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**U.S. Department of Veterans Affairs**

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Veterans Health Administration  
Office of Public Health

# **Report on Data from the Airborne Hazards and Open Burn Pit (AH&OBP) Registry**

**April 2015**

**Post-9/11 Era Environmental Health Program  
Post-Deployment Health Group  
Office of Public Health  
Veterans Health Administration  
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# Introduction

On January 10, 2013, Public Law 112-260 was enacted requiring the Department of Veterans Affairs (VA) to establish an open burn pit registry for Veterans who may have been exposed to burn pits in Iraq or Afghanistan. In response to this, the Post-Deployment Health Group of the Department of Veterans Affairs (VA), Veterans Health Administration (VHA), Office of Public Health (OPH) has established the Airborne Hazards and Open Burn Pit (AH&OBP) Registry for eligible Servicemembers and Veterans. The purpose of the registry is to monitor and ascertain potential health effects from exposure to airborne environmental hazards, with the overall goal of improving outreach, communication, and VHA programs for eligible Veterans.

Registry participation is open to any Veteran or Active Duty Servicemember who served in the Southwest Asia theater of operations after August 2, 1990, or in Afghanistan or Djibouti, Africa after September 11, 2001 (Federal Register 2014-14881).<sup>1</sup> Based on Department of Defense (DoD) data, there are approximately 3.5 million individuals who are eligible to participate in the Registry. Participation in the Registry is voluntary, and is accomplished by completing questions in the Registry's online self-assessment questionnaire. The questionnaire is designed to give a broad picture of the participants' health and current and past exposures. In addition, eligible Veterans have the option to contact their local VHA facility and schedule an in-person evaluation. The Registry was opened for pilot testing on April 25, 2014 and was released nationally June 19, 2014.

This report is the first in a series of reports to be published by OPH based on the Registry data. This first report includes data on participation in the Registry and reported exposures. It includes Veterans and Active Duty Servicemembers who participated in the Registry from April 25, 2014 to September 30, 2014. It includes a description of the demographic and military service characteristics of Registry participants and reported exposures to burn pits, military occupational hazards, and other non-military hazards, such as tobacco and alcohol use. Future reports will examine reported health conditions of Registry participants and associations with exposures and potential hazards.

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<sup>1</sup>Southwest Asia Theater of operations includes the following locations: Iraq, Kuwait, Saudi Arabia, Bahrain, Gulf of Aden, Gulf of Oman, Oman, Qatar, United Arab Emirates, Waters of the Persian Gulf, Arabian Sea, and Red Sea, and the airspace above these regions.

# Data Sources and Methods

In addition to data from the self-assessment questionnaire, demographic and VHA health care enrollment and utilization information were obtained from several other data sources to prepare this report.

- **Operation Enduring Freedom/Operation Iraqi Freedom/ Operation New Dawn (OEF/OIF/OND) Roster File.** The OEF/OIF/OND Roster, prepared by the Epidemiology Program within the Post Deployment Health Group of VA's Office of Public Health, identifies all Veterans who have been involved in the OEF/OIF/OND mission. The Roster is derived from the US Department of Defense (DoD) Manpower Data Center (DMDC) Contingency Tracking System Deployment File. The OEF/OIF/OND Roster File was used to obtain demographic information. The self-assessment questionnaire does not collect demographic information other than birth date/age.
- **Oil Well Fire Registry File.** Provided by the United States Army Public Health Command (USAPHC), this file contains records of DoD personnel who served in Operations Desert Storm and Desert Shield during the time oil well fires were burning. This file was used to obtain demographic and deployment information for military personnel who served in Operation Desert Storm/Shield.
- **Assistant Deputy Under Secretary for Health (ADUSH) Enrollment Files.** The VHA Office of the Assistant Deputy Under Secretary for Health (ADUSH) for Policy and Planning creates the ADUSH Enrollment Files, which contain enrollment, eligibility, demographic, cost, and location information for VHA enrollees and non-enrollees who have received VA care. The fiscal year files for 2013 and 2014 were used to provide information on VHA enrollment and health care utilization.
- **The Corporate Data Warehouse (CDW)** contains VHA medical records. The CDW is a national repository of VHA clinical and administrative data systems. CDW was used to identify in-person registry evaluations. Within CDW, the AH&OBP in-person evaluation is identified based on the presence of a clinical note title and/or health factors.

Data on some demographic characteristics, including gender, race, unit component, and rank, are currently unavailable for a significant proportion of registry participants. Participants with missing data on these demographic characteristics are excluded when calculating percentages. Thus, caution should be exercised in interpreting the findings for some of the demographic characteristics. Subject to availability, these data will be included in future reports.

This analysis is descriptive and consists of tabulations of responses to the self-assessment questionnaire. In some cases, responses are shown separately by Veteran demographic characteristics (cross-tabulations).

# Findings

## Registry Participation

- By September 30, 2014, 32,306 user accounts were created, and 19,082 completed self-assessment questionnaires were submitted (Table 1).
- The self-assessment questionnaire asks participants to indicate their interest in being seen by a DoD or VA health care provider to discuss health concerns related to airborne hazards during deployment. Interested individuals have to follow-up with their facility to schedule/request the in-person exam.
  - More than two-thirds (68%) of participants said they were interested in an in-person clinical evaluation (Table 6).
- More than half (55%) of participants used VHA health care during the past two years, and nearly two-thirds (65%) were enrolled for VHA health care (Table 6).

## Burn Pit Exposure

- The vast majority (96%) of Registry participants said that they were near a burn pit (close enough to see the smoke) on at least one of their deployments (Table 7).
- Sixty-two percent of Registry participants said that their duties included the burn pit (for example, trash burning, hauling trash to the burn pit, burn pit security, and trash sorting at the burn pit) during at least one of their deployments (Table 7).
- Compared to Registry participants who reported no exposure to burn pits, participants who reported exposure to burn pits:
  - Were younger and more likely to be male (Table 8);
  - Were more likely to be in the Army or Marine Corps and less likely to be in the Air Force or Navy (Table 9); and
  - Had a greater number of deployments and longer cumulative length of deployments (Table 10).

- Compared to Registry participants without burn pit duties, those with burn pit duties:
  - Were younger and more likely to be male (Table 11);
  - Were more likely to be in the Army or Marine Corps and less likely to be in the Air Force or Navy (Table 12); and
  - Had a greater number of deployments and longer cumulative length of deployments (Table 13).

## **Other Military Occupational Exposures**

- Registry participants who reported exposure to burn pits were also more likely to report exposure to other military occupational hazards, including blasts from explosive devices, weapon-related combustible gases, vehicle operations, refueling maintenance, large engine maintenance, construction duties, and pesticide duties (Table 14).
- Similarly, Registry participants who reported burn pit duties were also more likely to be exposed to other military occupational hazards compared to those whose duties did not include burn pits (Table 15).

## **Non-Military Occupational Exposures**

- There were few differences in non-military occupational exposures, including dust, gas or fumes, or asbestos exposures, between Registry participants who reported exposure to burn pits or burn pit duties and those who did not (Tables 16 and 17).

## **Tobacco and Alcohol Exposures**

- Registry participants who reported exposure to burn pits or burn pit duties were similar to those who did not in terms of tobacco and alcohol use, including current smoking and weekly alcohol intake (Tables 18 and 19).
- However, Registry participants who reported exposure to burn pits or burn pit duties were somewhat more likely to have started smoking during deployment than those who did not (Tables 18 and 19).

# Summary

- Registry participants who completed the self-assessment questionnaire are very well connected to VHA. Nearly two-thirds of Registry participants were enrolled in VHA health care. This may reflect the fact that participants who were connected to VHA were more likely to be informed about the Registry as a result of VA outreach conducted at their facilities.
- Among Registry participants who completed the self-assessment questionnaire, exposure to burn pits was nearly universal. Participation in the Registry is voluntary, and those who completed the self-assessment questionnaire may have been exposed to burn pits at a higher rate than the eligible population of previously deployed Veterans and Active Duty Servicemembers and be more concerned about the potential health effects. Therefore, reported exposure should not be considered representative of the eligible population in general.
- Registry participants who reported burn pit exposures or burn pit duties were more likely to report other military occupational exposures. The correlation between burn pit exposure/duties and other military occupational exposures may be partially attributable to Registry participants with greater health concerns participating. Registry participants who reported exposure to burn pits were not any more likely than the non-exposed to report non-military occupational exposures, such as dust, gas or fumes, or asbestos.



# Section 1: Registry Participants Descriptive Tables

The first section of the report provides a description of registry participation, demographic characteristics, military experience, clinical evaluations, utilization of VHA health care, and exposures to airborne hazards and burn pits.

**Table 1: Airborne Hazards and Open Burn Pit Registry Participation by Month (During 2014)**

Status of Registrants	Before July <sup>1</sup>	July	August	September	Total through September
Total number of user accounts <sup>2</sup>	10,259	11,622	4,473	5,952	32,306
Users providing web consent	8,330	10,951	4,545	5,904	29,730
Completed questionnaires	4,231	7,828	3,142	3,881	19,082

<sup>1</sup> Includes 321 registry users, 72 web consenters and 194 survey completions during the registry pilot period (April 25, 2014 through June 18, 2014). Some of the pilot period registry users consented and completed the questionnaire after June 18th.

<sup>2</sup> Includes all people who have a registry user account.

**Table 2: Demographic Characteristics of Registry Participants**

Characteristic	No.	%
<b>Birth Year<sup>1</sup></b>		
Pre-1960	948	5.0%
1960-1969	4,196	22.0%
1970-1979	6,452	33.8%
1980 or later	7,486	39.2%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>
<b>Age<sup>2</sup></b>		
55+	857	4.5%
45-54	3,971	20.8%
35-44	6,382	33.4%
30-34	4,382	23.0%
<30	3,490	18.3%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>
<b>Gender<sup>3</sup></b>		
Male	13,870	89.8%
Female	1,572	10.2%
<b>Subtotal</b>	<b>15,442</b>	<b>100.0%</b>
Unknown	2	
Data unavailable	3,638	
<b>Total</b>	<b>19,082</b>	
<b>Race<sup>4</sup></b>		
American Indian/Alaska Native	120	0.9%
Asian	264	1.9%
Black or African American	1,256	9.1%
Native Hawaiian or other Pacific Islander	30	0.2%
White	12,042	87.2%
Multiracial	99	0.7%
<b>Subtotal</b>	<b>13,811</b>	<b>100.0%</b>
Unknown	1,119	
Data unavailable	4,152	
<b>Total</b>	<b>19,082</b>	

<sup>1</sup> Birth Year is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>2</sup> Age is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>3</sup> Gender is compiled from the last deployment in the OPH roster file of Veterans from OEF/OIF/OND, from the fiscal year 2014 VHA ADUSH enrollment files, and from the last deployment in the USAPHC Oil Well Fire Registry file.

<sup>4</sup> Race is compiled from the last deployment in the OPH roster file of Veterans from OEF/OIF/OND, from the fiscal year 2014 VHA ADUSH enrollment files, and from the last deployment in the USAPHC Oil Well Fire Registry file.

**Table 3: Military Experience of Registry Participants**

Characteristic	No.	%
<b>Branch of Service<sup>1</sup></b>		
Army	12,997	68.1%
Air Force	3,136	16.4%
Marine Corps	2,049	10.7%
Navy	851	4.5%
Coast Guard	19	0.1%
Public Health Service	6	0.0%
Multiple Branches	24	0.1%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>
<b>Unit Component<sup>2</sup></b>		
National Guard	4,365	31.9%
Active	7,103	51.8%
Reserve	2,233	16.3%
<b>Subtotal</b>	<b>13,701</b>	<b>100.0%</b>
Data unavailable	5,381	
<b>Total</b>	<b>19,082</b>	
<b>Rank<sup>3</sup></b>		
Enlisted	11,649	85.0%
Officer	1,755	12.8%
Warrant Officer	297	2.2%
<b>Subtotal</b>	<b>13,701</b>	<b>100.0%</b>
Data unavailable	5,381	
<b>Total</b>	<b>19,082</b>	
<b>Service Status<sup>4</sup></b>		
Veteran <sup>5</sup>	13,701	71.8%
Data unavailable	5,381	28.2%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>

Note: 5,381 members of the September 2014 registry cohort were not represented in the demographic data available to VA for individuals who deployed to OEF/OIF/OND and separated from military service. A source of demographic data for these participants is being identified for inclusion in future reports.

<sup>1</sup> Branch of Service is from the Registry data and is based on all eligible Southwest Asia deployment segments.

<sup>2</sup> Unit Component is from the OPH roster file of OEF/OIF/OND Veterans at the time of the latest deployment segment.

<sup>3</sup> Rank is from the OPH roster file of OEF/OIF/OND Veterans at the time of the latest deployment segment.

<sup>4</sup> Service Status is from the OPH roster file of OEF/OIF/OND Veterans at the time of the latest deployment segment.

<sup>5</sup> For Service Status, Veterans are those registry participants on the OPH roster file of OEF/OIF/OND Veterans. Currently, we do not have the information to determine the Service Status of the Data unavailable group.

**Table 4: Deployment History of Registry Participants**

<b>Characteristic</b>	<b>No.</b>	<b>%</b>
<b>Number of Eligible Deployment Segments<sup>1,2</sup></b>		
One	4,388	23.0%
Two	3,024	15.8%
Three	2,309	12.1%
Four	1,783	9.3%
Five	1,651	8.7%
Six or more	5,927	31.1%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>
<b>Length of Eligible Service<sup>3</sup></b>		
Fewer than 6 months	2,178	11.4%
6 to 11 months	6,554	34.3%
12 to 23 months	7,177	37.6%
24 to 35 months	2,417	12.7%
36 to 47 months	601	3.1%
48 months or more	155	0.8%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>

<sup>1</sup> Number of Deployment Segments and Length of Eligible Service are from the Airborne Hazards and Open Burn Pit Registry Questionnaire Section 1.

<sup>2</sup> Length of Eligible Service is the number of months a registry participant spent on all eligible deployment segments.

<sup>3</sup> Number of Deployment Segments and Length of Eligible Service are from the Airborne Hazards and Open Burn Pit Registry Questionnaire Section 1.

**Table 5: In-Person Clinical Evaluation**

<b>Participants</b>	<b>No.</b>	<b>%</b>
<b>Interested in receiving in-person clinical evaluation (question 7.1.B)</b>		
Yes	10,292	67.9%
<b>Component<sup>1</sup> for those who answered “Yes” above</b>		
National Guard	2,343	29.6%
Active	4,220	53.4%
Reserve	1,340	17.0%
<b>Subtotal</b>	<b>7,903</b>	<b>100.0%</b>
Data unavailable	2,389	
<b>Total</b>	<b>10,292</b>	
<b>Age<sup>2</sup> for those who answered “Yes” above</b>		
55+	512	5.0%
45-54	2,280	22.2%
35-44	3,439	33.4%
30-34	2,248	21.8%
<30	1,813	17.6%
<b>Total</b>	<b>10,292</b>	<b>100.0%</b>
<b>Participants seen for the in-person clinical evaluation (per Veterans Integrated Service Network (VISN)<sup>3</sup>)</b>		
Yes	28	
<b>VISN of Clinical Evaluation<sup>4</sup></b>		
VISN 3: VA New York/New Jersey Healthcare System	6	21.4%
VISN 4: VA Stars & Stripes Healthcare System	1	3.6%
VISN 11: Veterans in Partnership Health Network	21	75.0%
<b>Total</b>	<b>28</b>	<b>100.0%</b>

Note: These tables include evaluations through September 30, 2014.

<sup>1</sup> Component is from the OPH roster file of OEF/OIF/OND Veterans, at the time of the latest deployment segment.

<sup>2</sup> Age is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>3</sup> Clinical evaluations were extracted from the CDW table HealthFactor where the variable HealthFactorType started with the string “AH-BPR” and the encounter date was on or before September 30, 2014. Evaluations were further limited to persons who also completed the Registry questionnaire, which was not a requirement for receiving an evaluation.

<sup>4</sup> As of September 30, 2014, only three VISNs were giving the in-person clinical evaluation for the Registry. More VISNs were doing so subsequently.

**Table 6: VHA Health Care Utilization of Registry Participants**

Characteristics	No.	%
<b>Participant received VHA health care during the last two fiscal years<sup>1</sup></b>		
Yes	10,452	54.8%
No	8,630	45.2%
<b>Total</b>	<b>19,082</b>	
<b>Participant was officially enrolled with the VHA during the last two fiscal years<sup>2</sup></b>		
Yes	12,392	64.9%
No	6,690	35.1%
<b>Total</b>	<b>19,082</b>	
<b>Priority group number for officially enrolled participants</b>		
Group 1	5,938	47.9%
Group 2	1,692	13.7%
Group 3	1,408	11.4%
Group 4	5	0.0%
Group 5	405	3.3%
Group 6	2,077	16.8%
Group 7	39	0.3%
Group 8	828	6.7%
<b>Total</b>	<b>12,392</b>	<b>100.0%</b>
<b>VHA patient, Gender<sup>3</sup></b>		
Male	9,368	89.6%
Female	1,084	10.4%
<b>Total</b>	<b>10,452</b>	<b>100.0%</b>
<b>VHA patient, Birth year<sup>4</sup></b>		
Pre-1960	681	6.5%
1960-1969	2,570	24.6%
1970-1979	3,074	29.4%
1980 or later	4,127	39.5%
<b>Total</b>	<b>10,452</b>	<b>100.0%</b>
<b>VHA patient, Rank<sup>5</sup></b>		
Enlisted	8,166	88.1%
Officer	928	10.0%
Warrant Officer	170	1.8%
<b>Subtotal</b>	<b>9,264</b>	<b>100.0%</b>
Data unavailable	1,188	
<b>Total</b>	<b>10,452</b>	

<sup>1</sup> Veterans and Active Duty Servicemembers who did not have a record in the VHA ADUSH enrollment files were counted as not having used VHA health care and not enrolled for VHA health care.

<sup>2</sup> Veterans and Active Duty Servicemembers who did not have a record in the VHA ADUSH enrollment files were counted as not having used VHA health care and not enrolled for VHA health care.

<sup>3</sup> Gender is from the OPH roster file of OEF/OIF/OND Veterans, at the time of the latest deployment segment, and the fiscal year 2014 VHA ADUSH enrollment files.

<sup>4</sup> Birth year is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>5</sup> Rank and Unit component are from the OPH roster file of OEF/OIF/OND Veterans, at the time of the latest deployment segment.

**Table 6 (cont'd): VHA Health Care Utilization of Registry Participants**

Characteristics	No.	%
<b>VHA patient, Unit component<sup>6</sup></b>		
National Guard	2,704	29.2%
Active	5,106	55.1%
Reserve	1,454	15.7%
<b>Subtotal</b>	<b>9,264</b>	<b>100.0%</b>
Data unavailable	1,188	
<b>Total</b>	<b>10,452</b>	
<b>VHA patient, Branch<sup>7</sup></b>		
Army	7,058	67.5%
Air Force	1,451	13.9%
Marine Corps	1,308	12.5%
Navy	504	4.8%
Coast Guard	7	0.1%
Multiple Branches	118	1.1%
Public Health Service	6	0.1%
<b>Total</b>	<b>10,452</b>	<b>100.0%</b>
<b>VHA patient, Preferred VISN<sup>8</sup></b>		
VISN 1: VA New England Healthcare System	425	4.5%
VISN 2: VA Healthcare Network Upstate New York	224	2.3%
VISN 3: VA New York/New Jersey Healthcare System	241	2.5%
VISN 4: VA Stars & Stripes Healthcare System	447	4.7%
VISN 5: VA Capitol Health Care System	286	3.0%
VISN 6: VA Mid-Atlantic Health Care Network	590	6.2%
VISN 7: VA Southeast Network	662	6.9%
VISN 8: VA Sunshine Healthcare Network	498	5.2%
VISN 9: VA MidSouth Healthcare Network	602	6.3%
VISN 10: VA Healthcare System of Ohio	252	2.6%
VISN 11: Veterans in Partnership Healthcare Network	467	4.9%
VISN 12: VA Great Lakes Health Care System	351	3.7%
VISN 15: VA Heartland Network	379	4.0%
VISN 16: South Central VA Health Care Network	706	7.4%
VISN 17: VA Heart of Texas Health Care Network	668	7.0%
VISN 18: VA Southeast Health Care Network	546	5.7%
VISN 19: VA Rocky Mountain Network	379	4.0%
VISN 20: VA Northwest Health Network	435	4.6%
VISN 21: VA Sierra Pacific Network	342	3.6%
VISN 22: VA Desert Pacific Healthcare Network	414	4.3%
VISN 23: VA Midwest Health Care Network	621	6.5%
<b>Subtotal</b>	<b>9,535</b>	<b>100.0%</b>
Unknown	917	
<b>Total</b>	<b>10,452</b>	

Note: These tables include VHA enrollment data through fiscal year 2014.

<sup>6</sup> Rank and Unit component are from the OPH roster file of OEF/OIF/OND Veterans, at the time of the latest deployment segment.

<sup>7</sup> Branch is from the Airborne Hazards and Open Burn Pit Registry data at the time of latest eligible deployment.

<sup>8</sup> Preferred VISN is from VHA ADUSH enrollment files.

## Section 2: Special Analyses Tables on Burn Pit Exposure Factors

This section of the report presents data on self-reported burn pit exposure status by demographic and military service characteristics. Participants may have 1 or more deployment segments included in the registry and for this section, indication of exposure on any segment is counted as self-reported exposure. It also includes tables showing reported military and non-military occupational/environmental exposures and tobacco and alcohol use by burn pit exposure status.

Among those exposed to burn pits, characteristics (demographic, service) and other exposures (occupational, environmental, tobacco, and alcohol use) are also presented by whether duties on any eligible deployment included burn pit duties.

**Table 7: Burn Pit Exposures**

Source of Exposure	Percentage of Participants		Number of Segments				
	N	%	Min	Q1 <sup>1</sup>	Median <sup>2</sup>	Q3 <sup>3</sup>	Max
<b>During any deployment segment</b>							
Participant was near a burn pit (question 1.2.D)	18,365	96.2%	1	1	2	4	29
Duties included a burn pit (question 1.2.F)	11,883	62.3%	1	1	2	3	21

<sup>1</sup> The first quartile is the value in the data set which divides the bottom quarter of values from the upper three quarters of values.

<sup>2</sup> The median is the value in the data set which divides the bottom half of values from the top half of values.

<sup>3</sup> The third quartile is the value in the data set which divides the bottom three quarters of values from the upper one quarter of values.



**Table 8: Demographics by Self-Reported Burn Pit Exposure Status<sup>1</sup>**

Characteristic	Total		Exposed		Unexposed	
	No.	%	No.	%	No.	%
<b>Birth Year<sup>2</sup> ***</b>						
Pre-1960	948	5.0%	891	4.9%	57	7.9%
1960-1969	4,196	22.0%	4,001	21.8%	195	27.2%
1970-1979	6,452	33.8%	6,241	34.0%	211	29.4%
1980 or later	7,486	39.2%	7,232	39.4%	254	35.4%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>18,365</b>	<b>100.0%</b>	<b>717</b>	<b>100.0%</b>
<b>Age<sup>3</sup> ***</b>						
55+	857	4.5%	804	4.4%	53	7.4%
45-54	3,971	20.8%	3,784	20.6%	187	26.1%
35-44	6,382	33.4%	6,169	33.6%	213	29.7%
30-34	4,382	23.0%	4,251	23.1%	131	18.3%
<30	3,490	18.3%	3,357	18.3%	133	18.5%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>18,365</b>	<b>100.0%</b>	<b>717</b>	<b>100.0%</b>
<b>Gender<sup>4</sup> ***</b>						
Male	13,870	89.8%	13,371	90.2%	499	81.3%
Female	1,572	10.2%	1,457	9.8%	115	18.7%
<b>Subtotal</b>	<b>15,442</b>	<b>100.0%</b>	<b>14,828</b>	<b>100.0%</b>	<b>614</b>	<b>100.0%</b>
Unknown	2		2		0	
Data unavailable	3,638		3,535		103	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Race<sup>5</sup> ns</b>						
American Indian/Alaska Native	120	0.9%	117	0.9%	3	0.5%
Asian	264	1.9%	254	1.9%	10	1.8%
Black or African American	1,256	9.1%	1,202	9.1%	54	9.5%
Native Hawaiian or other Pacific Islander	30	0.2%	29	0.2%	1	0.2%
White	12,042	87.2%	11,546	87.2%	496	87.6%
Multiracial	99	0.7%	97	0.7%	2	0.4%
<b>Subtotal</b>	<b>13,811</b>	<b>100.0%</b>	<b>13,245</b>	<b>100.0%</b>	<b>566</b>	<b>100.0%</b>
Unknown	1,119		1,091		28	
Data unavailable	4,152		4,029		123	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	

Note: <sup>ns</sup> indicates no significant difference found between the exposed and unexposed groups, \* indicates significant differences between the exposed and unexposed groups at the 95% confidence level, \*\* at the 99% confidence level, and \*\*\* at the 99.9% confidence level.

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) for any deployment segment.

'Unexposed' responders are those who did not answer 'Yes' for any deployment segment.

<sup>2</sup> Birth Year is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>3</sup> Age is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>4</sup> Gender is from the OEF/OIF/OND roster file at the time of the latest deployment segment, and the VA ADUSH enrollment file.

<sup>5</sup> Race is from the OEF/OIF/OND roster file at the time of the latest deployment segment, and the VA ADUSH enrollment file.

**Table 9: Military Experience by Self-reported Burn Pit Exposure Status<sup>1</sup>**

Characteristic	Total		Exposed		Unexposed	
	No.	%	No.	%	No.	%
<b>Branch of Service<sup>2</sup> ***</b>						
Army	12,997	68.1%	12,598	68.6%	399	55.6%
Air Force	3,136	16.4%	2,940	16.0%	196	27.3%
Marine Corps	2,049	10.7%	2,002	10.9%	47	6.6%
Navy	851	4.5%	780	4.2%	71	9.9%
Coast Guard	19	0.1%	15	0.1%	4	0.6%
Public Health Service	6	0.0%	6	0.0%	0	0.0%
Multiple Branches	24	0.1%	24	0.1%	0	0.0%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>18,365</b>	<b>100.0%</b>	<b>717</b>	<b>100.0%</b>
<b>Unit Component<sup>3</sup> ***</b>						
National Guard	4,365	31.9%	4,177	31.6%	188	38.1%
Active	7,103	51.8%	6,891	52.2%	212	43.0%
Reserve	2,233	16.3%	2,140	16.2%	93	18.9%
<b>Subtotal</b>	<b>13,701</b>	<b>100.0%</b>	<b>13,208</b>	<b>100.0%</b>	<b>493</b>	<b>100.0%</b>
Data unavailable	5,381		5,157		224	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Rank<sup>4</sup> ns</b>						
Enlisted	11,649	85.0%	11,243	85.1%	406	82.4%
Officer	1,755	12.8%	1,679	12.7%	76	15.4%
Warrant Officer	297	2.2%	286	2.2%	11	2.2%
<b>Subtotal</b>	<b>13,701</b>	<b>100.0%</b>	<b>13,208</b>	<b>100.0%</b>	<b>493</b>	<b>100.0%</b>
Data unavailable	5,381		5,157		224	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Service Status<sup>5</sup> ns</b>						
Veteran <sup>4</sup>	13,701	71.8%	13,208	71.9%	493	68.8%
Data unavailable	5,381	28.2%	5,157	28.1%	224	31.2%
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	

Note: 5,381 members of the September 2014 registry cohort were not represented in the demographic data available to VA for individuals who deployed to OEF/OIF/OND and separated from military service. A source of demographic data for these participants is being identified for inclusion in future reports.

<sup>ns</sup> indicates no significant difference found between the exposed and unexposed groups, \* indicates significant differences between the exposed and unexposed groups at the 95% confidence level, \*\* at the 99% confidence level, and \*\*\* at the 99.9% confidence level.

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) for any deployment segment. 'Unexposed' responders are those who did not answer 'Yes' for any deployment segment.

<sup>2</sup> Branch of Service is from the Airborne Hazards and Open Burn Pit Registry data based on eligible deployment segments.

<sup>3</sup> Unit Component is from the OPH roster file of OEF/OIF/OND veterans at the time of the latest deployment segment.

<sup>4</sup> Rank is from the OPH roster file of OEF/OIF/OND veterans at the time of the latest deployment segment.

<sup>5</sup> Service Status=Veteran are those registry participants on the OPH roster file of OIE/OIF/OND veterans. Currently we do not have the information to determine the Service Status of the Data unavailable group.

**Table 10: Deployments by Self-Reported Burn Pit Exposure Status<sup>1</sup>**

Characteristic	Total		Exposed		Unexposed	
	No.	%	No.	%	No.	%
<b>Number of Eligible Deployment Segments<sup>2 ***</sup></b>						
One	4,388	23.0%	4,070	22.2%	318	44.4%
Two	3,024	15.8%	2,913	15.9%	111	15.5%
Three	2,309	12.1%	2,223	12.1%	86	12.0%
Four	1,783	9.3%	1,728	9.4%	55	7.7%
Five	1,651	8.7%	1,602	8.7%	49	6.8%
Six or more	5,927	31.1%	5,829	31.7%	98	13.7%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>18,365</b>	<b>100.0%</b>	<b>717</b>	<b>100.0%</b>
<b>Length of Eligible Service<sup>3,4 ***</sup></b>						
Fewer than 6 months	2,178	11.4%	1,998	10.9%	180	25.1%
6 to 11 months	6,554	34.3%	6,214	33.8%	340	47.4%
12 to 23 months	7,177	37.6%	7,012	38.2%	165	23.0%
24 to 35 months	2,417	12.7%	2,389	13.0%	28	3.9%
36 to 47 months	601	3.1%	599	3.3%	2	0.3%
48 months or more	155	0.8%	153	0.8%	2	0.3%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>18,365</b>	<b>100.0%</b>	<b>717</b>	<b>100.0%</b>

Note: <sup>ns</sup> indicates no significant difference found between the exposed and unexposed groups, \* indicates significant differences between the exposed and unexposed groups at the 95% confidence level, \*\* at the 99% confidence level, and \*\*\* at the 99.9% confidence level.

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) for any deployment segment. 'Unexposed' responders are those who did not answer 'Yes' for any deployment segment.

<sup>2</sup> Number of deployment segments and Length of eligible service are from the Airborne Hazards and Open Burn Pit Registry Questionnaire.

<sup>3</sup> Number of deployment segments and Length of eligible service are from the Airborne Hazards and Open Burn Pit Registry Questionnaire.

<sup>4</sup> Length of eligible service is the number of months a registry participant spent on all eligible deployment segments.

**Table 11: Demographics by Self-Reported Burn Pit Duties<sup>1</sup>**

Characteristic	Total		Duties included burn pit		Duties did not include burn pit	
	No.	%	No.	%	No.	%
<b>Birth Year<sup>2</sup> ***</b>						
Pre-1960	948	5.0%	404	3.4%	544	7.6%
1960-1969	4,196	22.0%	2,342	19.7%	1,854	25.8%
1970-1979	6,452	33.8%	4,003	33.7%	2,449	34.0%
1980 or later	7,486	39.2%	5,134	43.2%	2,352	32.7%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>11,883</b>	<b>100.0%</b>	<b>7,199</b>	<b>100.0%</b>
<b>Age<sup>3</sup> ***</b>						
55+	857	4.5%	359	3.0%	498	6.9%
45-54	3,971	20.8%	2,199	18.5%	1,772	24.6%
35-44	6,382	33.4%	3,948	33.2%	2,434	33.8%
30-34	4,382	23.0%	2,935	24.7%	1,447	20.1%
<30	3,490	18.3%	2,442	20.6%	1,048	14.6%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>11,883</b>	<b>100.0%</b>	<b>7,199</b>	<b>100.0%</b>
<b>Gender<sup>4</sup> ***</b>						
Male	13,870	89.8%	8,824	91.9%	5,046	86.4%
Female	1,572	10.2%	777	8.1%	795	13.6%
<b>Subtotal</b>	<b>15,442</b>	<b>100.0%</b>	<b>9,601</b>	<b>100.0%</b>	<b>5,841</b>	<b>100.0%</b>
Unknown	2		2		0	
Data unavailable	3,638		2,280		1,358	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Race<sup>5</sup> ***</b>						
American Indian/Alaska Native	120	0.9%	76	0.9%	44	0.8%
Asian	264	1.9%	181	2.1%	83	1.5%
Black or African American	1,256	9.1%	913	10.8%	343	6.4%
Native Hawaiian or other Pacific Islander	30	0.2%	20	0.2%	10	0.2%
White	12,042	87.2%	7,203	85.2%	4,839	90.4%
Multiracial	99	0.7%	63	0.7%	36	0.7%
<b>Subtotal</b>	<b>13,811</b>	<b>100.0%</b>	<b>8,456</b>	<b>100.0%</b>	<b>5,355</b>	<b>100.0%</b>
Unknown	1,119		800		319	
Data unavailable	4,152		2,627		1,525	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	

Note: <sup>ns</sup> indicates no significant difference found between the 'duties included' and 'duties not included' groups, \* indicates significant differences between the exposed and unexposed groups at the 95% confidence level, \*\* at the 99% confidence level, and \*\*\* at the 99.9% confidence level.

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) and on question 1.2.F (Did your duties during these dates include a burn pit?) for any deployment segment. 'Duties did not include burn pit' responders are those who did not answer 'Yes' to either question for any deployment segment.

<sup>2</sup> Birth Year is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>3</sup> Age is from the Airborne Hazards and Open Burn Pit Registry data at the time of questionnaire completion.

<sup>4</sup> Gender is from the OPH roster file of OEF/OIF/OND veterans at the time of the latest deployment segment, and the VA ADUSH enrollment file.

<sup>5</sup> Race is from the OPH roster file of OEF/OIF/OND veterans at the time of the latest deployment segment, and the VA ADUSH enrollment file.

**Table 12: Military Experience by Self-Reported Burn Pit Duties<sup>1</sup>**

Characteristic	Total		Duties included burn pit		Duties did not include burn pit	
	No.	%	No.	%	No.	%
<b>Branch of Service<sup>2</sup> ***</b>						
Army	12,997	68.1%	8,683	73.1%	4,314	59.9%
Air Force	3,136	16.4%	1,155	9.7%	1,981	27.5%
Marine Corps	2,049	10.7%	1,610	13.5%	439	6.1%
Navy	851	4.5%	410	3.5%	441	6.1%
Coast Guard	19	0.1%	3	0.0%	16	0.2%
Public Health Service	6	0.0%	1	0.0%	5	0.1%
Multiple Branches	24	0.1%	21	0.2%	3	0.0%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>11,883</b>	<b>100.0%</b>	<b>7,199</b>	<b>100.0%</b>
<b>Unit Component<sup>3</sup> ***</b>						
National Guard	4,365	31.9%	2,139	25.5%	2,226	41.8%
Active	7,103	51.8%	4,956	59.1%	2,147	40.3%
Reserve	2,233	16.3%	1,284	15.3%	949	17.8%
<b>Subtotal</b>	<b>13,701</b>	<b>100.0%</b>	<b>8,379</b>	<b>100.0%</b>	<b>5,322</b>	<b>100.0%</b>
Data unavailable	5,381		3,504		1,877	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Rank<sup>4</sup> ***</b>						
Enlisted	11,649	85.0%	7,625	91.0%	4,024	75.6%
Officer	1,755	12.8%	633	7.6%	1,122	21.1%
Warrant Officer	297	2.2%	121	1.4%	176	3.3%
<b>Subtotal</b>	<b>13,701</b>	<b>100.0%</b>	<b>8,379</b>	<b>100.0%</b>	<b>5,322</b>	<b>100.0%</b>
Data unavailable	5,381		3,504		1,877	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Service Status<sup>5</sup> **</b>						
Veteran <sup>4</sup>	13,701	71.8%	8,379	70.5%	5,322	73.9%
Data unavailable	5,381	28.2%	3,504	29.5%	1,877	26.1%
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	

Note: 5,381 members of the September 2014 registry cohort were not represented in the demographic data available to VA for individuals who deployed to OEF/OIF/OND and separated from military service. A source of demographic data for these participants is being identified for inclusion in future reports.

<sup>ns</sup> indicates no significant difference found between the 'duties included' and 'duties not included' groups,

\* indicates significant differences between the exposed and unexposed groups at the 95% confidence level,

\*\* at the 99% confidence level, and \*\*\* at the 99.9% confidence level.

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) and on question 1.2.F (Did your duties during these dates include a burn pit?) for any deployment segment. 'Duties did not include burn pit' responders are those who did not answer 'Yes' to either question for any deployment segment.

<sup>2</sup> Branch of Service is from the Airborne Hazards and Open Burn Pit Registry questionnaire across all eligible deployment segments.

<sup>3</sup> Unit Component is from the OPH roster file of OEF/OIF/OND veterans at the time of the latest deployment segment.

<sup>4</sup> Rank is from the OPH roster file of OEF/OIF/OND veterans at the time of the latest deployment segment.

<sup>5</sup> Service Status is from the OPH roster file of OEF/OIF/OND veterans at the time of the latest deployment segment.

**Table 13: Deployments by Self-Reported Burn Pit Duties<sup>1</sup>**

Characteristic	Total		Duties included burn pit		Duties did not include burn pit	
	No.	%	No.	%	No.	%
<b>Number of Eligible Deployment Segments<sup>2</sup> ***</b>						
One	4,388	23.0%	2,581	21.7%	1,807	25.1%
Two	3,024	15.8%	1,785	15.0%	1,239	17.2%
Three	2,309	12.1%	1,317	11.1%	992	13.8%
Four	1,783	9.3%	1,089	9.2%	694	9.6%
Five	1,651	8.7%	1,052	8.9%	599	8.3%
Six or more	5,927	31.1%	4,059	34.2%	1,868	25.9%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>11,883</b>	<b>100.0%</b>	<b>7,199</b>	<b>100.0%</b>
<b>Length of Eligible Service<sup>3,4</sup> ***</b>						
Fewer than 6 months	2,178	11.4%	1,026	8.6%	1,152	16.0%
6 to 11 months	6,554	34.3%	3,752	31.6%	2,802	38.9%
12 to 23 months	7,177	37.6%	4,658	39.2%	2,519	35.0%
24 to 35 months	2,417	12.7%	1,817	15.3%	600	8.3%
36 to 47 months	601	3.1%	499	4.2%	102	1.4%
48 months or more	155	0.8%	131	1.1%	24	0.3%
<b>Total</b>	<b>19,082</b>	<b>100.0%</b>	<b>11,883</b>	<b>100.0%</b>	<b>7,199</b>	<b>100.0%</b>

Note: <sup>ns</sup> indicates no significant difference found between the 'duties included' and 'duties not included' groups,

\* indicates significant differences between the exposed and unexposed groups at the 95% confidence level,

\*\* at the 99% confidence level, and \*\*\* at the 99.9% confidence level.

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) and on question 1.2.F (Did your duties during these dates include a burn pit?) for any deployment segment. 'Duties did not include burn pit' responders are those who did not answer 'Yes' to either question for any deployment segment.

<sup>2</sup> Number of deployment segments and Length of eligible service are from the Airborne Hazards and Open Burn Pit Registry questionnaire.

<sup>3</sup> Number of deployment segments and Length of eligible service are from the Airborne Hazards and Open Burn Pit Registry questionnaire.

<sup>4</sup> Length of eligible service is the number of months a registry participant spent on all eligible deployment segments.

**Table 14: Other Self-Reported Deployment Occupational and Environmental Exposures by Burn Pit Exposure Status<sup>1</sup>**

Exposure	Total		Exposed		Unexposed	
	No.	%	No.	%	No.	%
<b>Blasts from explosive device (question 1.3.A)</b>						
Yes	14,023	75.5%	13,725	76.7%	298	44.1%
No	4,559	24.5%	4,181	23.3%	378	55.9%
<b>Subtotal</b>	<b>18,582</b>	<b>100.0%</b>	<b>17,906</b>	<b>100.0%</b>	<b>676</b>	<b>100.0%</b>
DK/Refused/Missing	500		459		41	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Weapon combustion gases (question 1.3.B)</b>						
Yes	12,100	80.8%	11,866	81.8%	234	49.9%
No	2,877	19.2%	2,642	18.2%	235	50.1%
<b>Subtotal</b>	<b>14,977</b>	<b>100.0%</b>	<b>14,508</b>	<b>100.0%</b>	<b>469</b>	<b>100.0%</b>
DK/Refused/Missing	4,105		3,857		248	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Vehicle operations (question 1.3.C)</b>						
Yes	14,877	82.2%	14,447	82.8%	430	65.3%
No	3,226	17.8%	2,998	17.2%	228	34.7%
<b>Subtotal</b>	<b>18,103</b>	<b>100.0%</b>	<b>17,445</b>	<b>100.0%</b>	<b>658</b>	<b>100.0%</b>
DK/Refused/Missing	979		920		59	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Refueling maintenance (question 1.3.D)</b>						
Yes	12,638	71.5%	12,297	72.2%	341	51.9%
No	5,048	28.5%	4,732	27.8%	316	48.1%
<b>Subtotal</b>	<b>17,686</b>	<b>100.0%</b>	<b>17,029</b>	<b>100.0%</b>	<b>657</b>	<b>100.0%</b>
DK/Refused/Missing	1,396		1,336		60	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Large engine maintenance (question 1.3.E)</b>						
Yes	7,470	41.5%	7,286	42.1%	184	27.1%
No	10,533	58.5%	10,039	57.9%	494	72.9%
<b>Subtotal</b>	<b>18,003</b>	<b>100.0%</b>	<b>17,325</b>	<b>100.0%</b>	<b>678</b>	<b>100.0%</b>
DK/Refused/Missing	1,079		1,040		39	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Construction duties (question 1.3.F)</b>						
Yes	6,930	40.3%	6,784	41.0%	146	22.0%
No	10,285	59.7%	9,766	59.0%	519	78.0%
<b>Subtotal</b>	<b>17,215</b>	<b>100.0%</b>	<b>16,550</b>	<b>100.0%</b>	<b>665</b>	<b>100.0%</b>
DK/Refused/Missing	1,867		1,815		52	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Pesticide duties (question 1.3.G)</b>						
Yes	2,090	12.2%	2,060	12.5%	30	4.5%
No	15,056	87.8%	14,421	87.5%	635	95.5%
<b>Subtotal</b>	<b>17,146</b>	<b>100.0%</b>	<b>16,481</b>	<b>100.0%</b>	<b>665</b>	<b>100.0%</b>
DK/Refused/Missing	1,936		1,884		52	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Dust storms (question 1.4.C)</b>						
Yes	16,420	98.5%	15,855	98.7%	565	95.4%
No	243	1.5%	216	1.3%	27	4.6%
<b>Subtotal</b>	<b>16,663</b>	<b>100.0%</b>	<b>16,071</b>	<b>100.0%</b>	<b>592</b>	<b>100.0%</b>
DK/Refused/Missing	2,419		2,294		125	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) for any deployment segment. 'Unexposed' responders are those who did not answer 'Yes' for any deployment segment.

**Table 15: Other Self-Reported Deployment Occupational and Environmental Exposures by Burn Pit Duties<sup>1</sup>**

Exposure	Total		Duties included burn pit		Duties did not include burn pit	
	No.	%	No.	%	No.	%
<b>Blasts from explosive device (question 1.3.A)</b>						
Yes	14,023	75.5%	9,585	82.5%	4,438	63.7%
No	4,559	24.5%	2,030	17.5%	2,529	36.3%
<b>Subtotal</b>	<b>18,582</b>	<b>100.0%</b>	<b>11,615</b>	<b>100.0%</b>	<b>6,967</b>	<b>100.0%</b>
DK/Refused/Missing	500		268		232	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Weapon combustion gases (question 1.3.B)</b>						
Yes	12,100	80.8%	8,622	89.2%	3,478	65.5%
No	2,877	19.2%	1,049	10.8%	1,828	34.5%
<b>Subtotal</b>	<b>14,977</b>	<b>100.0%</b>	<b>9,671</b>	<b>100.0%</b>	<b>5,306</b>	<b>100.0%</b>
DK/Refused/Missing	4,105		2,212		1,893	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Vehicle operations (question 1.3.C)</b>						
Yes	14,877	82.2%	10,330	91.1%	4,547	67.3%
No	3,226	17.8%	1,013	8.9%	2,213	32.7%
<b>Subtotal</b>	<b>18,103</b>	<b>100.0%</b>	<b>11,343</b>	<b>100.0%</b>	<b>6,760</b>	<b>100.0%</b>
DK/Refused/Missing	979		540		439	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Refueling maintenance (question 1.3.D)</b>						
Yes	12,638	71.5%	9,024	81.8%	3,614	54.3%
No	5,048	28.5%	2,004	18.2%	3,044	45.7%
<b>Subtotal</b>	<b>17,686</b>	<b>100.0%</b>	<b>11,028</b>	<b>100.0%</b>	<b>6,658</b>	<b>100.0%</b>
DK/Refused/Missing	1,396		855		541	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Large engine maintenance (question 1.3.E)</b>						
Yes	7,470	41.5%	5,422	48.8%	2,048	29.7%
No	10,533	58.5%	5,685	51.2%	4,848	70.3%
<b>Subtotal</b>	<b>18,003</b>	<b>100.0%</b>	<b>11,107</b>	<b>100.0%</b>	<b>6,896</b>	<b>100.0%</b>
DK/Refused/Missing	1,079		776		303	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Construction duties (question 1.3.F)</b>						
Yes	6,930	40.3%	5,368	51.0%	1,562	23.3%
No	10,285	59.7%	5,150	49.0%	5,135	76.7%
<b>Subtotal</b>	<b>17,215</b>	<b>100.0%</b>	<b>10,518</b>	<b>100.0%</b>	<b>6,697</b>	<b>100.0%</b>
DK/Refused/Missing	1,867		1,365		502	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Pesticide duties (question 1.3.G)</b>						
Yes	2,090	12.2%	1,814	17.6%	276	4.0%
No	15,056	87.8%	8,493	82.4%	6,563	96.0%
<b>Subtotal</b>	<b>17,146</b>	<b>100.0%</b>	<b>10,307</b>	<b>100.0%</b>	<b>6,839</b>	<b>100.0%</b>
DK/Refused/Missing	1,936		1,576		360	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Dust storms (question 1.4.C)</b>						
Yes	16,420	98.5%	10,385	99.1%	6,035	97.6%
No	243	1.5%	95	0.9%	148	2.4%
<b>Subtotal</b>	<b>16,663</b>	<b>100.0%</b>	<b>10,480</b>	<b>100.0%</b>	<b>6,183</b>	<b>100.0%</b>
DK/Refused/Missing	2,419		1,403		1,016	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) and on question 1.2.F (Did your duties during these dates include a burn pit?) for any deployment segment. 'Duties did not include burn pit' responders are those who did not answer 'Yes' to either question for any deployment segment.



**Table 16: Non-Military Occupational Exposures by Self-reported Burn Pit Exposure Status<sup>1</sup>**

Exposure	Total		Exposed		Unexposed	
	No.	%	No.	%	No.	%
<b>Dust (question 5.3.A)</b>						
Yes	2,320	12.5%	2,223	12.4%	97	14.0%
No	16,262	87.5%	15,665	87.6%	597	86.0%
<b>Subtotal</b>	<b>18,582</b>	<b>100.0%</b>	<b>17,888</b>	<b>100.0%</b>	<b>694</b>	<b>100.0%</b>
DK/Refused/Missing	500		477		23	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Gas or fumes (question 5.4.A)</b>						
Yes	3,319	18.6%	3,174	18.5%	145	22.2%
No	14,529	81.4%	14,021	81.5%	508	77.8%
<b>Subtotal</b>	<b>17,848</b>	<b>100.0%</b>	<b>17,195</b>	<b>100.0%</b>	<b>653</b>	<b>100.0%</b>
DK/Refused/Missing	1,234		1,170		64	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Asbestos (question 5.5.A)</b>						
Yes	5,846	47.0%	5,648	47.0%	198	46.9%
No	6,583	53.0%	6,359	53.0%	224	53.1%
<b>Subtotal</b>	<b>12,429</b>	<b>100.0%</b>	<b>12,007</b>	<b>100.0%</b>	<b>422</b>	<b>100.0%</b>
DK/Refused/Missing	6,653		6,358		295	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) for any deployment segment. 'Unexposed' responders are those who did not answer 'Yes' for any deployment segment.

**Table 17: Non-Military Occupational Exposures by Self-reported Burn Pit Duties<sup>1</sup>**

Exposure	Total		Duties included burn pit		Duties did not include burn pit	
	No.	%	No.	%	No.	%
<b>Dust (question 5.3.A)</b>						
Yes	2,320	12.5%	1,398	12.1%	922	13.1%
No	16,262	87.5%	10,169	87.9%	6,093	86.9%
<b>Subtotal</b>	<b>18,582</b>	<b>100.0%</b>	<b>11,567</b>	<b>100.0%</b>	<b>7,015</b>	<b>100.0%</b>
DK/Refused/Missing	500		316		184	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Gas or fumes (question 5.4.A)</b>						
Yes	3,319	18.6%	2,023	18.1%	1,296	19.4%
No	14,529	81.4%	9,129	81.9%	5,400	80.6%
<b>Subtotal</b>	<b>17,848</b>	<b>100.0%</b>	<b>11,152</b>	<b>100.0%</b>	<b>6,696</b>	<b>100.0%</b>
DK/Refused/Missing	1,234		731		503	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Asbestos (question 5.5.A)</b>						
Yes	5,846	47.0%	3,910	50.1%	1,936	41.9%
No	6,583	53.0%	3,902	49.9%	2,681	58.1%
<b>Subtotal</b>	<b>12,429</b>	<b>100.0%</b>	<b>7,812</b>	<b>100.0%</b>	<b>4,617</b>	<b>100.0%</b>
DK/Refused/Missing	6,653		4,071		2,582	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) and on question 1.2.F (Did your duties during these dates include a burn pit?) for any deployment segment. 'Duties did not include burn pit' responders are those who did not answer 'Yes' to either question for any deployment segment.

**Table 18: Tobacco and Alcohol Exposures by Self-Reported Burn Pit Exposure Status<sup>1</sup>**

Exposure	Total		Exposed		Unexposed	
	No.	%	No.	%	No.	%
<b>Smoking Status (question 2.5.A and 2.5.C)</b>						
Current every day smoker	1,226	7.1%	1,176	7.0%	50	7.5%
Current some days smoker	1,002	5.8%	970	5.8%	32	4.8%
Former smoker	4,329	24.9%	4,184	25.0%	145	21.9%
Nonsmoker	10,816	62.3%	10,380	62.1%	436	65.8%
<b>Subtotal</b>	<b>17,373</b>	<b>100.0%</b>	<b>16,710</b>	<b>100.0%</b>	<b>663</b>	<b>100.0%</b>
DK/Refused/Missing	1,709		1,655		54	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Age started smoking (among current and former smokers) (question 2.5.B)</b>						
<17 years	1,386	21.1%	1,331	21.0%	55	24.1%
17-21 years	4,059	61.7%	3,921	61.7%	138	60.5%
22-26 years	838	12.7%	812	12.8%	26	11.4%
>26 years	295	4.5%	286	4.5%	9	3.9%
<b>Subtotal</b>	<b>6,578</b>	<b>100.0%</b>	<b>6,350</b>	<b>100.0%</b>	<b>228</b>	<b>100.0%</b>
Never/DK/Refused/Missing	12,504		12,015		489	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Years since quitting smoking (among former smokers) (question 2.5.D)</b>						
Stopped <5 years	1,855	44.4%	1,803	44.7%	52	37.4%
Stopped 5-9 years	1,047	25.1%	1,013	25.1%	34	24.5%
Stopped 10 or more years	1,272	30.5%	1,219	30.2%	53	38.1%
<b>Subtotal</b>	<b>4,174</b>	<b>100.0%</b>	<b>4,035</b>	<b>100.0%</b>	<b>139</b>	<b>100.0%</b>
DK/Refused/Missing/Current smokers	14,908		14,330		578	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Usual number of cigarettes smoked (among current smokers) (question 2.5.E)</b>						
<1 pack/day	1,846	86.1%	1,779	86.1%	67	87.0%
1-2 packs/day	297	13.9%	287	13.9%	10	13.0%
>2 packs/day	0	0.0%	0	0.0%	0	0.0%
<b>Subtotal</b>	<b>2,143</b>	<b>100.0%</b>	<b>2,066</b>	<b>100.0%</b>	<b>77</b>	<b>100.0%</b>
DK/Refused/Missing/Former smokers	16,939		16,299		640	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Started smoking during deployment (question 2.6.A)</b>						
Yes	1,185	15.3%	1,161	15.5%	24	9.2%
No	6,560	84.7%	6,324	84.5%	236	90.8%
<b>Subtotal</b>	<b>7,745</b>	<b>100.0%</b>	<b>7,485</b>	<b>100.0%</b>	<b>260</b>	<b>100.0%</b>
DK/Refused/Missing	11,337		10,880		457	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) for any deployment segment. 'Unexposed' responders are those who did not answer 'Yes' for any deployment segment.

**Table 18 (cont'd): Tobacco and Alcohol Exposures by Self-Reported Burn Pit Exposure Status<sup>1</sup>**

Exposure	Total		Exposed		Unexposed	
	No.	%	No.	%	No.	%
<b>Smoking of tobacco products other than cigarettes (question 2.5.F and 2.5.G)</b>						
Current every day user	83	0.4%	80	0.4%	3	0.4%
Current some days user	314	1.7%	298	1.7%	16	2.3%
Current rare user	2,698	14.4%	2,593	14.4%	105	15.0%
Former user	7,477	40.0%	7,179	39.9%	298	42.7%
Nonsmoker	8,133	43.5%	7,857	43.6%	276	39.5%
<b>Subtotal</b>	<b>18,705</b>	<b>100.0%</b>	<b>18,007</b>	<b>100.0%</b>	<b>698</b>	<b>100.0%</b>
DK/Refused/Missing	377		358		19	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Use of smokeless tobacco products (question 2.5.H and 2.5.I)</b>						
Current every day user	944	5.0%	902	5.0%	42	5.9%
Current some days user	623	3.3%	606	3.3%	17	2.4%
Current rare user	788	4.2%	776	4.3%	12	1.7%
Former user	5,516	29.2%	5,309	29.2%	207	29.3%
Nonsmoker	10,996	58.3%	10,568	58.2%	428	60.6%
<b>Subtotal</b>	<b>18,867</b>	<b>100.0%</b>	<b>18,161</b>	<b>100.0%</b>	<b>706</b>	<b>100.0%</b>
DK/Refused/Missing	215		204		11	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Exposure to second-hand smoke (question 2.5.J)</b>						
Every day	1,291	6.9%	1,245	6.9%	46	6.5%
Some days	3,512	18.6%	3,374	18.6%	138	19.6%
Rarely	7,026	37.3%	6,752	37.2%	274	38.9%
No	7,006	37.2%	6,759	37.3%	247	35.0%
<b>Subtotal</b>	<b>18,835</b>	<b>100.0%</b>	<b>18,130</b>	<b>100.0%</b>	<b>705</b>	<b>100.0%</b>
DK/Refused/Missing	247		235		12	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	
<b>Alcohol intake in past 12 months (question 2.7.A)</b>						
0 day/week	2,613	14.3%	2,496	14.2%	117	17.1%
<1 day/week	8,379	45.8%	8,072	45.8%	307	44.9%
1-7 days/week	7,315	40.0%	7,056	40.0%	259	37.9%
<b>Subtotal</b>	<b>18,307</b>	<b>100.0%</b>	<b>17,624</b>	<b>100.0%</b>	<b>683</b>	<b>100.0%</b>
DK/Refused/Missing	775		741		34	
<b>Total</b>	<b>19,082</b>		<b>18,365</b>		<b>717</b>	

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) for any deployment segment. 'Unexposed' responders are those who did not answer 'Yes' for any deployment segment.

**Table 19: Tobacco and Alcohol Exposures by Self-reported Burn Pit Duties<sup>1</sup>**

Exposure	Total		Duties included burn pit		Duties did not include burn pit	
	No.	%	No.	%	No.	%
<b>Smoking Status (question 2.5.A and 2.5.C)</b>						
Current every day smoker	1,226	7.1%	795	7.4%	431	6.5%
Current some days smoker	1,002	5.8%	695	6.5%	307	4.6%
Former smoker	4,329	24.9%	2,839	26.4%	1,490	22.4%
Nonsmoker	10,816	62.3%	6,405	59.7%	4,411	66.4%
<b>Subtotal</b>	<b>17,373</b>	<b>100.0%</b>	<b>10,734</b>	<b>100.0%</b>	<b>6,639</b>	<b>100.0%</b>
DK/Refused/Missing	1,709		1,149		560	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Age started smoking (among current and former smokers) (question 2.5.B)</b>						
<17 years	1,386	21.1%	828	19.1%	558	25.0%
17-21 years	4,059	61.7%	2,742	63.2%	1,317	58.9%
22-26 years	838	12.7%	570	13.1%	268	12.0%
>26 years	295	4.5%	202	4.7%	93	4.2%
<b>Subtotal</b>	<b>6,578</b>	<b>100.0%</b>	<b>4,342</b>	<b>100.0%</b>	<b>2,236</b>	<b>100.0%</b>
Never/DK/Refused/Missing	12,504		7,541		4,963	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Years since quitting smoking (among former smokers) (question 2.5.D)</b>						
Stopped <5 years	1,855	44.4%	1,278	46.7%	577	40.2%
Stopped 5-9 years	1,047	25.1%	731	26.7%	316	22.0%
Stopped 10 or more years	1,272	30.5%	729	26.6%	543	37.8%
<b>Subtotal</b>	<b>4,174</b>	<b>100.0%</b>	<b>2,738</b>	<b>100.0%</b>	<b>1,436</b>	<b>100.0%</b>
DK/Refused/Missing/Current smokers	14,908		9,145		5,763	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Usual number of cigarettes smoked (among current smokers) (question 2.5.E)</b>						
<1 pack/day	1,846	86.1%	1,242	86.7%	604	85.1%
1-2 packs/day	297	13.9%	191	13.3%	106	14.9%
>2 packs/day	0	0.0%	0	0.0%	0	0.0%
<b>Subtotal</b>	<b>2,143</b>	<b>100.0%</b>	<b>1,433</b>	<b>100.0%</b>	<b>710</b>	<b>100.0%</b>
DK/Refused/Missing/Former smokers	16,939		10,450		6,489	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	
<b>Started smoking during deployment (question 2.6.A)</b>						
Yes	1,185	15.3%	932	18.1%	253	9.7%
No	6,560	84.7%	4,206	81.9%	2,354	90.3%
<b>Subtotal</b>	<b>7,745</b>	<b>100.0%</b>	<b>5,138</b>	<b>100.0%</b>	<b>2,607</b>	<b>100.0%</b>
DK/Refused/Missing	11,337		6,745		4,592	
<b>Total</b>	<b>19,082</b>		<b>11,883</b>		<b>7,199</b>	

<sup>1</sup> Answered 'Yes' to question 1.2.D (Were you near a burn pit during these dates?) and on question 1.2.F (Did your duties during these dates include a burn pit?) for any deployment segment. 'Duties did not include burn pit' responders are those who did not answer 'Yes' to either question for any deployment segment

# GLOSSARY OF TERMS

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## **BURN PITS**

The use of burn pits was a common waste disposal practice at military sites outside of the U.S., such as in Iraq and Afghanistan. Smoke and other emissions from these pits contained an unknown mixture of substances that may have short and long-term health effects, especially for individuals who were exposed for longer periods or those with pre-existing conditions, such as asthma or other lung or heart conditions.

## **ELIGIBLE (for registry participation)**

VA will use deployment data provided by the Department of Defense (DOD) to determine eligibility. To be eligible, a Veteran or Servicemember must have deployed to contingency operations in the Southwest Asia theater of operations at any time on or after August 2, 1990 (as defined in 38 CFR 3.317(e) (2)) or Afghanistan or Djibouti on or after September 11, 2001. These regions include the following countries, bodies of water, and the airspace above these locations: Iraq, Afghanistan, Kuwait, Saudi Arabia, Bahrain, Djibouti, Gulf of Aden, Gulf of Oman, Oman, Qatar, United Arab Emirates, and Waters of the Persian Gulf, Arabian Sea, and Red Sea.

## **GULF WAR VETERANS**

For the purposes of the registry, a Gulf War Veteran is a person who served in Operation Desert Shield (August 2, 1990 to January 15, 1991), Operation Desert Storm (January 16, 1991 to February 28, 1991), Post-Desert Storm Period (March 1, 1991 to January 31, 1992) and/or in the Stabilization Period (February 1, 1992 to September 10, 2001).

## **OPERATION ENDURING FREEDOM (OEF)**

For the purposes of the registry, Operation Enduring Freedom (OEF) is defined as service in Afghanistan and Djibouti after September 11, 2001.

## **OPERATION IRAQI FREEDOM (OIF)**

For the purposes of the registry, Operation Iraqi Freedom (OIF) began in March of 2003 when U.S. and coalition forces moved into Iraq from Kuwait. OIF continued until August 2010.

## **OPERATION NEW DAWN (OND)**

For the purposes of the registry, Operation New Dawn (OND) began in August of 2010 in Iraq and ended in December 2011.

## **REGISTRY PARTICIPANT**

A registry participant is an eligible Veteran or Servicemember who completed the online registry questionnaire.

## **SERVICEMEMBER**

For the purposes of registry, a Servicemember is a person who is serving on active duty in one of the following branches of the United States Armed Forces: Army, Marine Corps, Navy, Air Force, National Guard, or the Coast Guard.

## **SOUTHWEST ASIA THEATER**

Southwest Asia theater of operations (as defined in 38 CFR 3.317 (e)(2)) includes the following countries, bodies of water, and the air space above these locations: Iraq, Kuwait, Saudi Arabia, Bahrain, Gulf of Aden, Gulf of Oman, Oman, Qatar, United Arab Emirates, and waters of the Persian Gulf, Arabian Sea, and Red Sea.

## **USER VALIDATED DATA (DEPLOYMENT)**

Deployment and demographic data are obtained from DOD data sources (VADIR) after the user's personal identifier is authenticated and stored in the registry database. All deployments from DOD data are displayed to the user. The user will then indicate if the deployment dates are valid or not, add missing deployments, and select which base names they were at while deployed. *Source: VA AH&OBP Registry Self-Assessment Questionnaire.*

## **VETERAN**

For the purposes of the registry, a Veteran is a person who has separated from active military, naval, or air service, or any Guard/Reserve person who served in at least one active duty deployment.

# **APPENDIX 1**

## **Airborne Hazards and Open Burn Pit Self-Assessment Questionnaire**





# Airborne Hazards And Open Burn Pit Registry Self-Assessment Questionnaire

**OMB 2900- XXXX**

**VA Form 10-10066**

**This information is collected in accordance with section 3507 of the Paperwork Reduction Act of 1995.** Accordingly, VA may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a valid OMB number. We anticipate that the time expended by all individuals who complete this questionnaire will average 40 minutes. This includes the time it will take to read instructions, gather the necessary facts and fill out the form. The results of this questionnaire will lead to improvement in the quality of service delivery by helping to shape the direction and focus of specific programs and services. Submission of this form is voluntary and failure to respond will have no impact on benefits to which you may be entitled.

# Airborne Hazards and Open Burn Pit Registry Self-Assessment Questionnaire

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**Note: items in square parenthesis, “[ ]”, and item selection number are not displayed to the user.**

# 1. Deployment History

## 1.1. Deployment Data from the VA Defense Information Repository (VADIR) and DMDC

[Note: Deployment and demographic data will be obtained from DoD data sources (VADIR) after the user’s personal identifier is authenticated and stored in the registry database. All deployments from DoD data are displayed to the user. The user will then indicate if the deployment dates are valid or not, add missing deployments, and select which base names they were at while deployed. Guidance will be provided to facilitate direct contact with the appropriate DoD service to correct entries in the official system of record for the DoD deployment data.]

Report Section	Report Field	Note
Deployment Periods	Service	User Validates
	Begin Date	
	End Date	
	Conflict	
	Location	
GWVIS Note	Note	Indicates Operation Desert Storm and Operation Desert Shield service

## 1.2. Location Specific Deployment Exposures

*“Tell us about potential exposures while you were deployed.”*

[Note: Section 1.2 questions are asked for each deployment or deployment segment in the VADIR data]

“During **this** deployment or portion of your deployment:”

- A. [if deployment dates within 1990 – 1992, e.g. VADIR GWVIS indicator set], Were you exposed to soot, ash, smoke, or fumes from the Gulf War oil well fires?
  - 1. Yes, 2. No, 3. I do not wish to answer, 4. Don’t know

- B. Where did you spend **most** of your time during these dates?  
[if deployment dates **not** within 1990 – 1992, e.g. VADIR GWVIS indicator not set: list base names, see Appendix A]  
[Select from list], Other (text entry), I do not wish to answer, Don't know
- C. If you were at more than one base, where did you spend the **second most** amount of time during these dates?  
[if deployment dates **not** within 1990 – 1992, e.g. VADIR GWVIS indicator not set: list base names, see Appendix A]  
[Select from list], Other (text entry), I was not at any other bases, I do not wish to answer, Don't know
- D. Were you near a burn pit during these dates (on the base or close enough to the base for you to see the smoke)?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- E. [If 'D' = yes], Who ran this burn pit (circle all that apply)?  
1. U.S. forces or Contractor, 2. Coalition forces, 3. Host nation, 4. I do not wish to answer, 5. Don't know
- F. [If 'D' = yes] Did your duties during these dates include the burn pit (examples include trash burning, hauling trash to the burn pit, burn pit security, trash sorting at the burn pit)?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- G. [If 'D' = yes] On a typical day, how many hours did smoke or fumes from the burn pit enter your **work site or housing**?  
1. Never, 2. Enter {1, 2, 3, ... 24} hours, 3. I do not wish to answer, 4. Don't know
- H. On a typical day, how many hours were you outside or in an open tent or shelter (for example a single wall tent with open seams or drafty "B" hut)?  
1. Never, 2. Enter {1, 2, 3, ... 24} hours, 3. I do not wish to answer, 4. Don't know
- I. On a **typical day**, how many hours were you near (for example you could smell or see it) sewage ponds?  
1. Never, 2. Enter {1, 2, 3, ... 24} hours, 3. I do not wish to answer, 4. Don't know

### 1.3. General Military Occupational Exposures

During any of your deployments:

- A. Were you ever close enough to feel the blast from an IED (improvised explosive device) or other explosive device?
  - 1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- B. In a typical month, how many days were you near heavy smoke from weapons, signal smoke, markers, or other combat items?
  - 1. Never, 2. Enter {1, 2, 3 ... 31} days, 3. I do not wish to answer, 4. Don't know
- C. In a typical month, how many days were you in convoy or other vehicle operations?
  - 1. Never, 2. Enter {1, 2, 3 ... 31} days, 3. I do not wish to answer, 4. Don't know
- D. In a typical month, how many days did you perform refueling operations?
  - 1. Never, 2. Enter {1, 2, 3 ... 31} days, 3. I do not wish to answer, 4. Don't know
- E. In a typical month, how many days did you perform aircraft, generator, or other large engine maintenance?
  - 1. Never, 2. Enter {1, 2, 3 ... 31} days, 3. I do not wish to answer, 4. Don't know
- F. In a typical month, how many days did you perform construction duties?
  - 1. Never, 2. Enter {1, 2, 3 ... 31} days, 3. I do not wish to answer, 4. Don't know
- G. In a typical month, how many days did you perform pesticide duties for your unit?
  - 1. Never, 2. Enter {1, 2, 3 ... 31} days, 3. I do not wish to answer, 4. Don't know

### 1.4. Environmental Exposures, Regional Air Pollution

- A. Did you do anything differently during your deployment(s), when you thought or were informed air quality was bad (for example during dust storms or heavy pollution days)?
  - 1. Yes, 2. No, 3. Never thought of this, 4. I was not informed or aware of bad air quality, 5. I do not wish to answer, 6. Don't know
- B. [A=yes], What did you do differently (select all that apply)?
  - 1. Wore a mask, cravat, or bandana over your mouth or nose
  - 2. Spent less time outdoors
  - 3. Did less strenuous activities (i.e. avoided physical training (PT))
  - 4. Took medication

5. Closed windows of your sleeping quarters
  6. Spent less time in convoy
  7. Canceled outdoor activities
  8. Exercised indoors instead of outdoors
  9. Used or changed air filter/air cleaner
  10. Other
  11. I did not (or could not) do anything differently
  12. I do not wish to answer
- C. In a typical month during your deployment(s), how many days did you experience dust storms?
1. Never, 2. Enter {1, 2, 3 ... 31} days, 3. I do not wish to answer, 4. Don't know
- D. During your deployment(s), did you experience wheezing, difficulty breathing, an itchy or irritated nose, eyes or throat that you thought was the result of poor air quality?
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- E. [If 'D'=yes], How many days in an average month did you experience wheezing, difficulty breathing, an itchy or irritated eyes, nose or throat that you thought was the result of poor air quality?
1. Enter {1, 2, 3 ... 31} days, 2. Never, 3. I do not wish to answer, 4. Don't know
- F. During your deployment(s), did you seek medical care for wheezing, difficulty breathing, itchy or irritated nose, eyes or throat that you thought was the result of poor air quality?
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

## 2. Symptoms and Medical History

*"Tell us your health history. Please list all conditions even if you don't think they're related to a deployment exposure."*

### 2.1. Functional Limitations and Reported Cause

[Source: NHIS Adult Health Status & Limitations starting with AHS.091\_01.000]

- A. How difficult is it to run or jog one mile on a level surface?

1. Not at all difficult, 2. only a little difficult, 3. somewhat difficult, 4. very difficult, 5. can't do it at all, 6. do not do this activity, 7. I do not wish to answer, 8. Don't know
- B. How difficult is it to walk on a level surface for one mile?
1. Not at all difficult, 2. only a little difficult, 3. somewhat difficult, 4. very difficult, 5. can't do it at all, 6. do not do this activity, 7. I do not wish to answer, 8. Don't know
- C. How difficult is it to walk a ¼ of a mile – about 3 city blocks?
1. Not at all difficult, 2. only a little difficult, 3. somewhat difficult, 4. very difficult, 5. can't do it at all, 6. do not do this activity, 7. I do not wish to answer, 8. Don't know
- D. How difficult is it to walk up a hill or incline?
1. Not at all difficult, 2. only a little difficult, 3. somewhat difficult, 4. very difficult, 5. can't do it at all, 6. do not do this activity, 7. I do not wish to answer, 8. Don't know
- E. How difficult is it to walk up 10 steps or climb a flight of stairs?
1. Not at all difficult, 2. only a little difficult, 3. somewhat difficult, 4. very difficult, 5. can't do it at all, 6. do not do this activity, 7. I do not wish to answer, 8. Don't know

[Source: NHIS: Adult Health Status & Limitations AHS.200\_00.000, selection 14 modified]

- F. [If any question A-E = “difficult”] What condition or health problem causes you to have difficulty with these activities? (Check all that apply.)

- 01 Arthritis/rheumatism
- 02 Back or neck problem
- 03 Benign Tumors, Cysts
- 04 Birth defect
- 05 Brain injury (for example, Traumatic Brain Injury/TBI, Intellectual disability)
- 06 Cancer
- 07 Circulation problems (including blood clots)
- 08 Depression/anxiety/emotional problem
- 09 Diabetes
- 10 Epilepsy, seizures
- 11 Fibromyalgia, lupus
- 12 Fracture, bone/joint injury
- 13 Hearing problem
- 14 Heart problem
- 15 Hernia



- 16 Hypertension/high blood pressure
- 17 Kidney, bladder or renal problems
- 18 Knee problems (not arthritis, not joint injury)
- 19 Lung/breathing problem (for example, asthma and emphysema)
- 20 Migraine headaches (not just headaches)
- 21 Missing limbs (fingers, toes or digits), amputee
- 22 Multiple Sclerosis (MS), Muscular Dystrophy (MD)
- 23 Other developmental problem (for example, cerebral palsy)
- 24 Other injury
- 25 Other nerve damage, including carpal tunnel syndrome
- 26 Osteoporosis, tendinitis
- 27 Parkinson’s disease, other tremors
- 28 Polio(myelitis), paralysis, para/quadriplegia
- 29 Senility
- 30 Stroke problem
- 31 Thyroid problems, Grave’s disease, gout
- 32 Ulcer
- 33 Varicose veins, hemorrhoids
- 34 Vision/problem seeing
- 35 Weight problem
- 36 Other impairment/problem (Specify one)
- 37 I do not wish to answer
- 38 Don’t know/Not sure

## 2.2. Health Conditions

### 2.2.1. Respiratory Conditions

[Source: NHIS Adult Conditions ACN.031 series]

- A. Have you **ever** been told by a doctor or other health professional that you had Hay fever or allergies to pollen, dust, or animals?
  1. Yes, 2. No, 3. I do not wish to answer, 4. Don’t know

[Source: NHIS Adult Conditions ACN.080\_00.000]

- B. Have you **ever** been told by a doctor or other health care professional that you had asthma?
  1. Yes, 2. No, 3. I do not wish to answer, 4. Don’t know

C. Have you **ever** been told by a doctor or other health care professional that you had emphysema?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

D. Have you **ever** been told by a doctor or other health care professional that you had chronic bronchitis?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

[Source: NHIS Adult Conditions ACN.035 series]

E. Have you **ever** been told by a doctor or other health care professional that you had chronic obstructive pulmonary disease also called COPD?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

F. Have you **ever** been told by a doctor or other health care professional that you had some lung disease or condition other than asthma, emphysema, chronic bronchitis or COPD?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

G. [if F="Yes"] Have you **ever** been told by a doctor or other health care professional that you had constrictive bronchiolitis (CB)?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

H. [if F="Yes"] Have you **ever** been told by a doctor or other health care professional that you had pulmonary fibrosis or idiopathic pulmonary fibrosis (IPF)?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

I. [if B-F = yes], When you were told you had asthma, emphysema, chronic bronchitis, COPD or some other lung disease by a doctor or other health care professional, were you told before, during, or after deployment? (check all that apply.)

1. Before deployment, 2. During deployment, 3. After deployment, 4. I do not wish to answer, 5. Don't know

J. [if I = Before], Did this lung disease get better, worse, or about the same during deployment?

1. Better, 2. Worse, 3. About the Same, 4. Not applicable, 5. I do not wish to answer, 6. Don't know

K. Do you currently have any of the following symptoms? (Check all that apply.)

1. Cough for more than 3 weeks  
2. Sputum or phlegm production for more than 3 weeks  
3. Wheezing or whistling in the chest

4. Shortness of breath; breathlessness
  5. Decreased ability to exercise
  6. Hay fever or other respiratory allergy
  7. Sore throat, hoarseness, or change in voice
  8. Chest pain, chest discomfort or chest tightness
  9. Chronic sinus infection/sinusitis
  10. I do not wish to answer
  11. I do not have these symptoms
- L. In the past 12 months did you have any of the following symptoms? (Check all that apply.)
1. Cough for more than 3 weeks
  2. Sputum or phlegm production for more than 3 weeks
  3. Wheezing or whistling in the chest
  4. Shortness of breath; breathlessness
  5. Decreased ability to exercise
  6. Hay fever or other respiratory allergy
  7. Sore throat, hoarseness, or change in voice
  8. Chest pain, chest discomfort or chest tightness
  9. Chronic sinus infection/sinusitis
  10. I do not wish to answer
  11. I do not have these symptoms

[Source: Medical Research Chronic (MRC) Breathlessness scale]

- M. [IF ANSWER TO “L” Current Health symptoms = 04] How would you rate your shortness of breath or breathlessness? (Check the description/grade that applies to you.) I’m:
1. Not troubled by breathlessness except on strenuous exercise
  2. Short of breath when hurrying on the level or walking up a slight hill
  3. Walking slower than most people on level ground, stop after one mile, or stop after 15 minutes walking at my own pace
  4. Stopping for breath after walking about 100 yards or after a few minutes on level ground
  5. Too breathless to leave the house, or breathless when dressing or undressing
  6. I do not wish to answer

### 2.2.2. Cardiovascular Conditions

- A. Have you **ever** been told by a doctor or other health care professional that you had hypertension, also called high blood pressure?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- B. Have you **ever** been told by a doctor or other health care professional that you had coronary artery disease?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- C. Have you **ever** been told by a doctor or other health care professional that you had angina pectoris?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- D. Have you **ever** been told by a doctor or other health care professional that you had a heart attack, also called myocardial infarction?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- E. Have you **ever** been told by a doctor or other health care professional that you had a heart condition other than coronary artery disease or angina or myocardial infarction?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- F. [if any A-E = yes], When you were told you had hypertension, coronary artery disease, angina pectoris, a heart attack, or some other heart condition by a doctor or other health care professional, were you told before, during, or after deployment? (check all that apply.)  
1. Before deployment, 2. During deployment, 3. After deployment, 4. I do not wish to answer, 5. Don't know

### 2.2.3. Other Conditions

[Source NHIS ACN.125\_00.250]

- A. During the **past 12 months**, have you regularly had insomnia or trouble sleeping?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

[Source modified from NHIS ACN.125\_00.130]

- B. During the **past 12 months**, have you had Neurological problems? (Some examples of neurological problems may include numbness, tingling, or weakness in your arms or legs or difficulties with thinking or memory.)

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

[Source modified from NHIS ACN.125\_00.100]

- C. During the **past 12 months**, have you had problems of the immune system?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

[Source NHIS ACN.201\_05.000]

- D. During the **past 12 months**, have you been told by a doctor or other health professional that you had any kind of liver condition?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

- E. During the **past 12 months**, have you been told by a doctor or other health professional that you had any a chronic multi-symptom illness (examples include irritable bowel syndrome, chronic fatigue syndrome, and fibromyalgia)?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

- F. [if B-E = yes], Did your, neurological or immune problems, chronic multi-symptom illness, or liver condition **first** occur before, during, or after deployment? (check all that apply.)

1. Before deployment, 2. During deployment, 3. After deployment, 4. I do not wish to answer, Don't know

- G. On average, how many hours of sleep do you get in a 24-hour period? (Round up 30 minutes or more to the next whole hour.)

1 Enter {1,2,3 ... 24} hours

2 I do not wish to answer

3 Don't know

“Questions H and I are about snoring and breathing during sleep. To answer these questions, please consider both what others have told you **and** what you know about yourself.”

- H. How often do you snore?

1 Never

2 Rarely - less than one night a week

3 Sometimes - 1 or 2 nights a week

4 Frequently - 3 to 5 nights a week

- 5 Always or almost always - 6 or 7 nights a week
- 6 I do not wish to answer
- 7 Don't know

I. How often do you have times when you stop breathing during your sleep?

- 1 Never
- 2 Rarely - less than one night a week
- 3 Sometimes - 1 or 2 nights a week
- 4 Frequently - 3 to 5 nights a week
- 5 Always or almost always - 6 or 7 nights a week
- 6 I do not wish to answer
- 7 Don't know

### 2.3. Height and Weight

A. How tall are you without shoes?

- 1 Enter (x feet, y inches), 2 I do not wish to answer, 3 Don't know

B. How much do you weigh without shoes?

- 1 Enter X pounds, 2 I do not wish to answer, 3 Don't know

### 2.4. Cancer History

[Source NHIS ACN.130\_00.000]

A. Have you **ever** been told by a doctor or other health professional that you had Cancer or a malignancy (tumor) of any kind?

- 1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

[if 'A' <> "Yes" skip to section 2.5]

B. What kind of cancer was it?

- 01 Bladder
- 02 Blood
- 03 Bone
- 04 Brain
- 05 Breast
- 06 Cervix

- 07 Colon
- 08 Esophagus
- 09 Gallbladder
- 10 Kidney
- 11 Larynx-windpipe
- 12 Leukemia
- 13 Liver
- 14 Lung
- 15 Lymphoma
- 16 Melanoma
- 17 Mouth/tongue/lip
- 18 Ovary
- 19 Pancreas
- 20 Prostate
- 21 Rectum
- 22 Skin (non-melanoma)
- 23 Skin (Don't Know what kind)
- 24 Soft tissue (muscle or fat)
- 25 Stomach
- 26 Testis
- 27 Throat - pharynx
- 28 Thyroid
- 29 Uterus
- 30 Other
- 31 None
- 32 I do not wish to answer
- 33 Don't know

C. [if 'B' < 30] How old were you when this cancer was first diagnosed?

- 1. Enter {00-99} Years
- 2. I do not wish to answer, 3. Don't know

D. [if 'B' < 30] If you were diagnosed with a second cancer, what kind of cancer was it?

- 01 Bladder
- 02 Blood
- 03 Bone
- 04 Brain
- 05 Breast
- 06 Cervix
- 07 Colon
- 08 Esophagus
- 09 Gallbladder
- 10 Kidney
- 11 Larynx-windpipe

- 12 Leukemia
- 13 Liver
- 14 Lung
- 15 Lymphoma
- 16 Melanoma
- 17 Mouth/tongue/lip
- 18 Ovary
- 19 Pancreas
- 20 Prostate
- 21 Rectum
- 22 Skin (non-melanoma)
- 23 Skin (Don't Know what kind)
- 24 Soft tissue (muscle or fat)
- 25 Stomach
- 26 Testis
- 27 Throat - pharynx
- 28 Thyroid
- 29 Uterus
- 30 Other
- 31 None
- 32 I do not wish to answer
- 33 Don't know

E. [if 'D' < 30] How old were you when this cancer was first diagnosed?

- 1. Enter {00-99} Years
- 2. I do not wish to answer, 3. Don't know

F. [if 'D' < 30] If you were diagnosed with a third cancer, what kind of cancer was it?

- 01 Bladder
- 02 Blood
- 03 Bone
- 04 Brain
- 05 Breast
- 06 Cervix
- 07 Colon
- 08 Esophagus
- 09 Gallbladder
- 10 Kidney
- 11 Larynx-windpipe
- 12 Leukemia
- 13 Liver
- 14 Lung
- 15 Lymphoma
- 16 Melanoma



- 17 Mouth/tongue/lip
- 18 Ovary
- 19 Pancreas
- 20 Prostate
- 21 Rectum
- 22 Skin (non-melanoma)
- 23 Skin (Don't Know what kind)
- 24 Soft tissue (muscle or fat)
- 25 Stomach
- 26 Testis
- 27 Throat - pharynx
- 28 Thyroid
- 29 Uterus
- 30 Other
- 32 I do not wish to answer
- 33 Don't know

- G. [if 'F' < 30] How old were you when this cancer was first diagnosed?
- 1. Enter {00-99} Years
  - 2. I do not wish to answer, 3. Don't know

## 2.5. Tobacco Exposure

[Source: NHIS Adult Health Behaviors: AHB.010\_00.000]

A. Have you smoked at least 100 cigarettes in your entire life?

1. Yes
2. No
3. I do not wish to answer
4. Don't know

[if A=Yes continue to 'B' else skip to 'F']

B. How old were you when you first started to smoke fairly regularly?

1. Enter X (age in years),
2. Never smoked regularly
3. I do not wish to answer
4. Don't know

[if B=age continue to 'C' else skip to 'F']

C. Do you now smoke cigarettes every day, some days or not at all?

1. Every day
2. Some days
3. Not at all
4. I do not wish to answer
5. Don't know

D. [if 'C'=not at all], How long has it been since you quit smoking cigarettes?

1. Enter {00-99} (Years since quit)
2. I do not wish to answer
3. Don't know

E. [if 'C'=some days or every day], On the average, how many cigarettes do you now smoke a day?

1. Enter {00-99} (Number of cigarettes per day)
2. I do not wish to answer
3. Don't know

F. Have you ever smoked tobacco products other than cigarettes even one time?  
(Such as cigars, pipes, water pipes or hookahs, small cigars that look like cigarettes, bidis, cigarillos, marijuana?)

1. Yes

2. No
3. I do not wish to answer
4. Don't know

[if F=Yes continue to 'G' else skip to 'H']

G. Do you now smoke tobacco products other than cigarettes every day, some days, rarely, or not at all?

1. Every day
2. Some days
3. Rarely
4. Not at all
5. I do not wish to answer
6. Don't know

H. Have you ever used smokeless tobacco products even one time? (Such as chewing tobacco, snuff, dip, snus, or dissolvable tobacco.)

1. Yes
2. No
3. I do not wish to answer
4. Don't know

[if H=Yes continue to 'I' else skip to 'J']

I. Do you **now** use smokeless tobacco products every day, some days, rarely, or not at all?

1. Every day
2. Some days
3. Rarely
4. Not at all
5. I do not wish to answer
6. Don't know

J. Are you exposed to second-hand smoke or environmental tobacco smoke every day, some days, rarely, or not at all?

1. Every day
2. Some days
3. Rarely
4. Not at all
5. I do not wish to answer
6. Don't know

## **2.6. Deployment Smoking History**

[Source: modified from DoD USAPHC DARE H2-5c]

- A. [if 2.5.A = yes], Did you start smoking for the first time while being deployed?
  - 1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
  
- B. [if 2.6.A = No], How did deployment(s) change how much you smoked?
  - 1. No change, 2. I smoked more while deployed, 3. I smoked less while deployed, 4. I do not wish to answer, 5. Don't know

## **2.7. 12 Month Alcohol Use**

- A. In the PAST YEAR, how often did you ever drink any type of alcoholic beverage (Included are liquor such as whiskey or gin, beer, wine, wine coolers, and any other type of alcoholic beverage)? "On average, how many days per week did you drink?"
  - 1. Never, 2. Less than one, 3. 1-7 days per week, 4. I do not wish to answer, 5. Don't know

### 3. Health Concerns

*“Help us focus our efforts on health issues you care about.”*

- A. Compared to pre-deployment, would you say your overall health is better, worse, or about the same?
1. Better, 2. Worse, 3. About the same, 4. I do not wish to answer, 5. Don't know
- B. During your deployment(s), do you believe you were sick because of something you breathed?
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- C. Do you **currently** have a sickness or condition you think began or got worse because of something you breathed during deployment(s)?
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- D. [If 'C'=yes], When did the problem start?
1. Before deployment
  2. During Deployment
  3. 6 months or less after deployment
  4. More than 6 months later after deployment
  5. Not sure
  6. I do not wish to answer
- E. Please rate your concern that something you breathed during deployment **has already affected** your health.
1. Not at all concerned, 2. a little concerned, 3. very concerned, 4. I do not wish to answer
- [If 'E'=very or little concerned continue to F, else skip to H]
- F. Please identify your biggest health concern that something you breathed during deployment **has already affected** your health.
1. Lung/Respiratory/Breathing problem
  2. Heart problem
  3. Skin problem
  4. Eye problem
  5. Gastrointestinal (GI) problem
  6. Neurological problem
  7. Immune problem
  8. Effect on children or ability to have children
  9. Cancer

10. Other problem
  11. I do not wish to answer
- G. Have you discussed this concern with your health care provider, medical professional or team?
1. Yes, 2. No, 3. Not yet but I would like to talk with a medical professional
- H. Are you concerned that **in the future** that your health will be affected by something you breathed during deployment(s)
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- I. [If 'H'=yes], Please rate your concern that something you breathed during deployment will affect your **future health**.
1. Not at all concerned, 2. a little concerned, 3. very concerned, 4. I do not wish to answer
- J. [If 'I'=very or little concerned], Please identify your biggest health concern that something you breathed during deployment will affect your **future health**.
1. Lung/Respiratory/Breathing
  2. Heart
  3. Skin
  4. Eyes
  5. Effect on children or ability to have children
  6. Cancer
  7. Other
  8. I do not wish to answer
- K. [If 'E' or 'I'=very or little concerned], Which exposure do you think has the **biggest** overall effect on your health?
1. **Off** base air pollution during deployment (factories, cars, burning trash, dust)
  2. **On** base air pollution during deployment (burning fuel, burn pits)
  3. Hobbies and non-military jobs
  4. Military jobs while I'm not deployed
  5. Smoking (by you or those near you)
  6. I do not wish to answer
  7. Don't know

## 4. Places You've Lived

*“Poor air quality in places where you've lived may impact how deployment exposures affect you.”*

[System displays current address]

A. What is your current address (complete here if not shown above [from VADIR and VA BIRLS sources], if correct skip to “5”)? Please include the city, state, zip code, and country.

1. Country \_\_\_\_\_

[If country <> “USA” then skip to 5]

2. City Name \_\_\_\_\_

3. State \_\_\_\_\_ (two letter code)

4. Zip code (if known): \_\_\_\_\_ (5 digit number)

5. How many years have you lived at your current address (listed above)? \_\_\_\_ years

6. Do you live nine or more months of the year at the address listed above? Yes, No

7. If not, indicate the other residence.

a. Other city name \_\_\_\_\_

b. Other state \_\_\_\_\_ (two letter code)

c. Other zip code (if known): \_\_\_\_\_ (5 digit number)

d. Other country \_\_\_\_\_

B. Where have you lived the longest? Please include the city, state, zip code, and country.

1. The address where I lived the longest is the same as my current address.

Yes \_\_ (if yes go to next question), No

2. Country \_\_\_\_\_

[If country <> “USA” then skip to 6]

3. City Name \_\_\_\_\_

4. State \_\_\_\_\_ (two letter code)

5. Zip code (if known): \_\_\_\_\_ (5 digit number)

6. Indicate the approximate year you moved to this address: \_\_\_\_\_

7. Indicate the approximate year you moved out of this address: \_\_\_\_\_

C. Please provide the address where you lived the longest before age 13. Please include the city, state, zip code, and country.

1. Country \_\_\_\_\_

[If country <> “USA” then skip to 5]

2. City Name \_\_\_\_\_

3. State \_\_\_\_\_ (two letter code)

4. Zip code (if known): \_\_\_\_\_ (5 digit number)

5. Indicate the approximate age you moved to this address. \_\_\_\_\_ years (Enter “0” if you lived there before age 1)

6. Indicate the approximate age you moved out of this address: \_\_\_\_\_ years

## 5. Work History

*“Exposures in your non-military jobs may impact how deployment exposures affect you.”*

### 5.1. Current Occupational Status

A. Which of the following were you doing last week?

- 1 Working for pay at a job or business
- 2 With a job or business but not at work (e.g. a volunteer)
- 3 Looking for work
- 4 Working, but not for pay, at a family-owned job or business
- 5 Not working at a job or business and not looking for work
- 6 I do not wish to answer
- 7 Don't know

B. [if A=3 or 5] What is the main reason you did not [3 or 5 text: work last week/have a job or business last week]?

- 1 Taking care of house or family
- 2 Going to school
- 3 Retired
- 4 On a planned vacation from work
- 5 On family or maternity leave
- 6 Temporarily unable to work for health reasons



- 7 Have job/contract and off-season
- 8 On layoff/laid-off from a job
- 9 Disabled
- 10 Other
- 11 I do not wish to answer
- 12 Don't know

## 5.2. Main Occupation

- A. Select the occupational category that best describes your main occupation (the civilian job you've held the longest). **Do not include your occupation during military service.** If your occupation is not included, select "other occupation":

1. Agricultural and fishing/hunting workers	2. Automotive, aircraft and marine mechanics and service technicians	3. Construction trade workers, helpers and other construction related workers
4. Driver/sales workers and truck drivers	5. Extraction workers (e.g. mining or drilling)	6. Firefighters
7. Food processing	8. Forest conservation and logging workers	9. Police and sheriff's patrol officers
10. Welding, soldering and brazing	11. Other occupation [text entry]	12. I do not wish to answer

- B. Total years in this non-military job {0...99} years (enter 0 if less than one year).
- 1. Enter {00-99} years
  - 2. I do not wish to answer, 3. Don't know

## 5.3. Dust Exposures

- A. Have you ever worked for a year or more in any dusty job **outside the military**?
- 1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

[if A = yes, continue, else jump to 5.4]

- B. For the job with the biggest dust exposure:
- 1. Select the occupational category that best describes the job with the longest dust exposure. If your occupation is not included, select "other occupation":

1. Agricultural and fishing/hunting workers	2. Automotive, aircraft and marine mechanics and service technicians	3. Construction trade workers, helpers and other construction related
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		workers
4. Driver/sales workers and truck drivers	5. Extraction workers (e.g. mining or drilling)	6. Firefighters
7. Food processing	8. Forest conservation and logging workers	9. Police and sheriff's patrol officers
10. Welding, soldering and brazing	11. Other occupation [text entry]	12. I do not wish to answer

2. In this job, what were the most common kinds of dust to which you were exposed (select all that apply)?

1. Animal dander	2. Wood or sawdust	3. Metal (aluminum, copper, iron, steel, or other types)
4. Cotton, wool, or other cloth or textile	5. Asbestos	6. Plaster
7. Flour	8. Cement	9. Sand or silica
10. Grain	11. Coal	12. Talc
13. Hay	14. Fiberglass	15. Lime
16. Paper or cardboard	17. Granite or other rock	18. Plastic or rubber
19. Soil or dirt	20. Other dust [text entry]	21. I do not wish to answer

3. Total years in this job {0...99} years (enter 0 if less than one year).

1. Enter {00-99} years
2. I do not wish to answer, 3. Don't know

4. Are you working in this dusty job now?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

## 5.4. Gas, Smoke, Vapors or Fumes Exposures

A. Have you ever been exposed to gas, smoke, chemical vapors or fumes in your work **outside the military**?

1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- [if A = yes, continue, else jump to 5.5]

B. For the job with the biggest gas, smoke, vapor or fume exposure:

1. Select the occupational category that best describes the job with the longest gas, smoke, chemical vapor, or fume exposures. If your occupation is not included, select “other occupation”:

1. Agricultural and fishing/hunting workers	2. Automotive, aircraft and marine mechanics and service technicians	3. Construction trade workers, helpers and other construction related workers
4. Driver/sales workers and truck drivers	5. Extraction workers (e.g. mining or drilling)	6. Firefighters
7. Food processing	8. Forest conservation and logging workers	9. Police and sheriff’s patrol officers
10. Welding, soldering and brazing	11. Other occupation [text entry]	12. I do not wish to answer

2. In this job, what were the most common kinds of gas, smoke, or chemical vapors or fumes to which you were exposed (select all that apply)?

1. Cutting oils or mists	2. Exhaust: primarily diesel engine	3. Exhaust: primarily gasoline engine
4. Exhaust: both diesel and gasoline engine	5. Exhaust: primarily another kind	6. Fumes from chemicals
7. Gasoline or other fuel fumes	8. Paint or lacquers	9. Pesticides or insecticides
10. Smoke from burning buildings, fuel oil, refuse, or wood	11. Solvents	12. Welding
13. Other gas, smoke, or chemical vapor or fume (indicate kind)_____	14. I do not wish to answer	15. Don’t know

3. Total years in this job {0...99} years (enter 0 if less than one year).
  1. Enter {00-99} years
  2. I do not wish to answer, 3. Don’t know
  
4. Are you working in this job with gas, smoke, or chemical vapors or fumes now?
  1. Yes, 2. No, 3. I do not wish to answer, 4. Don’t know

## 5.5. Asbestos Exposure

- A. Have you ever worked in a job with asbestos exposure, including military service?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

[if A = yes, continue, else jump to 5.6]

- B. Circle the type(s) of asbestos exposure that describe(s) how you were exposed to.
1. I did not handle asbestos directly, but asbestos was present on overhead pipes or ceilings, flooring, brakes, or other materials.
  2. I did not handle asbestos directly, but I worked in area where asbestos dust was created by others.
  3. I handled asbestos or asbestos containing products directly and created asbestos dust.
  4. I do not wish to answer
  5. Don't know

- C. How many years did you work in a job with asbestos exposure (enter 0 if less than one year)?
1. Enter {00-99} years
  2. I do not wish to answer, 3. Don't know

- D. Are you working in a job with asbestos exposure now?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

## 6. Home Environment and Hobbies

*“Exposures in your home environment or hobbies may impact how deployment exposures affect you.”*

- A. Are there any traditional farm animals that live on your land or that you visit on a regular basis?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- B. Have you ever removed mold in your home because of its effect on your health?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know
- C. Have you ever lived in a home that had elevated radon levels?  
1. Yes, 2. No, 3. I do not wish to answer, 4. Don't know

D. Please select from the list below any hobbies you participate in.

[Source: DoD USAPHC DARE questionnaire, page 14, section G].

1. Woodworking, including sanding	2. Welding, brazing or soldering	3. Metal working, including machining, grinding
4. Stained glass work	5. Hobbies utilizing epoxy resin adhesives	6. Pottery work, including glazing
7. Indoor swimming and/or indoor ice-skating	8. None	9. I do not wish to answer,

E. [if item selected in ‘D’] How many total hours a week, on average, do you participate in all the above hobbies combined?

1. Enter: 1,2, 3, 4, 5, 6, 7, 8, 9, 10 or more, 2. I do not wish to answer,
3. Don’t know

## 7. Health Care Utilization

[Source NHIS: Adult Access to Health Care & Utilization, AAU.305\_00.000]

A. About how long has it been since you last saw or talked to a doctor or other health care professional about your own health? Include doctors seen while a patient in a hospital.

1. Never
2. 6 months or less
3. More than 6 months, but not more than 1 yr ago
4. At least 1 year, but not more than 2 yrs ago
5. At least 2 years, but not more than 5 yrs ago
6. At least 5 years ago
7. I do not wish to answer
8. Don’t know

B. Do you wish to see a DoD or VA health care provider to discuss your health concerns related to airborne hazards during deployment?

1. Yes, 2. No, 3. Don’t know

## 8. Contact Preferences

*“Help us communicate in ways that are most effective. VA will review these responses to determine the best ways to conduct outreach.”*

- A. How do you prefer to receive updated information on burn pits and other airborne exposures?
  - 1. Email from VA
  - 2. VA Web site
  - 3. Through my health care provider
  - 4. VA social media (e.g. Twitter, Facebook)
  - 5. Letter/U.S. Mail
  - 6. Through the Department of Defense
  - 7. Through a Veterans Service Organization
  - 8. I do not wish to receive any updated information
  
- B. Do you use the Internet?
  - 1. Yes
  - 2. No
  - 3. I do not wish to answer
  - 4. Don't know
  
- C. Do you send or receive emails?
  - 1. Yes
  - 2. No
  - 3. I do not wish to answer
  - 4. Don't know