DEPARTMENT OF VETERANS AFFAIRS

OFFICE OF INSPECTOR GENERAL

Office of Audits and Evaluations

VETERANS HEALTH ADMINISTRATION

Airborne Hazards and Open Burn Pit Registry Exam Process Needs Improvement

REVIEW | REPORT #21-02732-153 | JULY 21, 2022

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Executive Summary

Since 1990, approximately 3.5 million veterans have served in areas that potentially exposed them to airborne hazards and open burn pit toxins, which have been associated with both immediate and delayed adverse health consequences.[1] According to the National Academies of Sciences, Engineering, and Medicine, from about 1990, the US military has used large burn pits to dispose of waste when there were no feasible alternatives.[2] The burned waste products included plastics, metal and aluminum cans, rubber, chemicals, munitions, and medical and human waste products. In 2013, Congress mandated that VA establish an airborne hazards and open burn pit registry to research the potential health impacts of such exposures during military service.[3] Appendix A provides additional information about airborne hazards and open burn pits. The VA Office of Inspector General (OIG) conducted this review to evaluate the Veterans Health Administration's (VHA's) management of veteran-requested registry exams, including whether VHA medical facilities conducted them within the 90-day prescribed timelines.[4]

When VHA established the registry, it instituted an online questionnaire for potential registrants to complete and offered an optional in-person exam at no charge. As detailed in this report, the questionnaire asked if veterans were interested in an exam (which some veterans mistakenly believed served as a "request" for an exam) and provided a link in a related letter and on the questionnaire web page to information on how to request one from their local VA medical facility. According to VA guidance, veterans are responsible for scheduling registry exams by requesting one from their local VA facilities, and facility staff are not required to follow up on veterans' interest expressed in the questionnaire.[5]

VHA began collecting and recording data in the registry in May 2014. Summary table 1 provides an overview of the registry data.

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[1] VA's National Center for Veterans Analysis and Statistics, "Veteran Population," accessed March 2, 2022, https://www.va.gov/vetdata/Veteran_Population.asp.

[2] Institute of Medicine, "Long-term health consequences of exposure to burn pits in Iraq and Afghanistan," *Washington, DC: The National Academies Press*, (2011).

[3] Establishment of Open Burn Pit Registry, Pub. L. No. 112-260, § 201, 126 Stat. 2422 (2013).

[4] The OIG performed a limited review of the timeliness of exams because the program office did not have data showing when veterans called medical facilities to schedule exams.

[5] VHA Directive 1307, *Airborne Hazards and Open Burn Pit Registry*, August 19, 2019. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

Summary Table 1. Overview of Registry Data from May 2014 to November 2021

Category of veteran	Number of veterans (rounded)
Eligible to join the registry	3.5 million
Started the questionnaire	383,900
Initiated but did not complete the questionnaire	158,200
Finished the questionnaire	225,600
Indicated interest in exam on the questionnaire	125,400
Received exam	*18,600**
Was not assigned to a VHA facility to receive an exam due to zip code data errors	*14,200*
Did not indicate interest in exam on the questionnaire	100,300
Received exam even though they did not indicate interest on the questionnaire	*6,400*

Source: VA OIG analysis of registry data from May 1, 2014, to November 30, 2021.
Note: numbers may not precisely total due to rounding.[6]
** This includes about 500 veterans who received an exam prior to completing the questionnaire and indicating their interest in an exam.*

Registry exams benefit research, healthcare providers, and veterans seeking disability benefits. VHA researchers can use diagnostic tests and other information from registry exams to evaluate conditions related to airborne hazards exposures and confirm data reported on the questionnaire. In addition, healthcare providers performing exams can identify medical conditions and help veterans make more informed treatment decisions. Veterans also may use these exams in support of claims for compensation related to identified or presumed service-connected disabilities.

What the Review Found

Many veterans did not complete the 140-item questionnaire. The questionnaire could take up to an hour to complete and some VHA staff reported hearing that veterans found directions on scheduling confusing. Veterans did not always realize that an indication of interest on the questionnaire for an exam with their contact information did not amount to a "request" and veterans were still responsible for calling a local VA facility to schedule one. About 106,730 veterans who indicated interest in having an exam on the burn pit registry questionnaire did not schedule or complete exams (85 percent). The completion of registry exams has also been limited because the Health Outcomes Military Exposures program office has not provided effective guidance on what constitutes a "request," start dates for timelines, and responding to veterans' interest on questionnaires (including medical facility scheduling follow-up). In

[6] See VHA's technical comment 8 on page 48.

addition, there was ineffective communication with Veterans Integrated Service Networks (VISNs) and medical facility directors and inaccurate and incomplete registry information in registry systems.[7] Improvements in the airborne hazards and open burn pit registry exam process would help ensure more eligible and interested veterans receive these exams.

Most Veterans Who Expressed Interest Have Not Received a Registry Exam

Once a veteran requests an examination, VHA has 90 days to complete it.[8] However, about 106,730 of the approximately 125,360 veterans on the registry who expressed an interest in an exam had not received one as of November 30, 2021. The figure below provides an overview of the number of registry exams where veterans indicated they were interested in an exam but have not yet received one.

Summary figure 1. *Overview of registry exams not completed as of November 30, 2021. These are approximate numbers that are rounded. The numbers in this figure are rounded to the nearest ten.*
Source: VA OIG analysis.
Note: About 500 of the 18,600 exams completed were conducted before veterans completed the questionnaire and indicated their interest in an exam.

Since VA established the registry in 2014, the registry questionnaire has not been clear and veteran-centric. In addition, a backlog has grown at VHA medical facilities because the program office failed to:

[7] VHA delivers health care through 18 VISNs, each led by a director who is responsible for the coordination and oversight of administrative and clinical activities at medical facilities in the specified area. In response to VHA's technical comment 2, the OIG revised this sentence to specify that the communication to directors was lacking. When appropriate, this report references program office communications to VHA's environmental health staff (see pages 20 and 21).

[8] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations. See VHA's technical comment 9 on pages 48 and 49.

- notify VHA leaders responsible for VISNs that medical facilities were not conducting scheduling outreach as backlogs mounted,
- provide effective guidance on key directive provisions (such as veteran request documentation and timeline start dates) and improve communications with VISN and medical facility directors about the number of exam requests and lack of completions, and
- ensure information systems contain accurate data (including zip code fields, site codes, and veteran transfers to another VA facility) and support the management of the registry.

The Program Office Did Not Ensure the Registry Questionnaire and Exam Scheduling Process Were Clear and Veteran-Centric

The 140-item airborne hazards and open burn pit registry questionnaire was not completed by over 158,200 veterans who started it.[9] The questionnaire did not make it clear to veterans that they, not VHA, had to reach out to schedule the exams. Contact information was requested on the form close to the indication that the veteran was interested in receiving an exam, adding to the confusion. After completing the questionnaire, veterans had to select a link to a "participation letter" which provided, among other information, instructions on how to request the exam; however, veterans may not have opened this letter. Since address information was not required, mailed participant letters were not always sent to veterans or to accurate locations. In addition, even if veterans noticed the scheduling instructions before filling out the questionnaire, the team found some contact information for schedulers on the registry exam web page was not correct.

In VHA's technical comments to the OIG, program officials stated that an automatically generated email and a letter were sent to the registry participants. They further indicated auto-generated emails containing the participation letter information to be a valuable component of the registry because personal email addresses tend to remain more consistent than physical addresses, allowing the program office to continue communicating important updates to registrants even after they have moved. However, after communicating with its Office of

[9] See VHA's technical comment 7 on pages 47 and 48. VHA requested the OIG add information about the multiple reasons why veterans did not complete the questionnaire and that revisions to the questionnaire may improve the response rate. VHA also requested that the number of veterans who did not complete the questionnaire be revised to 156,458, down from the 158,200 number found by the review team. The OIG did not add this information to the report questionnaire because VHA did not provide support for these statements, and the OIG did not evaluate the reasons veterans did not complete the questionnaire as part of this review.

Information and Technology partners, VHA determined it was not sending the automatically generated email to all veterans who completed the questionnaire.[10]

Medical Facilities That Voluntarily Conducted Outreach to Schedule Exams Had Higher Completion Rates

Because VHA placed the burden on veterans to schedule their registry exams, medical facilities were not required to follow up with veterans who indicated on the questionnaire they wanted an exam but had not scheduled it.[11] However, program and facility staff indicated in interviews that some veterans expected medical facilities to contact them regarding scheduling. The director of the program office stated that facilities that have performed the most exams have had scheduling outreach programs, either calling or emailing the interested veterans to schedule exams. VHA may want to consider whether increased outreach can be supported to improve exam completion rates.[12] Appendix C provides additional information on exam completion rates.

The Program Office Should Improve Veteran Request and Timeline Guidance and Provide Backlog Data to VHA Leaders

Although the program office issued a directive requiring medical facilities to conduct registry exams within 90 days of a veteran's request, the directive did not clearly define a "veteran request" and the start date of the 90-day timeline.[13] This contributed to medical facility staff interpreting the start date differently—either when veterans submitted a completed questionnaire indicating they wanted an exam or when veterans followed up on their own to schedule. As a result, some applicants waited years to hear from VA. Despite the mounting backlogs apparent in the provided monthly data reports, VHA did not require facility staff to follow up with unscheduled but interested veterans. In addition, it did not share information about the medical facilities' low exam completion rates with local directors. The absence of clear guidance and

[10] The OIG did not make the change requested in VHA's technical comment 1 on pages 43 and 44, which indicated an automatically generated email is also sent to all registry participants. After the review team followed up with the program office, a program official stated emails were only sent to veterans for whom the system does not recognize eligibility, requiring the program office to take additional steps. If the office deems the veteran eligible, then staff send the email on page 44 and the veteran may finish the registry process online.

[11] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

[12] Appendix C provides additional information on exam completion rates by region.

[13] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

lack of communication has limited VHA's ability to identify impediments to the completion of exams.

Information System Enhancements Are Needed to Ensure Facilities Have Accurate Registry Data

Moreover, the review team identified data integrity issues, particularly in assigning veterans who are interested in exams to the proper facility. For example, the program office's monthly data report excluded approximately 14,200 interested veterans because the automated zip code file the system used to sort and assign veterans to medical facilities was outdated and missing codes. These veterans were not accounted for in the medical facility exam completion rates. Additionally, completion data for some facilities were erroneously included within other medical facilities' data, which resulted in incorrectly overstated completion data. The review team also found that the list of veterans assigned to facilities for exams was not always accurate. The inaccuracies happened because the program office had not established an official procedure to ensure veterans were transferred when veterans were incorrectly assigned to a facility or when they changed addresses.

VHA Is Taking Steps to Improve the Registry Exam Process, but Additional Efforts Are Needed

VHA plans to establish a call center, the Veteran Environmental Team Health Outcomes Military Exposures (VET-HOME), to assume some of the medical facilities' registry exam scheduling and coordination responsibilities by October 2022.[14] This is well-timed given the number of veterans indicating they would like an exam has further increased since August 2021, when VA established a presumptive service connection for respiratory conditions due to exposure to particulate matter, with those respiratory conditions being asthma, sinusitis, and rhinitis.[15] Program officials state VET-HOME will not replace all facility scheduling and exam efforts but will supplement the current registry exam process. Whether VET-HOME will mitigate the issues identified by the OIG in this review cannot yet be determined, and its rollout does not negate the need for corrective actions plans in response to this report's recommendations.

[14] The call center staff will answer calls and address veterans' environmental health concerns for VHA's six environmental health registries, to include Agent Orange, airborne hazards and open burn pit, Gulf War, ionizing radiation, depleted uranium, and toxic embedded fragment surveillance center.

[15] "VA disability compensation," accessed April 7, 2021, https://www.va.gov/disability. The Veterans Benefits Administration oversees a compensation program that provides tax-free benefits to veterans for the effects of disabilities caused by diseases or injuries incurred or aggravated during active military service. These benefits are called service-connected disability compensation benefits. Presumptive Service Connection for Respiratory Conditions Due to Exposure to Particulate Matter, 86 Fed. Reg. 42724 (August 5, 2021). See appendix A for background information about airborne hazards and open burn pits. See VHA's technical comment 11 on page 49.

While discussing the draft report with the program office in March 2022, program office officials acknowledged the registry's operations could be improved, but noted the airborne hazards burn pit registry was VHA's first online registry. Program officials also noted that it was not standard practice with the other main registry exams, such as Agent Orange and Gulf War, to conduct outreach to schedule exams. Program office personnel also stated medical facilities have provided feedback that they have limited resources.

What the OIG Recommended

The OIG made seven recommendations to the under secretary for health.[16] These included revising the questionnaire to be more veteran-centric, maintaining accurate contact information for environmental health coordinators, and identifying whether veterans with unscheduled exams are still interested in one. The OIG also recommended implementing processes and metrics to ensure exams are completed, to include a procedure to transfer veterans to closer facilities to receive exams. Further, the OIG recommended developing guidance to ensure responsible parties review and discuss performance data and the enhancement of registry information systems.

VA Comments and OIG Response

The deputy under secretary for health, performing the delegable duties of the under secretary for health, concurred with the OIG's recommendations and submitted responsive action plans. Appendix D provides the full text of the under secretary's comments. The OIG will monitor the implementation of the recommendations until all stated actions are documented as completed. The OIG did not agree with technical comments 1, 6, and 7, and added text or footnotes to the report explaining why it did not make the changes.

VHA requested in technical comment 1 that the OIG note an automatically generated email was sent to all registry participants informing them they were responsible for scheduling exams. However, VHA could not provide evidence to show this occurred, and a program official confirmed after additional follow-up with the Office of Information and Technology that an email reminding veterans they were responsible for scheduling exams was not generated and sent to all registry veterans.

VHA requested in technical comment 6 that the OIG revise the statement in the report, "VET-HOME may help alleviate some scheduling issues but the process is still not veteran-centric." VHA states that VET-HOME was not evaluated by the OIG and asserts this statement threatens to damage the program prior to its rollout. The OIG acknowledges VHA's position that VET-HOME is a new program that is expected to improve registry exam completions. However, the OIG did not revise the statement because VET-HOME will not

[16] The recommendations addressed to the under secretary for health are directed to anyone in an acting status or performing the delegable duties of the position.

remove the burden on veterans to schedule their own exams. VET-HOME will also not address the need discussed in recommendation 3 for VHA to conduct outreach and follow up with veterans who have expressed an interest in receiving an exam.

In technical comment 7, VHA requested the OIG add information about the multiple reasons why veterans may not have completed the questionnaire. VHA stated that revisions to the questionnaire may improve the response rate. The OIG did not add this information to the report because VHA did not provide any support for these statements. The OIG also did not evaluate the questionnaire response rate as part of this review.

For technical comments 2, 3, and 5, the OIG added requested clarifications and information from the technical comments when it could be supported based on the OIG's review work and when the information was not presented elsewhere in the report. For these technical comments, the OIG clarified that communication needed to be improved specifically with the VISN and medical facility directors, instead of at all levels of management; agreed with VHA that a contract start date needed to be revised; and removed the term "inflated" from the description of the errors in the exam workload as the term could be misinterpreted. The specific reasons why the OIG did not add information from the technical comments are discussed in the footnotes of the appropriate report sections.

The OIG generally agreed with technical comments 4, 8, 9, 11, 12, 13, 14, 15, and 16 and incorporated requested clarifying information in the report text and footnotes where appropriate.[17] The OIG did not address technical comment 10 as it conflicts with the OIG's style guide.

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[17] VHA's technical comments are in appendix D.

Contents

Abbreviations

DoD	Department of Defense
NASEM	National Academies of Sciences, Engineering, and Medicine
OIG	Office of Inspector General
VET-HOME	Veteran Environmental Team Health Outcomes Military Exposure
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network

Introduction

Airborne hazards, which include smoke from oil well fires, pollution, and burn pits, may be associated with both immediate and delayed adverse health consequences for veterans. According to the National Academies of Sciences, Engineering, and Medicine (NASEM), from about 1990 to the present, the US military has used large burn pits to dispose of waste when there were no feasible alternatives for disposal. The burned waste products included plastics, metal and aluminum cans, rubber, chemicals (such as paints and solvents), petroleum and lubricant products, munitions and other unexploded ordnance, wood waste, medical and human waste, and combustible materials.[18]

VA recognizes that military service members may have been exposed to airborne hazards, which could increase their risk for long-term health conditions.[19] Exposure to burn pits may increase risk for conditions involving the respiratory system, skin, eyes, liver, kidneys, central nervous system, cardiovascular system, reproductive system, and gastrointestinal tract. In addition, VA recognizes three presumptive conditions related to particulate matter exposure: asthma, rhinitis, and sinusitis.[20] Appendix A provides additional information about airborne hazards and open burn pits.

In 2013, Congress mandated VA establish and maintain a registry for individuals who were exposed to airborne hazards and burn pits during military service to help research the potential health effects and include any information in the registry that the Secretary determined necessary to ascertain and monitor the health effects of such exposure.[21] VA established the registry and offered an online questionnaire and an optional in-person exam at no charge. As detailed in this report, the questionnaire asked if veterans were interested in an exam (which some veterans mistakenly believed served as a "request" for an exam) and provided a link in a related letter to

[18] Institute of Medicine, "Long-term health consequences of exposure to burn pits in Iraq and Afghanistan," *Washington, DC: The National Academies Press*, (2011).

[19] VA Public Health, "Airborne" and Burn Pit Exposures," accessed January 28, 2022, https://www.publichealth.va.gov/exposures/burnpits/index.asp.

[20] Veterans Benefits Administration, "About VBA," accessed July 13, 2022, https://benefits.va.gov/BENEFITS/about.asp. The Veterans Benefits Administration oversees a compensation program that provides tax-free benefits to veterans for the effects of disabilities caused by diseases or injuries incurred or aggravated during active military service. These benefits are called service-connected disability compensation benefits. For additional information about VA compensation for disabilities caused by exposure to burn pits, see VA OIG, *Veterans Prematurely Denied Compensation for Conditions That Could Be Associated with Burn Pit Exposure,* Report No. 21-02704-135, July 21, 2022.

[21] Establishment of Open Burn Pit Registry, Pub. L. No. 112-260, § 201, 126 Stat. 2422 (2013).

information on how to request one from their local VA medical facility.[22] The Veterans Health Administration (VHA) began collecting and recording data in the registry in May 2014. VHA held its first training session for medical facility staff about the establishment of the registry in 2018 and issued official program guidance in August of 2019. Figure 1 shows the timeline for implementing the registry, including the August 2019 directive. Additional details related to the directive are discussed in the applicable laws, regulations, and policies section of this report.

Figure 1. *Timeline of implementation of the registry.*
Source: VA OIG analysis.

To be eligible to join the registry, veterans had to be deployed to the Southwest Asia theater of operations after August 2, 1990, or to Afghanistan, Djibouti, Syria, or Uzbekistan on or after September 19, 2001.[23] Based on those criteria, VA estimated approximately 3.5 million veterans may have been eligible to join the registry as of September 30, 2021.[24]

The VA Office of Inspector General (OIG) conducted this review to evaluate VHA's management of veteran-requested registry exams, including whether VHA medical facilities conducted them within the 90-day prescribed timeline.

[22] The OIG did not make the change requested in VHA's technical comment 1 on pages 43 and 44, which indicated an automatically generated email is also sent to all registry participants. After the review team followed up with the program office, a program official stated an email is only issued to veterans who require an eligibility determination. For example, for some veterans, electronic systems may not have all necessary data about their location(s) or dates of service; as such, the program office must take additional steps to determine their eligibility. If the office deems the veteran eligible, then staff send the email on page 44 and the veteran may finish the registry process online.

[23] Presumptive Service Connection for Respiratory Conditions Due to Exposure to Particulate Matter, 86 Fed. Reg. 42724-42733 (August 5, 2021). VA expanded eligibility locations to include Syria and Uzbekistan and changed the effective date from September 11, 2001, to September 19, 2001.

[24] VA's National Center for Veterans Analysis and Statistics, "Veteran Population," accessed March 2, 2022, https://www.va.gov/vetdata/Veteran_Population.asp.

Registry Exams May Support Future Research and Help Educate Veterans

In May 2019, VA established the Airborne Hazards and Burn Pits Center of Excellence. The center uses registry data and medical exam results to inform future studies and develop new educational content and best practices related to exposures.[25] In-person registry exams are voluntary, focused medical evaluations for veterans who may have been exposed to certain environmental hazards during their medical service. Some veterans may be eligible for more than one registry exam. For example, a Gulf War veteran may join both the Gulf War and the airborne hazards and open burn pit registries. Although some information on health conditions in the registries overlap, the Gulf War registry addresses a broader range of exposures and conditions, while the airborne hazards and open burn pit registry focuses more on the length and proximity of exposure to specific types of hazards.[26] Information from the Gulf War registry is not shared with the airborne hazards and open burn pit registry.[27]

Registry medical exams provide researchers with objective information about veterans' health status, which can be used to confirm information reported on the registry questionnaire. In addition, registry exams provide researchers with critical information that may not be available through the questionnaire responses or health records. For example, an exam might include diagnostic tests intended to evaluate conditions related to airborne hazards exposure, such as spirometry tests and chest X-rays to evaluate veterans' lung function.[28] As some veterans do not actively use VA health care, registry exams provide researchers with access to the health information of veterans also receiving care outside VA.[29]

In addition to aiding research and raising awareness, registry exams may benefit veterans by providing an opportunity for care providers to identify medical conditions earlier. Exams allow veterans to discuss risks with their providers and learn about environmental exposures, contributing to more informed healthcare decisions. Finally, the exams may support claims for

[25] See VHA's technical comment 4 on pages 45 and 46. According to VHA, the center may invite veterans who have been identified through the registry for more in-depth studies.

[26] Veterans who served in the Gulf during Operation Desert Shield, Operation Desert Storm, Operation Iraqi Freedom, or Operation New Dawn are eligible for the Gulf War registry exam.

[27] The Gulf War registry data is entered and housed in the Environmental Agent Service registry system, which differs from the system that houses the airborne hazards and open burn pit registry data. The systems do not share information. VHA Directive 1325, *Gulf War Registry*, June 1, 2017; VHA Directive 1307, *Airborne Hazards and Open Burn Pit Registry*, August 19, 2019. Both directives were in place during the review period. VHA rescinded them and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both VHA Directives 1307 and 1308 contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

[28] See appendix A for additional background information about spirometry.

[29] For this report, actively using VA health care is defined as having two or more encounters (excluding a registry exam) from December 1, 2018, through November 30, 2021.

possible entitlement to compensation related to identified or presumed service-connected disabilities from exposure to airborne toxins.[30]

In response to this report, VA noted that the statutory language establishing the registry does not identify research as an element or objective of the registry.[31] Further, VHA stated that, while the registry is a valuable tool, it has limitations due to its reliance upon self-reported information from veterans. VHA stated the best method to conduct research on the health effects of exposure to airborne hazards and open burn pits is through well-designed epidemiological studies that compare health outcomes of exposed groups with non-exposed groups; VHA indicated it is performing these studies.

In addition, VHA's technical comments stated registry examinations are valuable as a point of entry for veterans who wish to enroll in VHA healthcare and provide a directory from which to recruit exposed veterans for future studies. The registry may be used to find and explore trends among the registrants that may generate hypotheses from which well-designed clinical or epidemiological studies may be designed. According to VHA, registry exam data allows it to monitor health concerns among exposed veterans. Clinical exam data may also be combined with the self-assessment questionnaire and other data sources to enhance the data.

Registry Exam Process

To obtain a registry exam, veterans must meet the previously mentioned eligibility criteria and complete the online registry questionnaire, including whether they want to receive an exam.[32] After completing the questionnaire, veterans are provided with a link to a letter (which is also mailed to them if they provided their address) that states they should contact their local VHA medical facility to schedule the exam. This letter is termed a "participation letter" in the questionnaire. The letter provides a link to each facility's environmental health coordinator. Coordinators schedule veterans' exams with environmental health clinicians. Although the program office initially reported that it also emailed veterans the information contained in the participation letter at the time they enrolled in the registry, the review team determined that not

[30] Of note, registry exams do not qualify as compensation and pension examinations and are not required for disability claims.

[31] See VHA's technical comment 4 on pages 45 and 46.

[32] Presumptive Service Connection for Respiratory Conditions Due to Exposure to Particulate Matter, 86 Fed. Reg. 42724-42733 (August 5, 2021); VHA Directive 1307. To be eligible to join the registry, veterans had to be deployed to the Southwest Asia theater of operations after August 2, 1990, or to Afghanistan, Djibouti, Syria, or Uzbekistan on or after September 19, 2001. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

all registry participants received this communication.[33] For veterans already enrolled in VA health care, the exam may be scheduled with their primary care provider.[34] The process is configured so that the veteran must take the initiative to schedule an exam.

The public law establishing the registry requires VA to contract with an independent scientific organization to assess the effectiveness of the registry.[35] To comply with this statutory requirement, VA tasked NASEM with the initial review, which was completed in 2017, and a follow-up review, which the program office anticipates will be published by September 2022.[36]

NASEM's 2017 assessment noted that many veterans did not complete the questionnaire, noting survey fatigue could be a factor.[37] Survey fatigue means that participants may have stopped completing the questionnaire, skipped over questions, or missed important information.[38] NASEM indicated veterans may have experienced survey fatigue because the questionnaire contains approximately 140 questions and takes approximately 30 minutes to an hour to complete, depending on the participant's number of deployments and health symptoms. The assessment also cited other issues with the questionnaire, such as confusing language and structure. NASEM recommended VA seek external survey experts to restructure the registry questionnaire.

The program office reported that, in the spring of 2020, it had advertised for a contractor to evaluate the registry questionnaire as NASEM recommended. It reported this contract would have included veteran focus groups. However, the program office did not contract with external

[33] The OIG did not make the change requested in VHA's technical comment 1 on pages 43 and 44, which indicated an automatically generated email is also sent to all registry participants. After the review team followed up with the program office, a program official stated an email is only issued to veterans who require an eligibility determination. For example, for some veterans, electronic systems may not have all necessary data about their location(s) or dates of service; as such, the program office must take additional steps to determine their eligibility. If the office deems the veteran eligible, then staff send the email on page 44 and the veteran may finish the registry process online.

[34] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

[35] Establishment of Open Burn Pit Registry, Pub. L. No. 112-260, § 201, 126 Stat. 2422 (2013). See VHA's technical comments 12 and 13 on pages 49 and 50.

[36] NASEM provides independent, objective analysis to inform public policy decisions.

[37] NASEM, "Assessment of the Department of Veterans Affairs Airborne Hazards and Open Burn Pit Registry," *Washington, DC: The National Academies Press* (2017).

[38] "Survey Fatigue 101: Everything You Should know Before Creating Your Next Online Survey," *Survey Crest (blog)*, May 16, 2016, https://www.surveycrest.com/blog/survey-fatigue-101/#:~:text=Survey%20fatigue%20is%20the%20latest%20issue%20which%20both,level.%20The%20issue%20is%20divided%20into%20two%20types%3A.

survey experts to evaluate, restructure, and revise the online questionnaire until August 2021. According to the program office, the survey experts started work in September 2021.[39]

Applicable Law and VHA Policy

VHA's management of the airborne hazards and open burn pit registry is governed by several legal authorities. Of note, while Congress gave the VA Secretary the authority to include any information in the registry deemed necessary, it did not mandate that VA provide veterans with registry exams. Although VHA provides registry exams for veterans to monitor the health effects of toxic exposures, there was no requirement placed upon VHA to contact individual veterans to schedule these exams. As structured, the onus is on the veterans.

The Establishment of Open Burn Pit Registry law, which was passed on January 10, 2013, required VA to establish a registry to help research the potential health effects of airborne hazards and burn pits upon individuals exposed during qualifying military service.[40] However, VHA did not issue its airborne hazards and open burn pit registry directive establishing the clinical and administrative processes and procedures for the registry and associated registry exams until August 19, 2019.[41] The review team's analysis of the Open Burn Pit Registry Directive determined that the directive does not

- provide procedures for medical facilities to conduct scheduling outreach,
- clearly define a "veteran request" and the start date of the 90-day timeline to complete exams,
- require coordinators to document when the veteran contacted them to schedule an exam,
- require coordinators to review registry exam performance data and communicate issues with completing registry exams to directors, or
- include procedures for medical facilities to transfer veterans from one facility to another.

[39] In response to VHA's technical comment 3 on page 45, the OIG revised this section for clarity but did not make all the requested changes due to a lack of information provided by the program office to support some of the changes. According to VHA, the program office made efforts to improve the registry questionnaire, but it was unable to start the contract sooner due to external or administrative delays.

[40] Establishment of Open Burn Pit Registry, Pub. L. No. 112-260, § 201, 126 Stat. 2422 (2013).

[41] VHA Directive 1307.VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

Program Governance Structure and Responsibilities

Several entities are involved in the governance of the airborne hazards and open burn pit registry. Figure 2 provides an overview of the governance structure and relationships between the various entities involved in the administration of the registry.

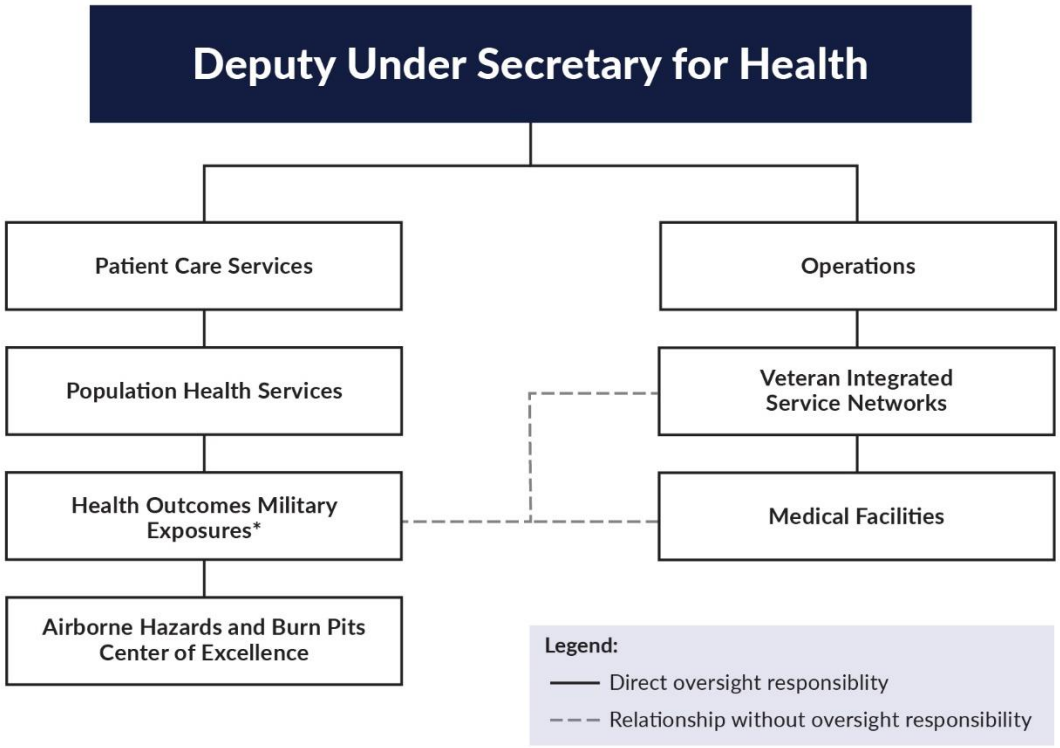

Figure 2. *Organization of entities associated with the airborne hazards and open burn pit registry.*
Source: VA OIG analysis.
** Prior to July 2021, Health Outcomes Military Exposures (the program office) was known as the Office of Post Deployment Health Services. As part of Patient Care Services, it administers various programs related to environmental and occupational exposures and maintains several related registries. This change did not affect the OIG's review.*
Note: The chief consultant for the program office reports to Population Health Services.

Patient Care Services

Patient Care Services in VHA is dedicated to ensuring the full continuum of care, which includes health promotion, disease prevention, diagnostics, and palliative care.[42] This office provides policy and program development.

[42] "Patient Care Services," VHA, accessed January 13, 2022, https://www.patient care.va.gov.

Population Health Services

Population Health Services is within Patient Care Services. It in turn oversees seven program offices, including the National Center for Health Promotion and Disease Prevention, Public Health Surveillance and Research, Rural Health, and Health Outcomes Military Exposures.

Program Office

The Health Outcomes Military Exposures program office reports to Population Health Services. The program office oversees and maintains the airborne hazards burn pit registry along with five other registries pertaining to environmental and occupational exposures. The program office consists of a chief consultant, deputy chief consultant, director for operations, deputy director for operations, and one support staff person. The program office noted that it has been experiencing high turnover in the director for operations position since 2014, the year in which the airborne hazards burn pit registry launched. It also operated without a deputy director for operations from May 2020 through January 2022. The program office chief consultant is responsible for developing, coordinating, and monitoring registry activities and reports directly to the chief officer of Population Health Services.[43] As the organizational chart indicates, this program office does not have direct authority over individuals acting within the Veterans Integrated Service Networks (VISNs) and medical facilities to which it provides guidance, coordination, and high-level monitoring.

Airborne Hazards and Burn Pits Center of Excellence

The Airborne Hazards and Burn Pits Center of Excellence was established in 2019 and reports to the program office. It specializes in clinical research using scientific insights to help improve health outcomes for veterans exposed to airborne hazards while deployed. Researchers use data from the registry, clinical evaluations, and other sources to identify testable research questions and conduct in-depth studies to help VA better diagnose and treat health concerns related to airborne hazard exposures.[44]

All the program, policy, research, and registry functions above are meant to help improve healthcare delivery and the quality-of-care efforts overseen by VHA's regional VISN directors and their medical facility leaders.

[43] VHA Directive 1307. Prior to the issuance of VHA Directive 1307, the program office did not have a directive in place outlining the registry program responsibilities. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

[44] "VA Airborne Hazards and Burn Pits Center of Excellence," VA, accessed February 1, 2022, https://www.warrelatedillness.va.gov/WARRELATEDILLNESS/docs/AHCOE_Slicksheet.pdf#.

VISNs

VHA delivers health care through 18 VISNs, each led by a director who is responsible for the coordination and oversight of administrative and clinical activities at medical facilities in the specified area.[45] VISN directors are required to appoint a VISN lead environmental health clinician and a lead environmental health coordinator.[46] The lead clinicians distribute health information from the program office and perform quality assurance activities for clinical work, such as exam record reviews. The lead coordinators oversee the administration of the registry program and coordinate with facilities.

Medical Facilities

Registry exams are scheduled and conducted at medical facilities. Facility directors are responsible for ensuring that registry exams are conducted in accordance with VHA requirements.[47] In addition, they are required to appoint at least one environmental health clinician, an environmental health coordinator, and an alternate coordinator. Facility environmental health clinicians are required to perform registry health exams and assist other care providers with completing exams and associated requirements. The program office tasked the facility environmental health coordinators with administering much of the program, including helping veterans access the online registry questionnaire and scheduling the optional health exams. For the purpose of this report, the term "outreach" refers to contacting veterans who completed questionnaires to schedule them for registry exams.

[45] VA Functional Organization Manual: Description of Organization Structure, Missions, Functions, Tasks, and Authorities, September 1, 2020.

[46] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

[47] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

Results and Recommendations

Finding: An Ineffective Exam Request Process and Inaccurate Registry Data Resulted in Most Interested Veterans Not Receiving Airborne Hazards and Open Burn Pit Registry Exams

VHA's program office is required to develop, coordinate, and monitor the airborne hazards and open burn pit registry.[48] VHA developed an optional registry questionnaire and exam; the exam may also be used by veterans to support their compensation claims. However, about 106,730 veterans (about 85 percent) who expressed interest in an exam on the registry questionnaire have not received one.[49] This appears due, in large part, to VHA requiring interested veterans to take the initiative to schedule these exams with their local VHA medical facilities. Problems with the questionnaire may have contributed to veterans not completing the process, thereby decreasing the overall number of registry exams completed. The OIG was not able to quantify incompletions due to veterans' actions. For example, veterans may have changed their mind about receiving an exam or declined the exam when offered.

The exam completion rate also resulted from insufficient staff guidance and a lack of communication from the program office to VISN and facility directors.[50] Furthermore, VHA has not implemented effective information systems to help ensure the accuracy of registry data; for example, the team found that over 14,200 veterans were not assigned to facilities for exams due to zip code errors. While the team found that VHA leaders are taking steps to improve the registry exam process, additional efforts are needed to ensure medical facilities follow up with interested veterans who have not scheduled an exam. Until VHA improves the management of the airborne hazards and open burn pit registry exam process, it will continue to miss opportunities to inform future research and better serve veterans.

What the OIG Did

The review team analyzed data for 125,360 veterans who completed the airborne hazards and open burn pit registry questionnaire from May 1, 2014, to November 30, 2021, and indicated their interest in an exam. The team was unable to fully evaluate timeliness because the program

[48] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

[49] Numbers do not total precisely due to rounding.

[50] In response to VHA's technical comment 2 on pages 44 and 45, the OIG revised this sentence to specify that the communication to directors was lacking. When appropriate, this report references program office communications to VHA's environmental health staff (see pages 20 and 21).

office did not have data indicating when veterans called to schedule an exam. The program office did, however, provide the review team with registry data on whether veterans who indicated they wanted an exam on the questionnaire had received one.

The team interviewed program office officials about implementing the registry and communications, guidance, oversight, and monitoring related to exams. The team also interviewed researchers at the Center of Excellence to understand the purpose and use of registry exams. To gain an understanding of how VISNs and VHA medical facilities managed the registry exams, the team selected five VISNs and medical facilities to review based on their volume of registry exams and exam completion rates.[51] The team interviewed the VISN and medical facility directors, environmental health clinicians, environmental health coordinators, and primary care physicians who conduct registry exams. The information received allowed the team to better understand the timelines, challenges, and effectiveness of registry exam implementation. Appendix B provides additional details on the review's scope and methodology.

Most Veterans Who Expressed Interest Have Not Received a Registry Exam

Of the approximately 225,600 veterans who completed the questionnaire from May 2014 through November 2021 (the review period), about 125,360 indicated they wanted an exam but only about 18,630 (nearly 15 percent) received an exam.[52] Conversely, this means that as of November 30, 2021, about 106,730 veterans (85 percent) who indicated they wanted an airborne hazards and open burn pit registry exam on the questionnaire had not yet received one.[53] VHA also performed approximately 6,400 registry exams for veterans who did not indicate on their completed questionnaire they were interested in an exam. This may occur, for example, when veterans ask providers to perform registry exams while at a medical facility even though they did not indicate on the online questionnaire they were interested in an exam. Table 1 provides an overview of registry information since 2014.

[51] The five selected were the VA Eastern Colorado Health Care System located in Aurora (VISN 19); Fayetteville VA Coastal Health Care System located in North Carolina (VISN 6); VA Long Beach Healthcare system located in California (VISN 22); Beckley VA Medical Center located in West Virginia (VISN 5); and Columbia VA Health Care System located in South Carolina (VISN 7).

[52] See VHA's technical comment 7 on pages 47 and 48. VHA requested the OIG add information about the multiple reasons why veterans did not complete the questionnaire and that revisions to the questionnaire may improve the response rate. The OIG did not add this information to the report because VHA did not provide any support for these statements, and the OIG did not evaluate the reasons for the questionnaire response rate as part of this review.

[53] Numbers do not total precisely due to rounding.

Table 1. Overview of Registry Data from May 2014 to November 2021

Category of veteran	Approximate number of veterans
Eligible to join the registry	3.5 million
Started the questionnaire	383,900
Initiated but did not complete the questionnaire	158,200
Finished the questionnaire	225,600
Indicated interest in exam on the questionnaire	125,400
Received exam	*18,600**
Was not assigned to a VHA facility due to zip code data errors	*14,200*
Did not indicate interest in exam on the questionnaire	100,300
Received exam even though they did not indicate interest on the questionnaire	*6,400*

Source: VA OIG analysis of registry data from May 1, 2014, to November 30, 2021.
Note: Numbers may not precisely total due to rounding.
** This includes about 500 veterans who received an exam prior to completing the questionnaire and indicating their interest in an exam.*

Figure 3 shows how the number of veterans who indicated they wanted an exam on the registry questionnaire but have not received an exam has steadily accumulated over the past seven years. An average of four years has passed since these veterans completed the questionnaire.

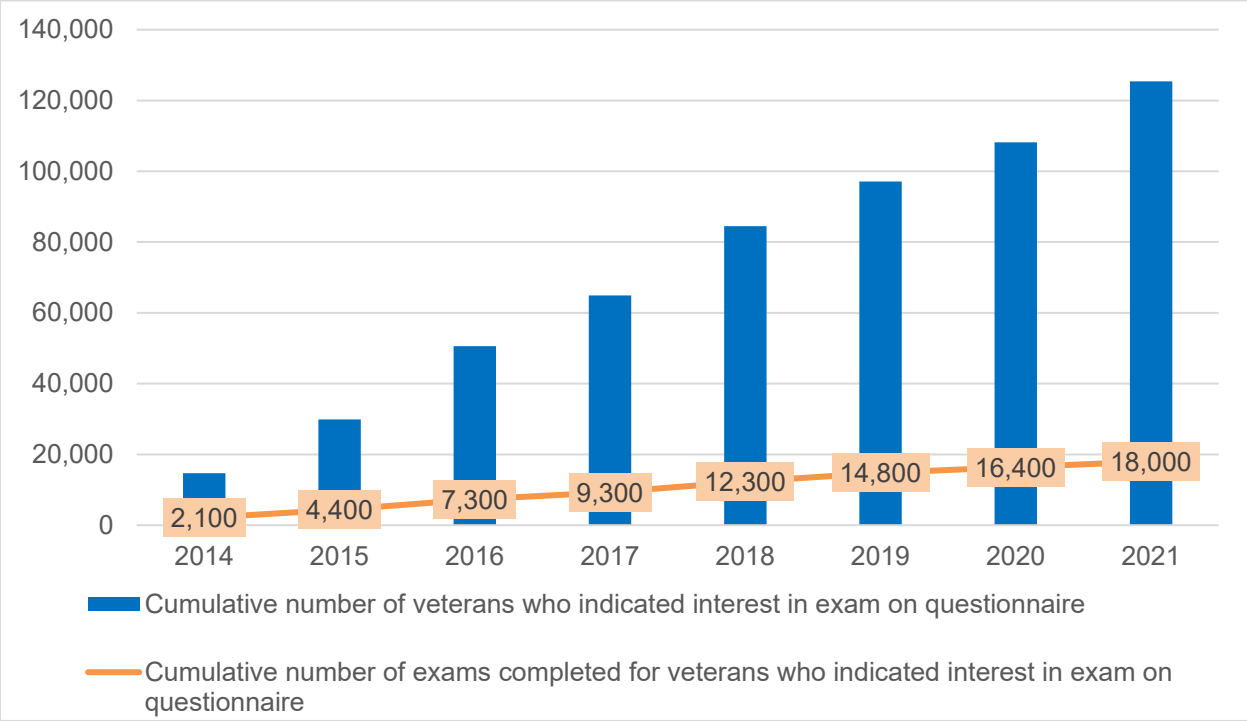

Figure 3. *Overview of data for veterans who indicated interest in an exam on the completed questionnaire from May 1, 2014, through November 30, 2021.*
Source: VA OIG analysis of registry data.

According to the program office's director, the onset of the pandemic has affected the facilities' completion of exams in recent years since some facilities deferred exams because they did not want veterans going to the facility unless necessary. Moreover, staff responsible for performing the exams were detailed to assist with COVID-related duties. VHA issued a memorandum authorizing medical facilities to shift resources to respond to the COVID-19 pandemic in April 2020.[54] Thus, program officials stated they continued to provide VISN coordinators data on exams but understood that the completion rates would probably not improve due to lack of staff. The team's review of the exam completion data confirmed that the percentage of exams not completed increased by about 4 percentage points after the issuance of the April 2020 memorandum.[55]

As discussed more fully below, although the overall low registry exam completion rate is a systemic, national issue, there was considerable variation among medical facilities reviewed. Some facilities' increased outreach efforts to schedule exams could have contributed to their

[54] VHA memo, "Crisis Standards of Care in VHA during the COVID-19 Pandemic," April 8, 2020.

[55] From May 1, 2014, through April 8, 2020, 84 percent of veterans who had expressed an interest in an exam had not received one (106,767 of 125,357). From April 8, 2020, to November 30, 2021, 88 percent of veterans who had expressed an interest in an exam had not received one (21,799 of 24,788). See VHA's technical comment 14 on page 50.

completing more than other facilities. Registry exams may address veterans' concerns and can inform and support VHA's future studies.[56] However, several factors contributed to the low completion rate of registry exams. The program office did not

- ensure the questionnaire was clear and veteran-centric,
- communicate to VHA leaders responsible for VISNs that medical facilities need to conduct scheduling outreach as backlogs mounted,
- ensure guidance included key definitions and provisions for areas such as "veteran request" and exam start timeline or communicate to VISN and medical facility directors the numbers of exam requests and lack of completions, and
- ensure information systems contain accurate data (including zip code fields, site codes, and veteran transfers to another VA facility) and support the management of the registry.

The Program Office Did Not Ensure the Registry Questionnaire and Exam Scheduling Process Were Clear and Veteran-Centric

The team found the registry questionnaire contained confusing exam scheduling instructions. As of January 2022, before veterans start the questionnaire, a statement appears on the registry's home page that directs them to contact their local environmental health coordinator to schedule their exams at their convenience. However, toward the end of the 140-question form, veterans are asked if they would like to see a Department of Defense (DoD) or VA healthcare provider to discuss their health concerns related to airborne hazards during deployment.[57] Then, veterans are asked in the following section to provide information regarding their contact preference, such as via email or phone. The sequence and proximity of these questions on the questionnaire appears to have created a misperception among some veterans that a VA representative will contact veterans to schedule an exam.

Although there is a statement on the registry home page that informs veterans how to schedule their exams, they are not reminded to do so upon completion of the questionnaire. In addition, veterans are not informed completion of the questionnaire indicating interest in an exam does not constitute an alternative means to make a "request." The questionnaire may take a veteran up to an hour to complete, potentially resulting in survey fatigue.[58] Then, as figure 4 shows, veterans must open the participation letter to receive additional exam scheduling instructions—which may not be obvious, as the title of the letter does not mention scheduling.

[56] See VHA's technical comment 4 on pages 45 and 46.

[57] The DOD performs registry exams for service members while the VA performs registry exams for veterans.

[58] NASEM assessment. Survey fatigue occurs when survey respondents become bored, tired, or uninterested in the survey and begin to perform at a substandard level.

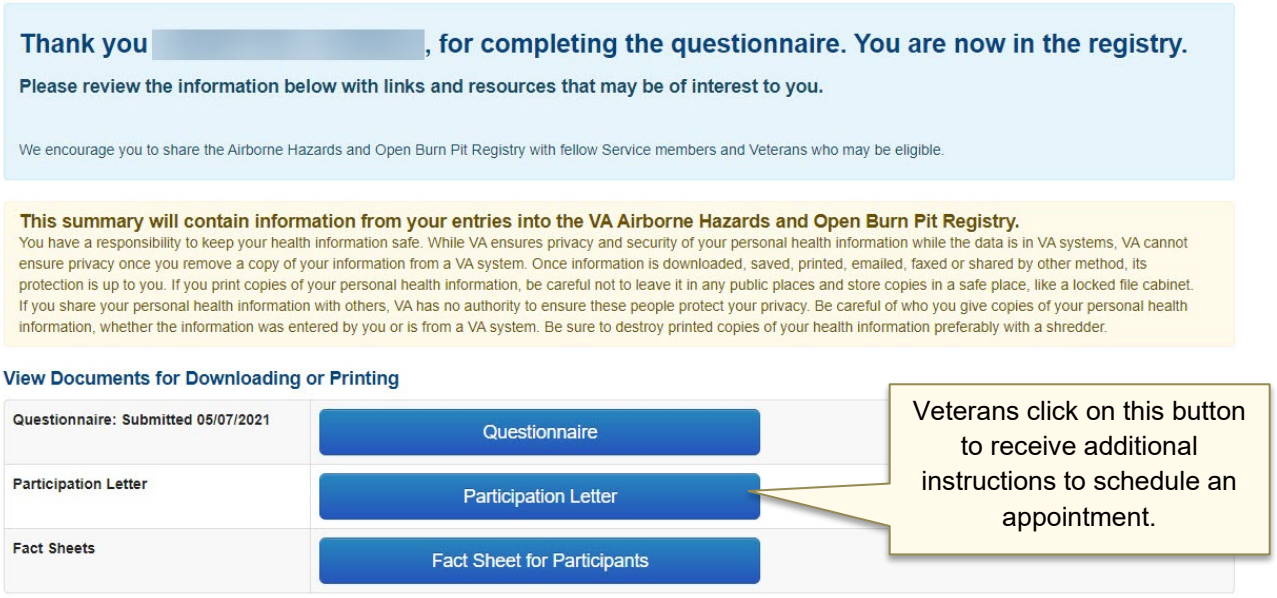

Figure 4. *Final page of the airborne hazards and open burn pit registry questionnaire.*
Source: Airborne hazards and open burn pit registry questionnaire training site. Visual walk-through provided by the program office director.
Note: Comment bubble added by the OIG review team.

The participation letter includes a hyperlink to a VHA website, from which the veteran selects another link to view a list of the environmental health coordinators at the medical facilities. In addition, if veterans enter their address in the questionnaire (which is not required), then the program office mails them a physical copy of the participation letter. In August 2021, during this review, the director of the program office stated the office updated the physical participation letter sent to veterans to include additional information about registry participation, research, and enrolling in VA health care.[59] Some veterans may not understand that they need to read the participation letter, and those who do not enter their address will not receive the physical letter that explains the scheduling process.[60] Program officials acknowledged that some letters have been returned, and veterans' addresses from the registry questionnaire may not always be current. In addition, veterans may not be aware that they need to update their addresses to receive information, and medical facilities cannot update addresses within the registry system.

In VHA's technical comments to the OIG, program officials stated they considered auto-generated emails containing the participation letter information to be a valuable component of the registry because personal email addresses tend to remain more consistent than physical addresses, allowing the program office to continue communicating important updates to

[59] According to program officials, veterans have been sent a physical copy of the participation letter since the inception of the registry when an address is provided.

[60] See VHA's technical comment 1 on pages 43 and 44. The OIG added additional information in the next paragraph.

registrants even after they have moved. However, after communicating with its Office of Information and Technology partners, VHA determined it was not sending an automatically generated email to all veterans who completed the questionnaire.[61]

Program officials also informed the review team that they received feedback from veterans stating they were confused about the scheduling process. In interviews with the team, VISN and medical facility staff confirmed that some veterans appeared confused by the registry's guidance on scheduling the exams.

- The environmental health clinician for VISN 22 VA Desert Pacific Healthcare Network stated that some veterans who indicated they would like an exam on the questionnaire were not contacting facilities to request an exam. She stated that when her facilities reached out, some veterans who expressed interest in an exam two or three years ago indicated dismay that it took so long for VHA to get in contact with them.
- The former environmental health coordinator at the VA Eastern Colorado Health Care System facility stated that when he followed up with veterans regarding their registry exams, they often commented, "Why did you take so long?"
- The acting chief responsible for airborne hazards and open burn pits registry exams at the Fayetteville VA Coastal Health Care System also stated that sometimes veterans overlook the point of contact. Thus, veterans may think that the medical facility will contact them regarding the requested registry exam.

Veterans who do attempt to schedule an exam can encounter challenges. As discussed in the introduction of this report, NASEM's 2017 assessment cited issues with the questionnaire and recommended VA make it easier for participants to schedule and receive the registry exam. In contrast to the routine scheduling processes, the participation letter directs veterans to contact an environmental health coordinator to schedule their exams. Both the registry home page and the participation letter include a link to a VHA website that links to a list of the environmental health coordinators at the medical facilities. However, the review team found inaccurate contact information for some of these coordinators.[62] This occurred when medical facilities did not notify the VISN environmental health coordinator or program office of staffing changes for the

[61] The OIG did not make the change requested in VHA's technical comment 1 on pages 43 and 44, which indicated an automatically generated email is also sent to all registry participants. After the review team followed up with the program office, a program official stated an email is only issued to veterans who require an eligibility determination. For example, for some veterans, electronic systems may not have all the necessary data about their location(s) or dates of service; as such, the program office must take additional steps to determine their eligibility. If the office deems the veteran eligible, then staff send the email on page 44 and the veteran may finish the registry process online.

[62] The review team informed the program office of the need to update the contact information.

environmental health coordinator position as required.[63] The incorrect information may have deterred or prevented veterans from having their exams scheduled, and the website does not provide information for what steps veterans should take if the contact information is invalid or they do not receive a response.

In addition, program office staff informed the team that veterans who tried to schedule their registry exams may have been told that the facilities did not perform that exam. The team could not determine the number of veterans who called to try to schedule an exam because this information is not tracked in any VA system. Other veterans informed the program office that while they received exams, the providers were not familiar with the specific airborne hazards and open burn pit exams.[64] A management analyst reported that some veterans may have received the incorrect exam. The review team found instances in which the veteran did not receive the registry exam and the clinician indicated the veteran received a Gulf War exam instead.

At one facility, a clinician indicated a registry exam was not necessary if a Gulf War exam had already been completed. A clinician at another facility informed the team he believed the Gulf War and airborne hazards and open burn pit registry exams were the same. The latter two assertions are incorrect. As previously indicated, the Gulf War and airborne hazards and open burn pit registry exams are not interchangeable. Although some information on health conditions in the registries overlap, the Gulf War registry addresses a broader range of exposures and conditions, while the airborne hazards and open burn pit registry focuses more on the length and proximity of exposure to specific types of hazards. Furthermore, if a veteran receives a Gulf War exam, this information is not automatically provided to the registry researchers addressing burn pit issues.

Medical Facilities That Voluntarily Conducted Outreach to Schedule Exams Had Higher Completion Rates

Because VHA placed the burden on veterans to schedule their own registry exams, medical facilities are not required to perform scheduling outreach to veterans who indicated on the questionnaire that they wanted an exam.[65] However, program and facility staff indicated in

[63] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

[64] Program office staff include the director of the program office, a management analyst, and a prior program manager.

[65] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

interviews that some veterans who indicated an interest on the questionnaire might expect medical facilities to contact them regarding scheduling. Program staff stated that the office had recommended multiple best practices to facility coordinators, including the use of registry data to conduct outreach. Further, program staff noted that facilities that established scheduling outreach programs (calling or emailing the veterans to schedule the appointments) performed the most exams. As such, the review team noted a variance in exam completion at both the VISN and facility levels. Of the 18 VISNs, the VA MidSouth Healthcare Network (VISN 9) had the highest completion rate of 30 percent (about 1,600 of 5,400).[66] In contrast, the South Central VA Health Care Network (VISN 16) had the lowest exam completion rate of about 3 percent (about 200 of 7,100).

Appendix C provides additional details on VISN exam requests and completions. The team used this information in selecting the five VISNs and facilities to address for this review. Information was available for 129 of the 141 VHA facilities. The team found material differences in exam completion rates among the 129 medical facilities and between facilities within the same VISN.[67] Twenty-two facilities had conducted about 1 percent or less of their registry exams; of these, two facilities had not conducted any registry exams.

Of the five facilities the team selected to review, two facilities had completion rates among the top 15 facilities nationwide: Eastern Colorado VA Health Care System, located in Aurora, and the Beckley VA Medical Center, located in West Virginia. These VA medical facilities showed how a proactive approach led to more veterans receiving exams.

Example 1

In spring 2019, the Eastern Colorado VA Health Care System's newly appointed environmental health clinician learned that the facility had not performed exams for about 3,000 veterans who had indicated they wanted an exam on the questionnaire. Environmental health staff subsequently made a concerted effort to reach out to these veterans. According to the former environmental health coordinator, staff completed attempts to reach all the veterans on their list. Some veterans were scheduled for an exam, while others declined to have an exam, moved, or could not be reached. As of November 30, 2021, staff had conducted 32 percent of the exams for these veterans. Since spring 2019, staff have been making up to two phone calls and sending one letter to try to schedule registry

[66] The VISN and medical facility registry data does not include the 14,200 veterans that were not assigned to them due to zip code errors.

[67] Facilities' completion rates ranged from less than 1 percent to almost 49 percent. As seen in table C.1, exam completion rates varied by up to 27 percent between VISNs.

exams for all veterans in their area who have completed the questionnaire. Staff document their efforts in a local Excel spreadsheet.

Despite the program office's role in developing and coordinating airborne hazards and open burn pit registry activities, such as establishing policies and procedures for VISN and medical facilities, the program office's chief consultant stated that it did not include scheduling outreach in the VHA policy because she believed that each facility had different abilities to allocate resources.[68] Of the five sites the team reviewed, three facilities exhibited below-average completion rates, and two of these—the VA Long Beach Healthcare System in California and the Columbia VA Health Care System in South Carolina—have taken no action to conduct outreach to veterans who indicated they were interested in registry exams.

Example 2

As of June 2021, environmental health staff at the VA Long Beach Healthcare System had not reached out to 601 veterans who had indicated they wanted an exam on the questionnaire. The environmental health coordinator stated that she does not have time because her role is a collateral duty.

The OIG acknowledges that factors in addition to outreach, such as staffing and the number of veterans served, may have contributed to the different registry exam completion rates. Nonetheless, VHA should consider whether increased outreach can be supported to improve exam completion rates.

The Program Office Should Improve Veteran Request and Timeline Guidance and Provide Backlog Data to VHA Leaders

Although the program office has taken steps to improve the registry exam process, additional actions are warranted. For example, in August 2019, the program office issued a directive that medical facilities are required to conduct a registry exam within 90 days of the veteran's request.[69] However, the directive does not clearly define a "veteran request" and the start date of the 90-day timeline. The director of the program office initially stated that the 90 days started when the veteran called to schedule the examination. During remote interviews, medical facility staff had different interpretations of the start date—either when veterans called to schedule the

[68] The program office's chief consultant stated she has worked for VA since 2016 and became the chief consultant in 2019. Prior to that, she was the deputy chief consultant.

[69] VHA Directive 1307. VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

examination or when veterans submitted a completed questionnaire indicating they wanted an exam.

After the review team followed up to gain clarification, the director of the program stated that the 90 days begins when veterans submit completed questionnaires indicating they want exams. The program office uses this date to monitor facilities' progress and completion rates, then reports these metrics to VISN staff. Program officials also monitor the number of veterans who indicated interest in an exam on the online questionnaire and the number of exams performed by VISN. Prior to the COVID-19 pandemic, the program office conducted conferences to educate environmental health staff on their roles and responsibilities in completing registry exams.

Starting in May 2020, the program office began disseminating program information monthly to environmental health staff at the VISNs to show the number of accumulated exams assigned to their facilities so they could encourage facility staff to follow up with veterans to schedule exams. The chief consultant decided not to share this information with VISN or medical facility directors; she believed facilities could increase the number of exams performed by educating the environmental health staff on their roles and responsibilities.[70] The program hosts quarterly meetings with VISN and medical facility environmental health staff to discuss environmental health program topics, which may include the facilities' progress in completing registry exams, updates, and any related issues.

The program office affirmed it does not have the authority to make VISNs and facilities address the backlog of exams, such as requiring them to conduct scheduling outreach, and thus it is up to the VISNs and facilities to complete registry exams. Most of the VISN and medical facility directors the review team interviewed were unaware of the number of exams their facilities had not completed. For example, a VISN director said it would be helpful for the program office to contact him to obtain perspective as to how well his VISN is doing. He also suggested that the program office share its performance data, meet quarterly or monthly until the backlog is down, develop organizational targets to work toward, and share data and best practices nationally.

While the OIG recognizes the program office's efforts to reach out to environmental health staff, including environmental health clinicians and coordinators at the facilities and VISNs, program office officials acknowledged they delayed communications with the VISN and facility directors. They attributed the delay, in part, to the pause in exams for the safety of veterans and staff during the pandemic and the shift of environmental health staff to pandemic-related duties.[71]

In September 2021, more than seven years after the inception of the registry, the program office held its first meeting with the former assistant deputy under secretary for health for operations

[70] This report refers to environmental health staff as the individuals who have responsibilities pertaining to providing airborne hazards and open burn pit registry exams. Depending on the facility's structure, these individuals may be in compensation and pension, primary care, or environmental health service departments.

[71] See VHA's technical comment 2 on pages 44 and 45.

and VISN representatives to discuss the airborne hazards and open burn pit registry. The chief consultant stated she had not previously shared the number of accumulated registry exams with the deputy undersecretary for health, as she thought this information could reflect negatively on the VISNs, which would be counterproductive to ensuring the completion of the exams. During the meeting, the program officials emphasized that the airborne hazards and open burn pit registry is the fastest growing and most visible registry in VA. The program officials encouraged the VISNs to engage with their environmental health coordinators about registry exams. The program office focused on the top 10 facilities that have performed the most registry exams.

As of September 2021, the program office did not track when veterans contacted medical facilities to schedule exams. In addition, environmental health coordinators were not required to document scheduling attempts by veterans. The program office told the review team it was considering establishing a tracking mechanism for when veterans call in, but the mechanism would only be for veterans joining the registry going forward. In addition, the chief consultant indicated that the program office had not presented VISN and medical facility directors with a comprehensive picture of the number of registry exams that have not been conducted. Without this information, they cannot develop effective strategies and action plans to address this growing problem of low completion rates at both local and national levels.

Of note, VISNs and medical facilities can run reports on individual participants and other registry data for their facilities and VISNs using the Veterans Integrated Registries Platform.[72] However, only two of the facilities reviewed ran these reports. Despite this data source, VISN and medical facility directors expected guidance and data from the program office. As such, they are not well-positioned to achieve program objectives.

While discussing the draft report with the program office in March 2022, program office officials acknowledged the registry's operations could be improved but noted the airborne hazards burn pit registry was VHA's first online registry. They noted that it was not standard practice with the Agent Orange and Gulf War registries to conduct outreach to schedule exams. Medical facilities also provided feedback that they had limited resources and veterans did not always show for the exams after they reached out to veterans to schedule the exams. Furthermore, the program office stated despite prolonged staff shortages and turnover since the registry's inception, it worked extensively with VISN and medical facility environmental health staff to educate them on their roles and responsibilities and to encourage them to perform scheduling outreach. Thus, the program office expected VISN and facility environmental health staff to brief their leaders on the number of exams their facilities had yet to complete, and VISN and medical facility leaders to be aware of the importance of the exams given all the attention airborne hazards and burn pit exposure had received in the media and from Congress.

[72] The Veterans Integrated Registries Platform is an information technology solution that houses registry information.

Information System Enhancements Are Needed to Ensure Facilities Have Accurate Registry Data

VHA has not implemented effective information systems to ensure the airborne hazards and open burn pit registry data are accurate.[73] Without quality information, the program office and leaders may not be able to evaluate performance or make informed decisions to achieve stated goals. As previously indicated, the program office provides the VISNs with a monthly report summarizing registry data. However, the review team identified national data integrity issues. The report did not include information on the approximately 14,200 veterans who indicated on the questionnaire that they were interested in receiving an exam but had not yet received one. This occurred because the automated zip code file the system used to sort and assign veterans who indicated interest in exams to medical facilities was outdated and missing zip codes. Thus, these veterans were not accounted for in medical facility exam completion rates. Further, medical facilities could not reach out because they were not aware of these veterans. The program office informed the team in July 2021 that it is working on correcting this issue.

There was another instance of inaccurate registry data. For 12 facilities, no completion data were available; the data were erroneously included within other medical facilities' data.[74] This data issue occurred because of a discrepancy with the station identification numbers used to describe the workload associated with individual medical facility sites of care. This resulted in completion data for the other medical facilities being incorrect.[75] Consequently, managers at all levels could not evaluate the performance of exams at these 12 facilities and were not able to perform any root cause analyses to identify remedial actions. As of August 2021, the program office was collaborating with information technology staff to address the combined registry data issue.

Further, the review team determined that some facilities did not always have all relevant data to support scheduling veterans. In 2019, the program office established a "flagging system" within the Veteran Integrated Registry Platform. Environmental health staff can use this system to document outreach efforts and outcomes. They may flag veterans' records with information such as accepted, declined, and did not reach. Use of this system is optional; the team found that only one of the five facilities reviewed used the flagging system. The other four facilities' lists do not reflect which veterans accepted or declined exams.

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[73] Government Accountability Office (GAO), *Standards for Internal Control in the Federal Government*, GAO-14-704G, September 2014. Management should use quality information to make informed decisions and evaluate performance in achieving key objectives and addressing risks.

[74] For more on the 12 facilities and their 141 VHA "parent" facilities, see appendix B.

[75] See VHA's technical comment 5 on pages 47. When VHA provided the review team with medical facilities' summary data, it did not include the count of exams conducted at the 12 facilities. In the technical comment, VHA indicated medical facilities in some VISNs completed exams for veterans who appeared to reside outside the VISN area; VHA stated they counted these exams separately. However, as VHA did not provide the separate exam data for the 12 facilities, the review team was unable to validate this assertion.

Finally, the program office has not established an official mechanism or procedure for transferring veterans to another medical facility in instances where the veteran has been assigned to the incorrect facility or has moved closer to another facility. According to a program office staff assistant, facilities are supposed to contact each other to transfer the veteran, or one facility may tell the veteran to just contact the other facility. Even if the facilities coordinate the transfer of the veteran, the system still indicates that the veteran is at the original facility because the coordinators cannot update the veteran's address. This inaccuracy limits managers' visibility regarding the actual number of assigned veterans for which their facilities are responsible.

VHA Is Taking Steps to Improve the Registry Exam Process, but Additional Efforts Are Needed

According to the program office, several factors contributed to the accumulation of incomplete exams for veterans who indicated they wanted an exam on the questionnaire. The office cited high turnover of environmental health staff at the medical facilities and stated it has been difficult to provide training and education consistently, as these positions are often assigned as a collateral duty, resulting in competing priorities. The chief consultant also acknowledged that this "scheduling model" is ineffective.

VA's 2019 Environmental Health Registry Survey Report results confirmed that many environmental health programs would benefit from central control, more oversight, decreased variance, and more training.[76] To address these issues and ease the burden on medical facilities with scheduling and coordination efforts, the program office is establishing the Veteran Environmental Team Health Outcomes Military Exposure (VET-HOME) call center. Program officials state VET-HOME will not alleviate all scheduling and exam efforts at the facility level, but will supplement the existing registry process. As of September 2021, the VET-HOME program funding had been approved and the chief consultant anticipates implementing a pilot program beginning in October 2022.

VET-HOME staff will answer calls and address veterans' environmental health concerns.[77] However, the burden is still on a veteran to call and request an exam—no initial scheduling outreach will be conducted. Veterans who contact VET-HOME for scheduling are expected to attend a telehealth examination. Then, if the clinician deems it to be necessary, veterans will receive a physical, in-person exam with additional testing. Veterans who want an in-person exam

[76] VA Healthcare Analysis & Information Group, Post Deployment Health Services, Office of Patient Care Services, "2019 Environmental Health Registry Survey Report," October 2019.

[77] VHA's six environmental health registries include Agent Orange, airborne hazards and open burn pit, Gulf War, ionizing radiation, depleted uranium, and toxic embedded fragment surveillance center.

may still schedule it with their medical facilities. According to VHA officials, telehealth has "dramatic potential" to improve registry exam access for veterans.[78]

Although the OIG recognizes the potential benefits of having a centralized call center and increasing access to telehealth examinations, VHA leaders may want to consider possible effects of separating the telehealth and in-person portions of the exam. For example, researchers at the Center of Excellence expressed concerns to the review team about being able to obtain all relevant data, including the results of physical tests, to use for research. Program officials, however, stated that the risk of missing vital information by not conducting a thorough physical exam is mitigated by the requirement that the telehealth clinician conduct a records review.

The program office should collaborate with research staff at the Center of Excellence to ensure that exams performed through the VET-HOME process are conducted and captured in a way that is meaningful for research purposes. The researchers informed the team that a standardized, thorough exam conducted at the facility level could provide additional comprehensive information for research. Before implementing VET-HOME, VHA should consider addressing the potential issues discussed in this report. As VET-HOME has not yet been implemented, the OIG is not making a recommendation at this time about the call center.

Of note, in August 2021, VA established presumptive service connection for three chronic respiratory health conditions applicable to veterans with a qualifying period of service.[79] Subsequently, the number of veterans indicating they would like an exam increased. During the review period, an average of 1,400 veterans a month indicated interest in an exam; in August, this number increased to about 3,300. With the implementation of VET-HOME, VHA has an opportunity to better serve the increasing number of veterans who are interested in registry exams.

Conclusion

The OIG found VHA has not completed most airborne hazards and open burn pit registry exams for veterans who have reported an interest in receiving them. In addition to the questionnaire being difficult to complete, the onus is on veterans to schedule their exams. VA medical facilities are not required to conduct outreach. Further, despite the mounting backlog, the program office has not provided effective guidance for facilities and communicated with VISN and medical center directors to help ensure completion of more exams. Finally, the registry systems contain

[78] VA and DOD, *Joint Incentive Fund (JIF) Proposal Business Case Preparation Guide*, ver. 2.1, January 12, 2021. Telehealth would also effectively eliminate several obstacles to in-person appointments, such as travel distance, inclement weather, and COVID precautions. The dramatic potential for telehealth to improve access is illustrated by Eastern Colorado, which used telehealth to complete over 1,500 registry exams over the last two years despite a wide geographic catchment area, multiple winter storms, and COVID restrictions on in-person exams.

[79] See appendix A for additional background information about presumptive conditions and registry eligibility.

inaccurate data, hindering facilities' ability to see all requested registry exams and manage the workload.

Although VHA staff have taken steps to advance veterans' interests by improving the airborne hazards and open burn pit registry process, most veterans who expressed interest in an exam have not received one. As previously discussed, while VET-HOME may help alleviate some scheduling issues, the process is still not veteran-centric.[80] Further, VHA may be missing opportunities to inform and support future studies.[81] Also, unscheduled veterans are missing opportunities to discuss risks with VA providers, who may be able to identify medical conditions earlier, leading to improved healthcare outcomes. Finally, registry exams may support veterans' claims for possible entitlement to VA compensation for exposure to airborne toxins.

Recommendations 1–7

The OIG recommends that the under secretary for health take the following actions:[82]

1. Ensure the program office and VA's Office of Information and Technology work together to revise the questionnaire to make it clearer and easier for veterans to more quickly complete the questionnaire and schedule exams.
2. Improve controls to ensure the registry website maintains accurate contact information for environmental health coordinators.
3. Assess the feasibility of veteran-centric guidance that assigns medical facility follow-up responsibilities and identifies processes for determining whether unscheduled veterans with an interest in an exam still want to be scheduled, and then track responses and completions.
4. Implement a mechanism to ensure medical facilities meet the 90-day timeliness standard for the completion of requested exams, including performance metrics.
5. Ensure Veterans Integrated Service Network and facility environmental health personnel routinely review their performance data and address any challenges with scheduling registry exams with directors.

[80] In VHA's technical comment 6 on page 47, it requested the OIG revise this sentence and states that VET-HOME was not evaluated by the OIG and asserts this statement threatens to damage the program prior to its rollout. The OIG acknowledges VHA's position that VET-HOME is a new program that is expected to improve registry exam completions. However, the OIG did not revise the statement because VET-HOME will not remove the burden on veterans to schedule their exams or address the need discussed in recommendation 3 for VHA to conduct outreach and follow-up with veterans who expressed an interest in an exam.

[81] See VHA's technical comment 4 on pages 45 and 46.

[82] The recommendations addressed to the under secretary for health are directed to anyone in an acting status or performing the delegable duties of the position.

6. Ensure the program office reviews registry exam data and continues to work with VA's Office of Information and Technology to ensure all facilities and veterans are included and properly coded.
7. Establish procedures for medical facilities to transfer assigned veterans to receive an exam at a closer facility or as otherwise appropriate.

VA Management Comments

The deputy under secretary for health, performing the delegable duties of the under secretary for health, concurred with all the report's findings and recommendations and submitted action plans for recommendations 1 through 7. Appendix D provides the full text of the under secretary's comments.

In response to recommendation 1, the program office, in collaboration with the VA Office of Information and Technology, will outline the registry process and identify touchpoints that require change, resources required to complete the revision, and a timeline for revising the questionnaire.

For recommendation 2, the program office will update the environmental health coordinator roster and corresponding website monthly.

For recommendation 3, the program office will track exam requests and completions by facility and VISN and provide monthly data updates to the VISN and VHA leadership. The program office will also update VHA field guidance to specify how facilities obtain data on assigned veterans requesting an exam and how facilities proactively reach out to veterans to assess continued interest and schedule the exam. Furthermore, the program office will provide facility and VISN staff training.

In response to recommendation 4, the program office will establish and disseminate performance metric expectations for meeting the 90-day timeliness standard to VHA facility and VISN leadership. The program office will also provide baseline performance data by facility and VISN to VISN leadership and environmental health clinician and coordinator leads monthly.

For recommendation 5, the program office will provide training to facility and VISN staff on how to access data and contact information for veterans who requested exams through the questionnaire. The program office will track exam requests and completions by facility and by VISN and provide consultation to VISN leads when facilities are demonstrating challenges in completing their exams.

For recommendation 6, the VHA Patient Care Services program office will establish a reporting structure for an information technology specialist who will be assigned to ensure facilities and veterans are included and properly coded.

In response to recommendation 7, the program office will add expectations and clarify procedures for determining correct veteran assignment and transferring veterans to another facility.

OIG Response

The deputy under secretary for health, performing the delegable duties of the under secretary for health, concurred with the OIG's recommendations and submitted responsive action plans. Appendix D provides the full text of the under secretary's comments. The OIG will monitor the implementation of the recommendations until all stated actions are documented as completed. The OIG did not agree with technical comments 1, 6, and 7, and added text or footnotes to the report explaining why it did not make the changes.

VHA requested in technical comment 1 that the OIG note an automatically generated email was sent to all registry participants informing them they were responsible for scheduling exams. However, VHA could not provide evidence to show this occurred, and a program official confirmed after additional follow-up with the Office of Information and Technology that an email reminding veterans they were responsible for scheduling exams was not generated and sent to all registry veterans.

VHA requested in technical comment 6 that the OIG revise the statement in the report, "VET-HOME may help alleviate some scheduling issues but the process is still not veteran-centric." VHA states that VET-HOME was not evaluated by the OIG and asserts this statement threatens to damage the program prior to its rollout. The OIG acknowledges VHA's position that VET-HOME is a new program that is expected to improve registry exam completions. However, the OIG did not revise the statement because VET-HOME will not remove the burden on veterans to schedule their exams or address the need discussed in recommendation 3 for VHA to conduct outreach and follow-up with veterans who have expressed an interest in an exam.

In technical comment 7, VHA requested the OIG add information about the multiple reasons why veterans may not have completed the questionnaire and that revisions to the questionnaire may improve the response rate. The OIG did not add this information to the report because VHA did not provide any support for these statements and the OIG did not evaluate the questionnaire response rate as part of this review.

For technical comments 2, 3, and 5, the OIG added requested clarifications and information from the technical comments when it could be supported based on the OIG's review work and when the information was not presented elsewhere in the report. For these technical comments, the OIG clarified that communication needed to be improved specifically with the VISN and medical facility directors, instead of at all levels of management; agreed with VHA that a contract start date needed to be revised; and removed the term "inflated" from the description of the errors in the exam workload because VHA thought it could be interpreted that the medical

facilities had purposely inflated the data. The specific reasons why the OIG did not add information from the technical comments are discussed in the footnotes of the appropriate report sections.

The OIG generally agreed with technical comments 4, 8, 9, 11, 12, 13, 14, 15, and 16 and incorporated requested clarifying information in the report text and footnotes where appropriate.[83] The OIG did not address technical comment 10 as it conflicts with the OIG's style guide.

[83] VHA's technical comments are in appendix D.

Appendix A: Information Relevant to Airborne Hazards and Open Burn Pits

Information	Source
From about 1990, the US military has used **large burn pits to dispose of waste** when there were no feasible alternatives. **The burned waste products included** plastics, metal and aluminum cans, rubber, chemicals, munitions, and medical and human waste products. **Areas of potential airborne hazards and open burn pit exposure** include Afghanistan, Djibouti, and the Southwest Asia theater of operations, which includes Iraq, Kuwait, Saudi Arabia, the neutral zone between Iraq and Saudi Arabia, Bahrain, Qatar, the United Arab Emirates, Oman, the Gulf of Aden, the Gulf of Oman, the Persian Gulf, the Arabian Sea, the Red Sea, and the airspace above these locations.	**Institute of Medicine** "Long-term health consequences of exposure to burn pits in Iraq and Afghanistan," Institute of Medicine, accessed January 28, 2022, https://www.vetshq.com/wp-content/blogs.dir/files/sites/11/2013/10/IOM-Long-Term-Consequences-of-Exposure-to-Burn-Pits-in-Iraq-and-Afghanistan-10312011.pdf. *Note*: *NASEM was formerly known as the Institute of Medicine.*
An open burn pit is an area of land located in any of these areas used for solid waste disposal by burning in the outdoor air without a commercially manufactured incinerator or other equipment designed for that purpose.[84] To qualify, veterans must have served in the Southwest Asia theater of operations on or after August 2, 1990, or Afghanistan, Syria, Djibouti, or Uzbekistan, on or after September 19, 2001.[85]	**VHA** VHA Directive 1307, *Airborne Hazards and Open Burn Pit Registry*, August 19, 2019.[86]
Particulate matter contains microscopic solids or liquid droplets that can be inhaled and cause serious health problems.	**VA** "US Environmental Protection Agency," Environmental Protection Agency, accessed January 28, 2022, www.epa.gov/pm-pollution/particulate-matter-pm-basics.
Presumptive disability relieves veterans of the burden to prove that a disability or illness was caused by a specific exposure that occurred during military service. If a presumptive disability is diagnosed for a veteran or group of veterans, they can be awarded compensation.	**Congressional Research Service** "Veterans Affairs: Presumptive Service Connection and Disability Compensations," Congressional Research Service, accessed October 04, 2021,

[84] Establishment of Open Burn Pit Registry, Pub. L. No. 112-260, § 201(c)(2), 126 Stat. 2422 (2013). See VHA's technical comment 15 on page 50.

[85] Presumptive Service Connection for Respiratory Conditions Due to Exposure to Particulate Matter, 86 Fed. Reg. 42724-42733 (August 5, 2021). VA expanded eligibility locations to include Syria and Uzbekistan and changed the effective date from September 11, 2001, to September 19, 2001, on August 5, 2021.

[86] VHA rescinded this directive and issued a combined registry directive: VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. Both directives contain similar language regarding the requirements for coordinators and the scheduling process. The review team determined VHA's issuance of Directive 1308 did not impact the report's findings, conclusions, and recommendations.

Information	Source
	https://crsreports.congress.gov/product/pdf/R/R41405.
The **respiratory conditions for presumptive service connection** due to exposure to particulate matter are asthma, sinusitis, and rhinitis.	**Federal regulation** Presumptive Service Connection for Respiratory Conditions Due to Exposure to Particulate Matter, 86 Fed. Reg. 42724 (August 5, 2021).
Spirometry is a test used to measure how much air is inhaled and exhaled, and the rate of exhalation. It is used to diagnose asthma, chronic obstructive pulmonary disease, and other breathing conditions.	**National Center for Biotechnology Information** "Spirometry," National Center for Biotechnology Information, National Institutes of Health, accessed November 16, 2021, www.ncbi.nlm.nih.gov/books/NBK560526/.

Source: VA OIG analysis.

Appendix B: Scope and Methodology

Scope

The review team conducted its work from July 2021 through March 2022 to evaluate VHA's management of the airborne hazards and open burn pit registry exams, including the timeliness of their provision to interested veterans. The review focused on 125,357 veterans within the national registry data who had joined the registry from May 1, 2014, (about the time VHA began gathering registry data) to November 30, 2021, and indicated interest in an exam through the online registry questionnaire.[87]

Methodology

To gain an understanding of the airborne hazards and open burn pit registry, the review team identified and reviewed applicable laws, regulations, VA policies, standard operating procedures, and guidelines related to the registry, associated research, and exams. The team also interviewed program office managers to evaluate the implementation of the registry and communication of guidance requirements for facilities to conduct registry exams, as well as oversight and monitoring of conducted exams. Interviews were also conducted with researchers at the Center of Excellence to understand the purpose and use of the registry exams.

The OIG's Data Modeling Group helped the review team establish the universe of all veterans who joined the airborne hazards and open burn pit registry and requested an exam at one of the 129 medical centers with registry data, and assess and analyze national data from the airborne hazards and open burn pit registry which is stored in VA's Corporate Data Warehouse and Veterans Integrated Registries Platform. Veterans are assigned to a "parent facility" that is responsible for monitoring requests and ensuring veterans receive requested exams.[88] Although VHA identifies 141 parent facilities within its facility complexity model, the program office only monitors 129 parent facilities within the registry database. To stay consistent with the program office's model, the review team used the 129 facilities in its assessment of national data and to statistically sample facilities for virtual site visits.

To mitigate and manage data risk, the review team conducted further data validation testing in addition to initial testing on the national data provided by OIG's Data Modeling Group.

[87] The review universe excludes service members. Veterans who completed a registry exam but had not completed the registry questionnaire were also excluded from the universe.

[88] VHA, *VHA Facility Complexity Model*, as of July 2021. VHA defines "parent facilities" as healthcare point of service locations that are under one administrative leadership team.

The review team also considered ongoing initiatives to determine if those efforts would address the concerns and issues found in this review. This included the proposed VET-HOME business plan and the combined registry directive that was published in March 2022.[89]

Virtual Site Visits and Document Reviews

The review team statistically selected five VHA medical facilities from a universe of 129 facilities that the program office monitors. The team conducted virtual site visits for those five facilities to examine how the airborne hazards and open burn pit registry exams were implemented.[90] The medical facilities were selected based on the facilities' volume of registry exams requested by veterans and the facilities' exam completion rates.[91]

The review team conducted the virtual site visits from August 9–19, 2021, at three of the five selected facilities:[92]

- VA Eastern Colorado Health Care System in Aurora
- Fayetteville VA Medical Center in North Carolina
- VA Long Beach Healthcare System in California

The work included interviewing environmental health clinicians, environmental health coordinators, physicians conducting registry exams, and facility and network directors to understand the implementation timelines, challenges, and the completion of registry exams at medical facilities.

To further inform the findings, the review team analyzed materials and responses from the remaining two selected medical facilities:

- Beckley VA Medical Center in West Virginia
- Columbia VA Health Care System in South Carolina

[89] VHA Directive 1308, *Health Outcomes Military Exposures Registry Programs*, March 25, 2022. See VHA's technical comment 16 on page 50.

[90] A stratified random sample approach was applied based on a design precision of 2.2 percent of the number of exams, a 90 percent confidence level, and an expected error rate of no more than 10 percent of the total number of exams.

[91] Completion rate is defined by the number of exams conducted divided by the number of veterans who indicated interest in an exam on the questionnaire.

[92] Due to the constraints of the COVID-19 pandemic, the review team conducted virtual site visits which included video interviews, electronic document requests, and teleconference meetings with program office officials and facilities selected.

Data Reliability

The review team relied on computer-processed data obtained from VA's Corporate Data Warehouse and the Veterans Integrated Registries Platform provided by the OIG's Data Modeling Group. To determine the reliability of this data, the team performed tests to determine if there were any errors, including missing data attributes, calculation errors, duplicate records, alphabetic or numeric characters in incorrect fields, or illogical relationship among data elements.[93] Furthermore, the review team ensured that registry data, including dates, names, and other registry information, matched the electronic health records.

The review team did not identify any data issues, and the team concluded that the registry data were sufficient and reliable to support the review's objective and conclusions.[94]

Data Validation

To mitigate and manage data risk, the review team conducted further data validation testing on the national data provided by OIG's Data Modeling Group in addition to initial data reliability testing.[95]

The team reviewed a statistical sample of 105 veterans within the review universe.[96] The team verified data within the sample by comparing and matching to the original data source, Veterans Integrated Registries Platform, and reviewed the veterans' electronic health records for additional information. For each sample, the team ensured

- dates of completed questionnaires and dates registry exams were performed fell within the review scope (May 1, 2014, to November 30, 2021),
- veteran information matched related source records, and
- supporting documentation for completed exams was within the veterans' electronic health records.

The review team concluded that the national data provided by OIG's Data Modeling Group were reliable, accurate, and complete.

[93] GAO, *Assessing Data Reliability*, GAO-20-283G, December 2019.

[94] The team's initial testing did not identify data issues that would prevent it from achieving the review's objective. Further validation revealed issues discussed in Table B.1, and the review team developed recommendations for the program office to address these issues.

[95] The validation test was aimed to identify errors in the national results data and to determine their significance to the review.

[96] The sample was of a 90 percent confidence level with an expected error rate of no more than 10 percent. Veterans who joined the registry from May 1, 2014, (about the time VHA began gathering registry data) to November 30, 2021, and indicated an interest in an exam through the online registry questionnaire.

Internal Controls

The review team assessed the internal controls of the airborne hazards and open burn pit registry significant to the review objective. This included an assessment of the five internal control components to include control environment, risk assessment, control activities, information and communication, and monitoring.[97] In addition, the team reviewed the principles of internal controls as associated with the objective. The team identified the following two components and four principles as significant to the objective. The team identified internal control weaknesses during this review and proposed recommendations to address the control deficiencies summarized in table B.1.

Table B.1. OIG Analysis of Internal Control Components and Principles Identified as Significant

Component	Principle	Deficiency identified by this report
Control activities	10. Design control activities	The program office lacks a mechanism to monitor and ensure medical facilities conducted registry exams within 90 days from a veteran's request.
	12. Implement control activities	The program office did not issue policy until approximately five years after the registry was implemented. Additionally, policy lacks follow-up responsibilities and processes that should be used to conduct outreach when interested veterans have not scheduled exams.
Information and communication	13. Use quality information	Data contained within the program office's report is incomplete because 14,200 veterans who requested an exam were not assigned to a VA medical facility and the report improperly rolls up information for 12 facilities.
	14. Communicate internally	Program office managers did not communicate to the VISN directors regarding facilities' performance in failing to conduct all requested registry exams.

Source: VA OIG analysis of the internal control components and principles within the GAO Standards for Internal Control in the Federal Government. The principles listed are consistent with the GAO Standards for Internal Control in the Federal Government.

Fraud Assessment

The team exercised due diligence in staying alert to any fraud indicators and did not identify any instances of fraud or potential fraud during this review.

[97] GAO, *Standards for Internal Control in the Federal Government*, GAO-14-704G, September 2014.

Government Standards

The OIG conducted this review in accordance with the Council of the Inspectors General on Integrity and Efficiency's *Quality Standards for Inspection and Evaluation.*

Appendix C: Overview of Airborne Hazards and Open Burn Pit Registry Information by VISN

On average, VISNs conducted 15 percent of the exams during the review period. Figure C.1 provides an overview of the percentage of open burn pit registry exams not completed by VISN.

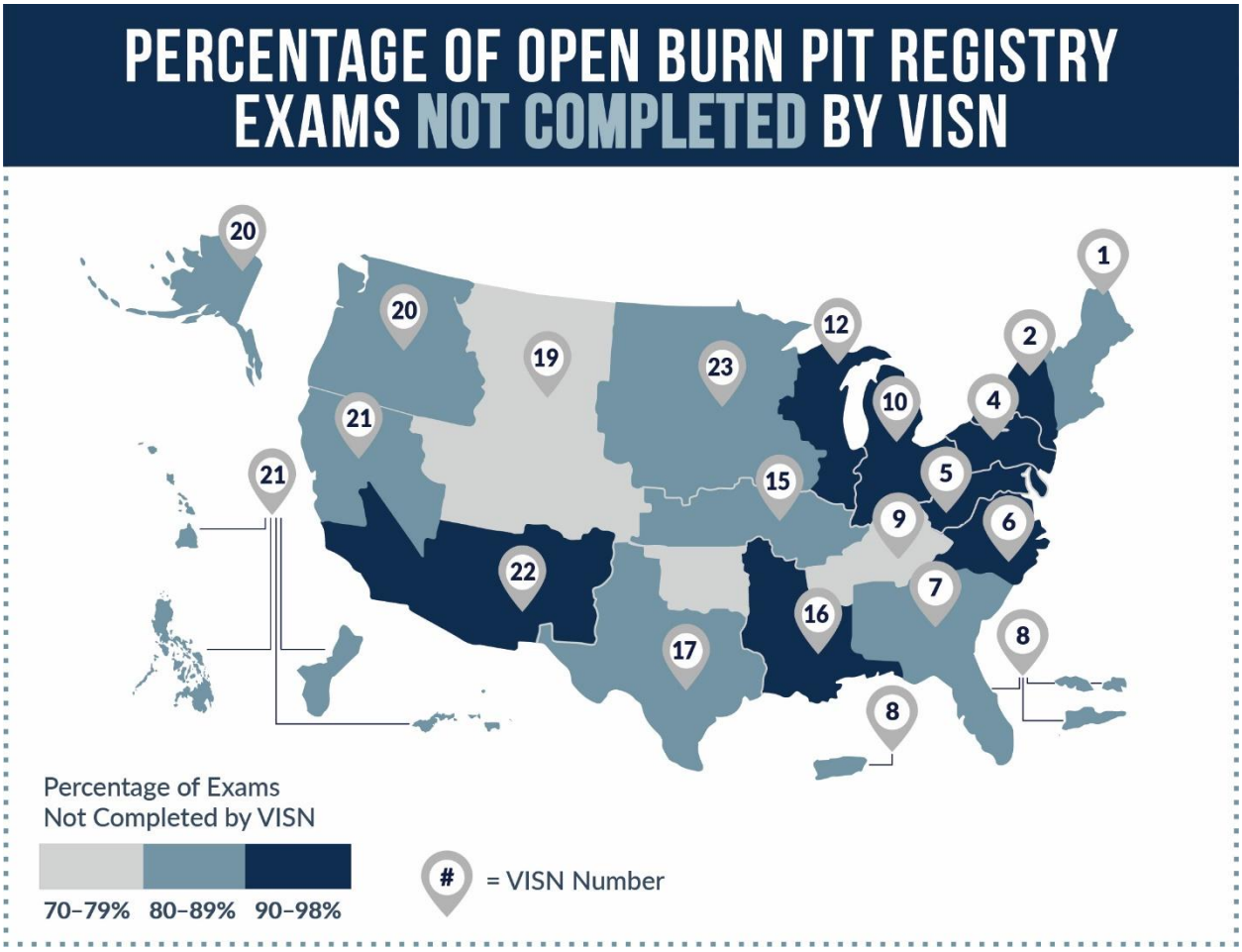

Figure C.1. *Percentage of open burn pit registry exams not completed by VISN.*
Source: VA OIG analysis of data on Airborne Hazard and Open Burn Pit Registry exams, May 1, 2014, to November 30, 2021.

Table C.1. provides an overview of airborne hazards and open burn pit registry exam information by VISN.

Table C.1. Overview of Registry Exam Information by VISN Exam Completion Rates (Lowest to Highest)

VISN name and number	Number of veterans who indicated interest in an exam on the questionnaire	Registry exams conducted	Percent of exams conducted
VISN 16: South Central VA Health Care Network	7,116	216	3
VISN 5: VA Capitol Health Care Network	5,481	188	3
VISN 6: VA Mid-Atlantic Health Care Network	8,420	431	5
VISN 12: VA Great Lakes Health Care System	3,090	190	6
VISN 2: New York/New Jersey VA Health Care Network	4,529	332	7
VISN 4: VA Healthcare - VISN 4	3,617	301	8
VISN 22: Desert Pacific Healthcare Network	8,298	722	9
VISN 10: VA Healthcare System	5,735	589	10
VISN 17: VA Heart of Texas Health Care Network	13,072	1,436	11
VISN 21: Sierra Pacific Network	5,056	558	11
VISN 23: VA Midwest Health Care Network	4,122	572	14
VISN 1: VA New England Healthcare System	3,296	466	14
VISN 20: Northwest Network	4,743	699	15
VISN 7: VA Southeast Network	10,480	1,756	17
VISN 8: VA Sunshine Healthcare Network	8,397	1,626	19
VISN 15: VA Heartland Network	3,601	732	20
VISN 19: Rocky Mountain Network	6,717	1,641	24
VISN 9: VA MidSouth Healthcare Network	5,366	1,624	30
Total	**125,357***	**18,630†**	**13‡**

Source: VA OIG analysis of VHA data as of November 30, 2021.
Note: Unless otherwise noted, the "number of veterans who indicated interest in an exam on the questionnaire" refers to exams for veterans assigned to a facility. "Registry exams conducted" refers to exams for veterans who (1) indicated their interest on the questionnaire, (2) were assigned to a facility, and (3) had an exam at the assigned facility.
** This includes about 14,221 veterans who were not assigned to a facility. However, the VISN registry data is not complete due to these unassigned veterans.*
† This includes about 1,987 exams performed for veterans who were not assigned to a facility and about 2,564 exams performed for veterans who were assigned to a facility but received their exams at a different facility.
‡ This represents the average percentage of exams completed.

Appendix D: VA Management Comments

Department of Veterans Affairs Memorandum

Date: May 17, 2022

From: Deputy Under Secretary for Health, Performing the Delegable Duties of the Under Secretary for Health (10)

Subj: OIG Draft Report, Airborne Hazards and Open Burn Pit Registry Exam Process Needs Improvement (2021-02732-AE-0126) (VIEWS # 5513994)

To: Director, Clinical Care Services (52A04)

1. Thank you for the opportunity to review and comment on the subject Office of Inspector General (OIG) draft report. The Veterans Health Administration (VHA) concurs with the report's seven recommendations and is implementing a rigorous action plan to address all recommendations. VHA also provides technical comments for consideration.
2. VHA remains committed to caring for the illnesses Veterans may have experienced from hazardous military environmental exposures. VHA is implementing a more Veteran-centric system of care in reference to Airborne Hazards and Open Burn Pit Registry (AHOBPR) examinations. Beginning in 2022, VA is piloting the Veterans Exposure Team-Health Outcomes of Military Exposures (VET-HOME). VET-HOME consists of two interconnected parts: an intake/call center for Veterans and providers, and a nationwide network of environmental health specialists. Among other things, VET-HOME will collaborate with Veterans' primary care providers and appropriate specialists to promote the timely diagnosis and optimal treatment of any health conditions related to military environmental exposures. The system is expected to become fully operational in January 2023.
3. In addition, the Department of Veterans Affairs (VA) has established mandatory training for all VHA and Veterans Benefits Administration clinical staff on how to conduct an environmental exposure assessment for Veterans to help identify exposures of concern.
4. VA is also working with the American College of Preventive Medicine and has established a certificate program to enhance the educational curriculum established at VA.
5. Lastly, VHA is working to find answers through the research and review of scientific literature about health consequences of airborne hazards. In 2021, research resulted in three new presumptions for exposure to fine particulate matter: asthma, rhinitis, and sinusitis. Recognizing health concerns go beyond these conditions, VA created a presumption for nine rare respiratory cancers in April 2022, also related to fine particulate matter. Work is continuing to evaluate other medical conditions such as constrictive bronchiolitis and lung cancer to determine if they are associated with airborne hazards.

6. VHA is committed to the continuous improvement of care for Veterans with exposure concerns while renewing efforts to complete the remaining AHOBPR examinations.

The OIG removed point of contact information prior to publication.

(Original signed by)

Steven L. Lieberman, M.D.

Attachments

Attachment 1

VETERANS HEALTH ADMINISTRATION (VHA)

Action Plan

Veterans Health Administration: Airborne Hazards and Open Burn Pit Registry Exam Process Needs Improvement

(OIG 2021-02732-AE-0126)

Date of Draft Report: April 1, 2022

Recommendation 1. The OIG recommended that the under secretary for health ensure the program office and VA's Office of Information and Technology work together to revise the questionnaire to make it clearer and easier for veterans to more quickly complete the questionnaire and schedule exams.

VHA Comments: Concur. The VHA Patient Care Services Program Office agrees that revising the questionnaire will make it clearer and easier for Veterans to more quickly complete the questionnaire and facilitate scheduling exams. To accomplish this goal, the Health Outcome Military Exposures (HOME) Program Office will collaborate with the VA Office of Information & Technology (OIT) to construct a journey map outlining the steps in the registry process, to include the identification of touchpoints that will require changes. The HOME Program Office will also develop and implement a plan of action for the steps and resources that will be required to complete the revision, along with a timeline to track progress towards completion of a revised questionnaire.

Status: In Progress Target Completion Date: June 2023

Recommendation 2. The OIG recommended that the under secretary for health improve controls to ensure the registry website maintains accurate contact information for environmental health coordinators.

VHA Comments: Concur. The VHA Patient Care Services Program Office agrees that maintaining accurate contact information for the environmental health coordinators will improve the management of the registry and facilitate communication for Veterans. To accomplish this, the HOME Program Office will submit a monthly task to the Veterans Integrated Service Network (VISN) Environmental Health Leads requesting the current Environmental Health Coordinators and their contact information. The HOME Program Office will update the Environmental Health Coordinators roster, which will be available on the public Environmental Health Coordinators website (https://www.publichealth.va.gov/exposures/coordinators.asp).

Status: In Progress Target Completion Date: October 2022

Recommendation 3. The OIG recommended that the under secretary for health assess the feasibility of veteran-centric guidance that assigns medical facility follow-up responsibilities and identifies processes for determining whether unscheduled veterans with an interest in an exam still want to be scheduled, and then track responses and completions.

VHA Comments: Concur. The VHA Patient Care Services Program Office agrees that Veteran-centric processes will facilitate the determination of whether Veterans who expressed an interest in an exam still want to be scheduled. To accomplish this, the HOME Program Office will update field guidance to specify how facilities: 1.) Obtain data on assigned Veterans requesting exams weekly, and 2.) Proactively reach out to Veterans to assess their continued interest and schedule the exam. To support sustainability, the HOME Program Office will provide training to field and VISN staff on how to access the database, which

hosts the names and contact information of Veterans who requested exams. The HOME Program Office will track the exam requests and completions by facility and VISN and provide monthly data updates to VISN and VHA leadership.

Status: In Progress Target Completion Date: August 2022

Recommendation 4. The OIG recommended that the under secretary for health implement a mechanism to ensure medical facilities meet the 90-day timeliness standard for the completion of requested exams, including performance metrics.

VHA Comments: Concur. The VHA Patient Care Services Program Office agrees that implementing a mechanism to ensure medical facilities meet the 90-day timeliness standard, including performance metrics, will likely facilitate exam completions and improve overall Veteran satisfaction with VA services and the registry. To accomplish this, the HOME Program Office will establish and disseminate performance metric expectations for meeting the 90-day timeliness standard to VHA and VISN leadership. To support sustainability, the HOME Program Office will provide baseline performance data by VISN and facility to VISN leadership and Environmental Health Clinician and Coordinator leads through monthly updates.

Status: In Progress Target Completion Date: August 2022

Recommendation 5. The OIG recommended that the under secretary for health ensure Veterans Integrated Service Network and facility environmental health personnel routinely review their performance data and address any challenges with scheduling registry exams with directors.

VHA Comments: Concur. The VHA Patient Care Services Program Office agrees that VISN and facility environmental health personnel should routinely review their performance data and address any challenges with scheduled registry exams. To accomplish this, the HOME Program Office will provide training to field and VISN staff on how to access the database, which hosts the names and contact information of Veterans who requested exams. The HOME Program Office will track exam requests and completions by facility and by VISN and provide monthly data updates to VISN and VHA leadership and environment health leads. To support sustainability, the HOME Program Office will provide consultation to VISN leads when facilities are demonstrating challenges in completing their exams.

Status: In Progress Target Completion Date: August 2022

Recommendation 6. The OIG recommended that the under secretary for health ensure the program office reviews registry exam data and continue to work with VA's Office of Information and Technology to ensure all facilities and veterans are included and properly coded.

VHA Comments: Concur. The VHA Patient Care Services Program Office will establish a reporting structure of an information technology specialist who will be assigned to ensure facilities and Veterans are included and properly coded.

Status: In Progress Target Completion Date: June 2023

Recommendation 7. The OIG recommended that the under secretary for health establish procedures for medical facilities to transfer assigned veterans to receive an exam at a closer facility or as otherwise appropriate.

VHA Comments: Concur. The VHA Patient Care Services Program Office agrees to establish procedures for facilities to transfer assigned Veterans to receive exams at other facilities for indicated reasons. To accomplish this, the HOME Program Office will update field guidance to specify to the facility and VISNs the requirement to 1.) Obtain data on assigned Veterans requesting exams weekly and, 2.)

For staff to assess continued interest and need for an exam by proactively contacting Veterans. The HOME Program Office will add the expectations and clarify procedures for determining correct Veteran assignment and transferring Veterans to another facility. The HOME Program Office will explore technology solutions to identify contact information changes and proactively facilitate facility transfers.

Status: In Progress Target Completion Date: January 2023

Attachment 2

Technical Comments

OIG Draft Report: Airborne Hazards and Open Burn Pit Registry Exam Process Needs Improvement (OIG 2021-02732-AE-0126)

Comment 1:

Draft location:

Page (i), Footnote 5; Page 1, Footnote 18; Page (iv), para. 2, line 5

Page 3-4 (last and first paragraphs, respectively)

Page 13 (para. 2, lines 5-8 and para 2, lines 1-4)

Page 14 (para. 2, line 1 and para 6, lines 3-7)

Current language:

Page (i), Page 1: The program office also provided an email that veterans receive upon joining the registry directing veterans to the same link in the letter, but interviews conducted by the review team indicated these emails may not have always been sent to veterans or were delayed.

Page (iv): After completing the questionnaire, veterans have to select a link to a "participation letter" which provides among other information, instructions on how to request the exam; however, veterans may not have opened this letter.

Page (3-4): This letter is termed a "participation letter" in the questionnaire and the letter provides a link to each facility's environmental health coordinators who schedule the veteran's exam with an environmental health clinician.

Page 13: Then, as figure 5 shows, veterans must open the participation letter to receive additional exam scheduling instructions—which may not be obvious (see OIG comment bubble that indicates the title of the letter does not mention scheduling). The participation letter includes a hyperlink to a VHA website, from which the veteran selects another link to view a list of the environmental health coordinators at the medical facilities. In addition, if veterans enter their address in the questionnaire (address is not required), then the program office mails them a physical copy of the participation letter.

Page 14: Some veterans may not understand that they need to read the participation letter, and those who do not enter their address will not receive the physical letter that explains the scheduling process.

In contrast to the routine scheduling processes, the participation letter directs veterans to contact an environmental health coordinator to schedule their exams. Both the registry home page and the participation letter include a URL to a VHA website that links to a list of the environmental health coordinators at the medical facilities.

Comment and justification:

The Veterans Health Administration (VHA) asks the Office of the Inspector General (OIG) to consider noting in the body of the report that an automatically generated email and a letter was sent to the registry participants. An email note is included in the footnotes on pages (i). The impact was minimized by the comment that "interviews conducted by the review team indicated these emails may not have always been sent to veterans or were delayed". Emails were sent to the Veteran's email address where they demonstrated they are conducting personal business and communications such as participation in Airborne Hazards and Open Burn Pit Registry (AHOBPR).

Since these emails were automatically generated at the time of enrollment, it suggests that factors outside the control of Health Outcome Military Exposures (HOME) (such as recall, spam filter settings or numbers of emails that arrive weekly informing Veterans of the many VA programs) may be responsible for Veterans not receiving or recollecting these emails.

Email is a valuable component of the AHOBPR program because personal email addresses tend to remain more consistent than physical addresses, allowing HOME to continue communicating important updates to registrants even after they've moved. The templated email that is sent to Veterans is pictured below:

From: DoNotReply-AHOBPR@va.gov
Date: October 5, 2020 at 10:19:19 EDT
To: Undisclosed recipients:;
Subject: Department of Veterans Affairs Airborne Hazards and Open Burn Pit Registry – Eligible

Greetings Registrant,

The Department of Veterans Affairs has reviewed your eligibility for the Airborne Hazards and Open Burn Pit Registry. You have been found eligible. Thank you for your application to the Registry. Please return to the registry, at your leisure, to complete the remaining sections of the questionnaire. Once you complete the questionnaire your status will be changed to participant.(https://veteran.mobilehealth.va.gov/AHBurnPitRegistry/#page/home)

If you would like to schedule an optional, no-cost medical evaluation please visit (https://veteran.mobilehealth.va.gov/AHBurnPitRegistry). The points of contact for scheduling an evaluation are listed within the frequently asked questions.

We continue to study these exposures and will provide you with periodic updates on associated health effects. For more information on the registry, or our joint initiatives to address airborne hazards and burn pit exposures, please visit (Www.publichealth.va.gov).

Thank you for your service..

If you have any questions or need assistance with using the Registry website, please contact the Registry Help Desk at 1-877-470-5947.

Thank you again for participating in the Airborne Hazards and Open Burn Pit Registry.

For the purposes of clarity, VHA requests that OIG consider including HOME's use of email in the body of the report and not just in footnotes, similar to how the participation letter is reflected in the report. Additionally, for purposes of clarity, HOME requests that the possibility that factors, such as recall or email filters, may have impacted the OIG review of Veteran's recall of receiving an email.

Comment 2:

Draft location:

Page iii, para. 1, lines 11-12

Page 9, para. 2, lines 1-3.

Page 18, first full para., lines 4-5

Current language:

Page iii: In addition, there was ineffective communication with directors at all levels and inaccurate and incomplete registry information in registry systems.

Page 9: Additional factors affecting the exam completion rate included insufficient staff guidance and communications to directors at all levels of VHA from the program office administering the registry.

Page 18: While the OIG recognizes the program office's efforts to reach out to environmental health staff, communication with VISN and medical center facility directors could be improved.

Comment and justification:

HOME provided multiple documents with the Statement of Findings demonstrating clear and frequent communication with Veterans Integrated Service Network (VISN) Lead Environmental Clinicians and Coordinators and local VAMC Environmental Health Clinicians and Coordinators levels regarding the status of AHOBPR examinations in their areas.

For purposes of accuracy and completeness, VHA asks OIG to consider revising the three referenced statements above to deliver consistent messaging throughout the report. VHA offers the following suggested language: "While the program office communicated well with Environmental Health (EH) Clinicians and Coordinators at the facility and VISN levels regarding registry exams, they delayed communications with VISN or VAMC directors until September 2021. Part of this delay was due to the COVID-19 pandemic and the pause in exams for the safety of Veterans and staff as well as the loss of EH staff to COVID related duties."

Comment 3:

Draft location: Page 4, para. 3, lines 7-14.

Current language:

NASEM recommended VA seek external survey experts to restructure the registry questionnaire. The program office reported in the spring of 2020, it advertised for a contractor to evaluate the registry questionnaire as NASEM recommended, and that this contract would have included veteran focus groups. However, the program office redirected its efforts to the award of a veteran-directed advertisement contract for the registry and did not contract with external survey experts to evaluate, restructure, and revise the online questionnaire until November 2021. The program office reported these survey experts started work as of September 2022.

Comment and justification:

HOME believes the September 2022 date above is an error. The most recent contract for updating and improving the registry commenced in September 2021.

The statement as written above is incomplete and does not reflect the work done by HOME (then Post-Deployment Health Services) to restructure the survey questionnaire. Contracts for this work encountered administrative delays that could not have been anticipated.

For the purposes of completeness, HOME proposes a re-write of this paragraph to reflect that there were efforts made to improve the registry and due to external, or administrative delays, HOME ultimately modified the contract because of this significant delay and possible loss of the entire contract.

Comment 4:

Draft location:

Page 2, para. 4, lines 1-3

Page 9, para. 2, lines 7-9

Page 12, para. 2, lines 4 and 5

Current language:

Page 2: In May 2019, VA established the Airborne Hazards and Burn Pits Center of Excellence. The center uses registry data and medical exam results to conduct research and develop new educational content and best practices related to exposures.

Page 9: Until VHA improves the management of the airborne hazards and open burn pit registry exam process, it will continue to miss opportunities to support research and better serve veterans.

Page 12: Registry exams are critical to addressing veterans' concerns and obtaining data for research.

Comment and justification:

Research is mentioned in the final draft numerous times. HOME agrees that the Registry is a valuable tool to look for trends and develop hypotheses. The Airborne Hazards Open Burn Pit Registry is a self-reported registry and, in that way, dissimilar to registries such as cancer registries.

HOME believes it would benefit the understanding of registry usage if the OIG report included the NASEM comments on the limitations of self-reported registries.

As noted by the National Academies of Sciences, Engineering, and Medicine in the 2017 report: https://www.nationalacademies.org/news/2017/02/new-report-assesses-vas-airborne-hazards-and-open-burn-pit-registry *"Registries are structured systems for collecting and maintaining data on a group of people characterized by a specific disease, condition, exposure, or event as a means to facilitate research, monitor health, or provide information to registrants. Registries that rely on voluntary involvement and self-reported information on exposures and health outcomes are not suitable for assessing the health effects of exposure due to respondents' selective participation, inaccurate recall, or inadvertent or intentional under- or overestimation. Thus, they are an intrinsically poor source of information on exposures, health outcomes, and possible associations among these events…*

… The committee stressed that even a well-designed and executed registry would have little value as a scientific tool for health-effects research and would not be an effective substitute for an epidemiologic study."

For purposes of completeness, VHA asks OIG to consider including the below statements in the report:

- The best method to conduct research on the health effects of exposure to airborne hazards and open burn pits is through well-designed epidemiological studies that compare health outcomes of exposed groups with non-exposed groups.
- The AHOBPR and examinations benefits provide:
- A directory from which to recruit exposed Veterans for future studies.
- HOME is currently performing these studies through Post Deployment Surveillance Reports and the Airborne Hazards and Burn Pits Center of Excellence.
- A method to find and explore trends among the registrants that may generate hypotheses from which well-designed clinical or epidemiological studies may be designed.
- AHOBPR exam data allows VA to monitor health concerns among exposed Veterans. Clinical exam data may also be combined with the self-assessment questionnaire and other data sources to enhance the richness of data.

Registry examinations are valuable as a point of entry for Veterans who wish to enroll in VHA healthcare.

Additionally, the statutory language establishing the registry (PL 112-260, section 201) does not identify research as an element or objective of the registry.

Comment 5:

Draft location:

Page 20, para. 2, lines 2-5

Current language:

Page 20: This data issue occurred because of a discrepancy with the station identification numbers used to describe the workload associated with individual medical facility sites of care. This resulted in completion data for the other medical facilities being incorrectly inflated.

Comment and justification:

For purposes of accuracy, VHA asks OIG to consider revising the referenced statement because it may lead readers to incorrectly surmise facilities inflated their statistics.

VA Medical Centers in some VISNs completed exams for Veterans who appeared to reside outside the VISN catchment area. The exams did not falsely inflate the exams done at that facility. These “non-VISN” exams are counted separately. HOME is working with OIT to ensure the addresses of the Veteran are placed with the correct VISN and VAMC location.

Comment 6:

Draft location:

Page 22, para. 4, lines 3 and 4.

Current language:

While VET-HOME may help alleviate some scheduling issues, the process is still not veteran-centric.

Comment and justification:

VET-HOME (Veteran Exposure Team-Health Outcomes Military Exposures) was not evaluated by OIG and the comment as it stands threatens to damage the program prior to its roll out.

The VET-HOME program is a new program expected to be initiated in Fall 2022. The VET-HOME program will monitor completed registry entries and will be able to proactively pull lists Airborne Hazards Open Burn Pit Registry participants and schedule an examination with a VET-HOME provider. This will speed up registry exams and exposures assessments across the nation.

For purposes of accuracy, VHA asks OIG to consider revising the referenced statement to note VET-HOME is a new program that VHA expects will improve AHOBP Registry exam completions.

Comment 7:

Draft location:

Page (iv), para 5

Current language:

The 140-item airborne hazards and open burn pit registry questionnaire was not completed by 158,200 veterans who started it. The questionnaire did not make it clear to veterans that they, not VHA, had to reach out to schedule the exams. Contact information was requested on the form close to the indication that the veteran was interested in receiving an exam, adding to the confusion. After completing the questionnaire, veterans have to select a link to a “participation letter” which provides among other information, instructions on how to request the exam; however, veterans may not have opened this letter.

Address information was not required, so mailed participant letters were also not sent consistently to veterans or to accurate locations. In addition, the team found some contact information for schedulers on the registry exam web page was not correct even if veterans noticed the scheduling instructions before filling out the questionnaire.

Comment and justification:

The HOME program office is uncertain why 156,458 Veterans initiated, but failed to complete, the questionnaire. The AHOPBR is a voluntary data collection and neither Service members nor Veterans are required to participate. Reasons for not completing a survey may include:

- Determination that the survey is not relevant to personal experience.
- Perception of burden (time) outweighing personal utility.
- Age: Older Veterans are more likely to complete the questionnaire.
- Underlying health concerns: Veterans with health concerns are more likely to complete the questionnaire.
- Other technical or personal reasons that may be highly individual.*

* Service members and Veterans were facing life-threatening circumstances throughout deployment. This survey could cause a memory recall to experiences that are uncomfortable or emotionally charged.

Response rates in survey research with Operation Enduring Freedom and Operation Iraqi Freedom Veterans averages 40%. The completion rate for this survey/questionnaire is 66% (307,802/464,260).

The contract to review the questionnaire may shorten the questionnaire and modify questions which may improve the response rate.

Comment 8:

Draft location:

Page (iii), Summary Table 1

Comment and justification:

VHA suggests OIG note that some numbers may not add up based on rounding (e.g., 383,900 Veterans started the questionnaire, 158,200 did not complete and 225,600 completed, but 158,200 + 225,600 = 383,800), unless there are other reasons for the data discrepancy (e.g., incomplete data) – NOTE, this also seems relevant on page 10 of the report, but on page 11 (continuing the table from page 10), there is a “Note: Numbers may not precisely total due to rounding”. It seems this note could be added to the Summary Table 1 on page (ii).

Comment 9:

Draft location:

Page (iii), first paragraph under heading “Most Veterans Who Expressed Interest Have Not Received a Registry Exam”

Current Language:

Once a veteran request an examination, VHA has 90 days to complete it.

Comment and justification:

VHA asks OIG to restate to say "Once a veteran requests an examination…"

Comment 10:

Draft location:

Page (vi), paragraph under heading "What the OIG Recommended"

Page 22, first sentence under heading "Recommendations 1-7"

Current language:

Page (vi): The OIG made seven recommendations to the under secretary for health that include revising the questionnaire to be more veteran-centric, identifying whether veterans with unscheduled exams are still interested in one, and implementing processes and metrics to ensure exams are completed.

Page 22: The OIG recommends that the under secretary for health take the following actions:

Comment and justification:

In both instances, VHA asks OIG to capitalize "Under Secretary for Health".

Comment 11:

Draft location:

Page (vi), footnote 13

Current language:

Presumptive Service Connection for Respiratory Conditions Due to Exposure to Particulate Matter, 86 Fed. Reg. 42724 (August 25, 2021).

Comment and justification:

For purposes of accuracy, VHA asks OIG to correct the date of the publication to be "August 5, 2021" (see https://www.govinfo.gov/content/pkg/FR-2021-08-05/pdf/2021-16693.pdf).

Comment 12:

Draft location:

Page 4, second paragraph, first sentence

Current language:

The public law establishing the registry requires VA to contract with an independent science organization to assess the effectiveness of the registry.

Comment and justification:

To more closely align with the statute (PL 112-260, section 201(b)(1)), VHA recommends OIG states "The public law establishing the registry requires VA to contract with an independent scientific organization to assess the effectiveness of the registry."

Comment 13:

Draft location:

Page 4, second paragraph, first sentence

Current language:

The public law establishing the registry requires VA to contract with an independent science organization to assess the effectiveness of the registry.

Comment and justification:

To more closely align with the statute (PL 112-260, section 201(b)(1)), VHA recommends OIG re-state this as "The public law establishing the registry requires VA to contract with an independent scientific organization to assess the effectiveness of the registry."

Comment 14:

Draft location:

Page 12, first partial paragraph, last line

Current language:

The OIG's review of the exam completion data confirmed the number of exams that were not completed grew after the issuance of the April 2020 memorandum from 84,930 to 21,800 (4 percent).

Comment and justification:

For purposes of clarity, VHA asks OIG to rephrase the number of exams not completed as growing "from 84,930 to 21,800 (4 percent)". The current phrasing may be confusing to the reader as a 4 percent increase from 84,930 would be 88,327.

Comment 15:

Draft location:

Page 24, definition of open burn pit

Comment and justification:

VHA recommends OIG use the definition in PL 112-260 section 201(c)(2).

Comment 16:

Draft location:

Page 27, first two lines

Current language:

"…plan and the draft of the combined registry directive that the director of the program office anticipates will be published in early 2022."

Comment and justification:

For purposes of accuracy, VHA asks OIG to reflect the publish date of March 25, 2022.

For accessibility, the original format of this appendix has been modified to comply with Section 508 of the Rehabilitation Act of 1973, as amended.

OIG Contact and Staff Acknowledgments

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