

Free Executive Summary

Improving the Presumptive Disability Decision-Making Process for Veterans

Committee on Evaluation of the Presumptive Disability
Decision-Making Process for Veterans, Jonathan M.
Samet and Catherine C. Bodurow, Editors

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General Summary

The United States has long recognized and honored the service and sacrifices of its military and veterans. Veterans who have been injured by their service (whether their injury appears during service or afterwards) are owed appropriate health care and disability compensation. For some medical conditions that develop after military service, the scientific information needed to connect the health conditions to the circumstances of service may be incomplete. When information is incomplete, Congress or the Department of Veterans Affairs (VA) may need to make a “presumption” of service-connection so that a group of veterans can be appropriately compensated. The missing information may be about the specific exposures of the veterans, or there may be incomplete scientific evidence as to whether an exposure during service causes the health condition of concern. For example, when the exposures of military personnel in Vietnam to Agent Orange could not be clearly documented, a presumption was established that all those who set foot on Vietnam soil were exposed to Agent Orange.

Our Committee has been charged with reviewing and describing how presumptions have been made in the past and, if needed, to make recommendations for an improved scientific framework that could be used in the future for determining if a presumption should be made. The Committee was asked to consider and describe the processes of all participants in the current presumptive disability decision-making process for veterans. The Committee was not asked to offer an opinion about past presumptive decisions or to suggest specific future presumptions. The Committee heard from a range of groups that figure into this decision-making process, including past and present staffers from Congress, the VA, the Institute of Medicine (IOM), veterans service organizations, and individual veterans. The Department of Defense (DoD) briefed the Committee about its current activities and plans to better track the exposures and health conditions of military personnel. The Committee further documented the current process by developing case studies around exposures and health conditions for which presumptions had been made. The Committee also reviewed general methods by which scientists, as well as government and other organizations, evaluate scientific evidence in order to determine if a specific exposure causes a health condition.

The history of presumptions is a fascinating and complex story. In 1921 Congress empowered the VA Administrator (now Secretary) to establish presumptions of service-connection for veterans. Only Congress and VA have the authority to establish presumptions for veterans. Since 1921, nearly 150 health outcomes have been service-connected on a presumptive basis by Congress and VA. This process has evolved over the years. The current process for making pre-

sumptions can be traced to the Agent Orange Act of 1991, an act that established a model for decision making by VA that still stands today. In the 1991 Act, Congress asked VA to contract with an independent organization to review the scientific evidence on Agent Orange. VA turned to the Institute of Medicine (IOM) of the National Academy of Sciences to carry out these reviews. Subsequently, VA turned to IOM for issues arising from the 1990 Gulf War. Based on the work of a committee, IOM provides VA with reports that describe the strength of evidence which links agents of concern with specific health conditions. VA uses IOM reports and other information in an internal decision-making process to decide whether a presumption will be made.

The Committee carefully studied the current approach to presumptive disability decision-making and examined a number of specific case examples. This assessment led to a number of recommendations to improve the process:

- As the case studies demonstrated, Congress could provide a clearer and more consistent charge on how much evidence is needed to make a presumption. There should be clarity as to whether the finding of an association in one or more studies is sufficient or the evidence should support causation.

- Due to lack of clarity and consistency in congressional language and VA's charges to the committees, IOM committees have taken somewhat varying approaches since 1991 in reviewing the scientific evidence, and in forming their opinions on the possibility that exposures during military service contributed to causing a health condition. Future committees could improve their review and classification of scientific evidence if they were given clear and consistent charges and followed uniform evaluation procedures.

- The internal processes by which the VA makes its presumptive decisions following receipt of an IOM report have been unclear. VA should adopt transparent and consistent approaches for making these decisions.

- Complete exposure data and health condition information for military personnel (both individuals and groups) usually have not been available from DoD in the past. Such information is one of the most critical pieces of evidence for improving the determination of links between exposures and health conditions.

All of these improvements are feasible over the longer term and are needed to ensure that the presumptive disability decision-making process for veterans is based on the best possible scientific evidence. Decisions about disability compensation and related benefits (e.g., medical care) for veterans should be based on the best possible documentation and evidence of their military exposures as well as on the best possible information on any health conditions caused by these exposures. While it is impossible to provide certainty in every case, a fresh approach could do much to improve the current process. The Committee's recommended approach (Figure GS-1) has several parts:

- an open process for nominating exposures and health conditions for review; involving all stakeholders in this process is critical;
- a revised process for evaluating scientific information on whether a given exposure causes a health condition in veterans; this includes a new set of categories to assess the strength of the evidence for causation, and an estimate of the numbers of exposed veterans whose health condition can be attributed to their military exposure;
- a consistent and transparent decision-making process by VA;

- a system for tracking the exposures of military personnel (including chemical, biological, infectious, physical and psychological stressors), and for monitoring the health conditions of all military personnel while in service and after separation; and
- an organizational structure to support this process.

To support the Committee's recommendations, we suggest the creation of two panels. One is an Advisory Committee (advisory to VA), that would assemble, consider and give priority to the exposures and health conditions proposed for possible presumptive evaluation. Nominations for presumptions could come from veterans and other stakeholders as well as from health tracking, surveillance and research. The second panel would be a Science Review Board, an independent body, which would evaluate the strength of the evidence (based on causation) which links a health condition to a military exposure and then estimates the fraction of exposed veterans whose health condition could be attributed to their military exposure. The Science Review Board's report and recommendations would go to VA for its consideration. VA would use explicit criteria to render a decision by the VA Secretary with regard to whether a presumption would be established. In addition, the Science Review Board would monitor information on the health of veterans as it accumulates over time in the DoD and VA tracking systems, and nominate new exposures or health conditions for evaluation as appropriate.

This Committee recommends that the following principles be adopted in establishing this new approach:

1. Stakeholder inclusiveness
2. Evidence-based decisions
3. Transparent process
4. Flexibility
5. Consistency
6. Causation, not just association, as the target for decision making

The Committee suggests that its framework be considered as the model to guide the evolution of the current approach. While some aspects of the approach may appear challenging or infeasible at present, feasibility would be improved with the full implementation of the Committee's recommendations, provision of appropriate resources to all of the participants in the presumptive disability decision-making process for veterans and future methodological developments. DoD and VA have already been discussing various aspects of improving exposure and health tracking and how the two agencies can share data and information with each other. Veterans deserve to have these improvements accomplished as soon as possible.

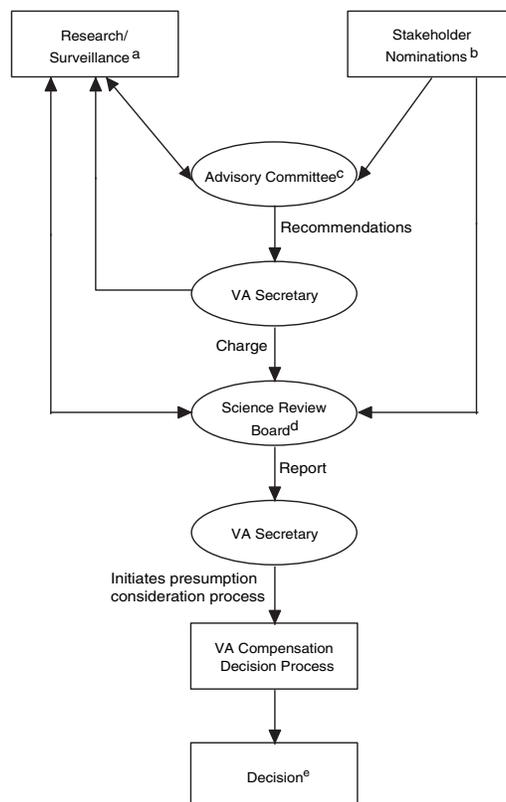


FIGURE GS-1 Proposed Framework for Future Presumptive Disability Decision-Making Process for Veterans.

^a Includes research for classified or secret activities, exposures, etc.

^b Includes veterans, Veterans Service Organizations, federal agencies, scientists, general public, etc.

^c This committee screens stakeholders' proposals and research in support of evaluating evidence for presumptions and makes recommendations to the VA Secretary when full evidence review or additional research is appropriate.

^d The board conducts a two-step evidence review process (see report text for further detail).

^e Final presumptive disability compensation decisions are made by the Secretary, Department of Veterans Affairs, unless legislated by Congress.

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Decision-Making Process for Veterans

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Board on Military and Veterans Health

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The serpent has been a symbol of long life, healing, and knowledge among almost all cultures and religions since the beginning of recorded history. The serpent adopted as a logotype by the Institute of Medicine is a relief carving from ancient Greece, now held by the Staatliche Museen in Berlin.

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Jacob I and Irene B. Fabrikant Professor in Health, Risk, and Society,
The Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD.

MARGARET A. BERGER, Suzanne J. and Norman Miles Professor of Law, Brooklyn Law School,
NY

KIRSTEN BIBBINS-DOMINGO, Assistant Professor of Medicine and of Epidemiology and
Biostatistics, University of California, San Francisco

ERIC G. BING, Endowed Professor of Global Health and HIV, Charles R. Drew University of Medicine
& Science, Los Angeles, CA

BERNARD D. GOLDSTEIN, Professor of Environmental and Occupational Health, Graduate School of
Public Health, University of Pittsburgh, Pittsburgh, PA

GUY H. McMICHAEL III, President, GHM Consulting, Washington, DC

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RICHARD P. SCHEINES, Professor and Head, Department of Philosophy, Carnegie Mellon
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KENNETH R. STILL, President and Scientific Director, Occupational Toxicology Associates, Inc.,
Hillsboro, OR

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Biostatistics Division, Department of Preventive Medicine, Keck School of Medicine, University of
Southern California, Los Angeles

SVERRE VEDAL, Professor, Department of Environmental and Occupational Health Sciences,
University of Washington School of Public Health and Community Medicine, Seattle

ALLEN J. WILCOX, Senior Investigator, Epidemiology Branch, National Institute of Environmental
Health Sciences, and Editor-in-Chief of Epidemiology, Durham, NC

SCOTT L. ZEGER, Frank Hurley-Catharine Dorrier Professor and Chair, Department of Biostatistics,
Bloomberg School of Public Health, The Johns Hopkins University, Baltimore MD

LAUREN ZEISE, Chief, Reproductive and Cancer Hazard Assessment Branch, Office of Environmental
Health Hazard Assessment, California Environmental Protection Agency, Oakland

Volunteer Scientific Consultant

MELISSA McDIARMID, Professor of Medicine, Occupational Health Program, University of Maryland
School of Medicine, Baltimore

Consultant

ROBERT J. EPLEY, Independent Consultant, Waxhaw, NC

Staff

CATHERINE BODUROW, Study Director

The following staff provided part-time support to this effort during the specified time period:

MORGAN A. FORD, Program Officer (May through August 2007)

LESLIE SIM, Program Officer (February through May 2006)

ALICE VOROSMARTI, Research Associate (May through August 2007)

CARA JAMES, Research Associate (June 2006 through May 2007)

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ANISHA DHARSHI, Research Associate (June 2006 through January 2007)
KRISTEN BUTLER, Research Assistant (March through July 2007)
KRISTEN GILBERTSON, Research Assistant (February through July 2006)
JON Q. SANDERS, Program Associate (March 2006 through May 2007)
REINE Y. HOMA WOO, Senior Program Assistant (May through August 2007)
VERA DIAZ, Intern (February through April 2007)

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This report has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the NRC's Report Review Committee. The purpose of this independent review is to provide candid and critical comments that will assist the institution in making its published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the study charge. The review comments and draft manuscript remain confidential to protect the integrity of the deliberative process. We wish to thank the following individuals for their review of this report:

Dan G. Blazer, Duke University Medical Center
Mark R. Cullen, Yale University School of Medicine
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Although the reviewers listed above have provided many constructive comments and suggestions, they were not asked to endorse the conclusions or recommendations nor did they see the final draft of the report before its release. The review of this report was overseen by **Gilbert S. Omenn**, University of Michigan Medical School and **Willard G. Manning**, The University of Chicago. Appointed by the National Research Council and Institute of Medicine, respectively, they were responsible for making certain that an independent examination of this report was carried out in accordance with institutional procedures and that all review comments were carefully considered. Responsibility for the final content of this report rests entirely with the authoring committee and the institution.

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Preface

This committee, the Committee on Evaluation of the Presumptive Disability Decision-Making Process for Veterans (Committee), was charged with describing the current process for how presumptive decisions are made for veterans who have health conditions arising from military service and with proposing a scientific framework for making such presumptive decisions in the future. Although an individual veteran can establish a direct service-connection for an illness, the needed information on the responsible exposure received during military service may be unavailable or incomplete. Additionally, there may be scientific uncertainty as to whether the exposure is known to cause the health condition. To assure that veterans are compensated when information for direct service-connection is needed but unavailable, Congress or the Secretary of the Department of Veterans Affairs (VA) can decide to service connect entire groups of veterans for specific health conditions due to exposures received during service. This decision to compensate particular groups of veterans is called a presumptive disability service-connection decision or, simply, a presumption. A presumption may address unavailable or incomplete information on exposure or gaps in the evidence as to whether the exposure increases risk for the health condition.

Each veteran identified as eligible for coverage under a presumptive decision will have a separate, individual disability rating conducted by the VA and will be eligible for disability compensation based on the nature and severity of the health condition. That is, the presumptive disability service-connection decision is separate from the rating evaluation and compensation process.

The Committee took on the task of addressing presumptions while the United States was involved in conflict in Iraq and Afghanistan and veterans from prior conflicts were developing health conditions linked to service in Vietnam and the 1990 Persian Gulf War. The Committee's charge involved examination of the processes used by all participants in the presumptive disability decision-making process for veterans – Congress, VA, the National Academies [National Research Council (NRC) and Institute of Medicine (IOM)], veterans service organizations and veterans. The Committee examined the processes used by NRC and IOM to evaluate scientific evidence in support of presumptive disability decision-making by the VA and how the VA used the syntheses and scientific classifications of the NRC and IOM, along with other information, to establish presumptive decisions. The Committee was asked to describe the current process. The Committee's approach involved a series of case studies, intended to draw out "lessons learned" that would inform the development of a new approach. The case studies are not intended as criticisms about the work of past NRC or IOM committees or previously-established presumptive decisions by Congress and VA. Rather the case studies serve as an appropriate and informative foundation for proposing an approach for the future.

The Committee concluded that the presumptive disability decision-making process should be based on evidence about veterans' health and how their health had been affected by military service. The Committee proposes a framework for the future that will be based on findings about the health of veterans that come from careful charting of exposures during military service and tracking of their health at entry into, during, at separation from and after military service. The proposed framework may be applied to all types of exposures (e.g., chemical, biological, infectious, physical and psychological); however, we recognize that characterizing psychological stressors, particularly under combat circumstances, is particularly difficult, although highly relevant to the chronic neuropsychiatric disorders faced by veterans. The Committee offers its framework for evaluation of the resulting evidence and for considering the evidence from studies of veterans in the context of all other relevant lines of scientific evidence. The Committee recommends a two-step approach for evaluation of scientific evidence on exposures of military personnel and risks to health. The first step is to determine the strength of evidence in support of causation and to classify the strength of the causal classification. The second step is to describe the magnitude of the disease burden caused by the exposure in a specific group of veterans.

Presumptive decisions, while based in evidence on risks to health status, are also affected by other considerations. The report acknowledges these considerations. The Committee recognizes that its proposed framework for the future will be applied in a context set by many considerations beyond the scope of scientific evidence and its classification with regard to the strength of evidence for causality. Nonetheless, the Committee respectfully hopes that the Veterans' Disability Benefits Commission will recommend and that Congress and the VA will adhere to an evidence-based approach for the future presumptive disability decision-making process for veterans.

I am highly appreciative of the dedication and work of the members on the Committee on Evaluation of the Presumptive Disability Decision-Making Process for Veterans. They willingly took on this important effort at a time when every American is aware of the great sacrifices which military service men and women and our veterans have and do make each day. The Committee addressed its charge with great dedication and worked tirelessly to consider all of the relevant information, to deliberate at length in committee meetings and conference calls. Of course, each committee member invested substantial time in this effort, reflective of its importance and of its challenging nature. The proposed scientific framework, levels for strength of evidence, and other recommendations in this report reflect the thoughtful and carefully considered conclusions of the Committee. The Committee wishes to express its appreciation for the valuable support of its dedicated staff directed by Catherine Bodurow. This report would not have been possible without their contributions.

Veterans have sacrificed a great deal for our nation. We owe them the best possible process for ensuring that those having service-related health conditions are properly identified, treated and compensated.

Jonathan M. Samet, M.D., M.S.
Chair



Acknowledgments

The Committee on Evaluation of the Presumptive Disability Decision-Making Process for Veterans (Committee) and Institute of Medicine (IOM) staff would like to thank many individuals for providing information, data, discussions, and comments throughout this study. The Committee and IOM staff are indebted to these individuals for their assistance and contributions.

The Committee and IOM staff would like to acknowledge and thank members of the Veterans' Disability Benefits Commission (VDBC) for taking time to attend and participate at the Committee's open session meetings. The commissioners include: James T. Scott (VDBC's Chairman), John Grady, Rick Surratt and Joe Wynn. We would also like to recognize the VDBC Staff for their attendance and participation at the Committee's open session meetings as well as any needed technical assistance throughout the study. These individuals include: Ray Wilburn (VDBC's Executive Director), Jacqueline Garrick, Kathleen Greve, Steve Riddle, Jim Wear and Donald Zeglin. IOM staff is appreciative of the assistance provided by Marcelle Habibion [Department of Veterans Affairs' (VA) Contracting Officer and liaison] during the course of the study. Many others from VA also provided information, presented at Committee meetings or participated in meetings with the Committee Chair and IOM staff. They are recognized, as follows, in alphabetical order: David Barrans, Mark Brown, Douglas Dembling, Lawrence Deyton, Patrick Dunne (VA's Assistant Secretary for Policy and Planning), Duane Fleming, Bradley Flohr, George Fitzelle, P. Craig Hyams, Paul Hutter (VA's Acting General Counsel), Patrick Joyce, David McLenachen, Gordon Mansfield (VA's Deputy Secretary), Thomas Pamperin and Joseph Salvatore.

The Committee benefited greatly from the knowledge, information and views of presenters and panelists at its three open session meetings. The Committee would like to recognize the following individuals from its open session meeting on May 31, 2006 (listed in order of their presentation): John Grady (VDBC), Rick Surratt (VDBC), Joe Wynn (VDBC), Ray Wilburn (VDBC), Thomas Pamperin (VA), David Barrans (VA), Mark Brown (VA), Patrick Joyce (VA) and Bradley Flohr (VA). The Committee would like to recognize the following individuals who presented at its second open session meeting on July 27, 2006 (listed in order of their presentation): Rose Marie Martinez (IOM), Han Kang (VA), Lawrence Deyton (VA), R. Craig Postlewaite (DoD), Jack M. Heller (DoD), John Seibert (DoD), Cathy Wiblemo (The American Legion), Leonard Selfon (United Spinal Association), Quentin Kinderman (Veterans of Foreign Wars of the United States) and Rick Weidman (Vietnam Veterans of America). Finally, the Committee would like to recognize the following individuals who presented at its third open session meeting on October 4, 2006 (listed in order of their presentation): Laura Petrou, Patrick

Ryan, Edward Scott, Chris Yoder, Nhan Do (DoD), Cliff Freeman (VA) and James T. Scott (VDBC's Chairman). In addition, several Congressional staffers joined a panel discussion in person or by phone. They are recognized in alphabetical order, as follows: William Brew, Kelly Craven, Mary Ellen McCarthy, Paige McManus, Dahlia Melendrez, Kingston Smith, Jon Towers and Lupe Wissel.

Representatives of the Department of Defense (DoD) contributed to the Committee's efforts by attending and presenting at open session meetings, participating in conference calls and providing written responses to Committee questions. The Committee and IOM staff would like to thank Ellen Embrey (DoD's Deputy Assistant Secretary of Defense for Force Health Protection and Readiness), along with Michael Kilpatrick and George Johnson of her office, for making the assistance and expertise of many in DoD available to the Committee and IOM staff. IOM staff would like to acknowledge Craig Postlewaite who facilitated and participated in each of the DoD, Committee and IOM staff interactions. The following individuals (listed in alphabetical order) contributed substantial time and effort to providing the Committee documents, answers to questions and participating at panel discussions during open session meetings: Kenneth Cox, Donna Doganiero, Jack Heller, Brad Hutchens, Jack Jeter, Bill Monk, Christine Moser, John Seibert, Becky Sobel and Hew Wolf.

Throughout the course of the study, the Committee received written comments from veterans service organizations (VSOs), individual veterans and the public. These comments served to heighten awareness of important issues which the Committee considered during its deliberations of the proposed levels for strength of evidence, proposed framework for the presumptive disability decision-making process and recommendations. The Committee and IOM staff are grateful for the level of interest demonstrated and information which was shared.

IOM staff assembled an extensive electronic library of public laws, *Federal Register* notices and all related presumptive disability decision documents with the assistance of librarians and experts at the Library of Congress. These individuals provided assistance in assembling an enormous knowledge base – from microfiche to electronic files – for the Committee which was extensively researched and used throughout the study process. IOM staff is greatly indebted to the staff at Library of Congress for these efforts.

The Committee was provided invaluable background information and expertise from IOM staff, including Rose Marie Martinez, David Butler, Jennifer Cohen, Carolyn Fulco, Abigail Mitchell and Mary Paxton, during the course of the study. The Committee would like to thank these individuals for their contributions.

The Committee was fortunate to have the assistance of two knowledgeable consultants throughout the study. Melissa McDiarmid provided invaluable scientific input to the Committee's efforts. Robert Epley provided guidance on VA processes and background. The Committee is indebted to both of these individuals for the time and efforts they contributed.

Finally, the Committee would like to acknowledge the support of the IOM staff. The Committee would like to recognize, in particular, the efforts of Catherine Bodurow (Study Director) who worked tirelessly over the course of the study. The Committee is also particularly appreciative of the efforts of Morgan Ford (Program Officer), Alice Vorosmarti (Research Associate) and Reine Homawoo (Senior Program Assistant) who supported the study at its conclusion and delivered this report. The Committee would also like to recognize Frederick Erdtmann (Board Director) who attended each of the Committee meetings and provided assistance throughout the study. There were many who provided part-time staff support to the committee's efforts over the course of the study. These additional staff included: Leslie Sim

(Program Officer), Cara James (Research Associate), Anisha Dharshi (Research Associate), Kristen Butler (Research Assistant), Kristen Gilbertson (Research Assistant), Jon Sanders (Program Associate) and Vera Diaz (Intern). Additional staff support included assistance from: Andrea Cohen (Financial Associate), Pamela Ramey-McCray (Administrative Assistant), Lara Andersen (Office of Reports and Communication) and Mark Goodin (Copy Editor). The staff would also like to acknowledge William McLeod (Senior Librarian, The National Academies) who provided invaluable support throughout the study.

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Abbreviations and Acronyms

ACB	Army Classification Battery
ACES-EM	Automated Civil Engineering System-Environmental Management
ACHRE	Advisory Committee on Human Radiation Experiments
ADA	American Diabetes Association
AEC	Atomic Energy Commission
AF	Attributable fraction
AF-EMIS	Air Force Environmental Management Information System
AFCESA	Air Force Civil Engineer Support Agency
AFHLTA	Armed Forces Health Longitudinal Technology Application
AFHS	Air Force Health Study
AFHSC	Armed Forces Health Surveillance Center
AHA	American Heart Association
AHLTA	Armed Forces Health Longitudinal Technology Application
AhR	Aryl hydrocarbon Receptor
AIDS	Acquired immunodeficiency syndrome
AIS	Automated information systems
ALS	Amyotrophic Lateral Sclerosis (Lou Gehrig's disease)
AML	Acute myelogenous leukemia
ANG	Air National Guard
ANLL	Acute non-lymphocytic leukemia
APIMS	Air Program Information Management System
AS	Assigned share
ASTM	American Society for Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
BEIR	Biological Effects of Ionizing Radiation
BMI	Body mass index
CCB	Configuration Control Board
CCS	Command Core System (Air Force)
CDC	Centers for Disease Control and Prevention
CDVA	Commonwealth Department of Veterans' Affairs
CERHR	Center for the Evaluation of Risks to Human Reproduction
CES-D	Centers for Epidemiological Studies-Depression Scale
CFR	Code of Federal Regulations
CHD	Coronary heart disease
CHF	Congestive heart failure
CHPPM	Center for Health Promotion and Preventive Medicine (Army)
CI	Confidence interval
CIA	Central Intelligence Agency
CIRRPC	Committee on Interagency Radiation Research and Policy Coordination
CLL	Chronic lymphocytic leukemia
CNS	Central nervous system
COPD	Chronic obstructive pulmonary disease
C&P Service	Compensation and Pension Service

CRDP	Concurrent Retirement and Disability Payments
CRS	Congressional Research Service
CRSC	Combat-Related Special Compensation
CSMs	Cerebrospinal malformations
CSP	Cooperative Studies Program
CVD	Cardiovascular disease
DALY	Disability-adjusted life years
DCI SCI	Director of Central Intelligence Sensitive Compartmented Information Programs
DECC-D	Defense Enterprise Computing Center-Detachment
DHHS	Department of Health and Human Services
DISA	Defense Information Systems Agency
DMDC	Defense Manpower Data Center
DMSS	Defense Medical Surveillance System
DNBI	Disease and nonbattle injury
DoA	Department of the Army
DoD	Department of Defense
DoDI	Department of Defense Instruction
DOE	Department of Energy
DOEHS	Defense Occupational and Environmental Health Readiness System
DOL	Department of Labor
DSM-III-R	Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised
DTAS	Defense Theater Accountability Software
EA	Exposure Assessment
EAR	Excess absolute risk
EEOICPA	Energy Employees Occupational Illness Compensation Program Act of 2000
EESOH-MIS	Enterprise Environmental Safety and Occupational Health-Management Information System
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ERIC	Epidemiological Research and Information Center
ERR	Excess relative risk
FECA	Federal Employees' Compensation Act
FERS	Federal Employees Retirement System
FHIE	Federal Health Information Exchange
FHP	Force Health Protection
fMRI	functional magnetic resonance imaging
FNR	False negative rate
FN	False negative
FOUO	For official use only
FPR	False positive rate
FP	False positive
FR	Federal Register

FY	Fiscal Year
GAF	Global Assessment of Functioning
GAO	Government Accountability Office
GBDs	General birth defects
GBS	Guillain-Barre syndrome
GT test	General Technical test
GPS	Global Positioning System
Gy	Gray (measure of dose of irradiation)
GW	Gulf War
HART	Health Assessment Review Tool
HCFA	Health Care Financing Administration
HEW	Health, Education, and Welfare
HHIM	Health Hazard Information Management
HIV	Human immunodeficiency virus
HMMS	Hazardous Material Management System
HUS	Hemolytic-uremia syndrome
IARC	International Agency for Research on Cancer
ICD	International Classification of Diseases
IH	Industrial hygiene
IHIMS	Industrial Hygiene Information Management System (Navy)
IOM	Institute of Medicine
IREP	Interactive Radiation Epidemiology Program
IQ	Intelligence quotient
IU	Individual unemployability
LIMDIS	Limited Dissemination
LMF	Lovelace Medical Foundation
MDS	Myelodysplastic syndrome
MFUA	Medical Follow-up Agency
MMPI	Minnesota Multiphasic Personality Inventory
MOA	Memorandum of Agreement
MOS	Military occupational specialty
MRI	Magnetic resonance imaging
MS	Multiple Sclerosis
MTF	Military Treatment Facility
NAS	National Academy of Science
NCEH	National Center for Environmental Health
NCHS	National Center for Health Statistics
NCI	National Cancer Institute
NEHC	Navy Environmental Health Center
NESHAP	National Emission Standard for Hazardous Air Pollutants
NHANES	National Health and Nutrition Examination Survey
NHL	Non-Hodgkin's Lymphoma
NHLBI	National Heart, Lung, and Blood Institute
NHS	Nurses Health Study
NIH	National Institutes of Health
NIOSH	National Institute for Occupational Safety and Health

NOCONTRACT	Not releasable to contractors
NOED	Navy Occupational Exposure Database
NOFORN	Not releasable to foreign nationals
NPV	Negative predictive value
NRC	National Research Council
NTP	National Toxicology Program
NTS	Nevada Test Site
OEF	Operation Enduring Freedom
OEH	Occupational and environmental health
OEHHA	Office of Environmental Health Hazard Assessment
OEHS	Occupational environmental health and safety
OEL	Occupational exposure limit
OGC	Office of the General Counsel
OH	Occupational health
OHMIS	Occupational Health Medical Information System
OIF	Operation Iraqi Freedom
OMB	Office of Management and Budget
OPHEH	Office of Public Health and Environmental Hazards
OPM	Office of Personnel Management
OR	Odds ratio
ORCON	Originator controlled dissemination and extraction of information
ORD	Office of Research and Development
OSHA	Occupational Safety and Health Administration
OSTP	Office of Science and Technology Policy
PAF	Population attributable fraction
PAR	Population attributable risk
PC	Probability of causation
PCB	Polychlorinated biphenyls
PDDM	Presumptive disability decision-making
PHA	Periodic health assessments
PKDL	Post-kala-azar dermal leishmaniasis
PL	Public Law
POM	Program Objectives Memorandum
POW	Prisoners of War
PPB	Parts per billion
PPG	Pacific Proving Grounds
PPM	Parts per million
PPV	Positive predictive value
PSA	Prostate-specific-antigen
PSG II	Professional Staff Group II
PTF	Presidential Task Force
PTSD	Post traumatic Stress Disorder
PY	Person-years
RADS	Reactive airways dysfunction syndrome
RCT	Randomized Controlled/Clinical Trial
ReA	Reactive arthritis

RECA	Radiation Exposure Compensation Act of 1990
RECAC	Radiation Exposure Compensation Act Committee
REVCA	Radiation Exposed Veterans Compensation Act
RD	Restricted data
RO	Rey-Osterreith Test
ROC	Receiver Operator Characteristic
RR	Relative risk / risk ratio
RTI	Research Triangle Institute
SADs	Service-Attributable Diseases
SAF	Service-attributable fraction
SANG	Saudi Arabia National Guard
SAP	Special Access Program
SCI	Sensitive Compartmented Information
SCID	Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised
SCL	Symptoms Checklist
SEER	Surveillance Epidemiology and End Results
SEG	Similar exposure groups
SES	Socioeconomic status
SF	Standard Form
SFFWG	Shared Functions Focus Working Group
SGR	General's report on Smoking
SHAD	Shipboard Hazard and Defense
SMITREC	Serious Mental Illness Treatment Research and Evaluation Center
SMR	Standardized mortality ratio
SSA	Social Security Administration
SSDI	Social Security Disability Insurance
SSI	Supplemental Security Income
TCDD	Tetrachlorodibenzo- <i>p</i> -dioxin
TBI	Traumatic Brain Injuries
TN	True negative
TNR	True negative rate
TPR	True positive rate
TP	True positive
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
USC	United States Code
USPSTF	US Preventive Health Services Task Force
VA	Department of Veterans Affairs
VAO	Veterans and Agent Orange
VASRD	Veterans Administration's Schedule for Rating Disabilities
VBA	Veterans Benefits Administration
VDBC	Veterans Disability Benefits Commission
VDRECSA	Veterans' Dioxin and Radiation Exposure Compensation Standards Act
VES	Vietnam Experience Study

VET (registry)	Vietnam Era Twin (registry)
VHA	Veterans Health Administration
VHI	Veterans Health Initiative
VISTA	Veterans Health Information Systems and Technology Architecture
VOC	Volatile organic compound
VSO	Veteran Service Organizations
WAIS-R	Wechsler Adult Intelligence Scale-Revised
WEIISC	War-Related Illness and Injury Centers
WNINTEL	Warning notice, intelligence sources, and methods
WWI	World War I
WWII	World War II
YLD	Years of life lived with disability
YLL	Years of life lost