

# Substance Misuse Programs in Commercial Aviation

## Safety First

### BACKGROUND

Amid growing concern about substance use disorders in the nation, Congress mandated in 2018 that a National Academies of Sciences, Engineering, and Medicine committee of experts undertake a study to review the available evidence on two respective programs available to support pilots and flight attendants who are struggling with substance misuse: the Human Intervention Motivational Study (HIMS) and the Flight Attendant Drug and Alcohol Program (FADAP). Both programs seek to promote health, ensure aviation safety, and preserve the careers of these critical airline workers. 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.

Substance use disorders are a significant problem in the United States with up to 15 percent of the adult population affected. 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 use disorders and substance misuse impact people in all professions, but a particular concern is how such misuse affects those working in safety sensitive occupations, such as those in 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 in the interest of the workforce, the Federal Aviation Administration (FAA), the airline companies, and especially the flying public to support effective treatment programs for substance misuse in this industry.

### FINDINGS AND CONCLUSIONS

In reviewing the literature on the science of treating substance use disorders and consulting experts in the field, the committee documented best practices based on evidence. The methods employed by HIMS and FADAP could thus be compared with those practices for screening, assessing, and treating substance use disorders, while taking into account the special context of professionals in safety-sensitive occupations such as pilots and flight attendants.

While HIMS in particular is considered by the FAA and others to be the gold standard among programs to address substance use disorders within the global transportation industry, evidence to support that assertion is lacking.

In several instances data pointed to failure of processes that are inconsistent with claims of success. As an example of an important issue that could not be fully examined, the committee was unable to discern to what degree there is unmet need and the potential reasons for it. It appears, from the data available, that a sizable portion of pilots likely to have a substance use disorder do not access treatment through HIMS. Alternatively, pilots who need and are seeking treatment may be accessing it outside of the federally mandated system of treatment and return-to-work requirements. HIMS treats roughly 1.5 percent of pilots, yet by HIMS's own unconfirmed estimates the prevalence rate among pilots for having a substance use disorder is between 8 and 12 percent, which would be lower than the roughly 15 percent derived from the research literature. The troubling implication is that the FAA and Congress have a limited view into the degree to which pilots with substance misuse problems are being treated.

Likewise, FADAP has major gaps in addressing substance misuse and substance use disorders for many flight attendants employed by U.S. commercial airlines. The analysis of the FADAP database highlighted data quality issues that limited the committee's ability to assess program operations. Specifically, many flight attendants were lost to follow-up tracking and fewer than half of expected flight attendants were captured in the data, because data from some major airlines were missing. This resulted in clear geographic distortions and likely demographic distortions relative to the overall population of flight attendants.

Moreover, areas where the treatment arranged by HIMS and FADAP depart from current evidence-based approaches to care include 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. Additionally, 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 committee obtained enough information to reach its conclusions about the two programs and recommendations on program improvements but faced several challenges with accessing data and other information. Effective programs depend on the ability to assess and monitor practices and outcomes for appropriate management and oversight. However, it is unlikely based on the limited available data on HIMS that Congress and the FAA can adequately fulfill their supervisory and oversight roles of these programs.

## **RECOMMENDATIONS**

The FAA, HIMS, and FADAP should update their programs to follow best practices in the substance use disorder treatment fields, to the extent possible in the aviation setting, and improve data collection and transparency.

To address the identified gaps, the committee recommends the following:

**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 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.

#### **FOR MORE INFORMATION**

This policy brief was prepared by National Academies' staff based on the Consensus Study Report *Substance Misuse Programs in Commercial Aviation: Safety First* (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. Copies of the Consensus Study Report are available from the National Academies Press, (800) 624-6242 or <https://www.nap.nationalacademies/catalog/27025>.

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