United States Government Accountability Office

Report to Congressional Committees

July 2022

DEFENSE HEALTH AGENCY

Oversight Needed to Better Ensure That Children Are Screened, Tested, and Treated for Lead Exposure

GAO-22-105006

GAO Highlights

Highlights of GAO-22-105006, a report to congressional committees

July 2022

DEFENSE HEALTH AGENCY

Oversight Needed to Better Ensure That Children Are Screened, Tested, and Treated for Lead Exposure

Why GAO Did This Study

The Department of Defense's (DOD) TRICARE program provides care to eligible pediatric beneficiaries through its military medical treatment facilities or civilian providers. The National Defense Authorization Act for Fiscal Year 2020 (NDAA 2020) required DOD to (1) establish guidelines for its facility providers on screening, testing, and reporting blood lead levels in children; (2) disseminate these guidelines to its facility providers; and (3) submit to Congress a report on the number of children screened for an elevated risk of lead exposure, tested for lead in the blood, and the number found to have an elevated blood lead level.

NDAA 2020 also included a provision for GAO to report on the effectiveness of DOD's pediatric lead processes. This report (1) describes the guidelines DHA established for facility providers for screening, testing, treating, and reporting of blood lead levels in children and how DOD disseminates them, (2) examines DHA oversight of facility provider adherence to the guidelines, and (3) describes the reliability—accuracy and completeness—of the data in DOD's report to Congress.

GAO reviewed relevant DOD guidelines; interviewed DHA and military service officials; and analyzed the reliability of DOD's report to Congress on pediatric lead.

What GAO Recommends

GAO is recommending that DHA develop a plan, including time frames, to implement a process for overseeing military medical treatment facility providers' adherence to pediatric lead processes. DOD concurred with the recommendation.

View GAO-22-105006. For more information, contact Sharon M. Silas at (202) 512-7114 or silass@gao.gov.

What GAO Found

The Defense Health Agency (DHA)—the agency responsible for managing military medical treatment facilities—developed standardized guidelines for facility providers on pediatric lead processes. These include screening and testing children for elevated blood lead levels, treating children with elevated levels as indicated, and reporting any confirmed elevated levels to the appropriate authorities. The guidelines state that facility providers should follow the Centers for Disease Control and Prevention (CDC) recommendations related to these pediatric lead processes. For example, the CDC recommends that children identified as having a high risk of exposure to lead be tested for elevated blood lead levels. DHA and military service officials told GAO they use email and other methods of communication to disseminate information about pediatric lead processes to facility providers, including DHA's new guidelines.

Pediatric Lead Processes Include:

Source: GAO analysis of Centers for Disease Control and Prevention and American Academy of Pediatrics guidance for pediatric lead exposure. | GAO-22-105006

While DHA has developed pediatric lead guidelines and stated that it expects facility providers to follow them, DHA does not oversee facility providers' adherence to these guidelines. DHA officials told GAO that they intend to conduct oversight of pediatric lead screening, testing, treatment, and reporting of elevated blood lead levels by developing a dashboard using data elements from DHA's electronic health record system. However, DHA did not provide any documentation of these efforts or details such as a time frame for when this oversight will be implemented. The agency would be better positioned to ensure that the guidelines are consistently and systematically implemented across all facilities if DHA develops and implements a plan to oversee the pediatric lead processes.

In its 2021 report to Congress, DOD reported that 30,412 children were screened for lead exposure, 12,044 children were tested for elevated blood lead levels, and 83 children had elevated levels for the 8-month period covered. However, the data did not include pediatric lead screening and testing data from some facilities and complete information from others, likely representing an undercount. Further, DOD was unable to replicate the methodologies used to collect the data in the report. As a result, GAO could not determine the extent to which the data in the report were complete or if the data were accurate, and therefore reliable.

Contents

Abbreviations

AAP	American Academy of Pediatrics
BLL	blood lead level
CDC	Centers for Disease Control and Prevention
DHA	Defense Health Agency
DOD	Department of Defense
MHS	Military Health System
MTF	military medical treatment facility
NDAA 2020	National Defense Authorization Act for Fiscal Year 2020

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

July 26, 2022

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

The Honorable Adam Smith
Chairman
The Honorable Mike Rogers
Ranking Member
Committee on Armed Services
House of Representatives

Lead exposure can result in serious health effects in children, including brain damage, slowed development and growth, and learning and behavioral health problems. According to the Centers for Disease Control and Prevention (CDC), there is no safe blood lead level (BLL) in children, and removing lead hazards from the environment is the most effective way to ensure that a child is not exposed to lead. According to the Environmental Protection Agency, the most common source of lead exposure for children comes from paint in buildings built before 1978—the year the government banned the sale of lead-based paint.[1] Moreover, GAO previously examined and reported on the Department of Defense's (DOD) management and oversight of hazards in privatized military housing, including the presence of lead-based paint, and we found that DOD needed stronger oversight in the management of privatized housing, including the physical condition of the housing.[2]

A 2020 article on BLL surveillance among pediatric beneficiaries in the Military Health System (MHS), published in the DOD, Defense Health Agency's (DHA) Medical Surveillance Monthly Report, found that 0.5

[1]See GAO, *K-12 Education: School Districts' Efforts to Address Lead-Based Paint,* GAO-19-461R (Washington, D.C.: Jul 24, 2019).

[2]See GAO, *Military Housing: DOD Needs to Strengthen and Clarify Its Role in the Management of Privatized Housing*, GAO-20-281 (Washington, D.C.: Mar. 26, 2020).

percent of children tested for lead in 2017 had elevated BLLs.[3] Even low levels of lead in the blood can have damaging effects, according to the CDC, particularly in children under the age of 6.[4] Since children's bodies are developing and growing rapidly and lead exposure may not present with obvious immediate symptoms in children, blood testing is necessary for prompt identification of elevated BLLs.

DOD offers health care services to over 9 million eligible beneficiaries, including active duty servicemembers and their dependents through its TRICARE program.[5] DHA supports the delivery of health care to beneficiaries. Care can be provided to beneficiaries through the MHS direct care system of military hospitals and clinics administered by DHA, referred to as military medical treatment facilities (MTF), or from civilian hospitals and providers who participate in TRICARE plans.[6] The health care services provided through the MHS include well-child examinations,

[3]See Kotas KS, Madden MN, Luse TM, Carroll AM. *Blood Lead Level Surveillance Among Pediatric Beneficiaries in the Military Health System, 2010-2017*, Medical Surveillance Monthly Report. 2020 Mar; 27(3):19-23. This report further found that between 2010 and 2017, that the percentage of children tested with elevated BLLs generally remained below 1.2 percent.

[4]CDC identifies BLLs of 3.5 micrograms per deciliter as the reference value to identify children with higher levels of lead in their blood compared to most children and where public health actions should be taken. CDC updated its blood lead reference value from 5 micrograms per deciliter to 3.5 micrograms per deciliter in October 2021 based on a recommendation made by the Lead Exposure Prevention and Advisory Committee in May 2021.

[5]In calendar year 2020, the total number of TRICARE beneficiaries 7 years old and younger who were continuously enrolled in the TRICARE Prime health insurance program, was 503,204.

[6]While currently in transition, operations of all MTFs will move organizationally from the Army, the Air Force, and the Navy, to DHA by the end of fiscal year 2023, according to DHA officials.

which can consist of screening and/or testing to identify any child with elevated BLLs.[7]

In the National Defense Authorization Act for Fiscal Year 2020 (NDAA 2020), Congress required DOD to, among other things, (1) establish clinical practice guidelines consistent with CDC recommendations for health care providers employed by DOD on screening, testing, and reporting BLLs in children; (2) disseminate those clinical practice guidelines to DOD health care providers no later than 1 year after the date of the enactment of the NDAA 2020 (enacted on December 20, 2019); and (3) submit to the Committees on Armed Services of the Senate and the House of Representatives a report detailing the number of children who were screened by DOD for an elevated risk of lead exposure, tested by DOD for the level of lead in the blood, and the number of children who were found to have an elevated BLL.[8] In addition, the act requires DOD to ensure that care provided to a child for an elevated BLL be carried out in accordance with applicable CDC recommendations. DOD submitted its report to the Senate and House Committees on Armed Services in August 2021.

The NDAA 2020 also included a provision for GAO to report on the effectiveness of DOD screening and testing of children for lead exposure and elevated BLLs.[9] In addition, we were asked to examine the reliability

[7]For the purposes of this report, we use the term pediatric lead processes to refer to pediatric lead screening and testing to determine if a child has an elevated BLL, and treatment and reporting to appropriate entities any child with an elevated BLL. Additionally, we use the term screening to mean a risk assessment, by questionnaire, clinical assessment or other means to determine whether a child is at risk of having an elevated BLL and should have their blood tested. Specifically, the guidelines expect MTF providers to identify children for lead exposure risk and test children for elevated BLLs according to the applicable state or local health jurisdiction guidelines, or other means to determine whether a child is at risk of having an elevated BLL and should have their blood tested. While the term screening can be used to mean a blood test to screen the child for elevated BLLs, in this report we define all blood lead level testing as testing.

[8]Pub. L. No. 116-92, § 703(a),(d), 133 Stat. 1198, 1437–38 (2019). Clinical practice guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. Clinical practice guidelines are intended for health care professionals and providers to consider when providing care and are not presented as a substitute for the advice of a physician or other knowledgeable health care professional or provider.

[9]Pub. L. No. 116-92, § 703(e), 133 Stat.at 1438.

of the data presented in DOD's 2021 report to Congress on pediatric lead testing. In this report, we

1. describe the guidelines DHA established for MTF providers for screening, testing, treating, and reporting of blood lead levels in children and how DHA disseminates these guidelines to MTFs;
2. examine efforts by DHA to oversee MTF provider adherence to the DHA pediatric lead guidelines for screening, testing, treating, and reporting of blood lead levels in children; and
3. describe what is known about the reliability—completeness and accuracy—of the data presented in DOD's 2021 report to Congress detailing the screening and testing of children for lead exposure.

To address the first objective, we reviewed DHA's guidelines for pediatric lead screening, testing, and reporting. We also examined each of the military services' guidelines related to pediatric lead screening, testing, treating, and reporting to see how they compared to the DHA guidelines.[10] In addition, we reviewed pediatric lead screening, testing, and treatment recommendations from CDC and the American Academy of Pediatrics (AAP). Finally, we interviewed DHA and military service officials about their guidelines related to pediatric lead screening, testing, treating, and reporting. To describe how DHA disseminates its guidelines related to pediatric lead processes to MTFs, we interviewed DHA and military service officials.[11]

To address the second objective, we reviewed DHA's guidelines to determine if it included information related to oversight. We reviewed the guidelines and DHA's oversight in the context of federal internal controls related to oversight responsibilities.[12] We also interviewed DHA and military service officials, and reviewed agency written materials, to determine how they oversee the pediatric lead guidelines for screening,

[10]In this report, when we refer to the military services we are referring to the Air Force, the Army, and the Navy. Navy Medicine provides medical care to Navy and Marine Corps servicemembers and their dependents.

[11]When we refer to pediatric lead processes, we are referring to lead screening, testing, treating, and reporting on children for lead exposure.

[12]GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G (Washington, D.C.: Sept. 2014). Internal control is a process effected by an entity's oversight body, management, and other personnel that provides reasonable assurance that the objectives of an entity will be achieved.

testing, treating, and reporting of blood lead levels in children to ensure they are effective.

To address the third objective, we reviewed DOD's 2021 report to Congress to understand the methodologies used and any limitations of the pediatric lead screening and testing data collected. We interviewed DOD officials to obtain information about these methodologies and limitations, and to request documentation of the original data request used by DOD officials to produce the data presented in DOD's 2021 report.

We conducted this performance audit from February 2021 through July 2022 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Pediatric Lead Processes

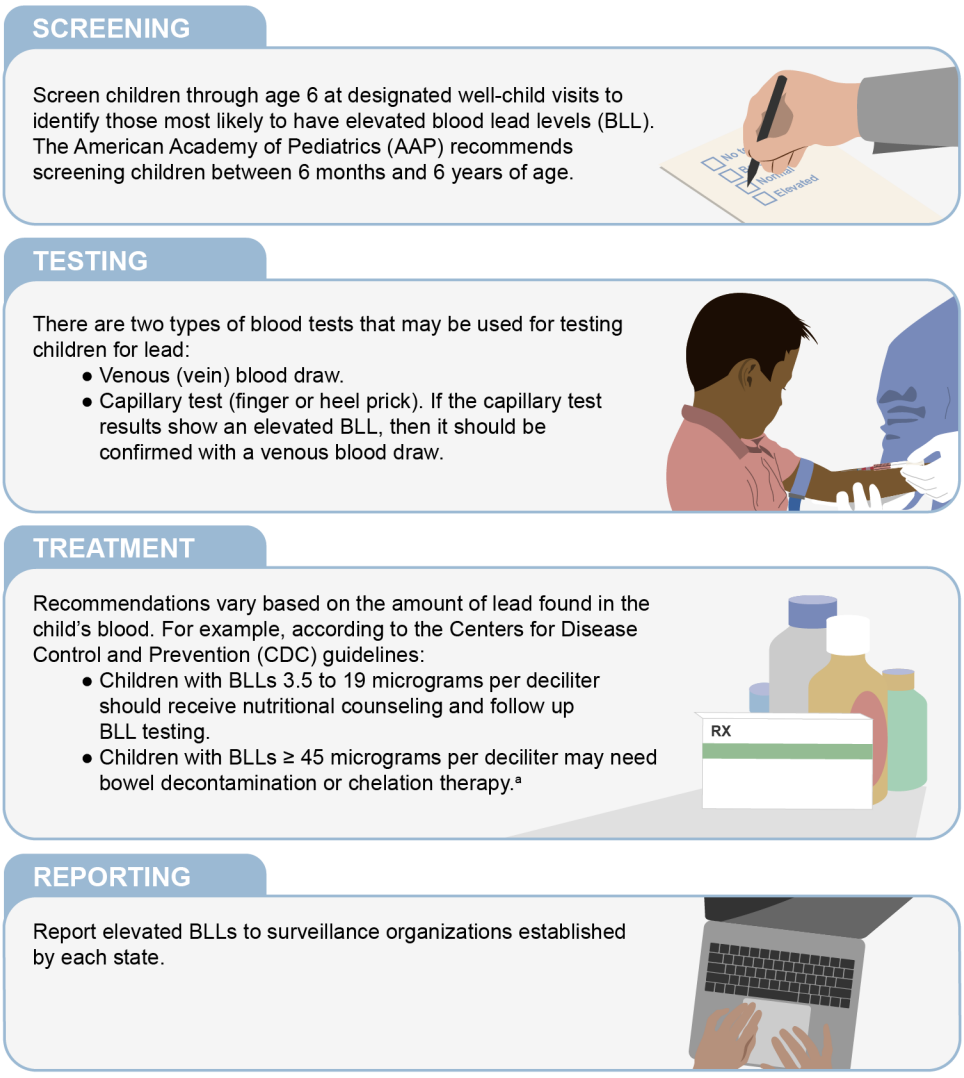
Pediatric lead processes include screening and testing children for elevated BLLs, treating children with elevated BLLs as indicated, and reporting any confirmed elevated BLLs to the appropriate authorities.

CDC and AAP. The CDC and the AAP are two entities that make recommendations related to childhood lead exposure that MTF providers may follow when providing health care to their patients. The CDC has recommended actions for screening, testing, and treatment based on a child's BLL. The AAP also has recommendations for preventive health screenings, which specify at what age pediatric lead screening and/or testing should be performed.[13] Blood testing is necessary to determine if

[13]The Agency for Healthcare Research and Quality published a systematic review, which found screening questionnaires are not accurate for identifying children with elevated blood lead levels. The review suggests that in lieu of using screening questionnaires to identify children to test for elevated blood lead levels, alternative strategies such as universal testing or testing targeted at communities with high prevalence of elevated blood lead levels could be effective. See Cantor A, Hendrickson R, Blazina I, Griffin J, Grusing S, McDonagh M., *Screening for Elevated Blood Lead Levels in Children: A Systematic Review for the U.S. Preventive Services Task Force. Evidence Synthesis No. 174.* AHRQ Publication No. 18-05245-EF-1. Rockville, MD: Agency for Healthcare Research and Quality; April 2019.

a child has been exposed to lead. Figure 1 outlines selected CDC and AAP recommended pediatric lead processes.

Figure 1: Selected CDC and AAP Recommendations on Pediatric Lead Screening, Testing, Treatment, and Reporting



Source: GAO analysis of Centers for Disease Control and Prevention (CDC) and American Academy of Pediatrics (AAP) guidance for pediatric lead exposure. | GAO-22-105006

[a]Chelation therapy is a medical treatment used to remove lead from the body.

DHA's role and the MTF realignment

In 2013, DOD created the DHA with the stated goal of supporting the delivery of integrated, affordable, and high quality health services to MHS beneficiaries.[14] In December 2016, Congress mandated that DHA be responsible for the administration of each MTF instead of the military services being responsible for their own.[15] DHA's added responsibilities include budgetary matters, information technology, health care administration and management, and administrative procedure, among other things. For example, DHA is now responsible for developing guidelines—including pediatric lead guidelines—which was the responsibility of the military services before the MTF realignment.

As of November 2021, DHA and the military services are continuing to realign administrative authority of the MTFs to DHA.[16] As of December 2021, MTFs in the 20 direct reporting markets and in the 17 small markets and the stand-alone MTFs are reporting to DHA. MTFs in the European and Indo-Pacific regions have not yet transitioned under DHA.[17] A DHA official indicated that after MTFs in the remaining markets have been realigned, DHA will take responsibility for other administration and management elements at all MTFs, including personnel, property, and electronic systems, including electronic health records. DHA indicated that full realignment of the MTFs to DHA will likely not occur

[14]Another stated goal of creating DHA was to drive greater integration of clinical and business processes across the MHS. DHA's shared health services include operating the TRICARE health benefit, providing pharmacy and medical logistics, performing medical research and development, and operating health information systems, with a goal of providing integrated and efficient services.

[15]The National Defense Authorization Act for Fiscal Year 2017 directed DHA to take responsibility for the administration of all MTFs by October 1, 2018, and additional legislation later extended this deadline to September 30, 2021. Pub. L. No. 114-328, § 702(a)(1), 130 Stat. 2000, 2193-95 (2016) and Pub. L. No. 115-232, § 711(a)(1), 132 Stat. 1636, 1806 (2018) (codified, as amended, at 10 U.S.C. §1073c).

[16]Administrative authority includes executing policy by developing procedures and guidelines for all MTFs.

[17]DHA has established a market-based structure to manage its hospitals and clinics. According to DHA, each market will (1) provide shared administrative services to the hospitals and clinics in its region; (2) be responsible for generating medical readiness of active duty members and families in their regions; and (3) ensure the readiness of their medical personnel. The direct markets are areas where DOD has large concentrations of facilities and patients. These markets are centered on large medical centers, establishing centers of excellence for specialty care that meet the needs of beneficiaries across their market regions.

until the end of fiscal year 2023.[18] Until MTFs have fully transitioned under DHA's authority, the military services' processes, personnel, and electronic systems will continue to be used by the MTFs, including those processes related to pediatric lead, according to a DHA official.

DHA's Guidelines Adopt CDC Recommendations and Are Primarily Disseminated through Email and Clinical Discussions

DHA's Guidelines Adopt CDC Recommendations Related to Pediatric Lead Screening, Testing, and Treatment and Include Reporting Requirements for Elevated BLLs

In September 2021, DHA disseminated standardized pediatric lead guidelines—*Comprehensive Guidelines for Screening, Testing, and Reporting of Blood Lead Levels in Children*—to the military services in response to the NDAA 2020 mandate that DOD develop and disseminate clinical practice guidelines for lead screening, testing, and reporting of children with elevated BLLs.[19] A DHA official told us that DHA reviewed each of the military services' pediatric lead guidelines when they developed the standardized DHA pediatric lead guidelines.[20] DHA's pediatric lead guidelines state that the expectation is that the military services should implement these guidelines in all MTFs.

DHA's guidelines adopt CDC recommendations regarding the time frame to screen children and the type of testing that should be conducted. Specifically, the guidelines expect MTF providers to identify children for

[18]Full realignment of the MTFs to DHA requires DHA to have administrative authority of the MTFs as well as authority over the MTFs personnel, property, and electronic systems, according to a DHA official.

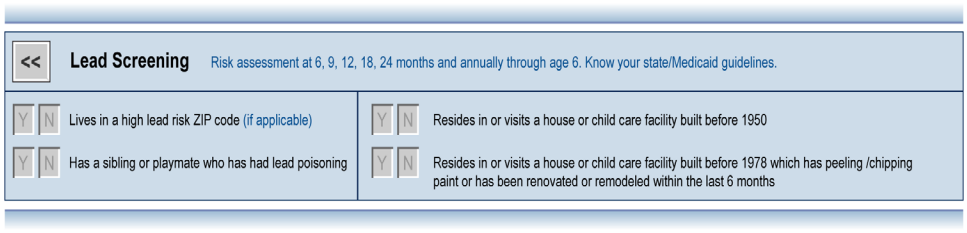
[19]Department of Defense, Defense Health Agency, *Military Health System Comprehensive Guidelines for Screening, Testing, and Reporting of Blood Lead Levels in Children* (Falls Church, VA: April 2021).

[20]Each of the military services' guidelines, which were issued prior to the NDAA 2020 enactment, suggest that MTF providers consider the recommendations from either CDC, AAP, or both when providing pediatric lead screening and testing, and when providing treatment to children with elevated BLLs.

lead exposure risk and test children for elevated BLLs according to the applicable state or local health jurisdiction guidelines, as outlined in CDC recommendations.[21] In addition, MTF providers are expected to refer to recommendations and guidelines from other professional organizations, such as the AAP, if they live in states and localities that do not have formal pediatric lead testing requirements.[22]

DHA also states that MTF providers should screen children through age 6 during well-child visits to determine their risk of having elevated BLLs. Standardized lead screening questions in DOD's electronic health record system can be used by MTF providers to determine if a child is at risk for exposure to lead and should be tested.[23] See Figure 2 for the standard lead assessment screening questions in DOD's electronic health record system.

Figure 2: DOD's Standardized Pediatric Lead Screening Questions



Source: Armed Forces Health Longitudinal Technology Application. I GAO-22-105006

Note: DOD is in the process of modernizing its electronic health record systems and is replacing the Armed Forces Health Longitudinal Technology Application, its old system, with a new electronic health records system, MHS GENESIS. These lead screening questions are also included in MHS GENESIS, according to DOD officials.

[21]Maryland's guidelines, for example, require that all children born on or after January 1, 2015, or on Medicaid should be tested to determine if they have an elevated BLL at 12 and 24 months.

[22]The guidelines also state that MTF providers should follow recommendations from the installation's public health/preventive medicine department for children who live on military installations, as they might be aware of increased lead risk in base housing. Preventive medicine is the practice of promoting preventive health care to improve patients' well-being. The goal is to prevent disease, disability, and death.

[23]DOD is in the process of modernizing its electronic health record systems and is replacing the Armed Forces Health Longitudinal Technology Application, its old system, with a new electronic health records system, MHS GENESIS.

While the NDAA 2020 did not require DOD to develop clinical practice guidelines on how MTF providers should treat children with elevated BLLs, it did require DOD to ensure that any care provided to children with an elevated BLL is carried out in accordance with CDC recommendations. DHA's guidelines state that MTF providers should follow CDC management guidelines for children with confirmed BLLs, which includes information regarding the type of treatment recommended for a child with an elevated BLL.[24] Further, the DHA guidelines expect MTF providers to report all childhood BLLs at or above the CDC reference value to the military installation's public health or preventive medicine departments (or other designated reporting organization), even if there is no mandatory reporting requirement.[25] In addition, the guidelines state that MTF providers should notify a child's parent or guardian of elevated BLL results and collaborate with state and local health and housing agencies to provide appropriate services and resources to the child and their family.

Military Service and DHA Officials Reported Relying on Various Forms of Communication to Disseminate Guidelines about Pediatric Lead Processes

According to military service and DHA officials, the information about pediatric lead screening, testing, treating, and reporting, such as DHA's new standardized guidelines, is disseminated through email and other methods.

- **Air Force**. Air Force officials explained that updates to guidelines or other information about pediatric lead processes would be disseminated via email to MTF medical teams, which includes MTF providers.
- **Army**. Army officials told us that the Army Medical Command relies on its consultants to disseminate updates to guidelines or other

[24]Centers for Disease Control and Prevention, "Summary of Recommendations for Follow-up and Case Management of Children Based on Initial Screening Capillary and Confirmed* Venous Blood Lead Levels" (Atlanta, GA.: Oct. 27, 2021.) accessed on February 11, 2022, https://www.cdc.gov/nceh/lead/advisory/acclpp/actions-blls.htm and Centers for Disease Control and Prevention, "Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention." (Atlanta, GA.: March 2002) accessed on February 11, 2022, https://www.cdc.gov/nceh/lead/casemanagement/managingEBLLs.pdf.

[25]Reference values are the values expected for a healthy person. By comparing test results with reference values, the health care provider can see if any test results fall outside the range of expected values.

information about pediatric lead processes to MTF providers.[26] An official added that DHA also has clinical communities that could disseminate information to providers at the MTFs.[27]

- **Navy**. Navy officials told us that they rely on communications from DHA. For example, they received DHA's guidelines via a Health Affairs cover memo. According to officials, since this memo was distributed by DHA via email, MTF leadership would have received the email directly and been expected to disseminate to MTF providers.

DHA officials told us that its process for disseminating pediatric lead guidelines include sending the new information by email to the markets, which oversee the MTFs included in their coverage area. According to DHA's guidelines, MTF leadership would be expected to forward the information to MTF providers. One DHA official explained that the dissemination of guidelines related to pediatric lead processes will be done by the DHA or the military services, depending on whether the MTF has aligned under DHA or is still managed by a military service. For example, when DHA disseminated its guidelines, DHA leadership wrote a memo to distribute it to the military services requesting that the addressees publish and ensure widest dissemination to all MHS health care providers. This official also explained that DHA provided briefings to chief medical and nursing officers to ensure the information would be passed down the chain to MTF providers. Lastly, DHA included its pediatric lead guidelines in the MTF monthly newsletter, which reaches approximately 80,000 providers across all MTFs, according to a DHA official.

[26]An Army official explained that a consultant is a military service provider who is assigned to act as a liaison between MTF leadership and other military service providers within their medical specialty.

[27]Clinical communities are a department-wide network of multidisciplinary groups of health care personnel, working toward common goals in a particular area. DHA has created 11 clinical communities, including communities focused on behavioral health, primary care, and dental care.

DHA Does Not Have a Process to Oversee MTF Providers' Adherence to Its Pediatric Lead Guidelines

While DHA has provided pediatric lead guidelines to the MTFs, and stated that it expects MTF providers to follow these guidelines, the agency currently does not have a process in place to oversee providers' adherence to the guidelines.[28] DHA officials said that they expect the military services to maintain oversight of the pediatric lead processes, until its oversight process is in place. While military service officials told us they previously relied on peer reviews, specifically the ongoing professional practice evaluation, as a method to ensure children were properly screened and tested for elevated lead levels; the officials said oversight is no longer their responsibility after the MTF realignment.[29]

In November 2021, DHA officials said that the agency was in the beginning stages of determining how it will oversee MTF providers' adherence to the guidelines for lead screening, testing, treating, and reporting. In March 2022, DHA officials said they added specific lead-related questions to the mandatory pediatric intake forms in the new electronic health record.[30] Officials stated that their plans for oversight also include

- developing a dashboard using data elements from DHA's electronic health record system to perform oversight of lead screening, testing, and follow-up by MTF providers;
- monitoring the dashboard and regularly reporting on the information collected; and
- identifying best practices related to pediatric lead and identify markets and MTFs that need additional lead related education.

However, DHA officials did not provide any documentation to support these plans for oversight and could not provide a date for when the oversight efforts would be implemented. Officials told us that once the dashboard is developed, they intend to test and promote the dashboard

[28]Department of Defense, Defense Health Agency, *Military Health System Comprehensive Guidelines for Screening, Testing, and Reporting of Blood Lead Levels in Children* (Falls Church, VA: April 2021).

[29]The ongoing professional practice evaluation is a process used by the military services' to evaluate a provider's performance against benchmarks established by each MTF's leadership and define a provider's acceptable level of performance. While the ongoing professional practice evaluation data can identify provider practices that could adversely affect a patient's health or welfare, the evaluation is not a systematic oversight process specific to pediatric lead.

[30]Officials said that in March 2022, over 50 percent of the MTFs were using the new electronic health record and did not indicate when the remaining MTFs will begin using it.

across the MHS before it is used for oversight. However, their ability to provide oversight cannot be achieved until DHA has full responsibility for managing DOD's electronic health records system, which DHA officials estimate would be in 2023, although they said they could not be certain of this time frame.

DHA's lack of oversight and uncertain time frames for implementing an oversight process is inconsistent with federal internal controls requiring an oversight body to establish an oversight structure, develop expectations of competence, and maintain accountability for all key stakeholders. Developing and implementing a plan to oversee pediatric lead processes would better position DHA to ensure that the guidelines are consistently and systematically implemented across all MTFs.

DOD's 2021 Report Methodology Could Not Be Replicated and the Extent of Missing Data Is Unknown, Therefore Data Reliability Can Not Be Determined

Based on the available evidence, we could not determine the accuracy and completeness of the data in DOD's 2021 report to Congress. In response to the NDAA 2020, DOD submitted a report to the Committees on Armed Services of the Senate and House of Representatives on the number of children that DOD screened for an elevated risk of lead exposure, the number tested for elevated BLLs, and the number of children found to have elevated BLLs.[31] DOD reported that 30,412 children were screened for lead exposure risk; 12,044 children were tested for elevated BLLs, and 83 children were found to have elevated BLLs. However, the report did not include pediatric lead screening and testing data from some MTFs, and the extent of missing information from other MTFs is unknown. Further, DOD was unable to replicate the methodologies used to collect the data in the report. Consequently, we could not determine if the data in the report aligned with the description of the data given in the report. As a result, we are unable to determine how complete or accurate the data are, and therefore how reliable.

DOD's report describes the methodologies used and the limitations in collecting these data.

- To collect the number of children screened for elevated lead exposure risk, DOD analysts (1) searched electronic health records for a completed lead exposure risk questionnaire, as part of provider

[31]Congress mandated that DOD submit a report to Congress by January 1, 2021. DOD chose December 20, 2019, through August 15, 2020, to collect and analyze data to include in the report. DOD submitted the report to the Committees on Armed Services of the Senate and the House of Representatives in August 2021.

progress notes, which may or may not have been followed by BLL testing, or (2) reviewed BLL testing results in laboratory records without a corresponding lead exposure risk questionnaire.[32]

- To collect the number of children tested for elevated BLLs, the report states that DOD analysts tried to be consistent with the methodology that the Navy and Marine Corps Public Health Center uses to routinely collect the number of children tested for all of the military services.[33]

The officials explained that the DOD analysts collecting the pediatric lead testing data for the report to Congress modified the methodology used by the Navy and Marine Corps Public Health Center in order to meet the NDAA 2020 mandate requirements. Specifically, the time period for the data presented in DOD's 2021 report was approximately an 8-month period and included BLL tests for children less than 18 years of age. Whereas, the Navy and Marine Corps Public Health Center routinely collects and reports on BLL tests for children 0-15 years of age for a 12-month period.

We also asked DOD officials knowledgeable about TRICARE beneficiary data to replicate the number of children screened during the same 8-month period in DOD's report. The officials told us that they could not replicate the screening methodology because they did not know all the criteria used to collect the data in the report. Additionally, these officials told us that DOD staff involved in compiling the data no longer work for DOD. As a result, we could not confirm if the data presented in DOD's 2021 report to Congress were consistent with the data request and if the data were complete and reliable.

In addition, the data included in the 2021 report were not complete, and therefore likely represented an undercount. However, neither DOD, nor we, could determine the extent to which data were missing. For example, DOD reported that analysts were not able to collect pediatric lead

[32]In DOD's methodology, BLL test results would count as both screening and testing of a child.

[33]The Epi Data Center as part of the Navy and Marine Corps Public Health Center develops a quarterly report that covers pediatric BLL surveillance of records from the Composite Health Care System and MHS Genesis Laboratory databases across DOD. These reports only include beneficiaries that get care at the MTFs, since they do not have access to health records of individuals receiving care outside of the MTFs such as through TRICARE plans. DOD officials told us that the Navy provides this information to the Army Public Health Center and the Air Force Medical Readiness Agency.

screening and testing data from some health care locations that use DOD's new electronic health record system.[34] DOD also reported that some completed screenings documented in the progress notes of the electronic health records may have been missed during the data pull because of incompleteness, incomprehensibility, or complexity of some text-based records. In addition, DOD officials told us that there may be pediatric lead testing data missing from MTFs that are using DOD's electronic health record system that is being replaced. As a result, we were unable to determine the extent to which MTF data were missing from the 2021 report.

Conclusions

DHA has developed and disseminated standardized guidelines, which MTF providers are expected to follow related to pediatric lead processes for screening, testing, treating, and reporting children with elevated BLLs. However, the agency currently does not oversee the extent to which these guidelines are being followed. While DHA intends to oversee MTF's pediatric lead processes, DHA did not provide documentation to support any plans for oversight including details such as a time frame for when the oversight will be implemented. Without oversight, DHA cannot ensure that pediatric lead screening, testing, treatment and reporting are being implemented consistently across all MTFs.

Recommendation for Executive Action

We are making the following recommendation to DHA:

DHA should develop a plan, with time frames, to implement a process to oversee the extent to which MTF providers are adhering to DHA's guidelines related to pediatric lead screening, testing, treating, and reporting to ensure that these processes are implemented consistently across all MTFs. (Recommendation 1)

Agency Comments

We provided a draft of this report to DOD for review and comment. In its written comments, reproduced in appendix I, DOD concurred with our recommendation. The agency stated that it will regularly review and interpret adherence data, develop and execute plans to improve adherence and decrease variation at the market and MTF level, and regularly report to DHA leadership. DOD also provided technical comments, which we have incorporated, as appropriate.

[34]DOD's new electronic health record system, MHS Genesis, is designed to standardize electronic health records throughout DOD, which will replace its existing system—the Armed Forces Health Longitudinal Technology Application. The implementation of MHS Genesis began in MTFs in the Pacific Northwest in 2017. MHS Genesis is scheduled to be implemented in all MTFs by the end of fiscal year 2023, according to DOD officials.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense and other interested parties. In addition, the report is available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact Sharon M. Silas at (202) 512-7114 or silass@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.

Sharon M. Silas
Director, Health Care

Appendix I: Comments from the Department of Defense

THE ASSISTANT SECRETARY OF DEFENSE

1200 DEFENSE PENTAGON
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

Ms. Sharon Silas
Director, Health Care
U.S. Government Accountability Office
441 G Street, NW
Washington DC 20548

Dear Ms. Silas,

This is the Department of Defense (DoD) response to the GAO Draft Report GAO-22-105006, "DEFENSE HEALTH AGENCY: Oversight Needed to Better Ensure that Children are Screened, Tested, and Treated for Lead Exposure," dated May 24, 2022 (GAO Code 105006).

Attached is DoD's response to the subject report. My point of contact is LCDR Iman Martin who can be reached at iman.k.martin.mil@mail.mil and phone (571) 531-0180.

Sincerely,

MULLEN.SEILEEN.MARIE.1519853007

Digitally signed by MULLEN.SEILEEN.MARIE.1519853007
Date: 2022.07.12 11:15:11 -04'00'

Seileen M. Mullen
Acting

Attachment:
As stated

GAO DRAFT REPORT DATED MAY 24, 2022
GAO-22-105006 (GAO CODE 105006)

"DEFENSE HEALTH AGENCY: OVERSIGHT NEEDED TO BETTER ENSURE THAT CHILDREN ARE SCREENED, TESTED, AND TREATED FOR LEAD EXPOSURE"

DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATION

GAO RECOMMENDATION: The Government Accounting Office (GAO) recommends that the Secretary of Defense should ensure that the Defense Health Agency (DHA) should develop a plan, with time frames, to implement a process to oversee the extent to which military medical treatment facilities (MTFs) are adhering to DHA's guidelines related to pediatric lead screening, testing, treating and reporting to ensure that these processes are implemented consistently across all MTFs. (Recommendation 1)

DoD RESPONSE: The Department of Defense (DoD) concurs with the GAO recommendation to develop a plan, with time frames, to implement a process to oversee the extent to which MTFs are adhering to DHA's guidelines related to pediatric lead screening, testing, treating and reporting to ensure that these processes are implemented consistently across all MTFs.

The DHA Medical Affairs Directorate Clinical Communities with principal equity in childhood health care are the Primary Care Clinical Community (PCCC) and the Complex Pediatrics Clinical Community (CPCC), will provide oversight of DHA-wide adherence to guidelines related to lead screening, lead testing, and follow-up of children with elevated blood lead levels. A joint standing PCCC-CPCC committee will regularly review and interpret adherence data, develop and execute plans to improve adherence and decrease variation at the Market and MTF level, and regularly report to DHA leadership via the Clinical Community Advisory Council Meetings and other appropriate internal briefing settings.

DHA Public Health Directorate will lead appropriate aspects of the oversight planning for reporting.

Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact

Sharon M. Silas at (202) 512-7114 or silass@gao.gov

Staff Acknowledgments

In addition to the contact named above, Marcia A. Mann (Assistant Director), Deitra H. Lee (Analyst-in-Charge), Emily Loriso, and Eamon Vahidi made key contributions to this report. Also contributing were Sam Amrhein, Sonia Chakrabarty, Joycelyn Cudjoe, Giselle Hicks and Ethiene Salgado-Rodriguez.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. You can also subscribe to GAO's email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, https://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on Facebook, Flickr, Twitter, and YouTube.
Subscribe to our RSS Feeds or Email Updates. Listen to our Podcasts.
Visit GAO on the web at https://www.gao.gov.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:

Website: https://www.gao.gov/about/what-gao-does/fraudnet

Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

A. Nicole Clowers, Managing Director, ClowersA@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, spel@gao.gov, (202) 512-4707
U.S. Government Accountability Office, 441 G Street NW, Room 7814,
Washington, DC 20548