Substance Misuse Programs in Commercial Aviation

**Safety First**

With over 15 percent of the adult population affected, substance use disorders are a significant problem in the United States. Substance use disorders and substance misuse can have a profoundly negative impact on a person’s life, adversely affecting their physical and mental health, relationships, finances, and career. Substance misuse also imposes tremendous societal cost, particularly in terms of costs to the health care system, lost productivity, and increased morbidity and mortality.

While substance use disorders and substance misuse impact people in all professions, of particular concern is how such misuse affects those working in safety sensitive occupations, such as the airline industry where the lives of others depend on a high level of functioning for pilots, flight attendants, and other employees. Pilots must operate a complex machine that engages all neurocognitive domains. Similarly, flight attendants must be prepared to respond quickly and effectively in high pressure situations that can change abruptly. Thus, it is critical that there is adequate support and treatment available to airline workers who misuse substances.

Two programs available to support the needs of pilots and flight attendants who are struggling with substance misuse include the Human Intervention and Motivation Study (HIMS) and the Flight Attendant Drug and Alcohol Program (FADAP). Established in 1974, HIMS coordinates the identification, treatment, return to work, and monitoring of pilots with substance use problems. FADAP, created in 2010, supports flight attendants with substance use disorders and other potentially co-morbid conditions such as mental illness. Both programs seek to promote health, ensure aviation safety, and preserve the careers of these critical airline workers.
With growing concern about substance use disorders in the nation as a whole, Congress mandated that the National Academies of Sciences, Engineering, and Medicine undertake a study to review the available evidence and program information on HIMS and FADAP. With support from the Federal Aviation Administration (FAA), the National Academies convened an expert committee with expertise in program evaluation, health economics, and clinical disciplines relevant to the evaluation and treatment of people with substance use disorders in the airline workforce and other safety-sensitive occupations.

The committee’s report, *Substance Misuse Programs in Commercial Aviation: Safety First*, offers conclusions and recommendations about where the HIMS and FADAP programs could be better aligned with current evidence on effective care for substance use disorder treatment. The report also describes areas where the programs are already incorporating best practices, such as an emphasis on peer networks to support recovery.

**KEY REPORT RECOMMENDATIONS**

In its assessment of the HIMS and FADAP, the committee faced significant challenges in obtaining data, program records, and testimony from pilots on their lived experience. The committee was nevertheless able to obtain enough information to reach several key observations and to make recommendations on program improvements, as described below.

Specifically, the committee identified areas where the treatment arranged by the HIMS and FADAP was not consistent with current evidence-based approaches to treatment. This included approaches to diagnosis and case identification, removal of barriers to early help seeking and access to treatment, encouragement for individualized treatment, and use of evidence-based criteria in the selection of treatment programs. The committee also observed that the implementation of substance misuse programs for pilots and flight attendants is highly decentralized, creating a significant barrier to implementing changes to better align the HIMS and FADAP programs with evidence-based practices.

The implementation of effective programs depends on the ability to assess and monitor practices and outcomes for appropriate management and oversight. However, the committee experienced challenges with accessing data and uncovered evidence that raised concerns about the quality of data available to the FAA about the programs, suggesting potential limitations on the quality and comprehensiveness of data available to Congress and the FAA for them to fulfill their management and oversight roles. To address these and other gaps, the committee recommends:

**Recommendation 1**
The FAA should revise sections of the Code of Federal Regulations (CFR), especially 14 CFR Part 67 (Medical Standards and Certification), to align, to the extent reasonable in the aviation setting, with the most current evidence-based diagnostic approaches for substance use disorders that consider illness severity and lead to more personalized treatment.

**Recommendation 2**
The FAA should ensure that mandated annual physical exams (e.g., aviation medical examiner examination) for all safety-sensitive professions that require screening for substance misuse use tools validated for the population and setting.

**Recommendation 3**
While employment termination is a legitimate outcome if return-to-work policies are not met, the FAA should ensure that airlines identify and remove features of their workplace substance misuse policies and procedures that are likely barriers to early identification and treatment, such as disclosures that are not likely related to performance in a safety-sensitive position, and consider opportunities to promote more fully early identification and treatment.

**Recommendation 4**
Commercial airline carriers should ensure affordable access for mental health and substance misuse-related services for pilots and flight attendants consistent with the Mental Health Parity and Addiction Equity Act.
**Recommendation 5**
Administrators of both HIMS and FADAP, with the support of the FAA, should encourage and support individualized treatment and continuing care programs based on the severity of the individual pilot or flight attendant’s substance misuse and that person’s preferences.

**Recommendation 6**
National HIMS and FADAP organizations should provide clear criteria that follow from evidence on effective treatment for the selection and approval of treatment settings to which each airline’s HIMS/FADAP programs can make referrals.

**Recommendation 7**
In the service of effective oversight and continuous improvement of HIMS and based on our analysis of the FADAP database, the FAA should require that FADAP collect and maintain more reliable and complete data. Based on the lack of independent analysis of the HIMS database, the FAA should require that HIMS collect and maintain reliable and complete data. Data collected for both programs should at minimum include: the number of pilots and flight attendants who contact them, the number of pilots and flight attendants referred for treatment, patterns and components of treatment, and long-term post-treatment outcomes.

---

COMMITTEE ON THE STUDY AND RECOMMENDATIONS ON THE HIMS, FADAP, AND OTHER DRUG AND ALCOHOL PROGRAMS WITHIN THE USDOT  
RICHARD G. FRANK* (Chair), Brookings Institution; DAVID L. ALBRIGHT, University of Alabama; DANIEL N. DaSILVA, Morris Psychological Group; ROBYN L. HACKER, University of Colorado; JERMAINE D. JONES, Columbia University; MADELINE H. MEIER, Arizona State University; MICHELLE N. MEYER, Geisinger Health System; KATHRYN E. NEWCOMER, George Washington University; BERNADETTE E. PHELAN, Retired, Arizona Department of Transportation; JEFFREY SELZER, New York State Committee for Physician Health; MO WANG, University of Florida; TERRIE E. MOFFITT** (Board Liaison), Duke University

STUDY STAFF  DYLAN REBSTOCK, Study Director; MELISSA WELCH–ROSS, Senior Program Officer; LYLE CARERRA, Research Associate; JACQUELINE L. COLE, Senior Program Assistant; MEGAN SNAIR, Science Writer; YNGVILD OLSEN, Consultant; DANIEL WEISS, Director, Board on Behavioral, Cognitive, and Sensory Sciences

SPONSOR  Federal Aviation Administration

---

1 Member, National Academy of Science  
2 Member, National Academy of Medicine

---

FOR MORE INFORMATION  
This Consensus Study Report Highlights was prepared by the Board on Behavioral, Cognitive, and Sensory Sciences based on the Consensus Study Report Substance Misuse Programs in Commercial Aviation (2023).

The study was sponsored by the Federal Aviation Administration. Any opinions, findings, conclusions, or recommendations expressed in this publication do not necessarily reflect the views of any organization or agency that provided support for the project.

This Consensus Study Report is available from the National Academies Press (800) 624–6242 | http://www.nap.edu | http://www.nationalacademies.org

To read the full report, please visit https://nap.nationalacademies.org/27025

Division of Behavioral and Social Sciences and Education

Copyright 2023 by the National Academy of Sciences. All rights reserved.