providers generally reported a lack of official or formal patient safety reporting channels. • Providers tend to communicate directly, either face to face or via email and phone calls, about deficiencies and take remedial action locally; this is often enabled by the small size of many OCS provider groups.

Theme	Details
After Action Report	• After Action Reports were consistently reported across service branches as one of the only ways to formally report patient safety events in many OCS settings. • Reviews are not uniform across units, and formal investigations are commander dependent. • After Action Reports were generally submitted following an exercise or expedition, which can leave a gap of weeks or even months between patient safety events and their reporting and pose challenges for reviewing and investigation.
Challenges	• There is limited ability to access GENESIS and the JPSR system from computers in OCS settings. • Respondents in many OCS settings, across service branches, noted a need for better documentation systems in field settings for both patient health records and PSRs.
SOC review	
Different systems across service branches	• Army: Digital Training Management System • Marine Corps: Marine Corps Training and Information Management System • Air Force: Medical Readiness Decision Support System • Training for non-privileged providers, such as Army medics and Naval independent duty corpsmen, is maintained is separate systems.
Competency Assessment Files	• Files for each provider are stored in shared drives (e.g., CarePoint, SharePoint) at the unit level for field hospitals. • Files include credentialing files and professional attributes because OCS settings cannot access CCQAS.
Challenges	• There is limited access to GENESIS and internet.
Risk management	
Informal	• Several documentation systems and processes are used at the OCS level, but formal risk management documentation and review is primarily handled by the MTF.

Reporting and Monitoring

Although OCS respondents consistently described a general lack of set processes to monitor QA, they emphasized the collegiality and teamwork among OCS providers as a form of QA. In the section below, we describe how QA, patient safety, SOC, and risk management processes are reported and monitored. Table 3.17 summarizes reporting and monitoring systems in OCS settings.

Table 3.17. Summary of Reporting and Monitoring Systems in OCS Settings

Theme	Details
QA	
Processes to monitor	• There is a general lack of set processes to monitor QA. Respondents largely emphasized the collegiality and teamwork among OCS providers as a form of QA.
Regular meetings	• Meeting attendees review findings from the Joint Trauma System, and any resulting patient safety issues would be reported through the chain of command. • Navy respondents from one OCS setting described monthly multidisciplinary meetings with all commands within their echelon where patient safety events could be discussed.
Metrics	• Providers in several OCS settings co-located with MTFs noted that they were tracking a version of a metric detailing how much time OCS had saved service members by getting them to the right care faster. • Medical commands have not prioritized clinical quality metrics in the operational environment because of the challenges of understanding what the outcomes of measurement should be when care is so variable and unpredictable.
Challenges	• Technological limitations complicate documentation processes. • Monitoring quality is also difficult when care is sporadic. • Metrics can be affected by patient volumes.
Patient safety	
Processes to monitor	• There is a general lack of set processes to report or monitor patient safety. • Most respondents described relying on informal discussions and, if needed, elevating up the chain of command.
Reporting to patients	• Adverse events would be disclosed directly to patients at the time that they occur. • In severe events, patients may be immediately evacuated, or they may be unconscious, in which case immediate disclosure would not be possible. • According to a wide range of respondents, there is no formal process for disclosure to patients.
Reporting by patients	• Respondents reported that patients could provide input into patient safety investigations but also noted that this is not typical. • There is no patient advocacy infrastructure in OCS settings (e.g., no patient advocate or health care resolutions specialist) outside of those co-located on an installation with an MTF. • Respondents were wary of introducing such roles to OCS settings, citing concerns for advocates' safety and uncertainty about how they would be integrated.
Challenges	• The pace of operational settings often limits opportunities for patient concerns to be addressed or resolved. • Operational forces are typically small and lack bandwidth to effectively and efficiently handle the systematic processes that MTFs use for patient safety reporting and monitoring.
SOC	
Processes to monitor	• Respondents generally reported a lack of set processes for conducting SOC reviews in OCS settings. • Although training and fulfillment of critical skills certification can be monitored, this is a component of SOC but is not a method of monitoring SOC reviews.

Similarities and Differences Across MTFs and OCS Settings

In considering QA processes in OCS settings, one important dividing line among respondents was whether the OCS setting was co-located on an installation with an MTF—many respondents referred to this as being "in the shadow of" the MTF—or whether the OCS setting was a stand-alone location, often in a deployed setting. In co-located OCS settings, the scope of OCS providers' care was much more circumscribed. Respondents in several co-located OCS settings described their care being limited to providing advice, athletic training, and basic first aid. Any care that required greater intervention—"breaking skin" or, for mental or behavioral health care, therapeutic sessions—was required to take place in the MTF clinics or hospital. There were also differences in co-located OCS settings between service branches. For the Air Force and Army, many of the CQM functions for OCS settings co-located on an installation with an MTF were being managed by MTF staff. In contrast, for Navy OCS settings co-located on an installation with an MTF, CQM functions were typically retained by their respective upper-echelon commands.

Care in other OCS settings could be highly variable, dependent on a constantly changing context and environment. OCS respondents widely commented that in OCS settings, the medical oversight that exists in MTFs settings, beginning with the MTF director and MTF chief of the medical staff and trickling down through clinical departments to individual providers, is not the primary authority in OCS settings. Rather, operational commands are the ultimate authority in charge in OCS settings, but most do not have medical expertise. Although a medical leadership structure exists with operational settings, they are largely advisory and do not have the authority to enforce or require any actions. This can make an important difference in carrying out QA processes, as described above. Additionally, access to important medical documentation systems, such as CCQAS and MHS GENESIS, is not possible in most OCS settings, making timely documentation and later peer review challenging.

Finally, respondents from Army and Air Force discussed the importance of the MOA or MOU that structures the relationship between the MTF and the OCS setting. Typically, the MTF agrees to provide credentialing and privileging and oversight to OCS providers, and the OCS providers agree to certain guardrails on the care they provide. It is unclear whether these are service branch–level MOUs/MOAs or MOUs/MOAs between individual MTFs and individual OCS settings. Our team requested service-level MOU/MOA documentation or descriptions but as of this writing (fall 2025) had not yet received those documents.

Chapter 4

Provider Accountability

In this chapter, we provide an assessment of "the accountability processes under [the direct care component of TRICARE] for health care providers who are found to have not met a required [SOC]" (U.S. House of Representatives, 2022b). We present synthesized findings from the OASD(HA), DHA, and SGs' internal assessments and then describe findings from qualitative interviews. Appendix E supplements this chapter with additional details on context, impacts, and challenges.

Key Findings: Provider Accountability

- Provider accountability at MTFs is a progressive process emphasizing remediation through counseling and FPPEs before escalating to adverse actions, such as privilege suspension or revocation. OCS settings follow a similar approach but face documentation challenges because of environmental and administrative constraints.
- Accountability is the responsibility of peers, supervisors, risk management, and credentialing committees, with privileging authorities having ultimate decisionmaking power. OCS settings often rely on MTFs or higher command levels because of limited internal capabilities.
- Systems such as CCQAS and shared drives such as CarePoint and SharePoint are critical for accountability, but challenges exist in accurately documenting the care provided, particularly by non-privileged providers, and sharing adverse actions across MTFs when appropriate. Less-serious remediation efforts, such as education and training, may also not be adequately tracked.

Background

As described in Chapter 3, an SOC review is typically done through the functions of risk management and may arise during the course of ongoing peer reviews of clinical encounters or in response to serious patient safety events. For providers found to have not met the SOC, accountability actions may include education and training, periods of supervised practice, or such adverse actions as loss of privileges or removal from clinical care.

Internal Assessment

We found that OASD(HA)'s and DHA's internal assessments related to provider accountability were aligned, with OASD(HA) reported being responsible for CQM programs including "actions/reporting as appropriate" when providers are to be held accountable. OASD(HA) also noted that DHA "maintains the responsibility to develop procedures to satisfy and implement CQM program requirements." Table 4.1 summarizes the internal assessment responses.

Table 4.1. Summary of Responses from Internal Assessment on Provider Accountability Across MTFs and OCS Settings

Site Type	Theme	Stakeholder Responses
MTF	Responsibility and procedures	• DHA: Requires the review of actions performed by significantly involved providers in adverse medical events. Considers results of both DHA and external SOC review and, as the reporting authority, decides whether to report providers to the NPDB. The director also reports to state licensure boards and other agencies for clinical adverse actions as needed. If choosing not to report, the director must document reasons for that decision.
	Learning health system	• DHA: Cites its Health Care Risk Management Working Group, which shares lessons learned from adverse events and applies risk reduction strategies
OCS	Responsibility and procedures	• OASD(HA): Service SGs retain responsibility in operational environment for CQM. • Services: Point to DoDI 6025.13 and/or DHA-PM 6025.13 as authoritative documents, in which the reporting authority for OCS settings should be the SG of the Army, Navy, or Air Force • Army: Reports sharing risk management data with other services, DHA, and ASD(HA) through the MHS Health Care Risk Management Working Group
	Learning health system	• Army: The MHS Health Care Risk Management Working Group shares risk management data.

SOURCE: Features information from DHA-PM 6025.13, 2019b.

MTF Processes

Provider accountability at MTFs across service branches reflects a commitment to maintaining high standards of care while offering providers structured opportunities for remediation. Each branch reported a progressive, tiered process that emphasizes remediation before punitive measures, safeguarding due process for providers. Although the specifics of accountability vary slightly by service branch, common themes emerge.

Roles and Responsibilities

Respondents described accountability as shared among a variety of stakeholders, ranging from peers and supervisors on a more regular, proactive basis to risk management, credentialing and privileging authorities, and higher-level leadership for more serious cases that involve adverse actions. Table 4.2 details the individuals and departments involved across the provider accountability process, as described by study respondents.

Table 4.2. Summary of Roles and Responsibilities in MTF Provider Accountability Processes

Theme	Details
Peers and supervisors	• Respondents shared that accountability relies "heavily on peer review" and that "peers play an important role." • Through peer reviews, supervisors and department heads may be first to identify care deficiencies. • Supervisors work directly with providers to help improve their care and are responsible for verbal and written counseling, overseeing peer reviews, ensuring appropriate training, and monitoring corrective action. • The department head may be assigned as a provider's mentor for an FPPE. If deficiencies are not corrected, the department head can escalate issues through risk management and credentialing.
Risk management	• Risk management is involved by identifying a potentially compensable event and conducting an SOC review. If SOC is found to not be met, then risk management can recommend that the case be referred to credentialing for adverse action, such as through a QA investigation.
Credentialing committee	• Credentialing committees (and the Navy Medical Executive Committee) play a key role in adverse action, receiving cases from risk management reviews; referrals from a department head or higher-level leadership; and their own oversight of peer reviews, OPPEs, and FPPEs. The Navy credentialing committee may also refer cases to the Medical Executive Committee. • Committees review evidence and vote to recommend action, often recommending a FPPE with a monitoring and evaluation plan. • To take adverse privileging action, the committee would recommend a QA investigation, which the credentialing and privileging department would execute.
Impaired Healthcare Provider Program	• This program enables providers to receive support and rehabilitation when a health condition might negatively affect their clinical performance. • The Impaired Healthcare Provider Program committee is responsible for making recommendations to the privileging authority who makes final decisions. • Navy respondents reported that a Human Factors Council reviews these cases.
Privileging authority	• Respondents reported that the privileging authority has ultimate decisionmaking power when it comes to adverse privileging actions, is provided recommendations from the credentialing committee and/or the results of the QA investigation, and has final approval. • The authority is also notified of any potentially compensable event, Impaired Healthcare Provider Program cases, and any other serious patient safety events.
DHA	• DHA provides overarching guidance related to accountability, with one respondent noting that their "bible" is the DHA-PM whenever there is an incident. • DHA is made aware of adverse actions via documentation uploaded to shared drives (e.g., CarePoint). • The Navy reported sharing with DHA a list of providers on a monitoring and evaluation plan on a monthly basis. • DHA is ultimately responsible for reporting to the NPDB.

Applicability of These Processes

Respondents shared that provider accountability applies differently depending on the provider's status, as in whether they are privileged or non-privileged, military or civilian, or contractors. Table 4.3 displays these different requirements based on provider type.

Table 4.3. Summary of Provider Accountability Requirements by Provider Type

Provider Type	Requirement
Privileged providers (e.g., physicians, physician assistants, nurse practitioners, pharmacists, and physical therapists)	• Privileged providers undergo more rigorous oversight, including OPPEs and FPPEs.
Non-privileged providers (e.g., nurses and medics)	• Non-privileged providers are subject to less-formal accountability measures, with one Army respondent reporting "less visibility" on these providers. • Summary suspensions may still apply.
Active-duty providers	• Adverse actions would go through the disciplinary review board, with the chain of command playing an important role.
Civilian providers	• Adverse actions would involve the labor union.
Contractor providers	• Adverse actions would involve contracting companies.

Accountability Processes

All branches reported using proactive tools, such as peer reviews, OPPEs, and FPPEs, to hold providers accountable before issues escalate. These measures are designed to provide oversight and corrective action in a structured manner. This process can lead to remediation, such as provider education and training, while adverse actions, such as privilege suspension or revocation, were reported to be reserved for severe incidents, including negligence, repeated patterns of poor behavior, or failure to meet the SOC. In such cases, taking adverse action would entail a QA investigation, as detailed in Table 4.4. A separate process, also displayed in Table 4.4, involves the Impaired Healthcare Provider Program, which respondents described as a proactive, non-punitive program that provides support and rehabilitation to providers who have a health condition, behavioral health disorder, or personal circumstances that may negatively impact patient safety.

Table 4.4. Summary of MTF Provider Accountability Processes

Theme	Details
QA investigation	• The investigation has a strict 30-day timeline per DHA-PM 6025.13. • During the investigation, there is a summary suspension of a provider's privileges. • The investigation includes comprehensive review of patient care records by an investigative officer who is an external peer reviewer. • The investigation includes a statement from the provider under review (if they chose to submit one) and statements from relevant leaders or witnesses. • Results can lead to corrective actions, such as training or supervision plans, or more severe outcomes, such as privilege revocation, dismissal, and reporting to DHA or NPDB. • The provider can reportedly accept the terms or request a hearing to contest the terms.
Impaired Healthcare Provider Program	• The provider's clinical practice may be adjusted to support rehabilitation and protect patient safety. • In serious cases, providers may be put on probation with a suspension of privileges. • Following rehabilitation, providers could return to full scope of practice.

Documentation Systems

The documentation of provider accountability across military service branches is a critical component of ensuring transparency and continuity. Each branch reported specific systems and processes to record evaluations, peer reviews, and adverse actions, as displayed in Table 4.5.

Table 4.5. Summary of Documentation Systems Used by MTFs

Theme	Details
CCQAS (and, for Navy, the Bridge)	• Performance reviews, peer reviews, OPPEs, and FPPEs are recorded. • Details of adverse actions are not recorded by MTF staff, but final determinations are recorded. • Recorded items can be viewed by any MTF, including future MTFs at which a provider may work.
Shared drives (e.g., CarePoint, SharePoint)	• Adverse actions are uploaded for DHA visibility.

Respondents described challenges with documentation to other MTFs who may not receive information on an incoming provider. Any MTF can access CCQAS and thus access providers' peer reviews and SOC issues, but they may not be aware of adverse actions, particularly if they are currently under review. Respondents described informally contacting other MTFs to notify them about a provider under investigation.

Documentation was described as critical for taking adverse actions, and inadequate documentation could lead to an inability to suspend a provider. This was described as a challenge for non-privileged

nurses in particular. One Army respondent reported that restricting nurses' care can be challenging because of the lack of documentation on the care they provide:

> Nurses that are non-privileged, where we always fall short is documenting it. Then it's gotten this far and when we want to do the suspension, and we're looking at peer reviews and people were having issues, and it just goes on. You can't do [adverse privileging] if you haven't properly documented it. And more often than not we're shot in the foot.

Inadequate documentation could also lead to challenges with claims that may be filed against an MTF or MHS. One Army respondent said that "given people [have permanent change of station moves] so often, it's hard to get providers to come back and give their notes, especially if it's five or six years down the road, and then we lose those lawsuits."

Monitoring

Monitoring of provider accountability involves leadership oversight, open communication, and trend analysis to ensure that providers meet performance standards and address deficiencies. Respondents reported auditing clinical records and peer reviews to track specific provider progress and looked to such trends as fewer repeated mistakes, improved clinical hours, and enhanced skills as indicators of success.

However, there were no universal metrics to measure the effectiveness of accountability processes, and there were some challenges to identifying metrics. In some cases, respondents said that reduced PSRs were a measure of success as because this would indicate fewer patient safety events, while others shared that more PSRs revealed a positive change and increased willingness to share problems.

Processes in OCS Settings

OCS settings often lack the internal capabilities to manage provider accountability. Air Force and Army OCS settings rely on MTFs and command-level oversight to conduct necessary reviews and make adverse action decisions. In contrast, Navy OCS settings rely on their respective upper-echelon-level commands to carry out provider accountability functions.

Roles and Responsibilities

Entities responsible for accountability within OCS settings include their leadership and privileging authorities, but these are often within an MTF instead. These roles are displayed in Table 4.6.

Table 4.6. Summary of Roles and Responsibilities for Provider Accountability Processes in OCS Settings

Theme	Details
MTF	• Providers, including Navy providers, may conduct most of their care with an MTF, in which case their peer reviews would mostly occur within an MTF as well. • If issues arise, the MTF may be notified to conduct any necessary peer reviews.
Privileging authority	• The privileging authority generally has decisionmaking power when it comes to adverse privileging actions (as with MTF accountability). • Most often, the MTF serves as the privileging authority for OCS providers. • DHA, SGs, and, in the case of the Navy, a Type Command could be involved in privileging decisions.
Command and Medical Enterprise	• The Army shared that accountability issues are reported to a medical brigade and brigade surgeon or command surgeon, with results reported to the SG. • The Navy shared that Fleet Forces Medical Command reportedly handled adverse actions, and the Bureau of Medicine and Surgery was involved in cases with legal action. • The Air Force described how accountability could take place with medical group leadership to hear patient complaints, with the MTF then getting involved.

Applicability of These Processes

Similar to our findings for MTFs, adverse actions apply differently depending on the provider's status, as in whether they are privileged or non-privileged or contractors (see Table 4.3). Additionally, non-privileged Navy independent duty corpsmen were reported to have quarterly performance reviews. Deficiencies in their care may be handled through counseling by their relevant medical command.

Accountability Processes

OCS settings generally hold providers accountable by escalating issues to higher-level entities, because they lack the internal capabilities for handling adverse privileging or credentialing actions. Respondents shared that the MTF process would apply to privileged providers within OCS settings. One respondent noted that DHA-PM also applies to operational settings.

Similar to our MTF findings, provider accountability is a progressive process, beginning with peer reviews and direct counseling before escalating to more serious actions. Like at MTFs, providers within OCS settings could undergo a QA investigation, could be placed on a FPPE with monitoring and evaluation, or could be removed from clinical practice with reporting to the NPDB.

Documentation Systems

Because OCS settings have less formal provider accountability processes than MTFs, these processes are documented less comprehensively, and documentation is often limited by environmental and administrative constraints inherent to many OCS settings. Respondents discussed general

challenges with documenting care, particularly in deployed environments where providers may have to document care on paper that may not end up being entered into an electronic health record system. As one OCONUS Navy respondent shared:

> We're supposed to have access to AHLTA and put all this stuff in AHLTA, but in reality, we don't. We have one or two computers that an [officer in charge] or [assistant officer in charge] gets to run the whole show. So, you might document on a piece of paper, but that piece of paper is going to get lost by the time we get back to America.

Because care documentation and oversight in operational settings can be limited, patient safety incidents or other incidents that are not severe may not be identified as easily as they are in MTFs. Another OCONUS Navy respondent explained:

> Each battalion's got one or two physicians or physician assistants. They're not necessarily able to supervise the care that goes on. Care in this point in time is poorly documented. If for some reason anything were to happen, let's just say that it doesn't rise to the level of a [potentially compensable event] or significant morbidity/mortality type of thing, as long as it didn't happen, there's no way to necessarily provide any kind of peer review type of scenario.

Similarities and Differences Across MTFs and OCS Settings

MTFs and OCS settings differ in their approach to provider accountability due to their unique environments and administrative capacities. OCS settings, with the exception of Navy OCS settings, often lack the internal capabilities to manage provider accountability independently, relying on MTFs to conduct peer reviews, FPPEs, and adverse privileging actions or reporting issues up the chain of command for higher-level leadership to determine a response. Documentation and oversight of OCS care can be less formal than MTFs given environmental and administrative challenges, particularly in deployed settings where incidents may be less easily identified due to reliance on paper-based records.

MTFs, on the other hand, benefit from more consistent and widespread access to such documentation systems as CCQAS and shared drives (e.g., CarePoint), allowing for tracking of provider performance and adverse actions. MTFs can also leverage risk management teams, credentialing committees, and privileging authorities to ensure provider accountability.

Both MTFs and OCS settings reported a progressive process to provider accountability, emphasizing remediation (such as education and counseling) and only escalating to adverse actions (such as privilege suspension or revocation) when there are repeated patterns of poor behavior or serious violations of scope of practice. Across settings, accountability efforts aimed to ensure due process for providers while maintaining high standards of care.

Chapter 5

Clinical Quality Metric Transparency

In this chapter, we provide an assessment of "the transparency activities carried out under [the direct care component of TRICARE], including an assessment of the publication of clinical quality metrics (at the level of military medical treatment facilities and other operational medical units of the Department of Defense), and a comparison with similar metrics for non-Department health care entities" (U.S. House of Representatives, 2022b). We present synthesized findings from the OASD(HA), DHA, and SGs' internal assessments and then describe findings from qualitative interviews. Appendix F supplements this chapter with additional details on context, impacts, and challenges.

Key Findings: Clinical Quality Metric Transparency

- MTFs consistently measure, report, and monitor clinical quality and patient safety metrics. Although MTF leadership fosters strong transparency of these metrics among clinicians and staff, the level of transparency provided to patients and the general public is notably less consistent and comprehensive.
- There was inconsistent awareness around the level of transparency provided to patients and the general public. This may partly stem from DHA's centralized role in those processes, compounded by confusion surrounding the transition to DHA oversight.
- OCS settings consistently reported a lack of measurement, reporting, and monitoring of clinical quality and patient safety metrics. This is primarily due to the short-term nature of operational events, limited resources, and concerns with electronic health records in terms of accuracy and completeness.
- OCS respondents often focused on metrics that impact their ability to complete missions, such as readiness or other operational metrics, as opposed to those focused on clinical quality.

Background

Clinical quality metrics are important tools for measuring, tracking, and monitoring trends in health care. They provide insight into the quality of care being provided and areas in need of improvement (Centers for Medicare & Medicaid Services Electronic Health Record Incentive Programs, 2011). Making these metrics transparent helps individuals understand health care quality, potentially guiding their decisions about where to seek care. Moreover, transparency of quality metrics is believed to be one component of developing a culture of safety (Fukami, 2024).

Internal Assessment

Consistent with other processes we examined, OASD(HA)'s and DHA's internal assessments were aligned around clinical quality metric transparency, with OASD(HA) reporting responsibility

for the "oversight of the implementation of the CQM issuance" and OASD(HA) also noting that DHA serves as the "implementing entity for CQM programs" with "responsibility to develop procedures to satisfy and implement CQM program requirements." Table 5.1 summarizes the internal assessment responses.

Table 5.1. Summary of Responses from Internal Assessment on Clinical Quality Metric Transparency Efforts Across MTFs and OCS Settings

Site Type	Theme	Stakeholder Responses
MTF	Responsibility and procedures	• DHA: Maintains internal dashboards and external data portals; also engages in regularly recurring assessments and comparisons with non-DoD activities
	Learning health system	• DHA: Tracks metrics and reviews them regularly at the network and MTF levels to identify outliers, best practices, and improvement efforts (e.g., monthly meetings of NSQIP Steering Panel and Clinical Measurement Working Group; quarterly meeting of Clinical Quality Management Board)
OCS	Responsibility and procedures	• Army: Does not track or compare CQMs but reported in June 2024 that they expected to have clinical measurement and clinical quality improvement branches of CQM for OCS settings by July 2025 • Air Force: Is working on developing OCS clinical metrics that align with DHA-defined metrics • Navy: Uses clinical measurement to provide point-of-care providers, clinical support staff, and fleet leadership with the data and information needed to assess clinical quality processes, outcomes, patient perceptions, and organizational structure and systems
	Learning health system	• Air Force and Army: No organizational learning activities noted because CQM programs are still in development

MTF Processes

The transparency activities related to clinical quality and patient safety metrics in MTFs engage a diverse group of stakeholders, ranging from oversight bodies such as the DHA to MTF leadership, including commanding officers, CMOs, and department heads. Additionally, individual clinicians and various staff members—such as public affairs officers and patient safety specialists—can play crucial roles in this multifaceted effort. These efforts aim to ensure a consistent approach to monitoring and reporting, with the goal of fostering accountability and trust within the facility.

In the following sections, we will outline how these transparency processes are implemented in MTFs. It is important to note that transparency activities differ significantly between MTFs and OCS settings, and we will later highlight the specific differences that characterize the transparency activities in OCS settings.

Roles and Responsibilities

Respondents consistently described DHA's involvement in an oversight capacity and identified at least one member of their leadership team who was the primary individual responsible for clinical quality metric transparency activities. Department heads also play an important role in department-level transparency activities. Table 5.2 summarizes the roles and responsibilities discussed by respondents.

Table 5.2. Summary of Roles and Responsibilities in MTF Clinical Quality Metric Transparency Processes

Theme	Details
DHA	• DHA is responsible for transparency activities at MTFs, including selecting clinical quality and patient safety metrics and maintaining oversight and transparency of data dashboards.
MTF leadership	• At least one member of the leadership team is primarily responsible for upstream and downstream transparency activities—e.g., reporting clinical quality measures to DHA and briefing MTF staff on clinical quality measures, respectively. • Various leadership committees meet regularly and play an active role in reviewing clinical quality and patient safety metrics.
MTF department leadership	• Department heads have responsibilities related to transparency activities both up and down their chains of command.

Transparency Processes

Insights gathered from interviews at MTFs across services suggest a multifaceted approach to transparency, characterized by activities aimed at transparency within the MTF, for patients and the public, and between the MTF and oversight entities. Transparency processes discussed by respondents are summarized in Table 5.3.

Table 5.3. Summary of MTF Transparency Processes

Theme	Details
Within MTFs	• Clinical quality and PSRs and trends are regularly disseminated to leaders and providers, often through a variety of forums and activities.
Reporting to patients and the public	• Although the extent of and approaches to transparency vary widely among MTFs, at least some patient and public transparency existed at all MTFs we visited. • Metrics that are commonly made publicly available include Leapfrog scores, Joint Commission survey results, HEDIS metrics, NSQIP metrics, American College of Surgeons Hospital Ratings, and Joint Outpatient Experience Survey scores. • Clinical quality and patient safety metrics are made available through physical posters and various online platforms, including the websites of the MTF, DHA, TRICARE, the Joint Commission, and the Leapfrog Group. • All services except the Army reported some form of patient engagement group, although the levels of participation and transparency provided to these groups vary across MTFs.
With oversight entities	• Clinical quality and patient safety data can be shared with DHA, the Joint Commission, the Leapfrog Group, and the American College of Surgeons NSQIP. • DHA has oversight of data dashboards that pull from MHS GENESIS, and they may send select data, along with established benchmarks and percentile performance data, to MTFs.

NOTE: Detailed results are available in Appendix F, "MTF Processes."

Documentation Systems for Clinical Quality Metrics

Effective documentation of clinical quality metrics is essential for reporting and monitoring activities. Respondents did not consistently report one specific documentation system for clinical quality metrics; in fact, respondents across many MTFs reported that no such system was in place. For example, tools reported across MTFs included online dashboards, internal shared drives, and data portals. Given that DHA owns dashboards that pull directly from MHS GENESIS, DHA's centralized function related to dashboards might explain the lack of awareness or inconsistency of documentation systems at MTFs.

Processes in OCS Settings

Transparency activities in OCS settings differ significantly from those of MTFs, reflecting their unique operational contexts and constraints. In the sections that follow, we describe these specific components, illustrating the current state of how transparency activities are conducted in OCS settings.

Roles and Responsibilities

In this section, we describe the roles and responsibilities of transparency activities in OCS settings for deployed and in-garrison environments, as reported by respondents. Table 5.4 summarizes the roles and responsibilities discussed by respondents.

Table 5.4. Summary of Roles and Responsibilities for Clinical Quality Metric Transparency Processes in OCS Settings

Theme	Details
Deployed environments	• Clinical quality metrics are not consistently tracked. • If metrics are tracked, it is often done via a centralized function, and the responsibility for reporting clinical quality metrics falls to individual units and providers, although though there is no enforcement system to ensure that this occurs.
In-garrison environments	• Members of the Air Force's True North program and Operational Support Teams (OSTs) collect and report data on metrics related to their efforts to improve service member resilience, readiness, and performance. • The 711th Human Performance Wing manages and analyzes the outcome metrics tracked by OSTs.

Transparency Processes

OCS settings consistently reported a lack of CQM monitoring, although other types of metrics are monitored and reported. Table 5.5 summarizes the transparency processes discussed by respondents.

Table 5.5. Summary of Transparency Processes in OCS Settings

Theme	Details
Monitoring and reporting CQMs	• Clinical quality metrics are not measured and tracked due to various limitations, so CQMs are not reported. • There is an openness to implementing processes to monitor clinical quality metrics.
Monitoring and reporting other metrics in deployed environments	• Readiness and resilience metrics are monitored closely and regularly reported in deployed environments.
Monitoring and reporting other metrics in in-garrison environments	• The Air Force's True North Program uses self-reviews or peer reviews as a way of monitoring quality of care provided by True North providers. • The Air Force's OSTs employ peer reviews and closely track readiness and resilience measures with the support of the 711th Human Performance Wing.

Documentation Systems for Metrics

In this section, we report the clinical quality metric documentation systems used in deployed and in-garrison environments. The systems discussed by respondents are summarized in Table 5.6.

Table 5.6. Summary of Documentation Systems Used in OCS Settings

Theme	Details
Deployed environments	• Theater Medical Data Store is an electronic health record system designed for use in deployed environments across all services, but it was only mentioned at one Army OCS setting, where respondents discussed the transition from Theater Medical Data Store to HALO. • The Medical Readiness Reporting System is utilized, although it is not for documenting CQMs.
In-garrison environments	• The Air Force's True North Program does not collect quality metrics. • The Air Force's OSTs collect and report outcome metrics to the 711th Human Performance Wing, which manages a data dashboard into which the metrics are entered.

Similarities and Differences Across MTFs and OCS Settings

All MTFs participate in the Leapfrog Group and the Joint Commission accreditation processes, although one facility reported that its Leapfrog results were not made available to the public. Each MTF has established some form of internal reporting and monitoring system for clinical quality metrics. However, only a few of these facilities have formalized patient engagement groups.

In discussions regarding OCS settings, some representatives from in-garrison OCS settings mentioned their attempts to apply for Joint Commission accreditation. In contrast, all other OCS settings indicated that they do not pursue any form of accreditation for their medical facilities.

OCS settings do not systematically report or monitor clinical quality metrics, despite all of them closely tracking readiness metrics. OSTs are responsible for collecting data related to readiness and resilience. Additionally, respondents from an Army OCS setting noted that they have access to an electronic health record specifically designed for deployed settings. However, the reporting of clinical quality metrics remains inconsistent, and extracting these metrics from the electronic health record can be challenging.

Chapter 6

Eliminating Variation in Clinical Quality Metrics

In this chapter, we provide an assessment of "the standardization activities carried under [the direct care component of TRICARE], including activities aimed at eliminating unwarranted variation in clinical quality metrics at the level of military medical treatment facilities and other operational medical units of the Department" (U.S. House of Representatives, 2022b). We present synthesized findings from the OASD(HA), DHA, and SGs' internal assessments and then describe findings from qualitative interviews. Appendix G supplements this chapter with additional details on context, impacts, and challenges.

Key Findings: Eliminating Variation in Clinical Quality Metrics

- Standardization is a recognized priority across MTFs, but there are gaps in the translation of DHA policies and awareness of standardization resources among line staff.
- DHA aims to reduce quality variation through such initiatives as Ready Reliable Care, which includes tools and reporting requirements. Compliance was reported by MTF staff.
- OCS settings encounter challenges to standardization because of their diverse contexts and mission-focused priorities. Most OCS settings are not accredited by the Joint Commission, but some plans for accreditation under MTFs are in progress, particularly in the Air Force. There is broad skepticism about the necessity and feasibility of Joint Commission standards for most OCS settings.
- High turnover among military personnel disrupts standardization efforts and creates variability in clinical quality metrics, particularly access to care. Respondents emphasized the importance of civilian staff to maintain continuity and sustain standardization initiatives across both MTFs and OCS settings.

Background

Standardization is a focus across all MHS CQM programs in the implementation of the MHS clinical quality strategy, requiring "standardized approaches to control, assurance, improvement, and transparency" (DoDI 6025.13, 2023). Therefore, standardization activities to reduce variation in clinical quality measures can vary widely. Standardization activities targeting quality mentioned in our interviews spanned many areas, including education and training, communication practices, SOPs, clinical guidelines, standardized systems (such as electronic health records), and standards for equipment and supplies.

Accreditation is another function through which standardization is achieved by holding medical facilities to nationally recognized standards. These include standards that apply across CQM programs, such as areas of infection control and medication management. To maintain accreditation,

facilities must undergo periodic assessments, including site visits, and demonstrate compliance with these standards. All MTFs must maintain accreditation through a U.S. Centers for Medicare & Medicare Services–approved source, such as the Joint Commission. Recently, DoD has instructed that OCSs provided in a fixed facility on installations with an MTF are also subject to accreditation, either under the accreditation of the MTF or through a separate accreditation. OCSs provided in fixed facilities not associated with an MTF accreditation program are instructed to undergo assessments of CQM every three years by the services.[7]

Internal Assessment

The internal assessment completed by OASD(HA), DHA, and service branch SGs related to standardization activities varied. DHA emphasized Ready Reliable Care, its approach of developing High Reliability Organization principles across MTFs. The services responses varied, with one service leading its approaches to reducing variability (Navy), one service collaborating with DHA to reduce variability (Air Force), and one service developing some capability by July 2025 (Army). Despite these differences, all services are either planning for or implementing approaches to applying High Reliability Organization principles in OCS settings. The internal assessment also asked how elements of a learning health care system were applied to each CQM program, including performance assessment, strategies for mitigating poor performance, and improvement planning. Table 6.1 summarizes the internal assessment responses.

[7] Both MTFs and OCS may seek accreditation waivers from ASD(HA), which must be renewed annually.

Table 6.1. Summary of Responses from Internal Assessment on Standardization Activities Across MTFs and OCS Settings

Site Type	Theme	Stakeholder Responses
MTF	Responsibility and procedures	• OASD(HA): Defines CQM requirements • DHA: Implements procedures to meet those requirements, including activities focused on standardization. Its approach includes the Ready Reliable Care Safety Communication Bundle, the Ready Reliable Care dashboard to track performance metrics on Ready Reliable Care activities, and additional approaches that include Bar Code Medication Administration, Antimicrobial Stewardship Program, and TeamSTEPPS
	Learning health system	• DHA: Assesses performance using several activities to help assess, mitigate, and plan for improvement, including tracking participation in Ready Reliable Care learning resources, TeamSTEPPS, the Patient Safety Annual Plan, NSQIP Corrective Action Plan, and periodic administration of a Culture of Safety survey
OCS	Responsibility and procedures	• Navy: Has developed infrastructure to implement High Reliability Organization principles • Air Force: Relies on DHA to implement standardization of clinical quality for OCS settings • Army: In June 2024, reported an intent to develop capabilities by July 2025
	Learning health system	• Air Force: Relies on MTFs to implement standardization activities for OCS settings that are integrated with MTFs • Army: Participates in Ready Reliable Care, but learning health system elements are in development

MTF Processes

Standardization to reduce unwanted variation in quality was viewed as a priority across MTFs and infused throughout various patient safety and quality activities. As one Navy respondent noted, standardization has been "the battle cry of the command." Respondents described a wide range of standardization activities in MTFs that spanned standards applicable to personnel qualifications and training (described in detail in Chapter 2), formalized means of communication across sites, written standardized procedures, programs to assess performance on standardized metrics (described in detail in Chapter 5), and standardized systems used across MTFs. We begin by describing the roles and responsibilities of standardization activities generally, followed by how respondents described each of three prominent components of standardization: Ready Reliable Care approaches, SOPs, and electronic systems (such as MHS GENESIS).

Roles and Responsibilities

Standardization activities in clinical quality spanned departments and targeted a wide variety of functions across health care. Responsible roles varied and were dependent on the roles of the interviewees and the specific activities they described. Responsibility for developing standards themselves was commonly placed with senior administration or national bodies (e.g., DHA, national standards). Standards are then managed or applied at the discretion of site command. Table 6.2 summarizes the roles and responsibilities discussed by respondents.

Table 6.2. Summary of Roles and Responsibilities in MTF Standardization Activities

Theme	Details
Heterogenous roles	• Identified roles were not consistent within the various standardization activities discussed (e.g., SOPs, clinical guidelines, trainings). • Responsibilities for Ready Reliable Care were concentrated in senior quality and patient safety staff. • Responsibilities for the development, selection, or enforcement of standards for specific departments were often vested in the chiefs of those departments.
Top-down administration of standards	• Views of top-down administration were a mix of appreciation and concern that standards are not appropriately calibrated to local context.
Competing standards from DHA and services	• The existence of overlapping standards pushes some locations to improvise a middle ground.

Components of Standardization to Reduce Variation in Quality Metrics

A wide variety of activities across each CQM program aim to standardize in the pursuit of higher quality. Several, such as the standard in training and qualifications, are discussed in detail in other chapters of this report. Here we focus on three commonly discussed standardization activities to reduce unwanted variation in quality: Ready Reliable Care, SOPs, and systems. Roughly half of MTF sites noted the Ready Reliable Care approach as key to standardization activities, and its activities were viewed positively in interviews. Respondents at most MTFs cited SOPs as a mechanism that their sites used to address unwanted variability in quality, but achieving buy-in and improving accessibility were cited as challenges. Some respondents cited the application of uniform systems, including electronic health records, ordering systems for supplies and equipment, and bar code scanning of drugs. These systems were widely adopted but faced implementation challenges when systems conflicted with local variance. Table 6.3 summarizes the processes discussed by respondents.

Table 6.3. Summary of Components of MTF Standardization Activities

Theme	Details	Additional Details
Ready Reliable Care approach	• Ready Reliable Care communication practices at MTFs were aligned with DHA policy. • Roughly half of MTF sites had discussion of Ready Reliable Care activities. • MTFs that discussed Ready Reliable Care reported and tracked designated metrics.	• Self-reported compliance with Ready Reliable Care was high. • Interviews reflected a positive view of the approach.
SOPs	• SOPs are used to ensure that practitioners can perform duties in a way that is consistent with local conditions. • Development and implementation of SOPs are prioritized. • Development of SOP sometimes happens top-down from DHA but can also be developed locally from line staff.	• Activities for implementation of SOPs varied across sites. Methods included orientations and use of taskers that required staff to read SOPs. • Buy-in for new SOPs is hard to achieve but is helped by leadership engagement. • Some respondents viewed challenges facing SOPs in keeping them current, accessible, and aligned with DHA policy.
Systems	• Systems include infrastructure such as MHS GENESIS,[a] ordering systems for supplies and equipment, and bar code scanning of drugs. • Systems are intended to reduce unwanted quality variation through use of a standardized platform for data entry and access, improving communication, and providing clinical decision support.	• MHS GENESIS was widely adopted and integrated into workflow. • Frustrations with MHS GENESIS rollout were widespread, and inconsistency in versions across MTFs was cited as counterproductive to standardization. • Standardized supply and equipment ordering was incompatible with some local or departmental processes, notably lab supplies.

[a] MHS GENESIS is the electronic health record used across MTFs.

Common Challenges at MTFs

Staffing fluctuations at MTFs were routinely presented as a significant barrier to effective standardization, with many respondents highlighting the importance of civilian staff as a means of maintaining continuity. Table 6.4 summarizes this common challenge discussed by respondents.

Table 6.4. Summary of Staffing Issues at MTFs

Theme	Details
Staff turnover	• The regular turnover of military staff has a direct impact on some quality metrics, particularly access to care. • Resources describing standards are not effective if new staff are not regularly and consistently trained and oriented.
Civilian staff	• Having a core staff of civilians was viewed as an important solution to the issues that accompany military staff turnover. • The low degree of civilian staff was reported as more pronounced in Air Force than in other services.

Processes in OCS Settings

Standardization activities to address clinical quality were largely absent from OCS settings. Standardization activities that were discussed focused on readiness and capacity to carry out the mission, which may have indirect implications for quality. This reflected widespread skepticism from respondents that standardization was feasible or appropriate for OCS settings given their unique contexts and mission. In this section, we describe the roles and responsibilities as they applied to standardization activities, the components of standardization, and underlying issues.

Roles and Responsibilities

To the extent that standardization activities for the purpose of reducing variation in quality occur among the OCS settings, the roles identified as being responsible included senior medical officers on site, such as force surgeons; staff in higher echelons responsible for conducting inspections; or centralized staff responsible for developing specialized guidelines or procedures. In some cases, such as when OCS settings are occurring at a fixed installation with an MTF, standardization responsibilities for OCS settings reportedly may be carried out by MTF staff through a MOA. Because OCS settings in deployed locations are frequently temporary in nature, one Army interviewee noted that the application of standards in deployed locations is more under the control of the medical leadership that arrives first: "Most of the time, we're coming into mature areas. Whoever was the first couple people to come in, they set the standard." This indicates potential challenges to applying similar standards to established sites and a relative advantage of applying standardization steps early in the process.

Components of Standardization to Reduce Variation in Quality Metrics

Respondents identified far more limited numbers of standardization activities to reduce variation in clinical quality in OCS settings compared with those noted in MTFs. Among the most commonly cited examples of activities to improve standardization in clinical quality were the use of clinical practice guidelines. Other standardization activities noted were not focused on quality; instead, these included specialized guidelines and associated trainings for specific roles in the military and SOPs

targeting medical activities supporting mission needs. Uniform standardization with respect to CQM goals was commonly viewed as not practicable, but some respondents saw potential in a differentiated approach. Table 6.5 summarizes the components of standardization activities and underlying issues.

Table 6.5. Summary of Standardization Activities in OCS Settings

Theme	Details	Additional Details
OCS CQM standardization activities	• Clinical practice guidelines were the only notable activity discussed related to quality for most OCS settings. • Specialized guidelines for operational skills (e.g., combat medics and critical care air transport teams) and SOPs were also discussed, but these were not generally focused on quality. • Standardization activities to address clinical quality variation were far more limited in OCS settings.	• Compliance with standardization activities was enforced through internal inspections conducted by services, not independent entities. • Lack of standardization was reflected in vast heterogeneity across installations in scope of embedded medical units, such as OSTs.[a]
Appropriateness of OCS CQM standardization	• There was a common view that CQM standardization using a single standard was not feasible and or appropriate for OCS settings, particularly in deployed settings.	• Some responses indicated that standardization could be tailored for an operational context if it was differentiated by environment.

[a] OSTs are an Air Force program that uses multidisciplinary medical teams to provide preventive services within squadrons.

Accreditation of OCS Settings

Accreditation is a mechanism for maintaining nationally recognized standards of quality and safety for medical facilities. All MTFs are required to maintain accreditation through the Joint Commission, and OCS settings in fixed facilities associated with an MTF have been instructed to do so. Respondents mostly indicated that OCS settings are not currently Joint Commission accredited in most cases, the exception being some embedded medical units. The Joint Commission accreditation of OCS settings was largely viewed negatively, with interviewees expressing views that Joint Commission accreditation for operational sites was not practicable for a variety of reasons, including contextual variation, resource constraints, mission focus over clinical focus, and challenges with oversight. Table 6.6 summarizes themes for accreditation of OCS settings and alternative processes.

Table 6.6. Summary of Accreditation of OCS Settings

Theme	Details	Additional Details
Accreditation status	• OCS settings are generally not accredited at present.[a] • Embedded medical units were the only type of OCS setting that was reported to be accredited to some degree, but the extent of this varied across the services. • Air Force and Army reported having begun to accredit embedded medical units under the accreditation of associated MTFs. • We learned of no accreditation of OCS settings in contexts outside of an installation. • Accreditation outside of an installation was viewed as impracticable.	• In some locations without accredited OCS settings, discussions among OCS settings and DHA for how to proceed were said to be ongoing. • There was some concern that requiring embedded medical units to move into accredited buildings would make them less accessible, undermining their purpose. • Understanding of which OCS settings are subject to the Joint Commission–level accreditation and which are not appeared to be unsettled in the minds of some respondents.
Accreditation implementation	• Respondents raised challenges in implementing accreditation through MTFs because of tensions over split responsibilities between DHA and SGs. • Unresolved issues over authority and oversight of OCS settings under an MTF collided with concerns over manpower and funding needs for implementation.	• Moving forward with implementation in some cases hinged on leadership resolve, despite questions of ultimate authority.
Alternative processes	• Internal inspection programs in the Navy and Army were presented as alternative activities that reduced variability.	• The focus of alternatives to external accreditation was on mission readiness, not quality.

[a] Formal accreditation must come through a U.S. Centers for Medicare & Medicaid Services–approved external entity, such as the Joint Commission.

Common Challenges at OCS Settings

Interviewees commonly expressed the view that the innate variability of operational contexts made them ill suited to the notion that variation in metrics could be addressed through standardization. Respondents commonly viewed OCS settings as having too much variability for standardization beyond training and credentialling standards for personnel. Despite mission focus and variation of OCS settings, some respondents saw the lack of standardization efforts to reduce variation in clinical quality as contrary to readiness goals.

Similarities and Differences Across MTFs and OCS Settings

There are fundamental differences in the approaches to standardization taken by MTFs and OCS settings. At core, these differences stem from the differences in purpose. Whereas MTFs function largely under institutional goals similar to traditional health systems (i.e., improving patient health for

its own sake), OCS settings function in support of military objectives. Therefore, the standardization activities performed by MTFs are widespread; explicitly target quality; and are primarily focused on ensuring consistency in clinical care, patient safety, and compliance with national accreditation standards. In contrast, standardization activities within OCS settings are more limited and are often tailored to the specific mission, environment, and resource availability, making broad standardization challenging and often viewed as counterproductive.

Given this fundamental difference, the standardization tools used within MTFs and OCS settings are different. At MTFs, reducing variation in clinical quality is an explicit target of centrally managed standardization efforts, such as the Ready Reliable Care approach and the implementation of a system-wide electronic health record system. CQM programs across MTFs are also governed by a standard set of procedures provided in system-wide DHA manuals (DHA-PM 6025.13), exemplifying DoD's push to achieve greater uniformity across MTFs (DHA-PM 6025.13, 2019a). Standardization tools across OCS settings vary by service and specific operational contexts and largely exist to support mission objectives. Specialized clinical practice guidelines and SOPs exist to support operational roles, such as combat medics or critical care teams, but their purpose is largely to promote readiness and not to achieve quality goals.

Perspectives on standardization activities in MTFs and OCS settings also differ. At MTFs, standardization is largely viewed as beneficial for reducing site-to-site variation, although some staff express frustration with the implementation of top-down policies when attempted without proper support or not appropriately calibrated to local context. In OCS settings, while standardization is acknowledged as important, many interviewees said that it must be situational because of the inherent variability of operational contexts. Standardization targeting clinical quality is widely seen as out of sync with the mission focus of OCS settings, although some do see opportunities to extend some peacetime quality improvement practices to wartime settings.

Chapter 7

Key Findings and Recommendations

Consistent with the guidance in the NDAA, we sought to examine the extent to which CQM is integrated throughout the quality and patient safety review process and identify potential opportunities for improvement. We presented findings from a synthesis of internal assessments conducted by key stakeholders—OASD(HA), DHA, and SGs—and qualitative interviews with 216 staff and leaders from MTFs and OCS settings who deliver or oversee aspects of the health care quality and patient safety review process. In this chapter, we highlight key findings and recommendations on how the quality and patient safety review process in the MHS can be improved. We offer these findings and recommendations for consideration across DoD stakeholders, highlighting issues that may be addressed through new or existing multilateral forums.

Key Findings

In this section, we highlight key findings from this assessment.

Complete Lists of Active OCS Settings Are Not Readily Available, Which Makes Routine Monitoring of Quality and Patient Safety Challenging

Complete lists of active OCS settings did not exist at the time of our request in June 2024 for any of the services, either publicly or internally. Information on all active OCS settings is not routinely shared with OASD(HA) or DHA. The OCS settings lists we received from the services were incomplete and varied in the information included about OCS settings. In contrast, DHA maintains publicly available lists of MTFs, which are complete and comprehensive of all facilities globally. Service branch points of contact provided several reasons for why active lists of OCS settings are not maintained, including (1) diffuse and overlapping responsibility and authority of OCS settings across the globe necessitating intensive information-gathering, (2) the sensitive nature of some locations, and (3) the dynamic demands of missions.

We found that DoD guidance does not exist on various types of OCS settings and how they should be enumerated, likely contributing to the lack of uniformity in the information provided. This information gap in active OCS settings presents a significant barrier to ongoing monitoring of care delivered in the operational environment, inhibiting opportunities to design and understand the effectiveness of patient safety and quality processes that are appropriate for the various OCS environments. The lack of a current list of OCS settings also prevents the services from aggregating care metrics for comparison and stratification across types of OCS settings and providing accurate

metrics about the status of OCS settings on different dimensions of health care quality and patient safety.

Given OCS Settings' Diverse Operational Contexts and Capacities, Applying One Standard Across Settings May Not Be Appropriate

Respondents reported that OCS settings vary significantly across multiple dimensions. Infrastructure can range from facilities on installations to buildings of opportunity in forward environments to mobile setups such as planes, ships, or tents that can be rapidly relocated based on mission requirements. Durations of OCS settings range from permanent to months, weeks, or less for mobile setups. In garrison or training environments, OCS providers reportedly focus mostly on primary care and physical therapy, with a narrower scope of practice compared with MTF providers. Respondents perceived these settings to be low risk, relying on nearby MTFs or medical evacuations for more advanced care when needed. On the other hand, in deployed environments, providers may deliver acute care for trauma and mass casualty events under challenging conditions with limited resources and personnel.

Thus, applying one standard across OCS settings with diverse operational contexts and capacities may not be appropriate. Respondents highlighted that MTF models of QA and patient safety, with their often robust resources and centralized processes, do not align with the often resource-constrained nature of OCS settings, noting that accreditation from an entity like the Joint Commission may not be feasible. For instance, in training and deployed settings, OCS settings reportedly face documentation challenges and limited access to the internet or electronic systems, such as MHS GENESIS. To add further complexity, given the temporary and potentially changing nature of an OCS setting, the context and standards can change from one moment to the next.

Ultimately, the variability in scope, resources, and risk across OCS setting may necessitate a flexible approach to oversight and QA, tailored to the specific demands of each setting. Some OCS respondents noted that internal inspection activities are used to ensure that OCS settings are settings where care can be provided. Those activities, however, appeared to be organic to the site (i.e., not standardized across or within the services) and did not necessarily focus on quality and safety topics but rather on whether health care could be delivered in the OCS setting.

MTFs Have Robust Quality and Patient Safety Processes Across Multiple Domains, with Some Opportunities for Improvement

We synthesized our findings to conduct an overall assessment by domain. Table 7.1 provides this assessment along with a justification for the assessment. Consistent with a learning health system approach, this assessment highlights areas of strength and opportunities for improvement. We indicate a domain as a strength if MTFs across service branches consistently described having a process in place for that domain and if that description was consistent with information from the internal assessment. We identified minor areas for improvement when they exist but note that these were not widely mentioned. A domain was characterized as an opportunity for improvement if there were frequent mentions of areas for potential improvement noted across service branches or if the

information that we received from service branches varied from information in the internal assessment. Although there are certainly opportunities for improvement across all domains in all health systems, we use these assessments to highlight where the military might want to focus ongoing improvement efforts.

Table 7.1. Assessment of Quality and Patient Safety Review Processes for MTFs

Process	MTF Assessment
Credentialing and privileging	Strength
QA, SOC, and incident review	Strength
Health care provider accountability	Strength
Clinical quality metric transparency	Strength
Eliminating variation in clinical quality metrics	Opportunity for improvement
CQM organizational roles and responsibilities	Opportunity for improvement

NOTE: We did not include "applying CQM to operational settings" in this table because it does not apply to MTF settings.

We rated the following domains as strengths for MTFs: credentialing and privileging; QA, SOC, and incident review; health care provider accountability; and clinical quality metric transparency. Respondents from MTFs across service branches reported a consistent and systematic process for implementing credentialing and privileging of providers that consistently included the use of CCQAS and shared files on CarePoint or SharePoint for supporting documentation. Once providers were credentialed and privileged, MTFs consistently described their systematic integration into QA processes, including monitoring and maintaining SOC through peer review and patient safety reporting and incident review, including dissemination and implementation of guidance from clinical departments, MTF leadership, service branch medical leadership, and DHA. Study respondents also consistently described specific processes and timelines for health care provider accountability when individual providers were determined to have caused patient harm or not met the SOC. These processes were well laid out, although some respondents described challenges with sharing some aspects of peer review and adverse actions across MTFs. Additionally, MTFs were consistently measuring, reporting, and monitoring metrics related to both clinical quality and patient safety. Across MTFs, respondents reported that these metrics were widely shared with other providers, staff, and leadership. However, there was some variation in respondents' awareness of whether and how metrics were shared with patients and the general public. Although a selection of metrics for every MTF is made available by DHA on publicly available websites, most respondents reported little sharing of metrics with individual patients or groups of patients. Respondents from some MTFs noted that metrics were posted on the MTF website or in patient waiting rooms, while others reported little such activity.

Two domains present an opportunity for improvement for MTFs: eliminating variation in clinical quality metrics and CQM organizational roles and responsibilities. MTFs widely reported robust processes for eliminating variation in clinical quality metrics, including the Ready Reliable Care

initiative. However, there were also widely shared concerns about variations in the translation of DHA policy down to the MTF level, and frontline staff were not always aware of resources to support standardization. With regard to CQM organizational roles, across service branches, MTF respondents described clear roles and responsibilities for all aspects of CQM. This clarity of roles typically started with the MTF director and CMO, as well as various quality leaders throughout the MTF. It also actively included clinical department leaders and staff as required. However, high turnover among military personnel was noted to disrupt not only standardization efforts but also many other facets of quality and patient safety review, including patient safety and incident review. In particular, organizational culture and institutional memory around these components of quality and patient safety were difficult to sustain without civilian staff, but respondents also noted challenges with hiring civilian staff.

Overall, MTFs had robust processes with regard to credentialing and privileging, QA, and provider accountability, with systematic approaches widely recognized across service branches. Future efforts might focus on clarifying DHA policies to MTF staff. Additionally, although continual change is part of the culture of the military, high personnel turnover creates challenges to sustaining quality and patient safety culture and processes over time. Addressing civilian hiring challenges could mitigate some of these issues.

OCS Settings Varied Widely in Their Quality and Patient Safety Processes, with Several Opportunities for Improvement

We conducted a parallel assessment of OCS settings (Table 7.2). We used the same approach as described above, for MTFs. As noted above, OCS settings can vary widely across a range of characteristics. This presents challenges to capturing the vast heterogeneity of OCS settings in a single domain assessment. Despite these challenges, the assessments presented serve as a general overview of quality and patient safety and may point to potential future opportunities for improvement.

Table 7.2. Assessment of Quality and Patient Safety Review Processes for OCS Settings

Process	OCS Assessment
Credentialing and privileging	Strength
QA, SOC, and incident review	Opportunity for improvement
Health care provider accountability	Opportunity for improvement
Clinical quality metric transparency	Opportunity for improvement
Eliminating variation in clinical quality metrics	Opportunity for improvement
CQM organizational roles and responsibilities	Opportunity for Improvement

Overall, our assessment indicates that credentialing and privileging is an area of strength for OCS settings, with consistent and robust procedures that have been routinized across service branches. For Air Force and Army providers, credentialing and privileging occurs at MTFs, while for most Navy

providers, credentialing and privileging is done by the OCS settings themselves. There may be occasional delays in the process when OCS settings rely on MTFs for credentialing and privileging, but there is a process that is widely understood and followed. Despite being an overall strength for OCS settings as a whole, we do note that these processes can pose a challenge to some smaller Navy OCS settings, which may have fewer personnel and may not be resourced optimally to carry out their credentialing and privileging responsibilities.

All other domains were rated as opportunities for improvement for OCS settings, with the caveat that quality and patient safety processes cannot be systematically carried out in all OCS settings. For QA, SOC, and incident review, study respondents consistently described the importance of having a QA process, maintaining a SOC, and reviewing patient safety events. In OCS settings co-located on an installation with an MTF, these processes were consistent with those in MTFs and in many cases had largely been subsumed by the MTF and were carried out there. For instance, in the Air Force and some of the Army OCS settings we visited, OCS providers were highly limited in the care they could provide in OCS settings. Anything beyond basic care was handled in the MTF clinic, even if done by an OCS provider, and any concerns about QA, including SOC and incident review, were done at the MTF. However, in more-forward locations, particularly in deployed settings, these processes exist in theory, but it is largely up to providers themselves to uphold their own quality and SOC. When patient safety events occur, they are largely handled locally among the providers, and there is little consistent documentation or reporting of those events. Major issues were more likely to be reported up the chain of command and documented in After Action Reports, but there was general uncertainty about how or whether these events are integrated into larger QA efforts.

In the domain of health care provider accountability, OCS settings also reported using a similar approach for provider accountability as MTFs, providing opportunities for remediation and reporting up the chain of command when the SOC is not met. They often rely on MTFs or higher command levels for support when provider accountability is needed, due to limited internal capabilities. This is facilitated for OCS settings co-located on an installation with an MTF. However, many OCS settings, particularly those in forward locations, face documentation challenges related to environmental and administrative constraints. As a result, provider accountability can be delayed or deferred while in such locations.

With regard to transparency of clinical quality metrics, many OCS respondents described measuring and monitoring metrics of readiness or other metrics to assess readiness to complete the operational mission. However, respondents consistently shared that measurement, reporting, and monitoring of clinical quality and patient safety metrics did not occur in most OCS settings. One reason is the short-term and temporary nature of many operational events. Limited personnel, access to electronic records (and internet access), and other resources are also a challenge in OCS settings, where monitoring and reporting of patient safety events would take time and attention away from providing care or otherwise furthering the immediate mission. Respondents described a need, where practicable, to optimize documentation systems and processes for both patient care and patient safety event reporting to help improve QA processes. This could help ensure that salient details about patient care and potential patient safety events are documented at the time they occur, which would allow for process improvement later.

Respondents described inherent challenges to eliminating variation in clinical quality metrics in OCS settings because of their vast heterogeneity and mission-focused priorities. Although respondents did not consistently report a process for eliminating variation in clinical quality metrics, providers did regularly report utilizing clinical practice guidelines while emphasizing the challenges of doing so in some operational settings. They also widely felt that broader standardization efforts are likely impractical or potentially counterproductive and overly restrictive, particularly in forward settings. Some respondents described adhering more closely to established MTF policies for OCS settings "in the shadow of an MTF" while allowing for greater variation in forward locations. For instance, accreditation for OCS settings on installations is in progress at some locations but not yet complete.

With regard to applying CQM to operational settings, respondents shared that most OCS providers also provide care in MTF settings when in garrison. This provides an opportunity for OCS providers to be periodically integrated into MTFs' CQM cultures and procedures. However, there are challenges: Respondents shared concerns that OCS providers may not be optimally prepared for low-acuity care, which comprises the vast majority of care provided in OCS settings. Respondents also regularly described confusion or uncertainty about oversight of OCS providers and described the still-evolving nature of the relationship between DHA and the military departments. Respondents noted that greater specification of guidance from DHA and the military departments to OCS settings could help to better clarify how CQM should be applied in operational settings.

Finally, in the domain of CQM organizational roles and responsibilities, respondents were consistently able to describe responsible parties for various components of the quality and patient safety process, even if those processes could not always be carried out according to plan due to the limitations of the setting. However, respondents also consistently shared the challenge of medical providers having a dual command structure, with oversight from both medical and operational command and operational command having ultimate authority. Respondents described the importance of building rapport with the operational command, who may or may not have experience or interest in medical policies or regulations. Together, these aspects of operational settings pose substantial challenges to some components of QA and patient safety, including reviewing patient safety events and holding providers accountable.

Improvements to Systems and Staffing Are Needed to Strengthen Quality and Patient Safety Processes

In addition to the areas of strength and improvement noted for MTFs and OCS settings above, there are significant infrastructure issues that merit discussion. For OCS settings specifically, credentialing, QA, accountability, and clinical quality metric transparency are negatively impacted by accessibility concerns mentioned with such systems as CCQAS, HALO, and Theater Medical Data Store, creating significant barriers to documentation and oversight. For example, the inability to access CCQAS in deployed environments hinders OCS settings from having full visibility into the credentialing and privileging status of OCS providers. Additionally, consistent documentation of patient encounters is challenging because of inconsistent access to MHS GENESIS and operational electronic health records (such as HALO). This inconsistency, compounded by internet accessibility

issues, can lead to incomplete documentation, especially during high patient volumes or severe injuries. Although paper documentation is the most frequent alternative, there are no clear and systematic processes for ensuring that paper documentation is uploaded into the permanent electronic health record. These gaps hinder monitoring of provider performance, patient safety events, and SOC compliance, causing difficulty in identifying lessons learned and managing knowledge broadly across OCS settings.

Staffing challenges for both CQM personnel and providers appear to be significant and likely to persist for both MTFs and OCS settings, even if documentation systems are improved. Staffing shortages in QA roles, combined with deployments and regular personnel changes or turnover, create challenges in maintaining QA activities. Inexperienced staff may attempt to fill gaps, potentially leading to inefficiencies, while current staff may face burnout from taking on excessive workloads. Furthermore, provider staffing shortages can increase workloads related to seeing more patients, raising the likelihood of errors that are due to fatigue. Although respondents frequently mentioned civilian staff in QA roles as being vital to sustainment of the culture and processes necessary for quality and patient safety in MTFs, they also regularly described the challenges and complexities of hiring civilians.

Recommendations

Based on our findings, we developed three recommendations to strengthen CQM in the MHS.

Recommendation 1. Each Service Branch Should Maintain a List of Active OCS Settings and Routinely Provide This Information to the Office of the Assistant Secretary of Defense for Health Affairs

The absence of a comprehensive and standardized list of OCS settings across the service branches, along with key descriptors for each OCS setting, represents a critical gap in the ability to monitor, evaluate, and improve clinical care in operational environments. For this assessment, compiling even a partial list of OCS settings across services required substantial time and resources. To support improvements in patient safety and quality in the MHS, the services should compile and maintain a list of active OCS settings and routinely report (e.g., quarterly) this information to OASD(HA). These lists should include all active OCS settings as defined by policy (i.e., "clinical and clinical support services on ships and planes, in deployed settings, and in all other circumstances outside an MTF"). The services will need to identify OCS settings that can be excluded from this tracking and reporting, such as OCS settings involved in sensitive missions or those operational for very limited durations. Standardized information on all MTFs is currently collected and made available monthly through the Defense Medical Information System (DMIS) Identifier Tables. Some OCS settings are included in this reporting. DoD could leverage the data collection infrastructure that produce these tables to produce a list of OCS settings.

Lists of active OCS settings should be produced in a standard format, along with a core set of variables that provide the necessary information for tracking and analysis. Administrative information (such as installation, facility type codes, and parent facilities) can be gathered through the DMIS

(when available). The services should also agree on additional descriptors for the OCS settings that can support ongoing efforts to track and improve clinical care. Examples include indicators of planned duration (e.g., temporary or less than 12 months, established or greater than 12 months), co-location with an MTF, deployed setting, mobility (e.g., fixed, mobile), capabilities (e.g., roles of care), and special status (e.g., on a plane, ship). It is essential that the military know at all times where health care is being delivered to ensure that the care is safe and of high quality. A standardized, active list would facilitate greater transparency about OCS settings and the development of policies and processes to address challenges that we noted in this report as well as those documented by GAO (GAO, 2024b).

Recommendation 2. DoD Should Clarify Requirements for Quality and Patient Safety for Different Types of OCS Settings

Our assessment of quality and patient safety review processes for OCS settings identified opportunities for improvement across several assessment domains. Lack of consistency in QA procedures was a common issue, collection of quality metrics was largely absent, and OCS settings faced challenges in applying standards. However, these issues exist with the backdrop that operational settings are not well suited to a uniform set of requirements that do not account for their variability, resource constraints, and mission focus. DoD instructions for the implementation of CQM include language that these activities should be conducted in OCS settings "to the extent practicable," but the guidance is unclear about how to apply this standard and what to do in OCS settings where CQM activities are deemed not practicable (DoDI 6025.13, 2023). This lack of clarity was reflected in our interviews with OCS personnel, many of whom conveyed confusion for how and under what circumstances CQM processes should be applied in the operational context. The MHS could improve patient safety and quality of care delivered in operational settings by developing and applying a framework that clarifies processes required for different types of OCS settings. This framework would categorize OCS settings based on their characteristics and outline the corresponding levels of patient safety and quality monitoring required.

To implement this, OASD(HA) should task a new or existing working group that includes representation from OASD(HA), DHA, and each of the services with the responsibility of developing and implementing a framework for producing clearer CQM requirements for OCS settings. The working group would be responsible for identifying types of OCS that share similar features and should share CQM requirements, including defining appropriate oversight and CQM requirements for each OCS type. Types of OCS settings could be defined using variables included in the lists of active OCS settings described in Recommendation 1. DoD guidance already includes separate instructions for accreditation requirements based on whether a fixed facility is on a military installation with an MTF and provides alternative internal assessments through waiver requests. DoD could go further and produce tailored minimum standards where they currently do not exist across the relevant CQM programs for categories of OCS settings identified using a clear framework.

To demonstrate this concept, we provide an illustration of such a framework, characterizing a sample set of different types of OCS settings along with an indication of the level of CQM activities that could be required (Table 7.3). In this example, we use infrastructure (e.g., permanent versus temporary), co-location with an MTF, and CONUS versus OCONUS as dimensions to characterize

each type, although other dimensions might be determined to be more useful. As such, the six types of OCS settings listed are for demonstration purposes only. Some types of OCS settings may have features where oversight and CQM responsibilities are clear and easily delineated. For instance, permanent OCS settings in fixed facilities that are co-located with an MTF (referred to as Type 1 in Table 7.3) should be capable of comprehensive compliance with CQM procedures, whether independently or in coordination with the MTFs to provide support for CQM tasks. To facilitate this coordination and avoid inefficiencies, arrangements could be established between the services and DHA. We are aware that such agreements exist for the Army and Air Force, but we were not provided these agreements to review.

Table 7.3. Illustrative Framework to Specify Minimal Clinical Quality Management Activities

Type of OCS Setting	Infrastructure	Co-Location with an MTF	CONUS or OCONUS	CQM Activities
Type 1 (e.g., sick-call clinic on base)	Permanent	Co-located	CONUS	Comprehensive/ comparable to MTF processes
Type 2 (e.g., low-acuity clinic on base abroad)	Permanent	Co-located	OCONUS	Comprehensive/ comparable to MTF processes with modifications (e.g., coordination with host nation)
Type 3 (e.g., some embedded medical units, aid stations)	Temporary	Co-located	CONUS	Comprehensive/ comparable to MTF processes with modifications (e.g., modified accreditation requirements)
Type 4 (e.g., Role 4 field clinic in deployed environment)	Temporary	Not co-located	OCONUS	Tailored (e.g., modified quality improvement requirements)
Type 5 (e.g., battalion aid stations)	Mobile	Not co-located	OCONUS/austere	Targeted (e.g., reduced incident review requirements)
Type 6 (e.g., special status, ships, planes)	Mobile	Not co-located	OCONUS/austere	Targeted (e.g., reduced incident review requirements)

In other types of OCS settings, modified CQM requirements might be appropriate. For instance, OCONUS OCS settings in fixed facilities (Type 2) may resemble CONUS OCS settings in fixed facilities in many ways, but CQM requirements might allow for adjustments to ease coordination with the host nation. Some temporary embedded medical units that are co-located with an MTF (Type 3) may be capable of adhering to comprehensive CQM requirements but could benefit from modified accreditation requirements given their low acuity and mission to improve access. For some medical clinics in a deployed environment not co-located with an MTF (Type 3), CQM requirements might be tailored given their lack of consistent infrastructure to support more resource-intensive activities,

such as quality improvement projects. Finally, mobile OCS settings in more austere environments, such as battalion aid stations (Type 5) or special status OCS settings on ships and planes (Type 6), likely need even more targeted requirements—for instance, in the procedures that they follow for incident review activities or other CQM activities that are likely not feasible while in the field. As a starting point, it should be determined whether existing care standards for austere environments are applicable to types of OCS settings, and, if not, whether they can be developed within the MHS. Existing studies that define and describe contexts and needs in austere medicine, including for critical care and austere surgical teams, could help in determining both OCS types and any needed targeting and tailoring within CQM (Baker et al., 2021; Imray et al., 2015; Lord and Lee, 2024). Existing evidence reviews and lessons learned from austere critical care practice might lay the groundwork for the development of tailored clinical guidelines and SOC for types of OCS settings (Bixio et al., 2024; Lord and Lee, 2024; Venticinque and Grathwohl, 2008). An alternative approach to a framework such as this might be a decision tree that could be applied to individual OCS settings that would indicate the requirements based on their characteristics.

The framework presented in Table 7.3 focuses on physical infrastructure and location and serves as a conceptual example to support our recommendation for establishing minimum standards for types of OCS settings. However, stakeholder input and discussion may lead to significant changes in how OCS settings are ultimately categorized. For instance, types of OCS settings may be defined by such additional dimensions as capabilities, the types of services, population, and complexity of care. Existing military doctrine, including roles of care, types of OCS settings used in DMIS classifications, whether in wartime or in theater, and alternative designations employed by the services, should all be reviewed to develop a framework with delineations relevant to CQM processes and inclusive of the entire MHS. Several other details will need to be confirmed and resolved where uncertainty exists to develop tailored instruction, including who is ultimately responsible for CQM processes in OCS settings and the roles and responsibilities that the identified points of contact for OCS settings will have in managing the CQM processes. For the Navy, although upper-echelon-level commands have oversight of all CQM processes for Navy OCS settings, it may be beneficial to explore the staffing needs to ensure that each role can be addressed with the manpower available. Other needed details to resolve might include a process and time frames for OCS settings to follow to identify tailored guidance; development of standardized documentation and review processes; verification that OCS personnel are provided with adequate knowledge and training for their roles and have appropriate access to needed systems to conduct their work; metrics needed to collect, track, and trend; and reporting requirements. For example, operational commanders might benefit from systematic education on medical decisionmaking that ties quality and patient safety back to patient outcomes given implications for soldier readiness.

Recommendation 3. DoD Should Address Clinical Quality Management Institutional Knowledge Loss by Improving Systems and Staffing

We identified multiple sources of institutional knowledge loss that threaten effective CQM practice, including challenges with MHS information technology systems, frequent turnover of military personnel, and difficulties maintaining adequate civilian staff. Respondents in OCS settings

reported fragmented and non-functioning information technology systems, preventing key patient safety practices, such as provider performance monitoring. Both MTFs and OCS respondents reported that staff turnover was a quality and patient safety concern, threatening standards and continuity. These views are supported by research that shows that poor information technology systems and employee attrition are key drivers of knowledge loss. Poor information technology infrastructure and technical failures hinder the capture, retention, and sharing of information needed to support CQM goals. Additionally, employee turnover, including retirements and job mobility (e.g., permanent change of station), causes knowledge loss as departing staff take essential knowledge and relationships with them, negatively impacting organizational learning and productivity. Relying on existing or newly hired personnel may not compensate if the knowledge deficit created is too large or if existing organizational practices do not prioritize knowledge-sharing.

Two complementary approaches can help mitigate knowledge loss across the MHS. The first is implementing comprehensive knowledge management systems and processes, which can provide a competitive advantage compared with adversaries (Singh and Gupta, 2021). DHA has taken some initial steps to develop a learning health system, such as its rollout of the Ready Reliable Care approach and monitoring activities it performs through its working groups (risk management, credentials, and through the patient safety program) (see Chapter 6 and Appendix G for findings on Ready Reliable Care) (MHS, 2024a). In its internal assessment, DHA highlighted the Strategic Performance Improvement Data Repository as a "knowledge management tool to track and facilitate [performance and quality improvement] projects." We also learned of meetings at every level (e.g., patient safety huddles, quality council, medical staff executive committee) to facilitate the transfer of knowledge. But while aspects of a knowledge management system exist in MHS, they fall short of an integrated knowledge management system that staff can use to learn about policies and procedures, document changes to SOPs, and share information across sites so that a learning culture around CQM occurs. One way that MHS can achieve an integrated knowledge management system is to understand the current state of this system by creating an inventory of all knowledge management approaches used in MTFs and OCS settings, cross-walk these to CQM areas, and develop a plan to address identified gaps (i.e., CQM areas that lack knowledge management approaches). This should include ensuring that documentation produced by MTFs and OCS settings (such as After Action Reports) is systematically reviewed by both operational and medical command and incorporated, if appropriate, in decisionmaking. Understanding whether current knowledge management approaches for CQM work well for OASD(HA), DHA, and SGs will help DoD achieve strategic advantages compared with other nations by better positioning the U.S. military to provide quality and safe care with mechanisms in place to ensure that institutional memory about CQM is not lost. One approach to improved knowledge management may include updating documentation systems to allow for data consolidation to support analysis and standardization.

The second approach is reliable internet connectivity. Optimal knowledge management systems are processes that rely on essential information technology, such as internet connectivity. Given the challenges with OCS settings accessing the internet, we recommend that internet connectivity be prioritized and deployed for all OCS settings where practicable. For settings with practicability concerns, robust systems should be available that allow for digital documentation and storage of patient care records to be transmitted automatically when connectivity is restored. In most other

settings, reliable internet connectivity should be considered a minimum standard to ensure that personnel in OCS settings can fully utilize future knowledge management systems developed and implemented by the MHS. Internet connectivity also allows better overall documentation related to patient care and safety events and is a key component of a robust learning health system. Learning health systems rely on systematic data, collected through electronic health records and other data systems requiring internet connectivity, for vital downstream data integration and analytics. For example, inconsistent access to MHS GENESIS and operational electronic health records, such as HALO, as well as event reporting systems, complicates the documentation of patient encounters and incidents and in some cases results in no documentation. We note that these challenges were also cited in a recent memo from the Office of the Under Secretary of Defense regarding improvements in the efficiency of military medical credentialing and privileging, noting slow and duplicative systems. That memo charged the ASD(HA) to develop a plan to ensure universal medical credentialing and privileging (Hurst, 2025).

To enhance continuity among personnel responsible for maintaining patient safety and quality standards, we also recommend that DHA and the services investigate strategies to preserve or increase staffing of civilians in CQM roles at both MTFs and OCS settings. We make this recommendation acknowledging feasibility concerns for increasing civilian staff generally and known backlogs in civilian hiring at military bases. In the 2022 Medical Corps Survey, improved ancillary and administrative support staff was selected as a top solution to influence decisions of physicians to stay on active duty, behind only salary concerns (Chan et al., 2024). Recruitment and retention of personnel is a component of the first strategic goal of DHA and OASD(HA) in the FY 2024 Evaluation of the TRICARE Program (DHA, 2024). To work toward this goal, the MHS emphasizes workforce investments in CQM education and the Ready Reliable Care Safety Communication Bundle, which may enable personnel to better understand and address workforce stressors. Although our interviews reflected positive views of some of these efforts, such as Ready Reliable Care, effects on burnout or turnover were not mentioned, and workforce issues still featured prominently among the challenges discussed. Given the strong endorsements from military staff and the broader literature for increased ancillary and administrative support, retaining civilian support staff should therefore not be overlooked on the basis of steep challenges.

While DoD pursues its strategic restructuring of the civilian workforce to align with its National Defense Strategy (Hegseth, 2025), it should consider how maintaining civilian CQM roles supports readiness. Preservation of these roles should be feasible even within broader reduction targets for the civilian workforce, given that civilian health care roles make up a relatively small proportion of the overall civilian workforce across DoD and the services, with the exception of the Army (Belcher, Diebel, and Lawler, 2021). Placing low-turnover staff in CQM roles fulfills a need for continuity that cannot be met with uniformed staff. This approach would foster the development and retention of institutional knowledge and strengthen the operational framework within the MHS to provide safe and effective care. Staff in these roles should additionally avoid holding multiple CQM roles simultaneously (referred to as being "multi-hatted") when responsibilities span areas that should remain distinct, such as patient safety and risk management. Combining these roles undermines the principles of a Just Culture and increases the risk of burnout and morale issues caused by excessive

workload. By implementing a robust and comprehensive knowledge management system, MHS can preserve institutional memory while promoting a culture of learning around CQM.

Summary

Internal assessments from OASD(HA), DHA, and SGs and our interviews with MTF and OCS personnel yielded valuable information about strengths and opportunities for improvement related to the quality and patient safety review process. We identified more areas for improvement for OCS settings than MTFs—largely attributable to the challenge of identifying OCS settings, lack of standardized processes, and the environments in which OCS settings operate—although both MTFs and OCS settings can be improved. We also identified some overarching issues related to knowledge management and staffing that would benefit from being addressed. Overall, the findings and recommendations in this report highlight areas for improvement and suggestions for ways that MTFs and OCS settings can improve the quality and patient safety review process.

Appendix A

Internal Assessment

NDAA FY 2023 Section 706 mandated that the ASD(HA), the DHA director, and the SGs of the Army, Navy, and Air Force conduct and submit an internal assessment of the quality and patient safety review process for care delivered in direct care settings (i.e., MTFs and OCS settings). As noted in Chapter 1, we developed the internal assessment based on the patient safety and quality domains listed in the NDAA (Table 1.1). All methods were approved by RAND's Institutional Review Board and the Component Office for Human Research Protections, DHA Office of Research Protections. This work received an exemption determination from the DHA Survey Program Office.

Internal Assessment Questions

Below, we provide the questions that composed the internal assessment completed by OASD(HA), DHA, and SGs from each of the services.

1. The need for CQM functions to be implemented in MTFs and OCS settings were established by laws and NDAAs in recent years. These include definitions in 10 USC 1073c/d, additional roles and responsibilities identified in NDAA FY20 Section 712 (i.e., SGs are responsible for OCS settings – on ships, planes, and installations outside of MTFs - that include management of privileging, scope of practice, and quality of health care in these settings), extension of CQM functions to OCS settings in NDAA FY21 Section 706, and guidance in DoDI 6025.13 (2023). What are the procedures or processes used to ensure the following in MTFs *and* OCS settings:
   A. credentialing and privileging of providers is conducted according to policy?
   B. QA, SOC, and incident review is conducted according to policy?
   C. health care providers who are found to have not met a required SOC are held accountable according to policy?
   D. transparency activities occur according to policy including an assessment of the publication of clinical quality metrics (at the level of military medical treatment facilities and other operational medical units of the DoD), and a comparison with similar metrics for non-Department health care entities?
   E. standardization activities including activities aimed at eliminating unwarranted variation in clinical quality metrics at the level of MTFs and other OCS settings of the Department are conducted according to policy?

2. NDAA FY23 Sec. 706 mandates an understanding of compliance with the procedures for credentialing and privileging. These mostly correspond with activities in the credentialing and

privileging functions within CQM. What evidence or documentation indicates the extent of compliance with credentialing and privileging requirements for providers?

3. NDAA FY23 Sec. 706 mandates an understanding of compliance with the processes for QA, SOC, and incident review. These mostly correspond with activities in the health care risk management and patient safety functions within CQM. What evidence or documentation indicates the extent of compliance with QA, SOC, and incident review?

4. DoDI 6025.13 (2023) emphasizes the need for MHS CQM functions to reflect a learning health care system. Three elements of learning are assessing performance, developing mitigation plans when performance requires it, and planning for improvement. How do you assess performance, mitigate poor performance, and plan for improvement for each of the quality and patient safety review process activities in including:
   A. Credentialing and privileging
   B. QA
   C. Accountability
   D. Transparency
   E. Standardization

Questions asked only of SGs

5. What service-specific policies (beyond DHA-PM 6025.13) guide implementation of the quality and patient safety review process activities in MTFs and OCSs[8] for:
   A. Credentialing and privileging
   B. QA
   C. Accountability
   D. Transparency
   E. Standardization
   F. Implementation of NDAA FY21

6. What evidence indicates adherence to service-specific policies for these activities?
   A. Credentialing and privileging
   B. QA
   C. Accountability
   D. Transparency
   E. Standardization
   F. Implementation of NDAA FY21

7. Is there local implementation guidance (i.e., MTF- or OCS-specific) that informs how activities should be conducted?
   A. Credentialing and privileging
   B. QA
   C. Accountability

[8] OCS refers to an Operational Clinical Service, defined in DoDI 6025.13 (2023) as "Clinical and clinical support services on ships and planes, in deployed settings, and in all other circumstances outside an MTF."

D. Transparency
E. Standardization
F. Implementation of NDAA FY21

8. Can you provide an example of how guidance differs between MTFs and OCS settings in conducting these activities and reasons for different guidance?
   A. Credentialing and privileging
   B. QA
   C. Accountability
   D. Transparency
   E. Standardization
   F. Implementation of NDAA FY21

9. NDAA FY20 Sec. 712 established that service SGs are responsible for OCS settings – on ships, planes, and installations outside of MTFs – that include management of privileging, scope of practice, and quality of health care in these settings. We need you to identify all OCSs in the services. Please identify a point of contact to provide a list of all OCS settings and their respective locations and include that list with us as your response to this item.

Assessment Respondents

Our sponsor facilitated identifying an individual within each organization to receive the request for the internal assessment. We sent the request to complete the internal assessment to each identified individual in April 2024; all responses were received by June 2024. The internal assessment instructions advised that completion of RAND's internal assessment met the requirement outlined in the NDAA but that they could conduct their own assessment and provide that to RAND. All organizations responded using the assessment structure we provided.

Individuals who completed the assessment were also advised that they would be named in this report, and these are provided in Table A.1.

Table A.1. Internal Assessment Respondents, by Organization

Organization	Respondent
ASD(HA)	Twee Sim, M.D. Director, Medical Quality Assurance, CQM, Ethics and Graduate Medical Education Policy
DHA	Todd W. Poindexter, M.D. Acting Chief, Credentialing and Privileging Clinical Support Division, Medical Affairs Assistant Director for Healthcare Administration
Department of the Army	Shelley N. Franco Assistant Deputy for Medical Health Affairs Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs)
Department of the Navy	Carmen C. Birk Director High Reliability/CQM Bureau of Medicine and Surgery
Department of the Air Force	Lauren J. Wolf, M.D., M.S.H.S. Colonel, U.S. Air Force, MC Chief, Air Force Medical Command Operational Quality MTF Chief of the Medical Staff Consultant Air Force Medical Agency

Review and Syntheses

Responses to the request were compiled in a spreadsheet for ease of comparison. We reviewed the responses from each organization to document relevant processes and policies related to each of the quality and patient safety domains. In addition, we compared responses to assess consistency and any notable variations in perspectives or processes across organizations, particularly as they pertained to oversight of MTFs and OCS settings. We also captured ways that those responding to the internal assessment claimed that their organization was focused on improvement initiatives reflective of a learning health care system. Although we had identified several policies at the outset of the project, review of the responses from the internal assessment ensured that we had included all relevant policies. To supplement further, we also searched the DoD Directives Division of the Washington Headquarters Service and the DHA Publications Library for relevant policies. Relevant policies were catalogued and retained to assist in qualitative interview design and for project staff awareness and context.

Appendix B

Qualitative Interviews

As described in Chapter 1, we conducted qualitative interviews with personnel across MTFs and OCS settings to understand how the quality and patient safety review process is implemented in a range of settings and identify whether variations indicated opportunities for improvement.

This appendix describes how we selected MTF and OCS settings, interviewee eligibility requirements and recruitment efforts, respondent characteristics, data analysis and synthesis, and limitations. The seven interview guides that we used to conduct qualitative interviews appear at the end of this appendix. All methods were approved by RAND's Institutional Review Board and the Component Office for Human Research Protections, DHA Office of Research Protections. This work received an exemption determination from the DHA Survey Program Office.

Site Selection

We selected ten MTFs and nine locations with OCS settings to conduct our qualitative interviews. Our approach to selecting MTFs and OCS settings aimed to maximize variability in locations selected across a number of variables. Selecting locations for site visits to maximize variability is one advantage of qualitative research in that it allows researchers to describe a range of processes, experiences, and perspectives at sites (Palinkas et al., 2015). In our case, this was needed to understand different activities that sites use to administer the quality and patient safety review process.

MTF Selection

We obtained a list of all active medical facilities classified as either hospitals or clinics as of April 2024 from Health.mil (DMIS ID tables) (MHS, 2025), which is consistent with current definitions of MTFs (MHS, 2023b). MTFs were selected to maximize variability across service branch, enrollment size, geographic location, and patient safety reporting rates. For geographic location, we included an OCONUS site and also considered distribution across the CONUS sites. Although it might be argued that patient safety reporting rates reflect either a learning culture or a prevalence of medical errors, we adopted the former perspective that higher rates were more reflective of sites willing to report such events, and, therefore, we were interested in having variability on this characteristic. Table B.1 provides additional details on each of the variables that we considered when selecting MTFs.

Table B.1. Variables Informing the Selection of MTFs

Characteristic	Description	Number of MTFs
Service branch	Army, Navy, Air Force, National Capital Region	Army (3) Navy (3) Air Force (3) National Capital Region (1)
Beneficiary enrollment size	Number of beneficiaries enrolled, divided into low (<33rd percentile, 9,546), medium (33–66th percentile), and high (>66th percentile, 19,215)	Low (3) Medium (3) High (4)
Geographic location	CONUS, OCONUS	CONUS (9) OCONUS (1)
Patient safety reporting rates	Rates of patient safety events (based on JPSR Patient Safety Event counts from Health.mil) divided by beneficiary enrollment to account for differences in number of beneficiaries. These are divided into three groups: low (<25th percentile, medium (25th–75th percentile), and high (>75th percentile).	Low (3) Medium (3) High (4)

Selection of OCS Settings

In contrast with MTFs, as of June 2024, there was no publicly available list of all active OCS settings across the services. The internal assessment asked the services to identify an individual who could provide a list of active OCS settings. We received a patchwork of internal lists of OCS settings from the services and then spent additional time in discussions with the service representatives to obtain more information to understand the lists and fill gaps. In addition, we were also able to identify some OCS settings from the DMIS ID tables mentioned above. The lists we received did not include all OCS settings, were in various stages of completeness, and varied in format and content. Lists of OCS settings also lacked consistency in how OCS settings were identified (e.g., unit level, group level, brigade level) and information on the nature of the OCS settings (e.g., embedded units, fixed facility, mobile facility). Through this process, the services acknowledged that no comprehensive list of OCS settings currently exists, partially due to (1) diffuse and overlapping responsibility and authority of OCS settings across the globe necessitating intensive information-gathering, (2) the sensitive nature of some locations, and (3) the dynamic demands of missions across the combatant commands.

OCS settings were selected to maximize variability in service branch and geographic location (Table B.2). We also sought variability across types of OCS settings (e.g., on installations, in deployed environments, on ships, on planes) and whether the OCS setting was co-located with an MTF. Type of OCS settings was determined by any information provided by each of the service branches regarding the nature of services provided by the OCS setting. Co-location with an MTF was determined from information provided from the service branches on the internal assessment, indication of co-location in the DMIS ID tables, or information provided by points of contact at selected MTFs.

Table B.2. Variables Informing the Selection of OCS Settings

Characteristic	Number of OCS Settings
Service branch	Army (3) Navy (3) Air Force (3)
Geographic location	CONUS (5) OCONUS (4)

Interviewee Eligibility Criteria and Recruitment

We aimed to interview ten to 15 staff at each MTF and six to 15 at each OCS, allowing for fewer respondents at small OCS settings. For MTFs, we aimed to include personnel at each MTF who had roles or responsibilities related to patient safety, risk management, quality of care, or credentialing and privileging or were in a senior health care leadership role within the MTF. For OCS settings, we sought to speak with personnel who either were on-site staff who provide care at an OCS setting who had knowledge about patient safety and quality or were senior leaders responsible for the quality and patient safety review process at an OCS setting. Eligible personnel included active-component members of the U.S. military, including members of the Army, Navy, Air Force, or Marine Corps; DoD government civilians; and DoD contractors (up to nine per calendar year, consistent with our regulatory approval).

DHA created taskers that identified a point of contact that each MTF and OCS setting selected to work with us to coordinate the visit. Once a point of contact was identified, we provided information that explained the purpose of the assessment and requested their assistance with identifying potential interviewees. The point of contact provided the RAND team with a list of potential interviewees based on their knowledge of different roles related to quality and patient safety at their site. We then selected interviewees from this list based on their role and responsibilities. We sought to include interviewees from a range of different roles and with different experiences. Once potential interviewees were identified, we reached out to them to request to schedule an interview.

Interview Guides

We developed seven semi-structured interview guides—five for interviews with MTF representatives (patient safety, risk management, quality, provider oversight, or senior leader) and two for representatives in OCS settings (on site, oversight). Each interview guide contained questions about specific quality and patient safety review process domains that aligned with the components required for the assessment (Table 1.1). Guides included questions that were specific to the type of role, department, or environment where each interviewee worked (e.g., within an operational setting, oversight at an MTF). The interview domains covered across the five MTF and two OCS interview guides overlapped substantially; however, the OCS guides were more cross-cutting, reflecting the lower likelihood of OCS settings having dedicated personnel for a single domain. Table B.3 lists each

interview domain, the processes and activities that we focused on within each evaluation component, and the associated interview guide. Interview guides are provided at the end of this appendix.

Table B.3. Interview Guides and Domains

Interview Domain	Provider Oversight	Quality	Patient Safety	Risk Management	Senior Leader	On Site	Oversight
Roles and responsibilities	X	X	X	X	X	X	X
Credentialing and privileging	X				X	X	X
QA		X	X		X	X	
SOC		X	X	X	X		X
Incident review			X	X	X	X	X
Health care provider accountability	X		X	X			
Transparency activities of metrics		X	X		X		X
Standardization activities		X	X				X
Implementation of CQM program						X	X

Data Collection

Interviews lasted up to 60 minutes and were conducted in person whenever possible. Interviews that were not conducted in person were held virtually using Microsoft Teams. All interviewees provided verbal consent to participate in the interview. Interviews were led by one researcher while a second researcher took transcript-style notes to capture interviewees' responses. We used the transcription function in Microsoft Teams to supplement note-taking.

Respondent Characteristics

Across the 19 sites, we identified 241 individuals for recruitment and conducted interviews with 217 of them. Of those who did not participate, five were not eligible, 11 declined, and eight did not respond to our invitation to participate. One interview was excluded from the analysis because the notes from the interview were not available. This resulted in 216 interviews included in the analyses.

Table B.4 summarizes selected characteristics by MTF versus OCS respondents. MTF respondents included a higher proportion of government civilians, while OCS respondents were predominantly uniformed. Unformed respondents were typically senior officers. Approximately half of respondents had both an administrative leadership role and a clinical role. MTF respondents were

more likely to be in an executive leadership role, dedicated CQM role (e.g., patient safety, quality), or clinical setting.

Table B.4. Characteristics of Respondents

	MTF Respondents (*N* = 121)		OCS Respondents (*N* = 95)	
Respondent Characteristics	**% MTF**	***n***	**% OCS**	***n***
Service branch				
Army	12.4	15	37.9	36
Navy	20.7	25	29.5	28
Air Force	17.4	21	17.9	17
N/A[a]	49.6	60	14.7	14
Military status				
Active component	50.4	61	85.3	81
DoD government civilian	47.1	57	14.7	14
Contractor	2.5	3	0	0
Rank				
E-4–E-9	2.5	3	8.4	8
O-1–O-3	5	6	10.5	10
O-4–O-8	43	52	66.3	63
N/A[a]	49.6	60	14.7	14
Role				
Administrative leadership only	55.4	67	35.8	34
Clinical only	0	0	9.5	9
Both clinical and administrative	44.6	54	54.7	52
Current administrative or clinical role/setting				
Health care business operations	2.5	3	0	0
Executive leadership	13.2	16	9.5	9
Patient safety	8.3	10	0	0
Quality	20.7	25	0	0
Credentialing	6.6	8	1.1	1
Risk management	3.3	4	0	0
MTF clinical setting	38.8	47	0	0
Operational setting	0.8	1	88.4	84
Other[b]	5.8	7	1.1	1
Interview guide				
Provider oversight	19.8	24	-	-
Quality	22.3	27	-	-
Patient safety	30.6	37	-	-

Respondent Characteristics	MTF Respondents (*N* = 121)		OCS Respondents (*N* = 95)	
	% MTF	*n*	% OCS	*n*
Risk management	11.6	14	-	-
Senior leader	15.7	19	-	-
On site	-	-	56.8	54
Oversight	-	-	43.2	41

[a] Includes DoD government civilians and contractors.
[b] Includes respondents in other roles, such as resource management, or roles in two CQM areas (quality and patient safety).

A subset of respondents were providers or had an ancillary clinical role (Table B.5). Of these, MTF respondents tended to reflect the wider range of clinical services available at MTF, whereas OCS respondents were mostly physicians and physician assistants.

Table B.5. Types of Providers and Clinical Personnel

Respondent Characteristics	MTF Respondents (*N* = 54)		OCS Respondents (*N* = 61)	
	% MTF	*n*	% OCS	*n*
Physicians, physician assistants	35.2	19	60.7	37
Nursing[a]	29.6	16	6.6	4
Mental health[b]	9.3	5	14.8	9
Ancillary clinical services[c]	20.4	11	1.6	1
Independent duty and medics[d]	0	0	11.5	7
Other[e]	5.6	3	4.9	3

[a] Includes nurse practitioners and registered nurses.
[b] Includes psychiatrists, psychologists, and social workers.
[c] Includes imaging, laboratory, and pharmacy personnel.
[d] Includes independent duty corpsmen, independent duty medical technicians, and medics.
[e] Includes dentists, physical therapists, and public health.

Although types of services were not part of the MTF and OCS site selection criteria, selected MTFs and OCS settings varied by the types of health-related services that were provided at each site. Services ranged from preventive care, which all MTFs provided, to medical equipment and supplies, which only a couple of MTFs offered. All MTFs reported providing such services as primary care, dental care, vision care, pharmacy services, and women's health/pregnancy care. Other MTFs provided such services as urgent and emergency care, lab testing and radiology, hospital care and surgery, specialty care, or executive medicine. OCS settings, particularly those in garrison or during training exercises, reported fewer, less-acute clinical services. According to respondents, OCS settings offered primary care, care at "sick call" (i.e., a daily lineup of personnel to triage usually minor illnesses), orthopedic services, physical therapy, sports medicine, fitness screenings, neurological

testing, and embedded mental health. However, care in OCS settings can vary significantly, ranging from this routine care provided in garrison and during training to acute care provided for trauma and mass casualty events in combat settings.

Data Analysis and Synthesis

Given our interest in understanding variation in the quality and safety review process in both MTF and OCS settings and across military branches, we approached the data synthesis process systematically. We analyzed interview notes to understand each individual site's overall approach to quality and patient safety review. We then compared and contrasted those practices and processes to understand differences and similarities between MTFs and OCS settings and whether there was variation across services.

For interview analysis, we developed a preliminary codebook to categorize interviewee responses and characterize how the elements of the quality and patient safety review processes were conducted and reviewed across sites. We developed a code structure in stages, in accordance with principles of grounded theory, using systematic, inductive procedures to generate insights grounded in the interviews (Bradley, Curry, and Devers, 2007). The preliminary codebook was based on the domains within the interview guide and intended to identify and catalog a range of responses.

The coding team independently coded three sets of interview notes, meeting to negotiate any differences and to ensure a shared understanding of the code structure. These initial notes were purposefully selected to achieve broad representation among sites and respondents and to allow coders to test the codebook against a wide range of potential responses and situations. We used the constant comparative method to ensure that interview excerpts were consistently classified (Bradley, Curry, and Devers, 2007). We eliminated some codes, expanded on or refined others, and added additional codes as novel concepts were identified. All discrepancies were resolved by consensus, and the codebook was revised to reflect the coding team's understanding of how to consistently apply the codes. We also elevated some codes to the larger qualitative analysis team to ensure that our codes would capture information that was valuable for the overall project goals. The remaining interview notes were then assigned to specific members of the coding team. The entire coding team met weekly throughout the coding process to review progress made, discuss any challenges in coding, and refine the codebook as needed. In addition to coding interview excerpts to characterize quality and safety processes, we also identified exemplary quotes. These quotes were selected because they provided a particularly vivid and detailed description of a challenge or facilitator to the process. We used Dedoose to manage excerpts and facilitate analysis.

Limitations

Our qualitative interview approach has several strengths, including conducting a large number of interviews across a wide range of sites, using comprehensive interview guides, and executing rigorous qualitative analyses. We conducted 216 interviews across 19 sites and appeared to reach the point at which no new concepts were identified with each additional interview (known as *data saturation*). Yet, we note some limitations. We intentionally sought an interview sample that would capture diverse

perspectives and processes; thus, our respondents are not a representative sample. Personnel were identified from among those suggested by each site point of contact. We recognize that identifying respondents in this way may have introduced bias. It is possible that some of the respondents that were selected by the site point of contact might systematically differ from personnel who were not selected (e.g., selected personnel might have more positive views), but we aimed to include individuals who had the most expertise on patient safety and quality. Nevertheless, such a small number of sites cannot capture the full diversity of direct care, particularly the range of OCS settings, which tend to vary more than MTFs. Because study respondents were spread across multiple services and commands, we were not able to learn about some programs in as much depth as we were with others. Furthermore, interviews were limited to personnel with a role in the quality and patient safety review process. We did not attempt to interview patients or collect any quantitative data by reviewing charts or assessing quality metrics. We also did not make any formal comparison between military and civilian quality policies and procedures. Finally, all of our interviewees held roles within MTFs or OCS settings. Although our interviewees could describe the key components of the quality and safety process in those settings, they often did not have visibility into how those components were used to inform the decisionmaking process that leads to larger-scale policy and process changes beyond the local level. Therefore, the results of this assessment largely captured a range of views of health care leadership and clinical personnel within the MHS.

Provider Oversight Interview Guide

Structured Items
(These same items [1 through 8] appeared at the beginning of all five guides for MTF respondents but are not repeated in subsequent guides.)

1. Military service branch:
   - ☐ Army
   - ☐ Navy
   - ☐ Air Force
   - ☐ Marines

2. Status:
   - ☐ Active Component
   - ☐ DoD government civilian
   - ☐ Contractor

3. Rank (if applicable):

4. Setting:
   - ☐ MTF
   - ☐ OCS

5. At this MTF/OCS, do you have an administrative leadership role, a clinical role, or both?
   - ☐ Administrative Leadership
   - ☐ Clinical
   - ☐ Both

6. In which MTF/OCS clinic or department do you work?

7. Provider type?

8. What is your role/title?

Understanding your perspective

9. What care, treatment, and services does your MTF/OCS provide? (e.g., inpatient/outpatient, which specialties and procedures, etc.)

10. How does your role relate to quality and/or patient safety in health care?
    a. How long you have been in this role?
    b. What locations or division(s) do you have under your responsibility?
    c. Who else works under you? Who do you report to?

As someone who is knowledgeable about issues related to healthcare provider oversight, we want to learn from you about three areas related to the quality and patient safety review process: credentialing and privileging and the accountability process. Please focus your responses as they apply to direct care (i.e., care received in this setting) only.

For the first area – **credentialing and privileging of healthcare providers** – we need to understand the procedures used for credentialing and privileging.

11. What are the steps taken to verify the credentials of healthcare providers at this MTF/OCS?
    - How often is this done?
    - *If not mentioned: Does this process include checking the NPDB and/or Clinical References?*

12. What are the steps taken to reverify the credentials of healthcare providers at this MTF/OCS?
    - How often is this done?
    - *If not mentioned: Does this process include checking the NPDB and/or Clinical References?*

13. Are credentials for healthcare providers recorded/documented?
    - If yes, where? How frequently?

14. What works well in the credentialing process? What can be improved?

15. What are the steps in the privileging process for healthcare providers at this MTF/OCS?
    - How often is this done?
    - *If not mentioned: Does this process include FPPE and OPPE?*

16. What are the steps for renewing privileges for healthcare providers at this MTF/OCS?
    - How often is this done?
    - *If not mentioned: Does this include process include FPPE and OPPE?*

17. Are privileges for healthcare providers recorded/documented?
    - If yes, where (e.g. CCQAS)? How frequently?

18. What works well in the privileging process? What can be improved?

19. Does your MTF/OCS monitor provider performance?
    - How often? What are the steps in the process of monitoring?
    - *[If not mentioned]* Does SOC factor into provider performance monitoring?
    - *[If yes to above]* Are you informed of final case outcome in the SOC determinations and if so, how do you use that information?
        1. Is there a regulation or guidance that informs how you use that information?

We also need to understand whether procedures are used for the second area – ensuring that healthcare providers are held **accountable** when needed.

20. What are the guidelines/thresholds for implementing Adverse Privileging Action Processes (implemented when there are significant concerns about a provider's care)?
    a. If guidelines/thresholds are tied to a SOC, how are those standards determined?
    b. What data are kept on Adverse Privileging Action Processes? How regularly and systematically are these reviews documented?
    c. What are the criteria for reporting? How are those data shared across MTFs/OCS?
    d. What remedial actions are taken in response to Adverse Privileging Actions? How are those actions documented?

21. What provider accountability processes exist for patient safety incidents that do not rise to the level of triggering Adverse Privileging Action Processes? What is an example of this situation?
    a. What informs whether providers should be held accountable for these types of patient safety events?
    b. What does holding a provider accountable typically look like? (education, loss of privileges, etc.?)
    c. Are criteria used? If so, what are they?
    d. What are the steps and/or processes taken to hold a provider accountable?
    e. How is the accountability process documented?
    f. Are lessons learned from these incidents identified and shared? How?

22. Do you have any other comments on the topics we discussed today?

23. Who else at this location should we speak with if we have questions about quality of care and how it is monitored?

Quality Interview Guide

Structured Items
(See Provider Oversight Interview Guide.)

Understanding your perspective

1. What care, treatment, and services does your MTF/OCS provide? (e.g., inpatient/outpatient, which specialties and procedures, etc.)

2. How does your role relate to quality and/or patient safety in health care?
    a. How long you have been in this role?
    b. What locations or division(s) do you have under your responsibility?
    c. Who else works under you? Who do you report to?

As someone who is knowledgeable about issues related to healthcare quality, we want to learn from you about four areas related to the quality and patient safety review process: QA, SOC, transparency activities, and standardization activities. Please focus your responses as they apply to direct care (i.e., care received in this setting) only.

Quality Assurance

3. Clinical QA is defined in DoDI 6025.13 (2023) as *"A program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met. Clinical QA's main purpose is to verify that clinical quality control is being maintained."*
   What is the scope of your MTF's/OCS's clinical QA activities?
   [note to interviewers: for subject matter experts who are responsible for providing healthcare/behavioral health/medication/invasive procedures including surgeries (infection control, site verification, timeouts)/care for patients who need inpatient beds (i.e., preventing falls)/labs, probe about specific QA activities related to those areas/subject matter expert role].
    - Who is responsible for clinical QA activities at this location? Is there a clear chain of responsibility for each clinical QA activity you mentioned?
    - What is the process for knowing if clinical QA activities are working well and/or they need to be modified?
        - What measures are used for clinical QA monitoring and evaluation?

Standard of care

4. SOC is defined in DHA-PM 6025.13 (2019a) as *"Healthcare judgments and actions of a healthcare provider generally accepted in the discipline or specialty involved as reasonable and appropriate."*
   How does your MTF/OCS establish SOC?
   [note to interviewers: for subject matter experts who are responsible for providing healthcare/behavioral health/medication prescribing/invasive procedures including surgeries (infection control, site verification, timeouts)/ care for patients who need inpatient beds (i.e., preventing falls)/labs, probe about establishing SOC related to those areas/subject matter expert role].
   - How does your MTF/OCS determine whether SOC is met?
   - When SOC is *not* met, what steps are taken to address this with providers?

Standardization activities

5. Tell me about the way your MTF/OCS standardizes activities to reduce unwanted variation in quality.
   - Who is responsible for these activities?
   - What are the capabilities at this location for analysis and assessment of clinical quality? Where do you go for analytic support?

Transparency activities

6. Tell me about the clinical quality metrics your MTF/OCS measures, tracks, and trends.[9]
   - How do you use these to monitor and improve performance?
   - Who is responsible for making sure these metrics are transparent to those who receive or take part in care - patients/providers/ the public?
     - How about to those who have a vested interest in performance – DoD/DHA leaders?
   - How are stakeholders who receive or take part in care - patients/providers/the public – informed of performance?
   - How are other stakeholders who have vested interest in facility performance informed of such measures/trends?
   - What steps are taken to make this data available and interpretable to beneficiaries, enrollees, and providers?

7. Do you have any other comments on the topics we discussed today?

8. Who else at this location should we speak with if we have questions about quality of care and how it is monitored?

[9] If more context is needed, DoDI 6025.13 (2023) defines clinical measurement as using *"tools to help evaluate and track the quality of healthcare services provided to beneficiaries in the MHS. Analyzing [clinical measurement] data and acting on identified trends for improvement helps ensure the MHS delivers safe, timely, effective, efficient, equitable, and patient-centered care."*

Patient Safety Interview Guide

Structured Items
(See Provider Oversight Interview Guide.)

Understanding your perspective

1. What care, treatment, and services does your MTF/OCS provide? (e.g., inpatient/outpatient, which specialties and procedures, etc.)

2. How does your role relate to quality and/or patient safety in health care?
    - How long you have been in this role?
    - What locations or division(s) do you have under your responsibility?
    - Who else works under you? Who do you report to?

As someone who is knowledgeable about issues related to patient safety, we want to learn from you about six areas related to the quality and patient safety review process: QA, incident review, SOC, accountability processes, transparency activities, and standardization activities. Please focus your responses as they apply to direct care (i.e., care received in this setting) only.

Quality assurance

3. Clinical QA is defined in DoDI 6025.13 (2023) as *"A program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met. Clinical QA's main purpose is to verify that clinical quality control is being maintained."*
   What is the scope of your MTF's/OCS's clinical QA activities?
   [note to interviewers: for subject matter experts who are responsible for providing healthcare/behavioral health/medication/invasive procedures including surgeries (infection control, site verification, timeouts)/inpatient bed services (i.e., preventing falls)/labs, probe about specific QA activities related to those areas].
    - Who is responsible for clinical QA activities at this location? Is there a clear chain of responsibility for each clinical QA activity you mentioned?
    - What is the process for knowing if clinical QA activities are working well and/or they need to be modified?
        - What measures are used for clinical QA monitoring and evaluation?

Standard of care

4. SOC is defined in DHA-PM 6025.13 (2019a) as *"Healthcare judgments and actions of a healthcare provider generally accepted in the discipline or specialty involved as reasonable and appropriate."*
   How does your MTF/OCS establish SOC?
   [note to interviewers: for subject matter experts who are responsible for providing healthcare/behavioral health/prescribing medication/invasive procedures including surgeries (infection control, site verification, timeouts)/inpatient bed services (i.e., preventing falls)/labs, probe about SOC related to those areas].
   a. How does your MTF/OCS determine whether SOC is met?
   b. When SOC is *not* met, what steps are taken to address this with providers?

Standardization activities

5. Tell me about your MTF's/OCS's process for standardizing activities to reduce unwanted variation in patient care?
   a. In what ways do the patient safety activities at this location help integrate and complement other CQM activities? In what ways could it be better at this?

Incident review

6. DoDI 6025.13 (2023) defines patient safety events as *"an incident or condition that could have resulted, or did result, in harm to a patient. A patient safety event can be but is not necessarily the result of a defective system or process design, a system or process breakdown, equipment failure or malfunction, or human error. Patient safety events include adverse events, no-harm events, near miss events, and unsafe/hazardous conditions as defined below:*
   adverse event. *Patient safety event that resulted in harm to the patient. The event may occur by the omission or commission of medical care.*
   no-harm event. *Patient safety event that reached the patient but did not cause harm.*
   near miss event. *Patient safety event that did not reach the patient (also known as "close call" or "good catch").*
   unsafe/hazardous condition. *A condition or a circumstance (other than a patient's own disease process or condition) that increases the probability of an adverse event."*

   Tell me about your MTF's/OCS's incident review process for patient safety events?
   a. What does the patient safety event reporting process (e.g., DoD Reportable Events) look like?
      i. Does the reporting process differ for any patient safety events? That is, are no harm events reported in the same way as a sentinel event?
      ii. Who reports? When?
   b. How are patient safety event data used to mitigate future risks?
   c. How do you know whether it is working well and/or it needs to be modified?

Accountability process

7. Tell me about your MTF's/OCS's process for holding healthcare providers accountable when patient safety events occur.
    a. What steps are taken to execute it?
    b. What opportunities for remediation do providers have?
    c. How do you know whether the accountability process is working well and/or needs to be modified?

Transparency activities

8. What patient safety measures are transparently shared with stakeholders (patients/providers/leaders/the public)?
    a. How are these measures transparently shared?
    b. Who selected the patient safety measures that are shared with stakeholders?
    c. What type of communication occurs with patients if a patient safety event occurs as part of care?

9. Do you have any other comments on the topics we discussed today?

10. Who else at this location should we speak with if we have questions about quality of care and how it is monitored?

Risk Management Interview Guide

Structured Items
(See Provider Oversight Interview Guide.)

Understanding your perspective

1. What care, treatment, and services does your MTF/OCS provide? (e.g., inpatient/outpatient, which specialties and procedures, etc.)

2. How does your role relate to quality and/or patient safety in health care?
    a. How long you have been in this role?
    b. What locations or division(s) do you have under your responsibility?
    c. Who else works under you? Who do you report to?

As someone who is knowledgeable about issues related to risk management, we want to learn from you about organizational roles and responsibilities related to incident review, SOC, and accountability processes. Please focus your responses as they apply to direct care (i.e., care received in this setting) only.

Incident Review

3. DoDI 6025.13 (2023) defines patient safety events as "*an incident or condition that could have resulted, or did result, in harm to a patient. A patient safety event can be but is not necessarily the result of a defective system or process design, a system or process breakdown, equipment failure or malfunction, or human error. Patient safety events include adverse events, no-harm events, near miss events, and unsafe/hazardous conditions as defined below:*

   adverse event. *Patient safety event that resulted in harm to the patient. The event may occur by the omission or commission of medical care.*

   no-harm event. *Patient safety event that reached the patient but did not cause harm.*

   near miss event. *Patient safety event that did not reach the patient (also known as "close call" or "good catch").*

   unsafe/hazardous condition. *A condition or a circumstance (other than a patient's own disease process or condition) that increases the probability of an adverse event."*

   Are patient safety events reviewed at this MTF/OCS? Are patient safety events reviewed as part of the incident review process?
   a. If so, what are some of the most common reasons why patient safety events are reviewed? (probe: to understand trends or mitigation needs to prevent similar, future incidents).
   b. What role does SOC play when review patient safety events?
   c. If so, what criteria are used to determine whether a patient safety event needs to be reviewed?

4. *If relevant.* Please describe how patient safety events are reviewed in your MTF/OCS.
   a. Who is responsible for overseeing these activities here (could be a person or entity)?
   b. What are the steps and/or process for conducting a review of patient safety events?
   c. How is the patient safety event documented?
      i. Where is the documentation done? What type of information is collected in the documentation of the patient safety event? (probes: setting, provider type, reporter, event type, etc.)
   d. Are there lessons learned that are identified? Shared? How?
   e. How do you know whether the review process of patient safety events is working well and/or whether it needs to be modified?

Standard of care

The DHA-PM 6025.13 defines SOC as: *"Healthcare diagnostic or treatment judgments and actions of a provider generally accepted in the healthcare discipline or specialty involved as reasonable and appropriate."*

5. What, if any, policies inform how your MTF/OCS establishes the SOC for any specific circumstance?
    a. What else informs the determination of SOC?
    b. *If not already clear:* What steps are taken to determine whether the SOC is met?

6. Please describe the activities that should occur when a provider is not meeting the SOC.
    a. Who is responsible for overseeing these activities here (could be a person or entity)?
    b. How do you know whether this process is working well and/or whether it needs to be modified?

Accountability process

7. Tell me about your MTF's/OCS's process for holding healthcare providers accountable when patient safety events incidents occur.
    a. Who is responsible for overseeing these activities here (could be a person or entity)?
    b. What steps are taken to execute it?
    c. What opportunities for remediation do providers have?
    d. How do you know whether the accountability process is working well and/or needs to be modified?

8. What are the guidelines for implementing Adverse Privileging Action Processes (implemented when there are significant concerns about a provider's care)? That is, what causes this process to be implemented?
    a. If guidelines are tied to a SOC, how are those standards determined?
    b. What data are kept on Adverse Privileging Action Processes? How regularly and systematically are these reviews documented?
    c. What are the criteria for reporting?
    d. What remedial actions are taken in response to Adverse Privileging Actions? How are those actions documented?
    e. How are the results of Adverse Privileging Actions shared across MTFs/OCS?
        a. How are results shared with patients, if at all?

9. Do you have any other comments on the topics we discussed today?

10. Who else at this location should we speak with if we have questions about quality of care and how it is monitored?

Senior Leaders Interview Guide

Structured Items
(See Provider Oversight Interview Guide.)

Understanding your perspective

1. What care, treatment, and services does your MTF/OCS provide? (e.g., inpatient/outpatient, which specialties and procedures, etc.)

2. How does your role relate to quality and/or patient safety in health care?
    a. How long you have been in this role?
    b. What locations or division(s) do you have under your responsibility?
    c. Who else works under you? Who do you report to?

As a senior leader knowledgeable about issues related to healthcare provider oversight, we want to learn from you about organizational roles and responsibilities in the quality and patient safety review process. Please focus your responses as they apply to direct care (i.e., care received in this setting) only.

3. Please describe the credentialing and privileging activities performed in your MTF/OCS, if any.
    a. Who is responsible for overseeing the daily activities here (could be a person or entity)?
    b. How do you know whether the credentialing and privileging process is working well and/or needs to be modified?

4. Please describe the clinical QA process performed in your MTF/OCS, if any.
    a. Who is responsible for overseeing daily activities here (could be a person or entity)?
    b. How do you know whether the clinical QA process is working well and/or needs to be modified?

5. SOC is defined in DHA-PM 6025.13 (2019a) as *"Healthcare judgments and actions of a healthcare provider generally accepted in the discipline or specialty involved as reasonable and appropriate."*
    a. How does your MTF/OCS establish SOC?
    b. How do you know whether the SOC is being upheld?
    c. What role does SOC play in the incident review process, if any.
    d. What actions are taken when a healthcare provider is not meeting the SOC?
        i. Do actions differ if this is a one-time instance of not meeting SOC vs. a pattern of behavior?
        ii. Who is responsible for overseeing these daily activities here (could be a person or entity)?
    e. How do you know whether this process is working well and/or whether it needs to be modified?

6. Please describe how patient safety events are reviewed in your MTF/OCS, if at all.
    a. Who is responsible for overseeing these daily activities here (could be a person or entity)?
    b. How do you know whether the incident review process is working well and/or whether it needs to be modified?

7. Is information communicated to a patient who experiences a patient safety event?
    a. Is there a process by which such communication occurs?
        i. What does that process look like?
    b. Is information also communicated to providers about patient safety events?
        i. Is there a process by which such communication occurs?
            1. What does that process look like?

8. Are clinical quality metrics reported to stakeholders such as patients/providers/other leaders/public?
    a. Who is responsible for overseeing these transparency activities?
    b. How are clinical quality metrics reported?
    c. Can you describe the ways that these efforts help patients with their own healthcare decisions and improve health literacy?
    d. How do you whether transparency efforts are working well and/or whether they need to be modified?

9. Is continuous process improvement implemented at this location? If so, how?
    a. How is patient-centeredness fostered at this location?
    b. How do you know whether these activities are working well and/or whether they need to be modified?

10. What works well to ensure patient safety in your MTF/OCS?
    a. What can be improved?

11. What works well to ensure quality care is provided to patients in your MTF/OCS?
    a. What can be improved?

12. Do you have any other comments on the topics we discussed today?

13. Who else at this location should we speak with if we have questions about quality of care and how it is monitored?

On-Site Interview Guide

Structured Items

1. Military service branch:
   - ☐ Army
   - ☐ Navy
   - ☐ Air Force
   - ☐ Marines
   - ☐ None

2. Status:
   - ☐ Active Component
   - ☐ DoD government civilian
   - ☐ Contractor

3. Rank (if applicable):

4. Setting:
   - ☐ MTF
   - ☐ OCS

5. Do you have an administrative role, a clinical role, or both?
   - ☐ Administrative Leadership
   - ☐ Clinical
   - ☐ Both

6. What is the name of the medical unit/organization in which you work?

7. Provider type?

8. What is your role/title?

Understanding your perspective

DoDI 6025.13 defines OCS as *"Clinical and clinical support services on ships and planes, in deployed settings, and in all other circumstances outside a military hospital or clinic."* This interview is in relation to these services provided at your current location.

9. What care, treatment, and services are provided at this OCS location? (e.g., inpatient/outpatient, which specialties and procedures, etc.) *or an alternative way to ask this is* Under that definition, what are the OCSs that are provided at this location?

10. Is this OCS accredited? *or* Are these OCSs accredited? If so, when? If not, are there plans for it to be accredited?

11. Does your current role relate to quality and/or patient safety in health care for these OCSs, if at all?
    - How long you have been in this role?
    - What locations/units/division(s) do you have under your responsibility?
    - For this role, who else works under you? Who do you report to?

We are interested in any procedures to promote clinical quality and patient safety in health care delivery for OCSs at this location. Please focus your responses as they apply to direct care (i.e., care received in this setting) only.

Credentialing and privileging of healthcare providers

12. Do/did providers have to undergo credentialing and privileging actions to perform OCSs at this location? *[If yes, "please tell us about the process"]*
    - Who is responsible for credentialing and privileging those who provide OCS at this location?
    - How often are credentials reverified?
    - How often are privileges renewed?

Quality assurance

13. Clinical QA is defined in DoDI 6025.13 (2023) as *"A program for the systematic monitoring and evaluation of the various aspects of a project, service, or facility to ensure that standards of quality are being met. Clinical QA's main purpose is to verify that clinical quality control is being maintained."*
    What is the scope of the clinical QA activities for OCSs at this location?
    - Who is responsible for clinical QA activities for OCSs at this location? Is there a clear chain of responsibility for each clinical QA activity you mentioned?
        - What measures are used for clinical QA monitoring and evaluation?

Incident review

14. DoDI 6025.13 (2023) defines patient safety events as *"an incident or condition that could have resulted, or did result, in harm to a patient. A patient safety event can be but is not necessarily the result of a defective system or process design, a system or process breakdown, equipment failure or malfunction, or human error. Patient safety events include adverse events, no-harm events, near miss events, and unsafe/hazardous conditions as defined below:*

    adverse event. *Patient safety event that resulted in harm to the patient. The event may occur by the omission or commission of medical care.*

    no-harm event. *Patient safety event that reached the patient but did not cause harm.*

    near miss event. *Patient safety event that did not reach the patient (also known as "close call" or "good catch").*

    unsafe/hazardous condition. *A condition or a circumstance (other than a patient's own disease process or condition) that increases the probability of an adverse event."*

    Are patient safety events reported and reviewed for OCS delivered at this location?
    - Who is responsible for overseeing these activities here (could be a person or entity)?
    - Are patient safety event reports reviewed? How?
    - What is the patient safety event reporting process? How about for sentinel events (referred to as "DoD Reportable Events" under DHA)?
        - Does the reporting process differ for any patient safety events? That is, are no harm events reported in the same way as a sentinel event?
        - Who reports? When?

15. Are adverse events (patient safety events that resulted in harm to the patient) associated with OCSs disclosed to the patient when they occur?
    - What is the process for doing so?
    - Do patients have a way to provide input when those events are reviewed?
    - Are patient concerns resolved by independent and neutral health care resolutions specialists?

16. Are there ways in which competencies of providers are reviewed for the OCSs delivered here?
    - How about for required operational clinical skills?

17. Are there clinical quality metrics that you measure, track, and or trend with respect to OCS?[10]

18. Are there features or circumstances of the OCS delivered under your purview that make any of the processes that we discussed today impracticable? If so, why are these processes not practicable?

[10] If more context is needed, DoDI 6025.13 (2023) defines clinical measurement as using *"tools to help evaluate and track the quality of healthcare services provided to beneficiaries in the MHS. Analyzing [clinical measurement] data and acting on identified trends for improvement helps ensure the MHS delivers safe, timely, effective, efficient, equitable, and patient-centered care."*

19. What works well to ensure patient safety for the OCSs under your purview?
    - What can be improved?

20. What works well to ensure quality care is provided to patients receiving OCSs under your purview?
    - What can be improved?

21. Do you have any other comments on the topics we discussed today?

Oversight Interview Guide

Structured Items

1. Military service branch:
   - ☐ Army
   - ☐ Navy
   - ☐ Air Force
   - ☐ Marines
   - ☐ None

2. Status:
   - ☐ Active Component
   - ☐ DoD government civilian
   - ☐ Contractor

3. Rank (if applicable):

4. Setting:
   - ☐ MTF
   - ☐ OCS
   - ☐ Oversight location

5. Do you have an administrative leadership role, a clinical role, or both?
   - ☐ Administrative Leadership
   - ☐ Clinical
   - ☐ Both

6. What is the name of the medical unit/organization in which you work?

7. What is your role/title?

Understanding your perspective

DoDI 6025.13 defines OCS as *"Clinical and clinical support services on ships and planes, in deployed settings, and in all other circumstances outside a military hospital or clinic."* This interview is in relation to these services provided under your purview.

8. What care, treatment, and services constitute the OCSs under your responsibility? (e.g., inpatient/outpatient, which specialties and procedures, etc.)

9. Are all OCSs under your purview accredited?
    - If no, what proportion would you say are?
    - What is the process for accreditation for OCSs?

10. How does your role relate to quality and/or patient safety in health care for these OCSs, if at all?
    - How long you have been in this role?
    - What locations or division(s) do you have under your responsibility?
    - Who else works under you? Who do you report to?

As a senior leader knowledgeable about issues related to healthcare provider oversight and CQM, we want to learn from you about organizational roles and responsibilities in the quality and patient safety review process. Please focus your responses as they apply to direct care (i.e., excluding any care purchased from non-military sources) only.

Credentialing and privileging of healthcare providers

11. Is there a process for verifying the credentials of healthcare providers providing OCS under your purview? *[If yes, "please tell us about the process"]*
    - Who needs to be credentialed? Who is excluded from being credentialed?
    - When is this done? How often are they recredentialed?
    - *If not mentioned: Does this process include checking the NPDB and/or Clinical References?*

12. Is there a privileging process for healthcare providers providing OCS under your purview?
    - Who needs to be privileged? Who is excluded from being privileged?
    - When is this done?
    - How often are privileges renewed?
    - *If not mentioned: Does this process include checking the NPDB and/or Clinical References?*

13. Are there competency standards for providers' operational clinical skills?
    - Where do those standards come from?
    - Is there a review process to determine whether providers meet the standards? What is it?
    - Is this documented? How?

Incident review

14. DoDI 6025.13 (2023) defines patient safety events as *"an incident or condition that could have resulted, or did result, in harm to a patient. A patient safety event can be but is not necessarily the result of a defective system or process design, a system or process breakdown, equipment failure or malfunction, or human error. Patient safety events include adverse events, no-harm events, near miss events, and unsafe/hazardous conditions as defined below:*

    adverse event. *Patient safety event that resulted in harm to the patient. The event may occur by the omission or commission of medical care.*

    no-harm event. *Patient safety event that reached the patient but did not cause harm.*

    near miss event. *Patient safety event that did not reach the patient (also known as "close call" or "good catch").*

    unsafe/hazardous condition. *A condition or a circumstance (other than a patient's own disease process or condition) that increases the probability of an adverse event."*

    Are patient safety events reported and reviewed for OCS delivered under your purview?
    - Who is responsible for overseeing these review activities here (could be a person or entity)?
    - Are patient safety event reports reviewed? How?
    - Are patient safety event data used to mitigate future risks? How?
        - What is the patient safety event reporting process? How about for sentinel events (referred to as "DoD Reportable Events" under DHA)?
            - Does the reporting process differ for any patient safety events? That is, are no harm events reported in the same way as a sentinel event?
            - Who reports? When?

15. SOC is defined in DHA-PM 6025.13 (2019a) as *"Healthcare judgments and actions of a healthcare provider generally accepted in the discipline or specialty involved as reasonable and appropriate."*
    - Does SOC play a role in the incident review process for the OCSs performed at sites under your purview? How?
    - How is SOC determined?
    - How are healthcare providers held accountable if found to not be meeting the SOC?

Transparency

16. Are there clinical quality metrics that you measure, track, and or trend with respect to OCS?[11]
    - Do you use these to monitor and improve performance? How?
    - Are these clinical quality metrics reported? How?
    - Who can access these metrics/measures and how are stakeholders informed of them?

[11] If more context is needed, DoDI 6025.13 (2023) defines clinical measurement as using *"tools to help evaluate and track the quality of healthcare services provided to beneficiaries in the MHS. Analyzing [clinical measurement] data and acting on identified trends for improvement helps ensure the MHS delivers safe, timely, effective, efficient, equitable, and patient-centered care."*

17. Are adverse events (patient safety events that resulted in harm to the patient) disclosed to the patient when they occur?
    - What is the process for doing so?
    - Do patients have a way to provide input when those events are reviewed?
    - Are patient concerns resolved by independent and neutral health care resolutions specialists?

Standardization

18. Tell me about ways, if any, your MTF/OCS standardizes activities to reduce unwanted variation in quality.
    - Who is responsible for these activities?
    - Is continuous process improvement implemented at this OCS? If so, how?

19. Are there features or circumstances of the OCS delivered under your purview that make any of the processes that we discussed today impracticable? If so, why are these processes not practicable?

20. What works well to ensure patient safety for the OCSs under your purview?
    - What can be improved?

21. What works well to ensure quality care is provided to patients receiving OCSs under your purview?
    - What can be improved?

22. Do you have any other comments on the topics we discussed today?

Appendix C

Credentialing and Privileging Supplement

This appendix provides additional evidence from the internal assessment and respondent interviews to support the findings in Chapter 2.

Internal Assessment

Table 2.1 summarized responses to the internal assessment pertaining to credentialing and privileging. Additional details gathered include the following:

- OASD(HA) noted that it is responsible for defining CQM program requirements by providing "oversight of the implementation of the CQM issuance." OASD(HA) also noted that DHA serves as the "implementing entity for CQM programs" and has "responsibility to develop procedures to satisfy and implement CQM program requirements."
- OASD(HA) noted that "The Military Department SGs retain that responsibility in the operational environment." Only the Navy indicated that it maintains a credentialing and privileging program for providers in OCS settings.
- For the learning health care system elements, DHA noted ongoing audit and surveillance activities at MTFs to identify opportunities for mitigation in credentialing and privileging, which have led to the centralization of services (e.g., primary source verification) and education efforts. For OCS settings, the Army and Air Force emphasized the core responsibility of MTFs and DHA in implementing credentialing and privileging, while the Navy did not list learning health care system elements of note.

MTF Processes

Respondents in the qualitative interviews discussed multiple aspects of the credentialing and privileging processes at MTFs. This section provides more detail on findings in the areas of roles and responsibilities, credentialing, privileging, documentation systems, and reporting and monitoring themes from Chapter 2.

Roles and Responsibilities

Table 2.2 summarized the responses regarding roles and responsibilities at MTFs. Additional details gathered include the following:

- A Navy MTF respondent emphasized the potential for delays if individuals are not designated to oversee the process of credentialing and privileging. They said:

> At my last command, we lost the employee that managed credentialing. She was in charge of pretty much the entire command. I lost credentials for three months and the clinic I worked really needed help, and I could not engage in medicine because of that. Having someone dedicated in that function is vital.

Credentialing

Table 2.3 summarized the responses regarding credentialing at MTFs. Additional details gathered include the following:

- Respondents generally appeared to be satisfied with DHA's Centralized Credentials Verification Service. A participant in a joint MTF noted that DHA's centralized verification service conducts "99.9 percent of all the verification of any application" and then sends the verifications back to the MTF, which helps with efficiency and effectiveness of the process.
- Regarding continuous NPDB monitoring, an Army MTF respondent mentioned that an advantage of its use is that if a performance concern occurs when providers are working outside of the MTF (for instance, in civilian hospitals for supplemental income and experience), such an issue would automatically be flagged.
- Some individuals described disconnects between various steps that are due to key components of credentialing no longer being housed locally. Communication between the central office and external entities (e.g., professional schools, state medical boards, etc.) can be challenging. A Navy MTF respondent noted that initial credentialing can be challenging because they need to rely

> on someone in a different command to follow up with DHA [Human Resources], I think they call it [Civilian Human Resource Agency], to submit the initial documents. . . . the initial startup process can be labor intensive and dealing with people who are not familiar with . . . the DoD or DHA system. So I think just that initial credentialing piece can be difficult.

- Respondents also shared that when some MTFs use contracting companies for staffing of providers, such as nurses and physician assistants, delays in credentialing and privileging can occur because of inexperience with military terminology and procedures. An Air Force MTF respondent shared the following:

> Contractors don't understand military terminology. We have to constantly go back and forth with them to get the necessary information. And we get new companies every one to two years depending on their contract . . . we need to retrain them every time there is a change. We also use different contracting companies for nurses, [physician assistants], etc. So right now, I work with 12 to 13 contract companies at the same time.

- Any delays in the credentialing process can have major impacts on care because, without credentials, individuals are not allowed to access MHS GENESIS, the electronic health

record system. An Air Force MTF respondent shared that one of their providers had been at the MTF for three weeks and had not been able to do anything besides computer-based training.

- Other respondents shared frustrations with the delays they experienced in the credentialing and privileging process when transferring from one MTF to another. One respondent from a Navy MTF suggested implementation of a DHA-wide credentialing and privileging process that should be transferrable across MTF settings so that providers are able "the next day [to] start seeing patients" if they are already credentialed and privileged at another MTF.

Privileging

Table 2.4 summarized the responses regarding privileging at MTFs. Additional details gathered include the following:

- Respondents emphasized the importance of peer review being conducted by someone with similar training and experience. When individuals are a "practice of one," meaning that they are the only provider of a certain specialty at the MTF, it may be necessary to ask providers at other MTFs to support peer review to ensure appropriate review.
- Despite efforts to introduce a degree of uniformity to the peer review process, one respondent from a Navy MTF shared that peer review is conducted differently from MTF to MTF:

> Peer review is ripe for standardization through DHA . . . there's not two MTFs that do peer reviews the same. I've gone to others, seen them done on me, on others. . . . An easy win to have as a group would be peer review . . . make that standardized. That would help to make that justified that we're no longer concerned with this person's problem, that FPPE was great and then standardized peer review, that they're all the same in clinics and don't need new training when you go to [a] new clinic. . . . We would solve so many problems with a standardized peer review process, would head them off before they had a chance to get bigger. When doing [things] differently at every clinic, there's no way to tell.

- Respondents shared that the Performance Appraisal Report is vital to ensuring that providers have sufficient volume and quality to maintain their privileges and continue providing a specific type of care or performing a procedure. A few respondents reported using a database called M2, the MHS Management Analysis and Reporting Tool, to assess volume (DHA, Solution Delivery Division, 2019). One respondent shared that they have used this tool to assess, for instance, the number of a certain type of procedure that a provider has done.
- One Navy MTF respondent explained the interconnectedness of FPPE, OPPE and Performance Appraisal Report by noting the following:

> Everyone gets a FPPE when they first come on board, whether they've been here or not, whether they've been a doctor for 20 years, they still get one. Then we roll in OPPE, which we do every six months—January 1st to June 30th, then July 1st to December 31st. Those roll into a Performance Appraisal Report. When doing OPPE cycles, we do five reviews per month or 15 per quarter. We try to get reviewers to do the reviews every month to catch problems earlier.

- Of note, respondents consistently shared that FPPE and OPPE are typically monitored by credentialing and privileging staff. However, because FPPE and OPPE are part of monitoring and ensuring quality, these evaluations also inform other aspects of quality and patient safety processes. For instance, deficiencies that are noted during OPPEs may lead to the implementation of supervision, education, additional FPPEs, and, in some cases, even incident review and/or adverse privileging actions. These additional uses for FPPE and OPPE are also discussed in Chapter 2.

Documentation Systems

Table 2.5 summarized the responses regarding documentation systems used at MTFs for credentialing and privileging. Additional details gathered include the following:

Centralized Credentials Quality Assurance System

- Respondents shared that CCQAS has been vital to ensuring that both credentials and privileges are kept up to date. Respondents also described that the CCQAS interface allowed them to quickly and easily understand the privileges granted to any provider. A Navy MTF respondent noted that CCQAS allows them to "see everything that's there. . . . We can quickly review documents and as soon as you approve it, it goes to the next person who's supposed to review it."
- CCQAS was also consistently described as being critical for ensuring that personnel records are accessible across different facilities over time, which expedites transfers of credentialing and privileging information for assignment changes. One respondent from an Army MTF described the situation thusly:

> The system CCQAS . . . it's a good system to keep the documentation electronically . . . . With high turnover rate and people come in and out. That system helps us a lot. We can transfer the file. Before it was mailing; that was a pain.

- Some did share that although CCQAS generally works well, it is an older system, and sometimes notifications do not go out according to plan. A civilian respondent shared the following:

> CCQAS does not consistently notify providers at the 120-day mark. . . . Providers will tell us that they were never notified. . . . If CCQAS does initiate an application, and it's not submitted by the 60-day mark, then it terminates. Then nothing is there. . . . Sometimes we have issues when we need to send an application back and have a provider change it. . . . The provider will have trouble making changes on their application in CCQAS.

- One respondent from a Navy MTF mentioned that more digestible and accessible training for those using CCQAS would be beneficial for ensuring optimal functionality.

> I don't think the training is being delivered in concise packets of information. It is such a broad one-way conversation that there isn't really the learning that's required. . . . Twice a month they do training actually, but one is just a complete rehashing of the

> training session, database administration stuff. I don't need to know that. I need to know whether . . . my flow is correct, just to measure how I am against someone else. A benchmark against other things.

Competency Assessment Files

- Respondents also described the importance of Competency Assessment Files for regular performance reports for providers (MHS, 2005). A Navy MTF respondent said:

> Those are kept in the [Competency Assessment Files]. And the same people who are signing, it goes through the department head, the director, the CMO, the medical chair committee reviewer. It's on the SharePoint as well. . . . [It's reviewed] annually. Nurses have [Clinical Appraisal Reports] every 2 years. Performance Activity Reports are annual for the privileged providers, and the [Clinical Appraisal Reports] are for the nurses.

Ongoing Professional Practice Evaluation/Focused Professional Practice Evaluation

- Some respondents noted that local storage of **OPPE/FPPE** information can create challenges when providers transfer to other MTFs mid-cycle because these local evaluations do not always get transferred to the provider's new location.
- One respondent also shared that they are only able to see the most recent OPPE report when providers transfer from another MTF. The entirety of the historical record is not visible when evaluating new providers. Respondents shared that greater visibility into prior OPPEs for individuals transferring from other MTFs is desirable and would contribute to better decisionmaking.
- One respondent from a Navy MTF described the challenges they faced when they received a provider from another MTF who had a history of concerning performance evaluations that were not visible to them:

> We received this provider from another MTF. The way that the documentation works from the evaluations is that we were only able to see the very last evaluation. There were multiple evaluations prior to that that were lacking. Because we only saw this one, she was hired here, and we brought them in. The same problems they were having there, we had them here. That's why we felt like something needs to happen because we don't want this to just pass on to next facility.

Formal and Informal Communication

- Respondents described the importance of both **formal and informal communication** around credentialing and privileging to ensure that notifications are not neglected. As one Air Force MTF respondent shared, "if [they] don't see that in that first four hours, it's going to go further down the list and they may not see it."

Reporting and Monitoring

- Respondents shared that the time to complete certain steps may take longer during the spring, when many providers are undergoing permanent change of station moves simultaneously and all providers require credentialing and privileging. A Navy respondent shared:

> We use time to privilege as a metric, if the trend is going in one direction or another. I look at the number of urgent privileging requests. They tend to go up during [permanent change of station] season. We don't get the same number of people per month. We get a lot July through September. People graduate medical school. It never gets mitigated long term [the spike in requests]. We still have these big rotations, and it goes up a little. If I see outliers, I do QC [quality control].

- Various types of providers may request credentialing and privileging, only some of whom are vital to providing medical care at the MTF. The process for those individuals whose primary job is providing care at an MTF may be more expedited compared with those who have primary jobs elsewhere, as described by a Navy respondent:

> If someone is assigned to [MTF] we're going to do first priority privilege. But we have a large number of people who want to be privileged here but who are variable in the amount of clinical activity they offer back to the hospital. People assigned here have to be our first priority. People who are assigned to the military but not assigned here are our second priority. . . . [They] might want to do clinical sustainment here. We may not need them to. So number of days to privileging depends on which category.

- Respondents also described using more-informal monitoring processes, such as ongoing discussions with credentialing and privileging staff, to understand where delays may be occurring.

Processes in OCS Settings

Respondents in the qualitative interviews discussed multiple aspects of the credentialing and privileging processes at OCS settings. This section provides more detail on findings in the areas of roles and responsibilities, to whom credentialing and privileging applies, credentialing, privileging, and documentation systems themes from Chapter 2.

Roles and Responsibilities

- A respondent from a Navy OCS setting described the complexities of privileging authority across Navy and Marine entities, sharing:

> If you're in an operational setting in the Navy, the credentialing authority is U.S. Fleet Forces Command in Norfolk, VA. They have four surgeons in the different warfighting communities. Those four surgeons make up the [Medical Executive Committee] for U.S. Fleet Forces Command. . . . The Marine Corps is more scattered than that. If you're assigned to operation unit within II [Marine Expeditionary Forces (MEF)], the credentialing unit is [Marine Corps Installation

> Command]. If you're in I MEF or III MEF, the credentialing authority is your force surgeon.

To Whom Credentialing and Privileging Applies

- Air Force respondents raised a perceived vulnerability where commanding officers (e.g., squadron commanders) have the capability of hiring medical staff without the knowledge of the MTF. In cases in which commanders might not be aware of credentialing and privileging requirements for non-physician staff, respondents worried that some medical staff could be treating patients without being appropriately credentialed and privileged. However, none of our respondents reported that this had actually occurred.
- Air Force OCS respondents shared that independent duty medical technician certifications are tracked by the MTF credentialing and privileging office and overseen by a senior medical technician.
- Army and Navy OCS respondents shared that medic and independent duty corpsmen certifications are tracked by operational command.

Credentialing

- A respondent from an Army OCS setting described the effects of delayed credentialing when handled by the MTF:

> A common thing that happens is a new physician or [physician assistant] will [arrive here due to a permanent change of station] and they'll be waiting for their credentials, and they can't provide medical care in the meantime. They have to go through that process. . . . It takes forever. It's super inefficient but we have to.

- A respondent at a Navy OCS setting described credentialing through Fleet Forces Command:

> Commander [name] oversees the credentialing. All our physicians, nurse anesthetists, and nurses are credentialed through fleet forces shop. It is similar to MTFs. You submit the applications, review everything, and then they sign off. It is on the Navy side, not DHA.

- Regarding the cost burden on the Bureau of Medicine and Surgery for primary source verification, a respondent from a Navy OCS setting shared:

> We've recommended before that [Bureau of Medicine and Surgery] should really do all the [primary source verification], and we also shared the consensus that DHA should just take over all the privileging, and they would just do all the privileging for the hospital and clinics, and then they would do the reverse of what we're doing now, and [instead] send us an [Interfacility Credentials Transfer Brief] for care. . . . It would be to everyone's benefit to get it done at the hospital first, say hospital is "DHA" and then do a reverse [Interfacility Credentials Transfer Brief] . . . . [Bureau of Medicine and Surgery], not DHA, is paying the bill for the primary source verification. I think it's pretty expensive, like $23 per provider or something to that

> effect. So really, we're trying to reshape how everything's done. It's a mess right now, and it's not enterprise wide. Some places do some things a little bit different.

- A respondent mentioned that an MTF credentialing manager "leans in even for tenant commands for operational providers" for Navy credentialing, when possible.
- One respondent from a Navy OCS setting emphasized the importance of ensuring appropriate training for those conducting credentialing and privileging, particularly in settings where there may be substantial multi-hatting:

> I am the privileging authority. My psychiatrist is the medical, [CMO]. . . . He does not have the letter for such, and he has never had that specific training. For requirements, one thing I want to add is say this is what the billet should do, and if so, they need the proper training. Because we wear so many hats with a big footprint. We know we won't get a ton of extra people.

- While Air Force and Army could count on the robust MTF mechanisms to provide continual reminders, for Navy OCS providers this can be more challenging because of the limited personnel available in OCS settings. A Navy OCS respondent noted, "if [the] operational side looks to standardize and mirror the MTF, that would require us to upload our OPPE and FPPE to the CCQAS, [and] we cannot do that. We have two folks to do that for all providers."

Privileging

- Regarding scope of practice in OCS settings, an Air Force OCS respondent said:

> The providers are more qualified than what they're allowed to do out there. They may be privileged on 30 things. Our MOU says you can only do six things out there . . . [because of] the newness, the [level of] oversight, the backup, and the lack of services and equipment out there.

- Regarding peer review, a senior leader from an Air Force MTF shared:

> Overall, we monitor the care that providers are doing out in the forward locations. They are all assigned a peer reviewer to review their charts, to review their care to make sure it is up to standards. I eventually review those. The credentialing and privileging falls under me. Those are reviewed at the committee of medical staff, eventually reviewed by executive leadership. If any issues, those are worked out right way. Any problems or issues identified in the peer review process, we would go back to the department or unit and have those resolved.

- Regarding individual providers needing to know their limits of competencies, rather than rely on oversight, an Army OCS provider shared:

> We try to send people to [Tactical Combat Medical Care] before deployment, which is a course to help them get good on their procedures. . . . We don't have enough time to assess in between doing it. There's no special training for a physician or [physician assistant]. It's up to you to maintain your skills and practice within your scope. Not everyone needs to know how to do a toenail removal. So, if you're privileged and confident to do it, then you can. Otherwise, you shouldn't. It's presumed to have

> ACLS [Advanced Cardiovascular Life Support] and BLS [Basic Life Support]. No one is coming down to say, "Yes, you can do X, Y, Z in the field."

- On the topic of care that is only delivered in the field or during wartime, a Navy OCS respondent said:

> [We're] supposed to both have OPPEs, peer reviews, all that sort of stuff. Obviously that doesn't really happen in [our setting] because I'm not observing you do tent surgery, so how am I doing OPPE for you? You don't have a practice . . . . Some of these procedures, you wouldn't do it at [large MTF]—shock trauma—but you do it in a tent. It's not like you can practice it. If you wanted to have standard QA like OPPEs and stuff, I would need to see that you're drilling holes in people's skulls to alleviate brain bleeds, which you're not going to do in real life.

- Several respondents from the Army noted that when they are notified of upcoming provider deployments, they will try to schedule those providers to complete an OPPE cycle before they leave so that they do not have an OPPE due while they are deployed. They also acknowledged the challenges posed when deployments last longer than six months.

Documentation Systems

- An Air Force OCS respondent shared, "All of DoD uses CCQAS. . . . There is one centralized verification process. The methodology of tracking and monitoring is also done via the CCQAS database."
- Regarding lack of visibility into provider activities during deployment, one Army respondent shared:

> From a [United States Forces Command] perspective, once they're there, they're not mine anymore. I prepare them to go, once they're gone, they're gone. I think one of the perspectives we got is that though there's a baseline and that's what you're preparing for, what is actually necessary depends on where you are. You could think it's one thing and train for it and then get there and it's completely different.

- This was consistent with a respondent from a Navy MTF who shared the challenges of maintaining visibility of OCS providers when deployed and not providing care in the MTF:

> Every provider has a rotating schedule [for peer review at the MTF]. They're very consistent with what I've seen. Sometimes . . . we can't do those when they deploy, they basically just pull off of our radar because that's all done outside of GENESIS and certainly everything is done outside of CCQAS once deployed.

- Echoing concerns raised by another respondent about the difficulties of ensuring access to documentation while on ships and limited staffing, a Navy OCS respondent said:

> Peer reviews are done. We oversee ship peer reviews. You can send a screenshot of the AHLTA-Theater. Then they look and do a Joint Legacy view and log. . . . Instruction says you can use any electronic record. But ships cannot create patient encounters. For ships, they created "Port Vessels," not the full cycle. So they use in between encounters to make a patient note. In between encounters are hard to track. . . . It does not record as a patient note. . . . You cannot peer review that. That is a challenge.

. . . Not everything transmits off the ship. . . . If [it] does not transmit, I will not see it. If you're one person, and you have 48 ships, it is tough.

Appendix D

Quality Assurance Supplement

This appendix provides additional evidence from the internal assessment and respondent interviews to support the findings in Chapter 3.

Internal Assessment

Table 3.1 summarizes responses to the internal assessment pertaining to credentialing and privileging. Additional details gathered include the following:

- OASD(HA) "is accountable for the success of CQM in MHS" and provides authority, direction, and control to the DHA director "for medical QA/CQM programs and activities for all military MTFs in the MHS" including "procedures pertaining to . . . QA, SOC determinations . . . patient safety events/incident review" and "developing appropriate metrics to monitor, evaluate, and improve DHA CQM programs."
- The Army noted "active collaboration between MEDCOM QM [U.S. Army Medical Command quality management] with CENTCOM [U.S. Central Command], EUCOM [U.S. European Command] and INDOPACOM [U.S. Indo-Pacific Command] as well as between services to identify and review patient safety concerns."
- The Air Force shared that it "collaborate[s] with DHA MTFs to accomplish incident and SOC reviews. For the deployed environment, Air Force Medical Command coordinates with deployed leadership, major command/ combatant commands, and home MTF to ensure appropriate review of incident" and that evaluation of patient safety events depends on "manpower availability."
- The Navy explained that patient safety events must be entered into the JPSR system and that Marine Corps leadership (the Medical Officer of the Marine Corps) and Navy Health Services (in U.S. Fleet Forces Command) have access to and review events entered into the JPSR system, while also indicating that "[the Bureau of Medicine and Surgery] accesses the JPSR system and tracks and trends reports."
- For QA processes, the Army reported sharing "health care risk management data quarterly with the other services, DHA, and [ASD(HA)] through the MHS Health Care Risk Management Working Group."
- The Air Force indicated that its QA program aligns with DoD and DHA policy and that it educates OCS settings on the processes and procedures for QA, incident review, and SOC. QA compliance for Air Force OCS settings is performed in "conjunction with the MTF" via CQM programs (the JPSR system and credentialing and privileging are two examples).

- The Navy noted the interrelationship between event reports, QA, and SOC and explained when investigations related to QA are warranted, stating that "[i]f a JPSR event results in harm to a patient and has the potential for a malpractice claim, then a potentially compensable event or QA investigation is completed and includes a determination for standards of care and degree of injury."

MTF Processes

Respondents in the qualitative interviews discussed multiple aspects of QA, patient safety, SOC, and risk management processes at MTFs. This section provides more detail on findings in the areas of roles and responsibilities, applicability of processes, QA processes, patient safety and incident review processes, SOC processes, risk management processes, documentation systems, and reporting and monitoring from Chapter 3.

Roles and Responsibilities

Table 3.2 summarizes the responses regarding roles and responsibilities at MTFs. Additional details gathered include the following:

Quality Assurance

- Respondents shared that collaboration among leadership and clinical departments also ensures shared responsibility for QA processes. Each clinical department is responsible for QA of its providers through monthly peer reviews that feed into regular OPPEs monitored by credentialing and privileging staff.
- Quality concerns may initially be addressed at the department level and elevated through clinical quality leadership, involving patient safety, risk management, and credentialing and privileging staff as needed.
- Respondents reported that departments decide which clinical quality metrics are important, identify goals, and implement improvement projects to reach those goals with the support of continuous quality improvement leaders.
- Pharmacy and laboratory leaders conduct QA in their departments as well. Respondents shared that this involves providing oversight and guidance to providers ordering medications or tests, ensuring that medication and supplies are stored properly and disposed of when expired, and, for laboratory leaders, ensuring that facilities and testing equipment are reliable and accurate.
- Without a dedicated staff member (usually a nurse) to collect NSQIP data, an MTF is less able to monitor and prevent surgical complications, including infections, urinary tract infections, and prolonged ventilation following surgery. These are important quality indicators.

- A respondent from an Army MTF noted that the results of International SOS reviews are not shared, which complicates MTF leadership's ability to make informed decisions regarding the continued use of those hospitals:

  > When we do have quality concerns about the care that was rendered . . . the protocol is to address with this organization ISOS [International SOS]. . . . We submit a quality review request, they do it . . . but apparently after quality review is done, it is protected information, not sharable with us. I find that unusual and strange and so what is the purpose? How can we get feedback to know that it is a reliable hospital to continue to use?

- Respondents cited well-established quality leadership teams as valuable resources, but staffing turnover among activity-duty personnel caused by permanent change of station moves may hamper QA efforts and result in initiatives being abandoned or ignored, undermining long-term sustainability. One Army MTF respondent shared that their CMO had been deployed for over six months, which had created major disruptions when an inexperienced individual stepped in to fill their role. Most concerningly, the nurse responsible for NSQIP data collection had been terminated during the CMO's absence, leading to an inability to monitor surgical quality. A respondent from that Army MTF reported:

  > That hurts us as an organization in the Army when you allow people to come in with no knowledge and they make these blatant decisions, and the impact is usually two to three years down the road after [permanent change of station] and we have to continuously clean up the mess.

- One respondent recognized that active-duty personnel are vital to ensure that processes and procedures are tailored to military settings but noted that long-term sustainability and continuity may be improved by increasing civilian leadership or extending the duration of assignments. At the same time, slow hiring processes for civilian staff can create challenges. One MTF reported a vacant process improvement role that had been unfilled for nearly three years.
- Respondents widely viewed staffing challenges as contributors to provider burnout and posing a substantial risk to maintaining quality. A respondent from an Air Force MTF described how brief breaks cannot compensate for the long-term effects of a workforce continually being stretched thin, stating that "we're gonna have a resiliency day. But that resiliency [of] two hours does not eliminate the month that they've worked nonstop, so that's a constant battle for us."
- Staffing shortages can also impact remaining staff who take on additional duties. Respondents in smaller MTFs with fewer staff overall were particularly impacted by staffing shortages because vacancies often lead to multi-hatting (when individuals take on multiple roles simultaneously). A respondent from an Air Force MTF said, "Right now we're short staffed. People start to scramble and I've seen a lot of chaos."
- In these smaller MTFs where multi-hatting may be more common, respondents said that there may be an opportunity for DHA to provide support by centralizing some long-vacant roles, as described by a respondent from an Air Force MTF:

> [There may be] an opportunity for DHA to centralize functions. We have that quadruple-hatted position. Her focus is so split that she can't really be a subject matter expert. She has to be a jack of all trades and master of none. There may be a way to centralize functions and implement some cost-saving measures and be more effective at those programs. Having these quadruple-hatted positions that many times go unfilled are ineffective because of so many hats that they wear.

- Respondents also expressed frustration with having multiple levels of oversight for QA processes, complicating decisionmaking. In these cases, MTF leadership were left to decipher potentially conflicting guidance on their own, as described by a Navy respondent:

> Right now the onus is on me, my CMO, and other directors to try to do that translation and execute the seven manuals at the same time. We do the best we can.

- Respondents reported that guidance on QA processes from DHA was sometimes inconsistent. Although reaching out to DHA staff was sometimes helpful, several respondents reported receiving varying guidance from different DHA staff, making it difficult to know how to respond appropriately. As one respondent at an Air Force MTF shared:

> We don't know what DHA wants done. We have DHA polices and instructions that aren't necessarily clear. When we talk to other leaders above the DHA chain, sometimes wires get crossed. The information that is coming from the network level and the higher level are not always the same. That happens more often than not, and it can be frustrating.

- One respondent also shared that DHA has encouraged the use of quality management risk management meetings, which that respondent perceived to be concerning because, traditionally, quality and risk are not combined. Indeed, MTF respondents across all service branches consistently highlighted the importance of separation between the patient safety and risk management roles in particular.

> We have a [quality management risk management] meeting. I'm trying to separate those two out because sometimes one chills the other. It was interesting because DHA is saying those should be combined. Many of my other MTF director colleagues have sort of revolted against that and said it's okay for there to be appropriate information-sharing, but don't have meeting[s] together.

Patient Safety

- Several respondents from MTFs where the patient safety manager position was vacant or had only recently been filled noted that the absence of an individual in this role generally led to decreased patient safety reporting and less systematic monitoring and mitigation of patient safety events.
- Respondents noted that because the patient safety advisor/advocate role is an unpaid position and staff have competing priorities, the quality of the investigations depends on the individual's bandwidth and whether the MTF has adequate staffing.

- Respondents shared concerns that when staff are overwhelmed because of staffing shortages, they are not only more prone to errors but also less likely to take the time to report patient safety events.
- Respondents perceived that ongoing and rapid changes from DHA and service branch medical leadership can create competing priorities, which further reduces staff ability to focus on patient safety. This respondent from an Air Force MTF described:

> Because of all the changes throughout military medicine and the reduction of planning funding . . . there have been a lot of patient safety incidents since transferring over to DHA and GENESIS. . . With the reduction in manpower . . . . They just have higher workload. With fewer breaks, that means more mistakes. . . . Other staff members are getting burnout . . . providers may not be getting enough time to tackle all the loose ends. . . . So they're under a crunch as well.

Table 3.3 summarized information on committees and meetings that support QA, patient safety, SOC, and risk management processes. Additional details include the following:

- **Daily leadership huddles.** Leaders in each clinical department and MTF organizational leadership meet briefly to ensure that there is a daily forum for discussing potential patient safety issues, sharing lessons learned, and disseminating vital information and updates. Individual clinical departments often also have daily huddles to discuss local challenges.
- **Weekly/biweekly patient safety rounds.** Clinical and administrative staff visit different departments to review patient safety events and assess progress on investigations and mitigation strategies.
- **Biweekly meetings with MTF provider staff supervisors.** These meetings ensure that risk management updates are communicated effectively and that systemic improvements are implemented across departments.

Applicability of These Processes

Table 3.4 summarizes the applicability of QA, incident review, and SOC processes.

- Many respondents shared the importance of tracking the rate of anonymous reporting, with lower rates reflecting a more open and honest safety culture and lower potential for using the system nefariously.
- Respondents noted that patient safety managers and other quality management team members may occasionally report patient safety events on behalf of staff members who may be too busy or unsure of how best to report an event.

Quality Assurance Processes

Table 3.5 summarizes QA processes in MTFs.

- MTF laboratories have additional accreditations through the Clinical Laboratory Improvement Program and the College of American Pathology, requiring adherence to rigid

guidelines regarding QA, such as constituting control material, calibrating instruments, and verifying correct patients and testing.

- QA concerns may arise through peer review, PSRs, patient feedback (through Interactive Customer Evaluation or the Joint Outpatient Experience Survey), or other observations during the course of patient care. Depending on the nature of the concern (e.g., whether it is an issue with a system or with an individual provider), the concern would be routed through patient safety, SOC, and risk management processes.
- Frequent staff turnover in MTFs can disrupt the continuity and sustainability of QA efforts.
- When a QA process leads to new SOPs, respondents shared that these SOPs are audited for months before implementation, but the attention to detail does not continue after implementation.
- There can be inconsistent follow-up, in part because of staff turnover and lack of continuity, that can cause the organization to "reinvent the wheel" by re-addressing the same issue later on.
- Maintaining QA requirements, such as the schedule and volume of peer review, is often difficult when clinics are short staffed even for patient care.
- MTF leaders regularly noted that staff tend to fix problems in the moment, using workarounds. These ongoing short-term solutions can add up to substantial burden for staff in the long term. Respondents suggested that support in the form of staffing and leadership is vital to ensure that long-term solutions are viable and avoid staff burnout.
- Respondents also shared the burden on staff when too many programs are implemented simultaneously with good intention but without considering the added work for staff. A Navy respondent told us:

> With the number of programs we've implemented, there's programs that overlap. Some are required by DHA to do multiple surveys every month. We have staff survey fatigue. I think we get in our own way with our programs and our measurements that don't necessarily apply to true patient outcomes.

Patient Safety and Incident Review

Table 3.6 summarizes patient safety and incident review processes.

- Respondents shared that most PSRs involve no-harm events, such as paperwork or charting issues that pose a potential threat to patient safety, but that these are important to document in order to identify deviations from standard practice.
- Respondents at one MTF shared a concern with DHA's emphasis on reviewing every PSR for a potentially compensable event because it might shift the focus from a systems-based review to a risk management review. Respondents consistently drew a line between the patient safety and risk management processes, with patient safety focused on identifying systemic issues in a non-punitive way and risk management focused on addressing potential provider deficiencies at the individual level. Several respondents expressed concerns that the line between patient safety and risk management can be blurred, particularly when those roles are combined,

potentially undermining the Just Culture for patient safety and create a fear of reporting patient safety events.

Standard of Care Review

Table 3.7 summarizes SOC review processes in MTFs.

- A respondent from a Navy MTF described the requirements for SOC review:

  > [We] make sure that people being reviewed are being reviewed by same level and competency of those being reviewed but it's rather prescriptive what constitutes and doesn't constitute SOC being met or not met. There's a guideline that we follow. . . . It's all there, it's black and white of how to conduct it, how DHA expects us to conduct it.

- Respondents noted that maintaining the SOC review timeline is challenging, particularly because finding qualified reviewers with the same level of experience and credentials can be a major difficulty. Many MTFs are short staffed and/or heavily reliant on more junior providers. Within smaller MTFs in some clinical departments, there may be only one provider. In such instances, risk management staff will reach out to other MTFs to identify a peer reviewer.

Risk Management

Table 3.8 summarizes the risk management process in MTFs.

- Providers may submit statements, which may be reviewed.

  > We give it two to three days for chief to notify individuals attached to case file. We send three attachments (notifications, [a non-disclosure agreement], and a statement if they choose) for [significantly involved providers]. If they want to submit a statement, they need to submit the form which comes back in 72 hours, so we know if person is going to submit a statement, and they have to within 14 days. We ping them a few days before deadline to let them know they need to submit the form. Once that happens, after the 14 days, it gets sent to a reviewer, a peer of that caliber who make a [SOC] determination. That individual has 14 days to review case file, then it gets back to us, we put everything together and send to the credentials committee.

Documentation Systems

Table 3.9 summarizes documentation systems used by MTFs for QA, patient safety, SOC, and risk management.

Quality Assurance

- Timely documentation was noted to be important not only to ensure accurate documentation and avoid legal risks but also in order to allow other providers to understand the clinical care provided to date and to avoid duplicative and/or unnecessary care. One respondent from a Navy MTF said:

> If an attorney sees notes closed in two weeks, they'll question the veracity of what's in that note. I don't do this [to] just mind your p's and q's so we don't get sued but if I'm the follow-on doctor and I get this note that's two weeks after the visit, I will ask whether I need to re-create this wheel.

- Getting medical records from other facilities is a challenge, requiring substantial manpower to obtain and input into MHS GENESIS. A respondent at an Air Force MTF described:

> Once [their care is] completed, we don't know about it until the results are received. And many times the network providers either don't send the results or maybe there's some other issue. And we just never receive it and it's a constant chase.

- Providers are still learning how to document efficiently and leaders are not yet familiar with some of the built-in tools for data analytics. Some things that were easy to document using AHLTA now require many additional steps, severely impacting efficiency. This is another factor contributing to perceived provider burnout as described by a respondent from a Navy MTF:

> I think we've taken a step back [with GENESIS] and I think it decreases quality. . . . When you have complex patients, a difficult records system to type in, I call it "get home-itis." When you're on your 11th note after seeing 20 patients and it's getting late, sometimes you just want to get home . . . you start rushing and you start forgetting things, which is why I think we're also running into the issue of notes not being closed out.

Patient Safety

- The JPSR form can take up to 15 to 20 minutes to complete if the event is complicated and requires a long description. The system can sometimes time out, requiring the respondent to reenter information. A respondent from an Air Force MTF shared this concern:

> The problem with the PSR system is not just accessing it; sometimes I can't even log in. And sometimes it will time out. If I'm writing a really long report, it will time out. . . . That's a huge frustration . . . something will pop up that says this page is no longer available, or you're about to be kicked out.

- This was echoed by a Navy MTF respondent who voiced concern that the burdens of patient safety reporting may result in fewer reports:

> I think it needs to be modified because it's too cumbersome as it is, the tool itself. It takes too long. Again, that's the whole reason we do batch reporting, because it takes like 15 to 20 minutes to enter in a patient safety incident. . . . They should probably look at the process to see if there's any way they can streamline it to make it a little

> faster. I think more things would be reported if it were faster and easier to put the data in. . . . Maybe we're missing some of the data that we could be catching and not making improvements because it's just not getting reported.

- Some departments, such as pharmacy, may encounter high numbers of patient safety events a day. For instance, pharmacists are frequently communicating with prescribing providers to adjust dosages, medication forms, and instructions for administration. Pharmacy respondents shared that if they stopped to enter each incident individually into the JPSR system, they would not have time to fill any prescriptions. Therefore, pharmacy staff across MTFs and services reported using a "tally sheet" to track such events that happen numerous times a day and batch entering such instances into the JPSR system at the end of the day. Pharmacy also has a tool within MHS GENESIS, called Discern, which helps support their ability to identify and compile medication-related errors.

Reporting and Monitoring

Table 3.10 summarizes reporting and monitoring systems used by MTFs for QA, patient safety, SOC, and risk management.

Quality Assurance

- One respondent said that HEDIS and other quality metrics monitoring has not been reliable since MHS GENESIS was onboarded because the metrics are not calculating consistently or correctly. The respondent noted it has been difficult to identify the cause of the problem and get it resolved. Although other respondents shared challenges with entering data into MHS GENESIS, we did not hear from other respondents about incorrect or inconsistent quality metric calculations.
- Several respondents across different service branches shared the difficulty of obtaining documentation for care and services received outside the MTF, as described by one respondent at an Air Force MTF:

> The hardest challenge when it comes to managing those quality metrics, we don't offer those screening services in house. Getting documentation of those screenings back [is difficult]. Most patients don't understand the inner workings of health care. It can be a bit complex in nature. You would think all of the systems talk, but that's not how it works. We don't always get those back. Constantly trying to track that info down can be a full-time job.

- Without documentation from outside the MTF, MTFs cannot enter that care in MHS GENESIS, and patients can be marked as missing care when they have received it. Although some respondents shared that their MTFs have established MOUs with local facilities in the private sector to easily share data, the lack of a systematic mechanism for integrating such reports is a major challenge.

- As echoed by other respondents with regard to programs, respondents also shared that the sheer amount of data can be overwhelming and it can be hard to know where to focus. As one respondent at a Navy MTF shared, "With all of the data analysis that goes on now, there are so many measures that we have to be strategic about which ones we look at, because it's easy to be overwhelmed by metrics."
- Several respondents shared that NSQIP reports data every six months. Given this timing, it can be one or two years before an MTF sees sustained improvement on a measure. Coupled with the rapid turnover in the military setting, this timeline can jeopardize the sustainability of QA efforts.

Patient Safety

- Respondents widely sharing outcomes of PSR processes is important in order to ensure that staff feel invested in the PSR process and know that their reports are effecting change in the organization.
- Respondents across all service branches shared that increased anonymous reporting suggests that the MTFs' culture of safety is not performing well.
- Tracking event type trends is useful to monitor sustainment of process improvement initiatives.
- Leapfrog metrics allow MTFs to compare their own performance with performance of other hospitals and even with other MTFs.
- Respondents widely expressed the need for greater agility in updating policies to match real-time needs by improving the timeliness of connection between data monitoring and decisionmaking. As one respondent from a joint MTF stated, "No policy is written to last forever. Policies should be renewed at least every few years, not five or six years."
- Respondents across service branches shared that sometimes policies and procedures that can affect patient safety take too long to revise, develop, and implement because of delays in the chain of command and legal or other external reviews.
- Another respondent from a joint MTF gave an example of their MTF's Code Blue Policy having been delayed for over a year because of legal and external policy considerations.

Processes in OCS Settings

Respondents in the qualitative interviews discussed multiple aspects of QA, patient safety, SOC, and risk management processes at OCS settings. This section provides more detail on findings in the areas of roles and responsibilities, applicability of processes, QA processes, patient safety processes, SOC processes, documentation systems, and reporting and monitoring from Chapter 3.

Roles and Responsibilities

Table 3.11 summarizes the roles and responsibilities in OCS settings, as characterized by our interview respondents.

Quality Assurance

- For escalation of serious QA issues, as described by an Army OCS respondent: "Oversight belongs to that commander. Even the MTF can't make recommendations to that commander about how to run the unit. The commander can just say, 'Nope, I'm doing it this way.'"
- One Army OCS respondent shared how important building a good relationship and rapport with the operational commander is:

> Having the command's understanding, preparedness, and prioritizing medical operations and medical resources [is vital]. . . . They have a mission to accomplish, and we're there to support the mission. We're not the priority. If we run out of funding, we might not be able to order everything in time or we order too late. I've had times we've ordered things for an exercise that don't arrive until after we return. That goes back to my rapport with the command to convince them for what we need, and then flexibility to do with what we have.

- A Navy OCS respondent described the dual frustration of a dearth of oversight in some OCS settings and a lack of guidance for how operational and medical commands work together:

> We see that on medical teams; we are to develop programs but are not given appropriate guidance on how to do that. . . . There is no guidance to [commanding officers] for how we work together. There is a lot of confusion on quality review of medical care. It comes down to this thing that we are not given roles, responsibilities, and expectations. We have a trend of people go to locations as the only medical roles. We are considered staff but we are different than the line. We are these few medical assets without the MTF or normal structure of what they are used to having.

- QA investigation may lead to the service branch's privileging authority revoking clinical privileges for providers who repeatedly fail to meet standards. However, the medical command lacks authority to remove such providers from their posts if hired on the operational side because hiring and firing is under the purview of the operational command.
- Staffing shortages pose challenges to the ability of OCS providers to maintain checks and balances related to QA. This respondent at an Air Force OCS illustrated the degree to which short staffing burdens OCS providers:

> My credential manager, my patient safety, quality, is all one person. . . . We're supposed to see a certain amount of providers. Now we're seeing twice that amount. The intent is in the right direction but seeing the effect on our people—this is an extra duty for us. Everyone has multiple hats. . . . Air Force and DHA are talking, but they're not singing together, if that makes sense.

- This Army OCS respondent shared that given the limited number of staff in an OCS setting, it is impossible to replicate the QA processes that take place in MTFs:

> My risk management department in my hospital is 30 people—quality and safety credentialing. All the committees that have to do this are governed under the DoDI. We don't have those people. We don't even have that many providers.

- Several respondents across service branches noted that the transition of QA responsibilities in operational settings out of DHA's scope has created a dual system with significant variance, increasing risk. A senior leader at a Navy OCS setting shared:

> When that DoDI was released, it bifurcated something that was never bifurcated before . . . when does MTF director's oversight stop and where does force surgeon's begin? They turned it into an overlapping Venn diagram where nobody has any freaking clue where the overlap is. . . . It's done harm to the operational community. . . . At end of day, operational community owns these billets so responsibility for clinical care should remain within operational community but they don't have the staffing to do that, so there's your catch-22.

- Having dual oversight is difficult because if the two sides disagree, all respondents noted, the operational side would prevail because the mission is the priority, as described by this Army OCS respondent:

> That's the challenge under the purview of [U.S. Army Medical Command] is we don't actually own any medical units, they're all owned by [U.S. Forces Command], or the [combatant commands], or [U.S. Army Training and Doctrine Command]. It has to come down to communication and buy-in from those stakeholders on why this is important, and how we go forward in establishing some of those capabilities. That's probably the biggest thing. Training will be a big piece. We divested a lot of our training requirements. We assumed that if you did it in the MTF, you would take that forward when you deploy to the operational environment. Because of the divorce, that assumption can no longer be set to be valid, and so we're gonna have to reinstitute into our programs.

- Several respondents from one Navy OCS setting shared an incident in which a service member who was suicidal needed to be evacuated from an OCONUS location. The OCS provider team received conflicting instructions from U.S. Transportation Command Patient Movement Requirement Center, the MTF that was receiving the patient, the medical support operational center, and the operational commander. This was frustrating for OCS providers because these conflicting instructions ultimately delayed care while leaving providers feeling unsupported during a stressful situation.

Patient Safety

- Regarding respondents in OCS medical leadership positions having a better understanding of patient safety processes, one Navy OCS respondent shared that each Navy Type Command has individuals assigned to review patient safety events, although the volume is typically low and the role is often combined with other roles, resulting in multi-hatting rather than having a dedicated individual to focus on patient safety activities. An Air Force OCS respondent said that patient safety events could be reported to the squadron or unit safety officer and serious

events involving specific providers would then be escalated to the MTF as the credentialing and privileging entity.

- Limited medical personnel onboard can pose risks if the sole provider is not competent; some respondents expressed concerns about rank intimidation that could result in patients not reporting concerns:

> I don't have an avenue beside having an email to say, "Doc mistreated me." They can go to the [commanding officer], but there is not a good avenue for patients to advocate for themselves beside folks saying so.

> If somebody doesn't speak up because they're like, "Oh, I'm not dealing with this person, I'm leaving my deployment, rotation's over" . . . how would it get back to me as owner of that credentials . . . . If there's rank intimidation, would they speak up about this person being a horrible doctor?

Standard of Care

- Respondents from OCS settings co-located with MTFs reported participating in peer reviews of fellow providers in the OCS setting and often also participated in peer reviews in the MTF setting. However, OCS respondents outside of MTFs reported that peer review could be irregular and inconsistent, if it happened at all.
- Some respondents were unable to identify who would be able to conduct a SOC review for them, if needed, given the limited personnel at their station.

Applicability of These Processes

Table 3.12 describes to whom QA, patient safety, SOC, and risk management processes apply.

- Respondents acknowledged the challenges of working in many OCS settings, as described by this respondent from an Air Force OCS setting:

> We expect everyone to provide appropriate care no matter where they are and no matter what situation they are in. In reality, we have people who are in very difficult situations, very remote, maybe a lot less resources than they're used to, adverse environment. It's very difficult to provide care in some of these places we are in . . . it's adverse environments that most of them are working in.

- Several respondents shared that the dual oversight from both medical and operational commands means that requests from medical leadership in some OCS settings is not deemed as important as requests from operational command. This respondent from an Army MTF said:

> The fundament defect of the medical community is cultural. On the infantry side, if the commander has a vision, it is your job is to get to yes. On the medical side, everyone has 500 excuses why you can't do it. On the infantry side, with [leadership professional development] courses, it is expected that you are there. They wouldn't have a class if they didn't think it was worth it. On the medical side, there's no

> expectation to go. It's a very different culture. With the [independent critical task lists] everyone had a reason they couldn't do it. . . . There's not a top-down command expectation to do these.

Quality Assurance Processes

Table 3.13 summarizes QA processes in OCS settings.

- Although some components of QA, such as ensuring staff training and certifications and frequent collaboration among OCS medical providers, exist in OCS settings, there are substantial challenges to implementing systematic and rigorous QA. An Army OCS respondent described:

  > Overall, for quality and patient safety, it's not that its impracticable in a deployed situation. It's that what we know it's apples and oranges [being here and being deployed]. We want to go back to what we know is the standard, but we can't think that way. . . . We have to think outside the box. [Certain things are] probably not the safest thing. This wouldn't fly in the real world, but we're not in the real world. It's not that [these issues] all impractical, they are just very tailored to the deployed environment.

- Small and limited patient care spaces present challenges to privacy. Some respondents described needing to borrow spaces, such as truck cabs or storage areas, in order to have sensitive conversations with patients. As one Army OCS respondent described, "Privacy is the big issue. It's hard. You don't even find privacy in your normal day-to-day Army stuff. If someone bring[s] up concerns, more people are going to be involved [than] necessarily need to be."
- One Navy OCS respondent shared that their medical personnel need certain types of refresher training, but they do not have enough staffing to cover the time they need to participate in the training.
- Respondents shared that some items on inspection checklists are "Do surgery" or "Provide dental emergency services." This Navy OCS respondent shared, "It's a report card but it's very weird to just give a check or X for some of these things. . . . I could just stick a scalpel in somebody and that would be a check, which I didn't need decades of training for."
- An Air Force OCS respondent said, "'Okay, we checked the box, you did this training, you're done.' That doesn't do it. You have to do sustainment and keep those skills up. . . . You did it one time, it doesn't mean that you're ready to go to war or pull those skills."
- OCS leaders also shared that these reviews are heavily focused on trauma care while broader care competencies, particularly skills such as primary care, are not emphasized. One Navy OCS respondent described:

  > People like the sexy stuff, so there's a lot of work through JTS [joint trauma system] for trauma care. I think that's a lot of where the emphasis is . . . combat wounds management. . . . The thing we miss is the primary care side . . . a lot of structural problems with the way corpsmen are set up, there's no way of developing technical competencies.

- An Army respondent made a similar point about medics (i.e., 68Ws):

> We do a disservice to our 68Ws, they only teach trauma and then we lose so much. . . . How to do blood pressure checks. Knowing reactions to different medications and such. Labeling [intravenous therapy] and [intravenous] fluids . . . . There are so many things they just don't think about because they don't do it. The care here is not trauma care at all, it is just doing that. For this role, it is completely different, it is sick call . . . like a primary care facility.

- Even providers who are able to maintain skills while in garrison by providing care in the MTF may experience skill lapse during deployments that last months or longer. Respondents shared that providers at all levels may not be getting the practice needed on skills that could be vital in some OCS settings but are rarely needed and practiced in those settings, as described by one Navy OCS respondent:

> Physicians . . . nurses, and corpsmen, they're not getting the reps and sets they need to keep their skills up. . . . If they're not placing IVs on daily basis on normal people . . . they're not going to do it quickly on a patient with hemo [hemorrhagic] shock and depleted blood volume. . . . So when you're talking about credentialing and privileging, it's a form that says I can do this but the reality is intellectually I know how to do it but my hands haven't done it in a while. What does that actually mean?

- Several respondents from one Navy OCS described having disbanded the Medical Executive Committee for their OCS setting because there was not enough work to justify meeting when they would discuss issues informally and resolve issues without a meeting. Another respondent from an Army MTF shared: "We do understand that what is measured in the MTF is not necessarily always going to be beneficial to what we measure in the operational environment."
- Accessing health care in OCONUS locations can be challenging because of complexities of working across governments and military agencies. Evacuating to MTFs in neighboring countries involves complex processes that can delay critical treatments. Respondents at one OCS setting shared an instance in which timely care for a soldier suffering a stroke had been delayed by complications in coordinating transfer approvals across multiple chains of command.
- What the mobilizing medical team expects at an OCONUS location is sometimes different from what they find upon arrival. Respondents attributed this to the fact that medical planners, who are sent into the field to evaluate foreign hospitals, do not necessarily have medical expertise. They may not always know what to look for or how to assess quality of care or adequacy of equipment, which can then compromise care for service members and compromise relationships with the host nation. One Army respondent shared:

> [By the time we arrive in country, local staff] have had 15 different medicals operations officers already talk to them, and they don't want to talk to us . . . we have to fix the plan in country. . . . [We] packed everything on a ship, and the CT scanner at the hospital is broken. Now I have to identify another facility. These resources were promised but they are unsatisfactory. That's a big risk. . . . We get bad

> information, and then it destroys our ability and distress our ability to develop relationships with the host nation.

- Many respondents noted that for many OCS settings, including for deployed settings, service members are screened to ensure that only the healthiest individuals are deployed. A Navy OCS respondent said, "It's relatively low risk because it's a relatively healthy population. . . . I think we get a lot of grace by sending people to provide coverage to generally healthy populations."
- Respondents also frequently described the strong relationships that OCS providers develop with patients who are fellow service members. This enhances quality of care, particularly since they are generally available at all times and live within close proximity to the OCS clinic, providing almost-immediate access to care. Additionally, respondents described the vast resources available in extreme situations to save a service member's life. Such resources are unimaginable in a civilian setting, as described by a respondent from an Army OCS setting:

> If we look at my most extreme patients, a civilian patient wouldn't get 100 units of blood. In the military, we are able to flex so many assets to save somebody compared to everyone else. . . . We can leverage several hundred people to do blood. You just can't do that in a civilian setting.

Patient Safety Processes

Table 3.14 summarizes patient safety processes in OCS setting.

- Delays and limited formal reporting were attributed by respondents to the nature and circumstance of operational settings. These are often transient sites, in which constantly rotating personnel and systems and a high operational tempo (i.e., speed of operations) make the use of a codified, formal system challenging. An Army OCS respondent shared:

> The spirit of the patient safety system is to identify systemic problems that you can fix but a lot of times by the time you get the PSR, the field hospital has moved. . . . There's not a special [reporting] system that's pushed down to us.

- In situations in which there are a large number of injuries and patient safety may be highly relevant, the priority is minimizing morbidity and mortality in emergent situations, but this can occur at the expense of patient safety documentation and reporting. This is consistent with what one Navy OCS respondent told us:

> Each battalion's got one to two physicians or physician assistants. They're not necessarily able to supervise [all] the care that goes on. Care in this point in time is poorly documented. If for some reason anything were to happen, let's just say that if it doesn't rise to the level of a [potentially compensable event] or significant morbidity/mortality type of thing, as long as that didn't happen, there's no way to necessarily provide any kind of peer review type of scenario.

- Several OCS respondents from Army and Air Force shared that major patient safety events could be "lateraled" to the MTF holding the relevant provider's credentials for further action.

Of note, respondents highlighted that even reporting of major incidents might be delayed for weeks or even months because of limited communication in some operational settings. They noted that this delay can mean less-accurate reporting of potentially important details given the fallibility of memory over time.

- Several respondents at one Army OCS setting described a training exercise incident that impacted an active-duty member where a lifesaving medication had not been included in the Authorized Medical Allowance List for the exercise. However, another active-duty member had that medication in their personal kit, although it was expired. OCS providers administered the expired medication, and the individual survived. Because OCS providers have worked in MTF settings and have been trained to report patient safety incidents, they tried to report this incident in hopes that the important medication would be stocked in future medical kits, but they could not identify a formal way to report other than writing it up in the After Action Report.
- Navy respondents in another OCS setting shared that the force surgeon is aware of the challenges to patient safety reporting and is working on establishing an analogue to the JPSR system in the field, but it is still in development because of multiple limitations with technology and communication in the field.
- Several respondents shared concerns that lessons learned from prior combat situations have not been carried forward and that systems and roles that had been developed previously are not currently being used. Several respondents from different Army OCS settings expressed concern about complacency. One Army OCS respondent shared:

> The lessons learned from Iraq and Afghanistan where the CPGs [clinical practice guidelines] were very clear and now we went into this lull and we have 4 to 5 years of not doing that, and new people coming in, [it's challenging].

- Another Army OCS respondent shared that because providers know they are on training exercises, they assume that activities are low risk.

> Part of that complacency is that it's training, and there is no live ammo. But you don't know if someone brought ammo from home. And you're supposed to train like you fight. It's muscle memory. We tend to be better during wartime. I think this time brings out a lot of complacency, boredom, and thoughts like, why does this matter? Who cares? [But] the most common way to die in the Army is not combat, but training accidents, particularly vehicular accidents, human error, and due to lack of sleep. That's the complacency is what kills more than the enemy.

Standard of Care Processes

Table 3.15 summarizes SOC review processes in OCS settings.

- One Navy OCS respondent said the "[Training and Readiness] Manual is super vague . . . what you're supposed to be able to do [is] 'treat casualties.' What does that mean?"
- One Army OCS respondent shared:

> There's a difference between field operations here and doing them overseas. We'll do training here, but there's an American hospital 5 minutes away, so you don't have to do that extreme thing. We're not going to practice it here. It's fluid and the [SOC] can change depending on where you are.

- Establishment of SOC in an OCS setting very challenging, since that SOC changes by setting and may even change within the same OCS setting depending on the circumstances. Respondents repeatedly told us that SOC is a major challenge in OCS settings because in many situations, without having been on the ground in the moment, it can be nearly impossible for an outsider to determine what was and was not appropriate given the circumstances. One Navy OCS respondent reported:

  > When you do [exercises in a host nation], you're taking already limited capabilities and degrading them further. Now you may not have all medications you wanted to have. May not have personnel. Now you need to provide a level of care with the same requirement but with one hand behind your back. As you put limitations in, it's harder and harder to assess quality. . . . Unless you're in that time and space and moment, you can't say was the right thing done? . . . If we put those constraints on how we do medical care, it's very hard to say after action if appropriate care was rendered. . . . Honestly, operationally, who's going to review it, who's the person reviewing it, being Monday morning quarterback saying you did that wrong, you go out there and do what I did and tell me what I did was wrong.

- One factor that minimizes the exposure of OCS providers to a variety of patient care that would help support sustainment of their skills is the screening processes conducted for active-duty members prior to being deployed or sent on exercises (i.e., deployed soldiers tend to be healthy). This generally means that providers in many OCS settings are providing very low-level care (e.g., colds, coughs, sprained ankles) that is noninvasive, with fewer opportunities for patient safety events to occur. However, this can also become an SOC concern if providers do not have ample opportunities, particularly during extended deployments, to maintain the skills needed for potential higher-acuity patient care activities. It is also frustrating to providers, who are typically recently out of medical training, to only be able to use a very limited set of their skills. One Navy respondent shared:

  > It's very frustrating when you talk to physicians because everyone is frustrated. . . . 97 percent, 98 percent of us are fresh out of training because nobody wants to come out here because the clinical volume and acuity is really terrible. When you're coming out of training you want to develop your skills. The reality is we came out of training so we're the lowest on the totem pole so we get sent wherever.

Documentation Systems

Table 3.16 summarizes documentation systems used in OCS settings for QA, patient safety, SOC, and risk management.

Quality Assurance

- Army medics reported that they would complete SF600 forms for documentation in field settings but that not all SF600s are ultimately added to a patient's medical record. Several respondents shared that as far as they are aware, there is no individual responsible for scanning paper records into MHS GENESIS once back in garrison, making it less likely that this happens consistently and creating the potential for gaps in documentation.
- One Credential Committee chair at an MTF with several affiliated OCS settings did not recall seeing any documentation come back to the MTF from deployed settings:

> I can't remember any specific instance where I came across any documentation that was generated in a deployed environment about someone's quality of care. I'm assuming that those documents are not stored in this side of the house. That maybe those are stored in a clearinghouse. They don't make it into our system and CCQAS.

- Technological challenges of OCS settings, including inability to document in MHS GENESIS, and lack of consistent internet can jeopardize QA systems by making important information, such as allergies and other relevant prior medical history, inaccessible. These challenges also prevent timely and accurate documentation. Respondents from one Army OCS setting described substantial challenges accessing HALO, the operational medical record:

> Currently HALO's broken. That rarely works effectively. We struggle to get documentation in. My providers having to back door [into the system]. That allows for no tracking. We're not authorized to use MHS GENESIS. . . . We have significant limitations and gaps in our in our operational medical IT [information technology] systems because HALO is broken and doesn't work. . . . Currently I can't even do a data pull to see how many people showed up for sick call in a day at a location. . . . They're doing stuff with pencil on spreadsheets. . . . We need the ability in a non-conflict setting to use MHS GENESIS. But because DHA says it's theirs, we cannot use it in the operational setting. There is some conflict.

- A respondent at an OCONUS Army OCS setting mentioned:

> HALO can only be accessed from terminals. This clinic was assigned two. Only one has ever worked, we have between zero and one ever working. It goes down frequently. Only one person knows how to reset it. Or when it updates, all accounts are deleted so you have to re-register. It is a disaster. . . . Our approach has been at this point we shifted to using [Theater Medical Data Store] as a backup. I gave up on HALO, but for a majority of the time here if we tried to use [Theater Medical Data Store], they told us to wait until HALO is back up. But I won't remember everything [if I wait].

Patient Safety

- Respondents from one Air Force OCS setting noted that serious patient safety events may trigger a Clinical Operational Patient Safety Alert, which is sent to the field with

recommendations for preventing similar incidents in the future. However, other OCS respondents did not mention this.

- Respondents from many OCS settings, across service branches, noted a need for better documentation systems in field settings for both patient health records and PSRs. Such a system would need to integrate with existing systems, such as GENESIS or HALO, and be able to function in settings with limited or absent internet capabilities. Having such documentation systematically recorded would also improve tracking of patient safety events and quality metrics.

Reporting and Monitoring

Table 3.17 summarizes reporting and monitoring systems in OCS settings.

Quality Assurance

- Athletic trainers were able to quickly evaluate injured service members and connect them to a sports medicine physician who could then conduct a second-level assessment and send service members to an orthopedic surgeon, all within a few days rather than a few weeks or even months in normal care processes through the MTF.
- In deployed settings, surgeons may not perform surgeries for extended periods of time (e.g., four to six months), and patient volumes will be low. Respondents also noted that medical commands have not prioritized clinical quality metrics in the operational environment because of the challenges of understanding what the outcomes of measurement should be when care is so variable and unpredictable. As shared by one Army OCS respondent:

> A lot of times, when you track metrics, those can be tied to outcomes. And if you are taking care of local nationals [when deployed], you don't have a long-term follow-up. So, we may have taken care of 20 casualties, and we gave them X units of blood and X amount of times like we "did good." What's the 30-day survival? We don't know because they are gone. So that's one of the challenges.

Appendix E

Provider Accountability Supplement

This appendix provides additional evidence from the internal assessment and respondent interviews to support the findings in Chapter 4.

MTF Processes

This section provides more detail on findings related to provider accountability in MTFs.

Privileging Authority

- One Navy patient safety manager described a need to better educate privileging authorities, specifically commanding officers and CMOs, in order to improve accountability because of these individuals' central role in these accountability decisions. This individual shared:

> I think DHA is trying to launch Just Culture, which I think is great. But as I recently told them too, it's great to educate me and put it in my DHA-PM and I can get up and educate the leaders, but they need to be educating [commanding officers] and [executive officers] and CMOs before they're put in those positions. It can't just be from me that DHA says you need to use this tool. So, either there's no accountability or chiefs fire everybody. So, I still think there's a lot of accountability issues.

Accountability Processes

Quality Assurance Investigation

- With regard to adverse privileging actions and QA investigation, one respondent shared:

> If there was a case where [SOC] was not met, and the recommendation from medical staff or credentials committee was to take an adverse action, then we'd [credentialing and privileging department] come in and we could suspend privileges and do a QA investigation.

- One Navy respondent described the QA investigation process and shared that one case with hearings was ongoing for over one year:

> Then it goes into [QA investigation], and that will then have an outside provider outside of this facility go in and do a search through and investigation and look at notes and make sure what exactly they see is a problem. And it goes down the line, it goes to our risk manager. DHA has recently changed to if you're going into a [QA

> investigation], if we feel there is a problem there, they're immediately going to put them [the provider] into a summary suspension and suspend their privileges. And then there's a long investigation that goes on. We have one going on for about a year now. We're waiting for the final hearing on it right now, waiting for names, and because we're so small here we have to pull people from outside facility to do investigation. In meantime, this person has nothing to do with patient care.

Impaired Healthcare Provider Program

With regard to the Impaired Healthcare Provider Program, one Navy respondent described their role on a Human Factors Council, sharing, "We make sure the person is taken care of while the clinical performance is being taken care of."

Monitoring

- In the case of less-serious remediation actions, such as education and training, one risk management respondent said that these processes are not monitored adequately, sharing:

> Did we communicate that to the unit? Where is the accountability that they met with their staff? Where can I see that there was an in-service [meeting or communication of new policy] and people signed? That's the continuum of a closure, information coming in, evaluate, then move onto the next, what's the follow-through?

Appendix F

Clinical Quality Metric Transparency Supplement

This appendix provides additional evidence from the internal assessment and respondent interviews to support the findings in Chapter 5.

Internal Assessment

Table 5.1 summarizes responses to the internal assessment pertaining to clinical quality metric transparency. Additional details gathered include the following:

- DHA is engaged in multiple types of transparency efforts: internal dashboards (i.e., Review and Analysis Dashboard), recurring monthly assessments (Clinical Measurement Working Group, NSQIP Steering Panel, and Review and Analysis meetings), recurring quarterly assessments (Clinical Quality Management Board), and comparisons with non-DoD activities (i.e., American College of Surgeons [NSQIP, Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program, and Trauma Quality Improvement Program]; Agency for Healthcare Research and Quality; U.S. Centers for Medicare & Medicaid Services; and Leapfrog).
- A Quality, Patient Safety, and Access portal, one of several website-based hubs, allows patients to "find data showing how military medical facilities score on industry standard measures for patient safety, health care outcomes, quality of care, patient satisfaction, and access to care" (MHS, 2024b).
- Another example of DHA's transparency is reflected in its annual report evaluating the TRICARE program (DHA, 2024) that includes "in-depth data that reflect the current state of the MHS with in-depth reviews and analysis covering quality of care, patient trends, hospital and clinic ratings, and patient safety statistics."
- The response from Health Affairs to the Internal Assessment (Task 2) noted that the MHS Healthcare Risk Management Working Group, which is chaired by the Deputy Assistant Secretary of Defense (Health Services Policy & Oversight) or their designee and consists of stakeholders from DHA and services, "reviews the management, processing and reporting of providers, reviews cases where there is nonconcurrence with external SOC determinations, and monitors and analyzes trends of clinical adverse actions. Health Services Policy & Oversight is working with DHA and the services to ensure accountability and compliance."

The internal assessments yielded varying responses from the services about OCS settings:

- The Army noted that "[U.S. Army Medical Command quality management] does not currently aggregate, track or trend clinical quality metrics at the [headquarters] level." Furthermore, metrics are not used with OCS settings: "There is no comparison of OCS metrics with similar metrics for non-department health care entities occurring at this time." Despite the lack of collecting and analyzing metrics, the Army noted in June 2024 that it planned to have "Clinical Measurement and Clinical Quality Improvement branches of CQM for OCS" by July 2025.
- The Air Force, on the other hand, noted that "[Air Force Medical Command] is coordinating OCS clinical metrics that align with DHA defined metrics."
- The Navy's response to the internal assessment mentioned clinical measurement instead of clinical quality metrics. Of note, the Navy explained that "clinical measurement provides point of care providers, clinical support staff, and Fleet leadership with the data and information needed to assess clinical quality processes, outcomes, patient perceptions, and organizational structure and systems." Given that health care is delivered on Navy ships, it seems that fleet leadership are overseeing OCS settings, which therefore means that clinical measurement is used by the Navy in OCS settings. Taken together, there is variability in the use of clinical quality metrics across the services.

Stakeholders were asked to outline how elements of a learning health care system were applied to each CQM program, including performance assessment, strategies for mitigating poor performance, and improvement planning:

- For MTFs, DHA stated that it tracks all measures on Health.mil and through Leapfrog programs and reviews them regularly though the assistant director for healthcare administration at the network and MTF levels for outliers and to identify leading practices and improvement efforts. DHA stated that it supported numerous transparency efforts, including through "Dashboards, NSQIP Collaborative – high/low performers, MTF comparisons, and comparison to national benchmarks/standards."
- For OCS settings, the Army and Air Force noted that clinical measurement CQM programs for OCS settings were still in development and, therefore, no organizational learning activities were noted. Details on transparency for clinical quality metrics for the Navy were not provided.

MTF Processes

Respondents in the qualitative interviews discussed multiple aspects of clinical quality metric transparency processes at MTFs. This section provides more detail on findings in the areas of roles and responsibilities, transparency processes, and documentation systems for clinical quality metrics.

Roles and Responsibilities

Table 5.2 summarizes the responses regarding roles and responsibilities at MTFs. Additional details gathered are provided below.

DHA Oversight

- Respondents across all services branches identified DHA as the organization responsible for transparency activities at their MTFs.
- According to respondents, DHA is tasked with selecting the clinical quality and patient safety metrics that MTFs are required to measure and report.
  - One Army respondent highlighted, "Ever since we went to MHS GENESIS, DHA has a team of analytics. All the data gets somehow analyzed, interpreted, and used."
- Additionally, DHA maintains oversight of data dashboards that extract data directly from MHS GENESIS,[12] ensuring that these data are transparent and accessible to beneficiaries, health care providers, and other stakeholders, including the Leapfrog Group.
  - As one Air Force respondent explained, "Everything that we do here has some type of dashboard tied to it. DHA has oversight of those dashboards. [The data] make their way to the standardized website that they have for each MTF."
  - Another Air Force respondent noted the efficiency of this process, stating, "A lot of that info comes from GENESIS . . . I believe that DHA pulls the info automatically. I don't believe we are generating anything to be sent to DHA."

MTF Leadership

- Respondents consistently reported that at least one individual within their MTF was primarily responsible for promoting and overseeing transparency activities related to quality metrics. These individuals most commonly served in such roles as commanding officer, CMO/chief of medical staff, or chief/deputy quality officer. Their responsibilities comprised both upstream and downstream transparency activities, including reporting clinical quality and patient safety measures to the installation commander or DHA, as well as regularly briefing MTF leadership and staff on these measures.
  - As one Navy individual noted, "[The commanding officer's] whole staff gets Friday emails, and in that, they see all [the MTF's] metrics . . . and access to care, future referral times. [The commanding officer] sends that out to them for the base leaders."
  - Another Navy respondent explained that "the CMO routinely does [a] once a week department head meeting with the department of health services, and a lot of metrics that are monitored, those are things that they will bring up."
  - Similarly, a Navy respondent emphasized that "ultimately, the responsibilities for overseeing transparency activities fall under [the chief quality officer]."

[12] MHS GENESIS is the electronic health record software used by MTFs.

- Furthermore, respondents indicated that many metrics reported internally are shared with a designated lead, such as the commanding officer, who then presents them at meetings with higher leadership.
  - As one Navy respondent stated, "A lot of the metrics that we report in-house go to the commanding officer, and the commanding officer presents that at the admiral's meeting . . . my understanding is that DHA and Navy are all looking at pretty much the same metrics."
- Respondents from all service branches reported various leadership groups within their MTFs that meet regularly and play an active role in reviewing clinical quality and patient safety metrics. These groups included the Quality Council, Board of Directors, Executive Steering Committee, Medical/Nurse Executive Committee, Infection Control Committee, and department heads.
  - One Navy respondent mentioned, "We have a Quality Council. A multitude of quality metrics and talks are had. . . . You have [the Nursing Executive Committee], you have [the Medical Executive Committee], we have discussions regarding metrics, HEDIS, population-specific, involves quality of life."
  - Another Navy respondent noted, "We present [metrics] at Quality Council, and most of the directors are in our Quality Council. We develop [a plan for] how are we going to do this, and they take it back to their directorates. We also share at Executive Steering Committee [meetings]."
  - Additionally, respondents shared that these leadership groups can provide consultation support: "If there's something that needs to be elevated . . . each director presents to the Quality Council, and they could push that up to the Board of Directors if there's a need for support. . . . We take that data and that's how we identify top safety priorities for the organization."

Department-Level Processes

- Working in conjunction with their MTF's primary lead(s) on transparency activities, department chiefs, heads, or representatives commonly have responsibilities related to transparency activities both up and down their chains of commands. This structure enables two-way transparency of measures both out of and into their departments.
  - A civilian respondent from an MTF provides context for how clinical quality metrics are monitored at the department and leadership levels: "There's a decentralized process of peer review of local quality, looking at clinical practice guidelines. Some of that is under the purview of the CMO and executive committee of the medical staff. Local quality by specialties are decentralized. Centrally, we have measures that are indicators of that quality. We track and see outliers that we explore and expand."
- Many MTFs reported having department-level processes for reviewing and disseminating clinical quality and patient safety measures. Department chiefs, heads, or representatives can be responsible for reporting department-level measures to DHA, MTF leadership, or the entire hospital staff. Additionally, these leaders often attend department head meetings in

which MTF-wide measures or department-specific measures from external data sources may be shared. They are then expected to disseminate these findings to relevant providers and staff members within their departments.

- For instance, one Air Force respondent explained, "We share those numbers as a surgery department at monthly meetings. [The chief of surgery] also presents that aggregate data quarterly to the administration, so they know what [the surgery department's] numbers are. . . . Hospital leadership typically lets [the chief of surgery] know what they want to focus on or if there are any projects they want to start." Similarly, one civilian respondent from an MTF explained their process:

  > There is what we call Quality Council here. Each directorate will report their tracer activities to their directors. And more of those directorates have a designated staff that is somewhat responsible to monitor and report the data to their own internal leadership, and then every department head will approve the final data. That data will be shared depending on what the topic is. About every quarter or so, there is a report disclosed at the Quality Council where attendees, it's open to the entire hospital staff, come and listen to how other areas are doing, what gaps they have identified, and what is the way forward.

Transparency Processes

Table 5.3 summarized the responses regarding transparency processes at MTFs. Additional details gathered include the following:

Reporting and Monitoring of Metrics Within MTFs

- Respondents consistently reported regular dissemination of clinical quality measures, PSRs, and trends to leaders and providers within MTFs, although specific practices can vary from one facility to another. Many MTFs routinely disseminate clinical quality and patient safety measures, reports, and trends to department heads and all staff members. This is often facilitated through various executive committee meetings that serve as forums for monitoring clinical quality and patient safety metrics, thereby fostering a culture of accountability and continuous process improvement.
  - For example, one Navy respondent noted,

    > If you go on our Launchpoint page which any staff member can access, [the patient safety manager] has a section in there called finalized PSRs . . . it's redacted information from PSRs that have closed that month . . . [it] will say what the top trends were and usually . . . maybe an education thing. . . . At least every two weeks, [there is] a different patient safety thing on there.

  - Similarly, an Army respondent shared that "[the deputy director for quality and safety] comes up with this at the end of the week, the top six trending issues, so all hospital staff can hear it."

- In addition, metrics and their associated initiatives may be communicated through an internal shared drive, daily emails, provider dashboards, and routine staff meetings or town halls.
  - One civilian respondent at an MTF emphasized the importance of visibility, stating that their MTF shares data through "websites, but not only that. Us being more visible . . . putting things on Facebook. The commander has a town hall every second Tuesday that's televised so that all staff can see."
  - A Navy respondent noted the accessibility of quality metric data, sharing that "anyone who can access the CarePoint or our dashboards, anyone who has access to that, which is anyone here at the hospital, they can pull that [quality metric data]. . . . everyone has access, but not everyone chooses to access."
- The regular reporting of clinical quality and patient safety metrics through a variety of activities underscores a commitment across MTFs to promote transparency among staff and keep personnel engaged in continuous quality improvement efforts.

Reporting to Patients and the Public

- The majority of MTFs reported at least some patient and public transparency around clinical quality and patient safety metrics, commonly comprising Leapfrog scores, Joint Commission survey results, HEDIS metrics, NSQIP metrics, American College of Surgeons Hospital Ratings, and Joint Outpatient Experience Survey scores. These data are made available to patients and the public through physical posters and various online platforms, including the MTF, DHA, and TRICARE websites.
  - One Air Force respondent shared that their MTF reports high-level information: "I do know that the Joint Commission survey is public, as well as Leapfrog. But Leapfrog isn't showing specific data, only that we are accredited, our responses for survey questions, and an overarching grade. . . . I am not aware of any specific quality data for the public."
  - Meanwhile, another Air Force respondent highlighted the accessibility of their MTF's clinical quality and patient safety metrics, stating, "[Our website] has a link for quality and safety reports. Any patient can look at and click on how well we're doing. It has some event info posted, some quality of care with the HEDIS measurements. . . . Patients can see how we're doing at this facility."
  - A Navy respondent also described their MTF's proactive approach to transparency:

    > Our quality management department does a really good job of, we do our process improvement fair, and every time we have posters, we will actually have the posters up and we'll have signs out that say these are our recent process improvement projects, and often we're looking at metrics. . . . That's a main thoroughfare, walk through that door, go through that hallway, you've got a captive audience, they're walking back to pharmacy, dental, lab, or x-ray, and they'll peruse it. I've walked there quite a few times and seen patients stop and read some of the posters.

- However, the extent of and approach to transparency vary widely among MTFs. A couple of facilities reported that they offer patients and the public access to a comprehensive set of quality and safety performance metrics, but many others restrict their patient and public

disclosures to a narrower range of information. This variation underscores a lack of uniformity in how metrics are communicated to patients and the public.

  - MTFs that have a more cautious approach to public disclosure cited concerns about data integrity or the small size of their patient populations:

    > I would say we're not doing much to make [metrics] available to beneficiaries . . . a lot of other health systems will be like, here are our metrics. . . . A lot of what's holding that up is since we switched to GENESIS, there's significant data integrity problems and how that information is pulled, where . . . it's hard to trust its accuracy. . . . So we're wary of like the Leapfrog, we're wary of making this public if we're not sure this is accurate. GENESIS was not built for reporting . . . they're working on that now.

- Some MTFs also limit their sharing of clinical quality and patient safety information to posters displayed in their buildings or patient partnership council meetings.
  - One respondent from an Army site explained that their MTF shares some patient safety information via social media, noting that they typically highlight positive data points: "During [patient safety week], there's lots of social media blasts about how the MTF is better than other facilities . . . data points that are shared, we have instructional videos, we talk about potential risk."
  - In contrast, other MTFs report a more structured approach to transparency, noting dedicated sections on their websites that include resources like a Hospital Compare tool with disease management measures, inpatient outcomes, and quality and safety reports.
- All services except the Army reported some form of patient engagement group, such as the Patient-Centered Care Committee or Patient and Family Partnership Council. These groups, facilitated by MTF leadership, provide an opportunity to review clinical quality and patient safety measures with patients, although the level of transparency provided to these groups varies across MTFs. Some MTFs reported regularly sharing clinical quality and/or patient safety measures with their well-attended patient engagement groups, while others noted low attendance and limited reporting of measures.
  - A civilian respondent from an MTF described their patient-centered care committee, stating, "Patients meet once a month and talk about things they have seen in the hospital as patients. . . . Once a quarter, we bring patients to our Quality Council. We don't hide. If we're red in an area, we have to be able to say how we're tackling that."
  - Another respondent from the Air Force explained the structure of their patient engagement, saying:

    > Once a quarter where we invite . . . a vast array of patients. We invite representatives from the retiree population . . . [we] have a rep from active duty, pediatrics, family medicine. . . . It's a forum for them to raise concerns that they have. . . . We also present information for them at these meetings. It's called the Patient and Family Partnership Council.

  - However, not all MTFs experience high levels of participation, as one respondent noted: "We do have a Patient and Family Partnership Council . . . a quarterly meeting where we

invite patients to have a discussion. It's not very well attended. . . . That's a whole area for improvement."

Transparency Processes with Oversight Entities

- Some MTFs reported sharing clinical quality and patient safety data with certain oversight entities, such as DHA, the Joint Commission, the Leapfrog Group, and the American College of Surgeons NSQIP. The mechanism of reporting varies for each entity, and respondents also noted that MTFs might not actively report data because DHA has the ability to pull and compile data directly from MHS GENESIS. For example, the Joint Commission accreditation survey process at MTFs is aligned with that of other health care facilities; the survey is conducted within MTFs at regular intervals by on-site surveyors, and results are shared with the MTF. In contrast, for the Leapfrog Hospital Safety Grade, a dedicated person from an MTF may report relevant data to DHA, and then DHA ultimately reports that data to the Leapfrog Group on behalf of the MTF.
  - One Army respondent explained this process, stating:

    > We have [name] who is the manager for Leapfrog, and DHA has a centralized platform where that data goes into. She submits that data into the system. We get together with [the deputy commander for quality and safety] to review the data before it is sent to DHA. . . . Once it gets the blessing of the command team, it is submitted to DHA. Then the DHA people have meetings with people at all the MTFs. It still says Leapfrog is unable to provide safety grades to military hospitals and the VA [U.S. Department of Veterans Affairs] . . . but DHA created a model for the MTFs, and it is manually being added into the system.

  - Another respondent noted their MTF's commitment to transparency, saying:

    > We post our Leapfrog grade and scores, and we publish quality data with a cancer center, and we'll talk about outcomes. There have been things, for cybersecurity reasons [DoD] doesn't want us to see. . . . Barring that, we try to be transparent with NSQIP and disclose that to anyone, in online journals or medical literature.

- MTFs can also receive clinical quality performance data from DHA, since DHA has oversight of data dashboards that pull directly from MTFs' electronic health record system, MHS GENESIS. DHA may send these data along with established benchmarks and percentile performance data to help MTFs understand their relative performance among comparable facilities. One Navy respondent described this process:

  > When MHS GENESIS information comes through, providers are putting that into the system that goes through from all MTFs, and DHA does their magic and puts it back out to let us know how we're doing on those. . . .We just get a number . . . then you go and look at the benchmark to see where we're at and what percentile we're at.

Documentation Systems for Clinical Quality Metrics

- For those MTFs that did utilize a documentation system, a variety of tools were employed, each contributing to the collection, tracking, and reporting of quality and safety metrics.
  - For example, one Air Force respondent reported that they had "dashboards online to pull access to care numbers," and they employed color-coded ratings so they could see "if [their] numbers are dropping, are [they] green, yellow, red?"
  - Meanwhile, an Army respondent reported that their MTF's clinical quality metrics are "on a shared drive and [they've] seen it in the hospital, and another Army respondent mentioned using the Behavioral Health Data Portal as a tool to track behavioral health outcomes, including access-to-care metrics:

    > Behavioral Health Data Portal metrics, I can go in and pull them. So the practice manager goes in, pulls them, and we review them once a month with the leadership meeting, every Tuesday. So once a month, we look at our dosage, outcomes, therapeutic alliance, what we're treating primarily. . . . So we use this [Behavioral Health Data Portal] compliance to inform our care, and the patients have access to what their [Behavioral Health Data Portal] looks like and how much we're using it with them.

- Additionally, an Army respondent mentioned that "DHA has a centralized platform where that [Leapfrog] data goes into," suggesting a centralized documentation system that DHA uses to track quality metrics. As described in a previous section, DHA oversees data dashboards that are populated with information pulled directly from MHS GENESIS. This suggests that the documentation system function may be centralized at the DHA level rather than managed or visible at the MTF level. This centralization could explain the inconsistencies in reporting and the lack of awareness among staff regarding available documentation systems for clinical quality metrics.

Processes in OCS Settings

Roles and Responsibilities

Table 5.4 summarizes the responses regarding roles and responsibilities at OCS settings. Additional details gathered include the following.

Deployed Environments

- In deployed OCS settings, clinical quality metrics are not consistently tracked. However, if those or other metrics are tracked, that is often done via a centralized function, while the responsibility for reporting clinical quality metrics falls to individual units and providers.
  - For instance, the U.S. Transportation Command tracks medical evacuations across the services.

  - In addition, DHA oversees the Joint Trauma System, which tracks metrics to update clinical practice guidelines related to trauma care across the services. As an Army respondent explains, the Joint Trauma System does

    > a weekly update, and they talk about the traumas that have happened in the last week, including injuries and trends that they're seeing. They take all that data, and they do performance improvement on it. They adjust clinical practice guidelines based on the data that they're receiving . . . and that's an open site. Anyone can look at that.

- In some cases, clinical quality metrics are tracked by senior entities via the Theater Medical Data Store, an electronic health record system designed for deployed environments, although there has been an effort to move away from using this system in favor of HALO, as an Army respondent describes:

  > [The Theater Medical Data Store] has the capability to track type of patient, disposition. They could do that if you have [connectivity] access. And those senior entities do pull those . . . I have seen they try to get people to move from [the Theater Medical Data Store] to HALO. . . . [The Theater Medical Data Store] is reliable on the web, all you need is a [Common Access Card] reader to access it online. Anyone can use it, but they want us to not use it. HALO could work, but we have connectivity issues.

- Within specific units, providers are tasked with logging all patient care and encounter data into designated forms.
  - As one Army respondent explains, "any care that's provided [should be logged]. If a [physician assistant] is in a Role 1, we want them to log that. . . . We ask them to log everything." However, they also point out that

    > it's a flawed system for a lot of reasons. It's up to that PA [physician assistant], or someone in their office, to get into that form to log it. If they opt not to, there's no enforcement. . . . It doesn't have to happen immediately, so we have some understanding. Connectivity and timing can be issues. If it's a patient care encounter, we're reliant on them to make the judgment, but we want to know about it.

- The lack of an enforcement system to ensure provider compliance with reporting clinical quality metrics can lead to gaps in data accuracy and completeness.

In-Garrison Environments

- The Air Force employs the True North program and OSTs, both of which operate primarily in non-deployed settings. Members of these teams are responsible for collecting and reporting data on metrics related to their efforts to improve service member resilience, readiness, and performance.
- The 711th Human Performance Wing manages and analyzes the outcome metrics tracked by OSTs.
  - It was described by one Air Force respondent as "the overarching umbrella for OST [based] out of Wright-Patterson [Air Force Base]."

- As one Air Force respondent explains about their OST, "We have our own metrics, lots of different ones from 711th that they require us to do. Those metrics involve how many touchpoints we have . . . we track those monthly and have to submit those to 711th because they use those metrics." In addition to specific wings, OSTs must also report outcome metrics "to the medical group commander [of the associated MTF] . . . and then also to the leadership in [their] embedded unit."

Transparency Processes

Table 5.5 summarizes the responses regarding transparency processes at OCS settings. Additional details gathered are provided below.

Reporting and Monitoring of Clinical Quality Metrics

- Respondents from OCS settings consistently reported that clinical quality metrics are not measured and tracked, or they did not know whether they were.
  - For instance, one Army respondent stated, "I know tracking systems are used, but nothing here [related to clinical quality metrics]. Just a patient tracker with the injury patterns and our treatment of it."
  - Another respondent from the Navy shared, "I'll go back to combat readiness and reporting in [Defense Enrollment Eligibility Reporting System]. . . . that is the reporting, but I don't know about clinical quality metrics."
- This lack of monitoring is attributed to different limitations.
  - One Army respondent explained that they "have such short episodic events, like [Forward Resuscitative and Surgical Detachment], [that] goes in to support for two weeks" and that they "don't have the resources to [track clinical quality metrics]" during these events.
  - Another Army respondent shared that they do not track clinical quality metrics, because they "don't have medical units deployed doing things. Sometimes [they] just go out and are setting up equipment and training. There's no care provided."
  - A Navy respondent who denied any tracking of clinical quality metrics attributed it to "probably a combination" of limited resources and not enough care provided, noting that "encounters are pretty small, mostly acute care stuff," so "the things that end up getting tracked would be med evacs."
  - Another Navy respondent shared that "quality metrics are important, but without having [electronic health record] capability at one of the Role 2s, I think it would be burdensome to do." They continued:

    > I agree it's important . . . [and] should be tracked, but if you see our [shock trauma platoon] unit, a lot of times we're very short on personnel over there. . . . If it's somebody's responsibility just to time stamp things and I'm taking a person away from patient care just to do administration, that may affect patient care if I don't have this extra person to help. But [electronic health record], I think that would be very reasonable and valuable to have.

- Despite the absence of reporting and monitoring clinical quality metrics, there is an openness to improving in this area.
  - One Navy respondent mentioned that "[the force surgeon] tasked a group to look at [clinical quality metrics]," although they are finding "the issue [of] follow-up and trending" to be a challenge: "Each scenario is so different and unique . . . [so we have] no metrics because there's no standardization."
  - A respondent from the Army also suggested that "having metrics downrange for quality care" would be helpful, stating, "Quality doesn't stop once you leave the MTF. You should still be providing standards of care and quality care and having some mechanism to measure that."

Reporting and Monitoring of Other Metrics in Deployed Environments

- When asked about clinical quality metrics, OCS respondents often offered information about other metrics, such as those related to readiness and resilience. Reporting and monitoring of readiness metrics take priority at OCS settings.
  - An Army respondent who noted that their OCS setting does not look at clinical quality metrics stated, "The things we look at right now are indicators of health force readiness. [Disease nonbattle injury] occurrences, did care happen or not."
  - Another Army respondent confirmed that "the main metrics that are tracked operationally is readiness" such as "how many people are up to date on immunizations . . . [and whether people are] deployable or not," explaining, "That's what the command wants to know about."
  - Similarly, a Navy respondent echoed, "In an operational setting, we do measure operational readiness. We track that religiously. Everyone has a role in medical readiness."
  - An Air Force respondent shared, "I don't think [clinical quality metrics] necessarily applies to us. We track missions, patient movements, safety events, but we're not collecting quality data per se . . . it's not part of what we do."
- Other medical operational metrics are also tracked, such as the number of patients seen, medical evacuations and their reasons, and certain safety events.
  - For example, one Navy respondent stated that "the things that end up getting tracked would be med evacs, and that's where they go into the patient transport management system through Transportation Command."

Reporting and Monitoring of Other Metrics in In-Garrison Environments

- Some readiness and resilience metrics are also reported and monitored in in-garrison care environments, such as the Air Force's True North Program and OSTs.
- For the True North Program, respondents cited self- or peer-reviews as a way of monitoring quality of care provided by True North providers, who are embedded in a unit long term for the purpose of mental health early intervention and suicide prevention.

  - One True North provider stated, "I go through a performance review with the commander. All of the marks for the contract for True North are listed, and I write what I've done and accomplished."
- However, there was no knowledge of specific metrics that are reported and monitored for the True North Program.
  - For instance, another True North provider reported that they "have to do peer review every month," but "beyond the yearly evaluation as an employee, [there's] nothing specific to [their] job that would be documented or rated on."
- Similar to the True North Program, OSTs employ peer reviews as a way to monitor quality of care.
  - An Air Force respondent explains that "peer reviews are done [for OST employees], given to medical directors, [and] funneled up to [the chief of medical staff]." OSTs also closely track readiness and resilience measures with the support of the 711th Human Performance Wing.
  - As one Air Force respondent explains, there are outcome metrics tracked "for the OST even though they're not providing clinical care—just education. [These are] discussed with the wing commander . . . [such as] improvements in scores for lower back pain [and the] number of activities engaged with the members."
  - An OST member explains that the 711th Human Performance Wing requires "metrics [such as] how much time [they] spend doing walkabouts, education, [and] guidance. . . . For mental health, [metrics can include] how much time [they spent] on transition out of the military, deployment issues, sleep, stress, [or] alcohol."

Documentation Systems for Metrics

Table 5.6 summarizes the responses regarding documentation systems used by OCS settings. Additional details gathered are provided below.

Deployed Environments

- Respondents identified several documentation systems utilized for tracking metrics for OCS settings.
- The Theater Medical Data Store is an electronic health record system designed for use in deployed environments across all services. However, it was only mentioned at one Army OCS setting, where respondents also discussed the transition from the Theater Medical Data Store to HALO. Respondents identified various challenges with both of these electronic health record systems. As mentioned in an earlier section, limited enforcement provider compliance with reporting via Theater Medical Data Store or HALO can lead to gaps in data accuracy and completeness. However, there are also technical challenges.
  - As one Army respondent explains, "We have to leverage the network, and systems can go down for two weeks. . . . HALO connectivity is an issue. We could use Theater Medical Data Store, but they tell us not to use it."

  - Another Army respondent explains the context behind this connectivity issue:

    > Being remote can be challenging. We have to drive them a few hundred miles at times. So, [SOC] may adjust in the environment. . . . Here with HALO and [Theater Medical Data Store], it is harder and given OPTEMPO [operational tempo] and how we are set up. I'm sure we could do patient reporting, but I don't know how to make that happen.

  - A different Army respondent explained that "for medical documentation, there are Army-wide and MEDCOM-wide [U.S. Army Medical Command–wide] projects for medical documentation happening." They went on to state, "The documentation has been so poor in terms of the [electronic health record]. They want us to use HALO, but our computers were not connecting to the network. So they wrote paper . . . notes and mailed them . . . [but] documents got lost. Lots of them. . . . They pushed us to use the system but with no technical support."
  - Another Army respondent describes HALO as "a disaster"; they shared that their OCS setting "had and still [does] have a pretty functional and user-friendly [Theater Medical Data Store]" but "were forced to use [HALO]" even though "it is very cumbersome, . . . can only be accessed from terminals, . . . [and] goes down frequently [while] only one person knows how to reset it." HALO also poses a challenge to reporting and monitoring in that "it does not give [OCS settings] the ability to give information to extract metrics."
- The Medical Readiness Reporting System was also mentioned as a documentation system in which "anyone with access can pull the numbers for a unit." However, this system does not specifically address clinical quality metrics.

In-Garrison Environments

- The True North Program does not collect quality metrics; however, the OSTs are required to collect and report metrics to the 711th Human Performance Wing. This wing manages a data dashboard that tracks outcome metrics, which may in some cases be related to clinical quality.
  - One Air Force respondent commented, "The 711th are great. They have statisticians . . . and a whole dashboard based on profile rates [and] unit stress. . . . And they also pull off of adverse outcomes in the unit, like [driving under the influence], or court martials." However, the respondent also noted some challenges, stating, "Sometimes [the 711th will] take forever, or it's kind of confusing how they use their z-codes and how they create their database off those tables."

Appendix G

Eliminating Variation in Clinical Quality Metrics Supplement

This appendix provides additional evidence from the internal assessment and respondent interviews to support the findings in Chapter 6.

Internal Assessment

Table 6.1 summarized responses to the internal assessment pertaining to standardization activities. Additional details gathered include the following:

- DHA issued DHA-PM 6025.13 (2019b) to articulate CQM procedures, including activities focused on standardization "aimed at eliminating unwarranted variation." DHA uses a multipronged approach to reduce variation in the delivery of care, with the "goal of zero preventable patient harm." This approach includes a Ready Reliable Care Safety Communication Bundle focused on "six standardized safety communication practices" that include activities for leaders (daily safety briefs, leadership rounds) and staff (unit huddles), as well as alerts, messages, and implementation of the Universal Protocol (using a timeout before a procedure to verify the correct procedure and patient).
- DHA practices "support the elimination of unwarranted variation in clinical quality at the MTF level" and are captured via a Ready Reliable Care Safety Communication Bundle Dashboard that monitors "seven performance metrics on the six safety practices at the MTF, parent facility, and network levels," with the goal of ensuring patient safety by seeking to achieve "zero preventable harm." Ready Reliable Care is DHA's approach to developing principles of high reliability organizations across the MHS (DHA, undated).
- We also offer three examples of additional approaches to reducing variation merit discussion. First, DHA stated in its response to the Internal Assessment (Task 2) that Bar Code Medication Administration is one way that DHA standardizes care delivery to reduce unwanted variation: "[Bar Code Medication Administration] technology incorporates the 'five rights of medicines administration' (right drug, right time, right patient, right dose, right route) into an automated system to intercept potential errors at the point of administration." DHA reported in the internal assessment that it has focused on implementing the use of Bar Code Medication Administration technology across the MHS sites for which it has oversight, with "an increase in Bar Code Medication Administration compliance from 78.3 percent to 94.7 percent resulting in meeting Leapfrog benchmark of 95 percent." A second example of processes that reduce variation is reflected in DHA's Antimicrobial Stewardship Program,

which seeks to standardize antimicrobial stewardship (i.e., ensure that antibiotics are used effectively and resistance is minimized) across MTFs through dedicated resources, including interfacing with MHS GENESIS. Such standardization "allows for benchmarking and comparisons between facilities with centralized and standardized data collection and ensures appropriate data submission to [the Centers for Disease Control and Prevention], per mandates." The final example is TeamSTEPPS, which is an "evidence-based teamwork development system that the DHA has adopted worldwide to prevent . . . failures in communication [and] teamwork" to improve patient safety.

- The Navy appears to have developed the most infrastructure and processes needed to implement High Reliability Organization principles in OCS settings. The "Navy [SG] issued a Directive-type Memorandum . . . to translate all that Navy Medicine learned in our brick-and-mortar facilities—to the often austere and challenging operational settings our teams face as they support the Fleet and the Fleet Marine Force . . . . to foster a culture of continuous learning across the One Navy Medicine enterprise." Navy Medicine determines the needed High Reliability Organization maturity levels, assesses whether these levels are met, develops action plans and learning paths to close gaps, and uses councils and advisory groups (Operational Quality & Safety Council, High Reliability Organization, Health Services Operational Advisory Group) and panels and teams (Fleet Health Integration Panel, Cross-Functional Teams) to prioritize and implement High Reliability Organization–related initiatives.
- The Air Force noted, "Clinical measure capabilities were transferred to DHA in 2021. OCS healthcare delivery should align with DoD policy and follow local MTF protocols/policies to ensure standardization activities. Air Force Medical Command Agency Operational Quality partners with OCS units and DHA to ensure DHA processes are implemented to reduce variance in the operational environment."
- The Army reported participation in Ready Reliable Care activities, with the "goal to promote integration of High Reliability Organization principles into the Operational Environment." The Army is in the process of updating policy and "building the Clinical Measurement and Clinical Quality Improvement branches of CQM for OCS," noting in June 2024 that it expected full operational capability by July 2025.

Table 6.1 also summarized responses pertaining to a learning health system. Additional details include the following:

- For MTFs, DHA noted that it assesses performance using several activities to help assess, mitigate, and plan for improvement, citing specifically its tracking participation in Ready Reliable Care learning resources, TeamSTEPPS, the Patient Safety Annual Plan, the NSQIP corrective action plan, and periodic administration of a Culture of Safety survey. For OCS settings, the Air Force noted MTFs' role in overseeing standardization activities for its OCS settings that are "organizationally and functionally integrated" with MTFs but that CQM programs for others were still in draft. The Army asserted that it participates in Ready Reliable Care for its OCS settings, but learning health system elements were still in development.

MTF Processes

Roles and Responsibilities

Table 6.2 summarizes roles and responsibilities for MTF standardization activities. Additional details include the following:

- Within specific standardization activities (e.g., SOPs, clinical guidelines, trainings), many different roles were identified as responsible for leading the development or implementation of those activities across MTFs. However, identified roles across standardization activities were mostly commonly at the director level, including the MTF director, deputy director for quality and safety, quality director, and patient safety roles.
- Standards in general were commonly described as emanating from the top down (e.g., DHA, national standards) but being managed or applied at the discretion of site command. Views of the pipeline of standards or standardization directives from centralized to local sites were mixed. While some interviewees expressed appreciation for DHA standards, others described struggles with accepting that those standards are appropriately calibrated to the local context. One Navy patient safety manager described staff going their own way in determining standardization needs and what standards to adopt.

  > You've got DHA way up here trying to tell us to standardize things way down here and tell us this is how you should do things. What works for San Diego or Bethesda doesn't work for us. So that's been tough. . . . We do look for ways to standardize, though. . . . I know we took the opportunity a few months ago where I was seeing incident reports. . . . So I worked with the chief in those departments, she came up with a standardization sheet where we were able to put in storage carts in different exam rooms.

- At some sites, interviewees described relying on guidance from both DHA and the service side. At a site outside the United States, local discretion was used to navigate being caught between policies emanating from both DHA and from the Department of the Army.

  > [On the development of SOPs in psychological health] Within my service line, I have both DA [Department of the Army] and DHA. So I create this sort of umbrella, and my guidance is I draw from all kinds of policies and find middle ground between DoDI and DHA guidance.

Components of Standardization to Reduce Variation in Quality Metrics

Table 6.3 summarizes the responses regarding standardization processes at MTFs. Additional details gathered are provided below.

Ready Reliable Care Approach

- Components of the Ready Reliable Care Safety Communication Bundle that were cited were consistent with the "six standardized safety communication practices," including leadership rounds and briefings, huddles, handoff practices, and Universal Protocol. Additionally,

interviewees talked about reporting and monitoring these practices through designated metrics. Self-reported compliance with these approaches was high and was generally judged to work well by senior medical staff. One MTF director noted that Ready Reliable Care specifically helped to ensure that patient safety reporting tools were used. Two other senior officers reported on the general effectiveness of the approach in bringing the military under a single standard and reducing site-to-site variation.

> I would say that being part of the Ready Reliable Care Bundle helps in [standardization]. Not only being standardized here but be standard across the DoD. Frequently we jump between the region . . . having that interoperability . . . is reassuring because everything that we do is in line with everyone else.

> I think DHA has done a great job of running with this. I think the biggest thing that Ready Reliable Care did was bringing all the services together. [Other services had] same concept, just slightly different words because they wanted to own it. We can't keep talking about these different programs. Let's just call it one thing. Ready Reliable Care. Same words . . . put it in a nice package. Ready Reliable Care playbook that standardized it across all facilities.

Standard Operating Procedures

- Initiation of SOPs was described sometimes as a top-down process, emanating from DHA or MTF leadership, although in other circumstances it was initiated by frontline staff who identified an opportunity to address perceived quality concerns. According to one Navy MTF director, "Everything we do is command instructions, DHA instructions . . . . If someone goes from here to [small metropolitan area], the SOP will be the same." However, several examples were provided across sites of SOPs sometimes being initiated by non-leadership staff who noticed unwanted variation. This was often in response to emerging patient safety concerns. One Navy respondent described SOP creation as the conclusion of a process initiated by PSRs when targeted educational solutions were believed to be insufficient.

  > We had a run that seemed like every other day we were mislabeling specimens. So we get the groups together that would be involved and say how can we prevent this. More education doesn't always work, we need to do something strong for stronger corrective action, so we will develop a new process, create visual aids, anything that will help them, and then we implement them across the whole command.

- Implementation of the use of SOPs was described in several ways. For new or amended SOPs, one MTF described how their tasking office handles putting out taskers mandating relevant departments to require their staff to read the policies. For new staff, another MTF described an orientation process that included instruction on where to find SOPs. Ongoing processes of SOP enforcement were discussed as well, such as comparing observed activities with SOPs in daily huddles. However, achieving buy-in for SOPs was described as a difficult process. One Army site described its SOP implementation efforts as including incorporation of relevant data and metric targets into daily huddles and making providers feel like a part of the process. Leadership engagement was also said to be important. An Air Force respondent described

difficulties in efforts to achieve buy-in for SOPs across locations with different populations: "[We] have done flow charts in the past and we had committees to try to get everyone on board. But the patient population was so different that we couldn't get everyone [on the same page]. So everyone does operate a little bit differently."

- Interviews at some MTFs highlighted potential issues with keeping SOPs current, accessible, and aligned with DHA policy. One senior Army MTF leader described these challenges:

> Clinical SOPs and policies and procedures being maintained and being up to date has been the biggest challenge, the biggest hurdle, because there's so much to make sure you have a well-working overall organization. I think that's maybe where we struggle a bit in the administrative side. Also, not [only] that they're updated, but also shared or made available to the entire team. Does everybody know where to look? Where do I look to find that on the SharePoint? I see ten different policies and ranks and regulations. Sometimes it's hard to sift through what's available there. There's a bit of knowledge management so that we as staff know where we can find some of those things.

- Some respondents found it difficult to translate DHA policy into SOPs because of a lack of adequate guidance and support. An Army respondent discussing mental health found DHA policy on the subject "long and not targeted" relative to prior Army rules, making it more difficult to draft SOP. More guidance from DHA from this respondent was desired but not anticipated. In another interview, a senior administrator discussed challenges sustaining SOP knowledge when staff turnover is high and SOP locations are not well communicated. This leader, after roughly six months in their role, was unaware of the locations of SOPs, noting, "I don't really know where to find the [SOPs]. There is a lot of stuff in a lot of places. I don't know how we teach and sustain." Another respondent reported related challenges with keeping up with standardized materials from DHA and not being aware of standards:

> As far as DHA, I'm horrible at that, at understanding, "Let me check the DHA website." I might have made this competency form and there's one that DHA has that I should be using. Sometimes there are those disconnects, could be my own blind spots, could be how they communicate, it's a lot of info they put out all the time; I've been trying to do better at getting on the website doing searches not reinventing wheels.

Systems

- Electronic health records can reduce unwanted quality variation in many ways, such as offering a standardized platform for data entry and access, improving communication, and supporting clinical decisions. MHS GENESIS was often discussed as the electronic health record currently implemented across MTFs. Respondents often mentioned the use of MHS GENESIS in the context of describing their work, reflecting its widespread adoption. However, frustrations with the system's rollout were infused through many interviews, with one Army respondent viewing challenges in the MHS GENESIS transition as the "greatest weakness" in the health system. Occasionally respondents cited issues with MHS GENESIS that were barriers to standardization. Some respondents cited variation in software versions

across sites related to when the system was implemented at each site. One Navy respondent described how their site had to resort to using internally developed workarounds while waiting on system upgrades.

> GENESIS has been a little difficult for us in some standardization things. We have the first rollout of GENESIS. If you went to a facility that just went live with GENESIS six months ago, their version looks different than ours . . . a lot of workarounds internally have been created until we get a brand new version with all these patches.

- MHS GENESIS was cited by some respondents as a means of standardizing supplies and equipment used across MTFs through the process for placing orders. One Air Force respondent explained why this was important:

> As you can imagine, we have several providers, technicians, and [primary care managers] in the building and each one may have their own preferences when it comes to ordering supplies, so we try to have an approved widget. Any deviation from that widget would require additional justification from the department lead or require the commander to authorize that, because we don't want to deviate from the standard. That's because our processes are built around using the same item to reduce potential errors and deviations.

Common Challenges at MTFs

Table 6.4 summarizes themes related to staffing issues that related to standardization activities. Additional details include the following:

- One Navy respondent cited staff as directly controlling variability in some quality metrics, particularly access to care:

> We were fully staffed July 2023, two months later we were 50 percent staffed. That's really hard to handle clinical quality with that level of variation in staff. 4 to 5 percent, sure. 50 percent? Very hard to do. And it suffered. . . . If Navy medicine decides that [it] want[s] a couple providers to go out, I'll lose them. So right now the vulnerability we have to maintaining the health of patient population is that, is that I'm depending on military providers. If it was 70/30 civilian to military, then I wouldn't necessarily have that heartache. Then I wouldn't necessarily need to have this huge fluctuation.

- A civilian respondent at an MTF described how frequent turnover of military staff could disrupt standardization efforts if new members are not appropriately trained and oriented to the use and location of supporting materials.

> There is a lot of stuff in a lot of places. I don't know how we teach and sustain. I think the fact that our military people turn over every two years, you lose sort of that sustainment. How do you maintain that right? I'm not really sure how that works. [In my short time here], I've been really focused on learning my job.

- Multiple respondents suggested that having a core staff of civilians was an important solution to the issues that accompany military staff turnover. As one Navy respondent put it, "We're

going to continue to have the churn of military personnel, going from operation to shore to maintain our abilities and credentials and skills. But having a core staff of civilians that don't go anywhere is vitally important." An MTF director in the Air Force noted that the Air Force was especially vulnerable to turnover-related disruptions given a typical 20-80 ratio of civilians to active-duty members, compared with the Army, where the level of civilian staff was perceived to be much higher. However, one Army respondent noted that more civilians at the leadership level was still necessary for better maintenance of CQM standards.

> In the military we have a lot of turnover. [Chief of CQM] is coming up on three years, so she might be leaving soon. Most people who come don't have CQM experience. They have to learn all the things and we have to catch them up. That can stall things in a lot of ways. It just stalls progress. Whereas in a civilian hospital, the COO [chief operating officer], CEO [chief executive officer], CFO [chief financial officer] . . . those people aren't changing every few years. To make things better there would be more sustainability and have more civilian leaders in various places or DHA having people stay in places longer.

Processes in OCS Settings

Respondents in the qualitative interviews discussed multiple aspects of standardization activities for OCS settings. This section provides more detail on findings in the areas of components of standardization activities in OCS settings and accreditation of OCS settings.

Components of Standardization to Reduce Variation in Quality Metrics

Table 6.5 summarized themes related to the components of standardization activities for OCS settings such as they were, as well as underlying issues. Additional details include the following:

- At one large Naval base where care on ships was discussed, SOPs were noted to exist across many departments, such as radiology, lab, and pharmacy, and assessments for compliance occurred frequently (four times a year). SOPs were also noted to be used at battalion aid stations, where specific pathways were expected to be followed for specific procedures and diseases.
- Interviewees commonly held the view that standardization in the traditional sense that it would be applied to health care systems was inappropriate for OCS settings given their varied environments and missions. A Navy respondent noted:

  > We're trained to the same standard but there is not a lot of standardization within your field hospital. The components are standardized but how you assemble them, where you put them, where you design space and flow is not standardized. I believe that's to be operationally agile because you're not always going to have the same footprint so will inevitably be different and size and scale of role can change.

  An Army respondent similarly mentioned that:

> [Standards] are not practical. Because there is so much variability, especially in a training environment. I've had an aid station that's a little stand and an aid bag. Who would inspect that and for what? I'm envisioning a nurse with a clipboard in the middle of the jungle. There's no universal checklist that we could meet.

- Some responses indicated that there was a desire and pathway for standardization that is tailored for an operational context so long as it was appropriately differentiated by environment. This was reflected in responses from a Navy respondent and an Army respondent:

> DHA runs all the MTFs so we want clinical SOPs for key events that mimic the crew. If we need to order it a certain way, we identify how it may be different to match functions at the MTF. We are trying to get support from [Bureau of Medicine and Surgery]. We know there will be some creep from that. The site differences should be differentiated by ship. They use the same process for folks on that same ship.

> At the aid stations, we have what are called pathways [algorithms] they are supposed to follow. So, there are standard procedures for certain illnesses, for example. In ensuring proper treatment, they follow certain algorithms and pathways to provide care. But generally, it's very just like simple stuff, like anything that's beyond their scope or beyond their comfort we just see here [at the clinic].

- Some respondents noted very wide variation in programs that embed providers into units, reflecting a lack of standardization. Heterogeneity exists across programs—with one respondent noting that many programs with unique purposes exist across the Air Force alone—but also within individual programs. For example, OSTs, an Air Force program that uses multidisciplinary medical teams to provide preventive services within squadrons, was described by one Air Force respondent to vary widely on base leadership.

> There's extreme monitoring variation there. Even across bases, there's variation there. That variation is a function of how the wing views OST and how the medical group views OST and the guidance that is put out. Recently, the [Air Force Medical Command] has put out clearer guidance for OST that's helped reduce some of that variation in just policy and practice. . . . Then variations in clinical practice, whether or not people are just doing pre-clinical care in OST areas or they then breach into the clinical space. If they do, then there's variation there in our MTFs will determine whether or not that's a site that should be reviewed by the MTF or shouldn't be reviewed by MTF, and having a serious source of concern across the department.

Accreditation of OCS settings

Respondents in the qualitative interviews discussed multiple aspects of accreditation for OCS settings, summarized in Table 6.6. Additional details are below.

Accreditation Status

Accreditation of OCS settings largely did not occur except for in cases of embedded medical units on based. Additional details regarding responses in embedded units on base and OCS settings in other contexts include the following:

Embedded Units on Base

- For embedded medical units on base—all of which involved straightforward, low-acuity services in primary care, mental health, occupational therapy and physical therapy—some units had successfully become accredited under the MTF or were absorbed by the MTF entirely (e.g., controlled and funded by DHA), and others had plans to do so. Despite consistency among the Air Force sites we visited, one Air Force CMO noted heterogeneity in compliance among other CMOs they spoke to.

  > I'll talk to some fellow CMOs, and it's surprisingly interesting. Some of them are not following it [establishing an MOA with each OCS]. Some of them are trying to follow it. Some of them are successful like us, but there are at least a few that I've heard [that are not]. Some of them came in already existed [before DHA] so they're not following certain guidance. That means they're not a satellite site for the Joint Commission. Overall, it's not consistent.

- Air Force interviewees noted that the SGs had assigned staff to help OCS settings meet accreditation standards.
- Within the Army and Navy, accreditation of embedded units on base was more muddled. Two sites noted that embedded behavioral health units on base were brought entirely under the accreditation and control of the MTF, even though they were under the unit footprint. Navy sites noted no formal accreditation for any OCS setting. Among Army and Navy sites that had not accredited the practice locations of embedded medical units, interviewees expressed concern that loss of access would occur if embedded medical units were required to come out of units into the Joint Commission–compliant buildings at the MTF.

  > Do I have to practice in a cat 500 building if some of my credentialing is a general medical office? I don't think so. Access to care will be one of those issues, and that culture of taking care of your guys and gals. You lose that when you go into a set place. Like if you can't come through the door and ask for some medical guidance and treatment.

  > Now embedded mental health programs at core are supposed to be quick, close, and known to units served. The closer to units, the better. If you now require those individuals to only provide clinical care inside MTF or branch clinics, you have removed that individual from their unit and sent them to a location that has no offices for them.

OCS Settings in Other Contexts

- We did not hear of any accreditation of OCS settings in fixed facilities in other contexts beyond those embedded in units on bases, such as in deployed or austere contexts. Interviewee

views regarding accreditation of these locations were largely that it would be impracticable. A Marine Corps installation that we visited was in the process of deciding how to proceed with getting some OCS space "in the shadow of MTF" approved for clinical care and expressed the likely intent to attain waivers from being Joint Commission accredited. In one forward Army area, it was noted that most OCS settings were not in fixed facilities, but those that were in buildings were not suitable for accreditation and impossible to bring up to those standards.

> It literally is not feasible as we do not have fixed medical facilities in many cases and when we have a fixed medical facility, it is just a building that we have set up an aid station in. It does not have the infrastructure requirements for life safety that is required by the Joint Commission. Nor is it feasible to do that. It's like I'm just occupying this empty building on this location that either the government had given us. Or it's just an area that we've occupied.

- Interpretation and understanding of which OCS settings are subject to Joint Commission–level accreditation and which are not appeared to be unsettled in the minds of some respondents, which may have contributed to negative views of the requirement. One Army respondent, for example, reflected on DoD instructions for accreditation as they might apply to medical assets in far-flung forward positions.

> Accreditation is the other one that's really hard and doesn't really apply now. I think the way we have interpreted the DoDI will allow us to do an accreditation-like [process] rather than us contracting with Joint Commission and sending them to Syria to do an inspection which we don't think is reasonable. . . . We should have some kind of accreditation-like process to make sure that they are meeting as high a standard as possible in those environments. Do we need to get Joint Commission? No, I think that is too far and not reasonable from the Joint Commission standpoint as well as ours.

Accreditation Implementation

- Some tensions emerged over split responsibilities between DHA and SGs. One MTF official at an MTF overseas expressed a lack of authority and staffing to fulfill accreditation of OCS settings with which they were associated. This senior member of the medical staff described reluctance and unresolved issues with bringing OCS settings under MTF accreditation despite a desire by the Army to do so.

> Garrison has come to me numerous times . . . they want to have [Joint Commission] accreditation, but they have to be inspected and we have no oversight of them. They want that, but they're not under our oversight. They're operational setting. . . . That's a thing that came out last year that everybody has to be [Joint Commission]. Army is going to have to do one of two things: Shut down those aid stations or provide more manpower to oversee all these things. We have six aid stations on this base alone and [other city] has eight stations. There are all these areas to oversee. DHA needs to provide more manpower.

- Another MTF official also expressed reluctance with some accreditation requests given doubt that sites could be brought up to standard because of lack of funding on the part of the OCS settings and authority on the part of the MTF.

> We get nervous when someone wants to do full-scope psychiatric care because you need the egress as well as a panic button for safety which costs money to install. You need double door entrances. There are different [Joint Commission] requirements, and the unit would have to pay for that. They start to push back on that. . . . That's where it becomes difficult because we don't have command and control over them. We don't have money to give them to make them come up to standard.

- At one Air Force site, the deputy commander felt strongly about bringing an OCS OST associated with the MTF under the MTF accreditation and subject to MTF oversight, acting unilaterally if necessary.

> Since I've been here, I've said no, I don't care what's going on. [Chief of medical staff/CMO name] can exercise executive privilege if [they want] but anybody doing care here, they will be approved through accreditation and we will approve those locations and they will be added to our sites so those can be covered under our clinical quality care. That's what will happen here. So there's no room for negotiation, got it. That's because I saw all the variation across Air Combat Command, and that's not the way we should be conducting business.

Alternative Standards Discussed

- Although external accreditation was believed to be infeasible for most OCS settings, respondents described a variety of alternative internal standards that were applied to OCS settings. At one Navy (Marine) site abroad, interviewees said that although no OCS settings are accredited, they are subject to an internal accreditation process every two years (Corps Combat Readiness Evaluations and Commanding General Inspection Program) but have a mission readiness focus rather than a quality focus.

> We have a medical readiness inspection that is required every three years or within 90 to 120 days of deployment to do an inspection. That is the culminating inspection. That does not look at quality of care. We look at admin, supplies, equipment, training, etc. We do quarterly visits for that same checklist.

- The Navy (under Norfolk) similarly conducts its own medical readiness inspections every three years, with checklists on a quarterly basis. In an Army forward position, yearly inspections of OCS settings are conducted to review whether policies and procedures are in line with Army policy.

> There are periodic unit inspections (annually or biannually), reviewing policies, procedures, narcotics processes, etc. At my level [deputy surgeon], doing this for cores and brigades, but not getting down to aid stations. For aid stations I am reviewing policies and procedures.

Common Challenges at OCS Settings

Respondents in the qualitative interviews discussed common challenges to standardization activities to reduce quality variation in OCS settings. Additional responses include the following:

- One Army respondent believed that any standardization beyond the use of clinical practice guidelines would be situational. This comment reflected the broader depiction by respondents that standardization for OCS settings occurs only at the level of personnel (e.g., through common training, credentialing), not at the site level. Another Army respondent put it this way:

  > There's a lot of variance in the operational setting because no two aid stations are alike. It will depend also on the kind of conditions they're operating in. Are they operating in permissive peacetime conditions, crisis conditions, or are they an active conflict where they're getting shot at? All of which will influence where they have to do business. The operational setting . . . . It directly creates variance that cannot be overcome by any type of standardization.

- Despite these views, some suggested that more could still be done to reduce variation in quality on the operational side. One Navy senior medical officer said that peacetime standardization tools are not necessarily conflicting with wartime objectives and that not leveraging quality improvement skills that medical personnel already have is a missed opportunity for operational medicine.

  > I think there just is not an environment and . . . we talk about High Reliability Organization and being preoccupied with failure and that is not an equivalent thing in operational medicine. I just don't think we've had that discussion. We do all this stuff in peacetime, why aren't we doing it in our wartime care? Because the priority is the war, but . . . we need to be a ready medical force, so part of that is making sure I can safely provide medical care in the type of care I'm providing. . . . We all do our training every year, we know about Ready Reliable Care, we do TeamSTEPPS, we do all those things. But there is not a, are you doing that within your Role 2? So are you doing it? Possibly. Are the lazy people doing it? Probably not. We're not looking, we're not fighting where we're failing.

Abbreviations

AHLTA	Armed Forces Health Longitudinal Technology Application
ASD(HA)	Assistant Secretary of Defense for Health Affairs
CCQAS	Centralized Credentials Quality Assurance System
CMO	chief medical officer
CONUS	continental United States
CQM	clinical quality management
DHA	Defense Health Agency
DHA-PM	Defense Health Agency Procedures Manual
DMIS	Defense Medical Information System
DoD	U.S. Department of Defense
DoDI	Department of Defense Instruction
FPPE	Focused Professional Practice Evaluation
FY	fiscal year
GAO	U.S. Government Accountability Office
HALO	Health Assessment Lite Operations
HEDIS	Healthcare Effectiveness Data and Information Set
JPSR	Joint Patient Safety Reporting
MHS	Military Health System
MOA	memorandum of agreement
MOU	memorandum of understanding
MTF	military treatment facility
NDAA	National Defense Authorization Act
NPDB	National Practitioner Data Bank
NSQIP	National Surgical Quality Improvement Program
OASD(HA)	Office of the Assistant Secretary of Defense for Health Affairs
OCONUS	outside the continental United States
OCS	operational clinical service
OPPE	Ongoing Professional Practice Evaluation
OST	Operational Support Team
PSR	patient safety report

QA	quality assurance
SG	Surgeon General
SOC	standard of care
SOP	standard operating procedure
TeamSTEPPS	Team Strategies and Tools to Enhance Performance and Patient Safety
TMIP-J	Theater Medical Information Program—Joint

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The authors conducted an assessment of seven quality and patient safety review processes: credentialing and privileging; quality assurance, standard of care, and incident review; health care provider accountability; clinical quality metrics transparency; eliminating variation in clinical quality metrics; applying clinical quality management (CQM) to operational settings; and CQM organizational roles and responsibilities. They developed and deployed an internal assessment in which representatives from five U.S Department of Defense organizations (the Assistant Secretary of Defense for Health Affairs; the Director of the Defense Health Agency; and the Surgeons General of the Army, Navy, and Air Force) reported the ways in which they ensure that service members receive high-quality, safe care. The authors also conducted qualitative interviews with 216 personnel across 19 MTFs and OCS settings who had a role in either overseeing CQM processes or providing care.

Findings were used to identify potential opportunities for improvement. Recommendations included updating lists of active OCS settings, clarifying quality and patient safety requirements, and addressing institutional knowledge loss.

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