

Path to Wellness:  
**Charting a New Course for  
Mental Health in Aviation**

**Flight Safety Foundation**

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## Executive Summary

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In the aviation industry, marked by stringent safety standards and high-pressure environments, mental health has historically been overshadowed by a focus on physical health and technical skills. The tragic accident involving Germanwings Flight 9525, along with the exacerbated stress levels due to the COVID-19 pandemic, have highlighted the critical need for a paradigm shift toward addressing mental well-being within this sector. In this white paper, Flight Safety Foundation notes the imperative of integrating mental health considerations into aviation safety and operational protocols and advocating for a comprehensive and holistic approach that encompasses awareness, destigmatization, and the establishment of robust support systems.

The unique operational demands placed on aviation personnel, including irregular working hours, job insecurity, and the immense responsibility for the safety of others, significantly elevate the risk of mental health issues such as stress, anxiety, and depression. These challenges are compounded by a pervasive stigma within the industry, which discourages individuals from seeking help for fear of career repercussions. Historically, attitudes toward mental health in aviation have been shaped by a culture that prioritizes physical fitness and technical proficiency, often at the expense of psychological well-being.

Mental health concerns within aviation extend far beyond the confines of commercial airline personnel, affecting a broad spectrum that includes people working in air traffic control, ground support operations, airport operations, general aviation, business aviation, university aviation programs, and training organizations. Each of these segments faces unique challenges and stresses, yet the imperative for robust mental health support remains universally constant. Across this spectrum, the prioritization of mental health would not only bolster individual well-being but also enhance the safety and efficiency of operations, and serve as a call for an industry-wide culture that supports and promotes mental health awareness and intervention.

Throughout this paper, the Foundation underscores the importance of addressing the stigma associated with mental health issues, which leads to underreporting and a lack of support for affected individuals. Through a detailed examination of case studies, including a 2023 Horizon Air incident and the 2015 fatal crash of Germanwings Flight 9525, the Foundation illustrates the dire consequences of neglecting mental health and the need for continuous support, rigorous screening, and a culture that encourages openness and assistance-seeking.

To confront these challenges, the Foundation proposes a series of actionable strategies aimed at improving mental health support and practices within the industry. These include the implementation of comprehensive, regular mental health screenings, the development of training and awareness programs, and the establishment of clear guidelines that balance confidentiality with safety requirements. Additionally, the Foundation emphasizes the need for a proactive approach to mental health management, focusing on early intervention, enhanced access to mental health resources, and the creation of a supportive work environment tailored to individual needs.

The vision outlined in this paper is of an aviation industry where mental wellness is an integral component of safety and operational excellence. The Foundation calls for a unified approach among airlines, regulatory bodies, health professionals, and the broader aviation community to prioritize mental health, ensure the well-being of aviation personnel, and enhance the overall safety and resilience of aviation operations.

The Foundation urges stakeholders across the aviation industry to commit to the implementation of the outlined strategies and policies. By fostering a culture of openness, support, and collaboration, the industry can significantly advance its handling of mental health concerns, thereby ensuring the safety, well-being, and efficiency of its workforce and the flying public.

## Introduction

The realm of aviation, characterized by its stringent safety standards and high-stress environments, historically has placed a significant emphasis on physical health and technical proficiency. Mental health, an equally crucial aspect of overall well-being and operational safety, has often been relegated to the background, enveloped in stigma and misunderstanding. These attitudes persist despite several high-profile incidents, such as the Germanwings crash, that have highlighted the dire consequences of neglecting mental health in aviation. The COVID-19 pandemic further amplified these concerns, placing unprecedented stress on aviation professionals and spotlighting the urgency of addressing mental well-being within the industry.

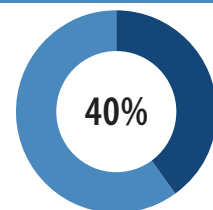
The aviation sector is unique, with its unconventional work schedules, frequent time zone changes, and constant pressure to maintain high levels of safety and efficiency, all of which can take a toll on the mental health of pilots, air traffic controllers, technicians, ground personnel, cabin crew, and other aviation personnel. These factors contribute to a heightened risk of stress, anxiety, depression, and other mental health issues, which, if unaddressed, can impact not only the individuals concerned but also flight safety and operational effectiveness. Mental health is increasingly recognized as a vital component of aviation safety management systems, a focus that has not been explicitly emphasized until recently.

Moreover, the stigma surrounding mental health issues in aviation creates additional barriers to seeking help. Concerns over career implications, fear of judgment, and a culture that traditionally values toughness and stoicism all deter individuals from accessing the support they need. This culture of silence and the systemic shortcomings in how mental health is managed within the industry underscore the need for a paradigm shift.

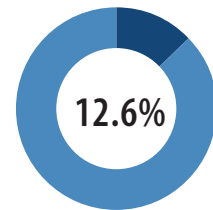
Recognizing the complexity and sensitivity of mental health in aviation requires a multifaceted approach that encompasses awareness, destigmatization, comprehensive support systems, and proactive interventions. The Foundation calls for the involvement of all stakeholders in the aviation community, including regulatory bodies, airlines, health professionals, and the personnel themselves, to foster an environment where mental well-being is prioritized alongside physical health and safety.

Through this white paper, the Foundation aims to shed light on the current state of mental health in aviation, exploring the unique challenges faced by aviation professionals, the impact of the stigma that deters many from seeking help, and the pressing need for systemic changes. Through a detailed examination of case studies, current policies, and regulatory shortcomings, it seeks to outline actionable strategies for improving mental health support and practices within the industry. By advocating a more holistic and inclusive approach, this document aspires to contribute to the creation of a safer, healthier, and more resilient aviation community where mental well-being is recognized as a cornerstone of overall safety and performance.

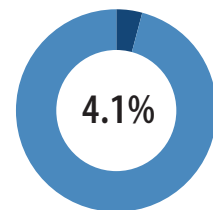
Figure 1



Experiencing High Levels of Burnout



Met the Threshold for Clinical Depression



Having Suicidal Thoughts

A [2016 report](#) showed that 12.6 percent of airline pilots surveyed met the depression threshold and 4.1% reported having suicidal thoughts. A [separate study of European pilots](#) published in 2018 showed that 40% experienced high burnout.

## Current State of Mental Health in Aviation

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The current state of mental health in the aviation industry, particularly among pilots and air traffic controllers, is a significant concern. Recent surveys and studies have highlighted an alarming level of stress, anxiety, and depression within these professional groups. Several factors contribute to this worrying trend.

A primary contributor is the irregular work schedules that are inherent in the aviation industry. Pilots and controllers often work long hours, with shifts that vary widely in start and end times. This irregularity can disrupt sleep patterns, leading to chronic fatigue, which is a known risk factor for mental health issues.

Additionally, the post-pandemic era has brought about significant changes and uncertainties in the aviation sector. The pandemic's impact on travel has led to concerns over job security among aviation professionals. This uncertainty can be a substantial source of stress, particularly in a profession where training and skill development require significant time and financial investment. Recognizing the urgency and need to provide some guidance for the aviation workforce during the pandemic, the Foundation published *An Aviation Professionals' Guide to Wellbeing*<sup>1</sup>.

Furthermore, the high level of responsibility associated with the roles of pilots and air traffic controllers cannot be overstated. The safety of hundreds of passengers and the efficient operation of busy airspaces rest on their shoulders. This immense responsibility, coupled with the need for constant vigilance and decision-making under pressure, contributes to heightened levels of stress and anxiety.

*Fitness to Fly — A Medical Guide for Pilots*<sup>12</sup> highlights the intricate link between mental and physical well-being through a comprehensive analysis of factors that can affect a pilot's mental health. These factors include stress, the impact of a lack of physical exercise on mental health, and the effects of lifestyle choices such as diet and substance use on overall well-being. For instance, regular physical activity not only enhances cardiovascular health but also plays a crucial role in managing stress and improving mental resilience, illustrating the direct connection between physical exertion and mental wellness.

Similarly, a healthy diet and the avoidance of harmful substances including tobacco and excessive alcohol can significantly reduce the risk of cardiovascular diseases, which, in turn, positively impacts mental health by reducing the stress and anxiety associated with health concerns. This interconnectedness highlights the importance of a holistic approach to health management, where mental and physical well-being are seen as complementary aspects of overall health, emphasizing the need for lifestyle modifications that cater to both physical and mental health requirements for not only the pilot community but also other aviation professionals.

These factors, combined, paint a concerning picture of the current state of mental health in the aviation industry. Addressing these issues is crucial not only for the well-being of the individuals involved but also for the safety and efficiency of air travel globally.

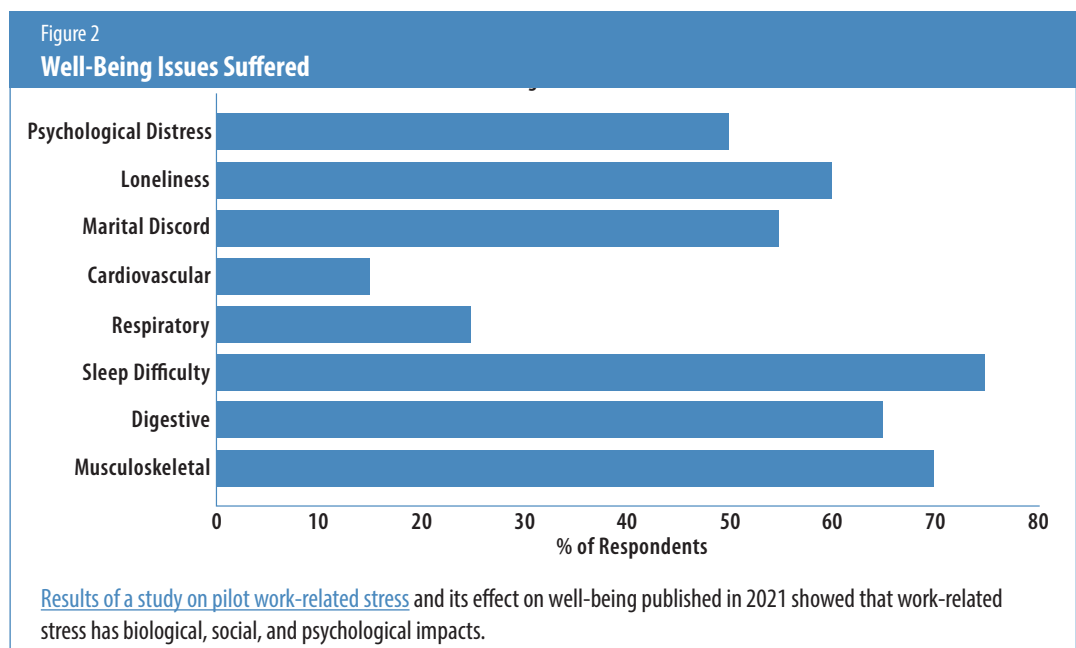
## Historical Perspective and Stigma

Understanding how mental health has been viewed throughout the history of aviation is essential to understanding the current stigma and its impact on the industry. Historically, mental health in aviation has been a subject shrouded in silence, often overshadowed by a focus on physical fitness and technical skills.

### The Evolution of Attitudes Toward Mental Health in Aviation

- In the early days of aviation, the focus was primarily on physical health and skill proficiency. Mental health was rarely discussed, and there was little understanding of its impact on a pilot's performance.
- After World War II, there was some recognition of psychological stress in pilots, particularly those in combat, but this rarely transferred into civilian aviation practices.
- High-profile aviation accidents in which mental health was a contributing factor brought the issue into the spotlight. Incidents like the Germanwings crash highlighted the need for greater mental health awareness and support in aviation.

This historical perspective shows a gradual shift in the industry's attitudes toward mental health. Initially, the focus was almost exclusively on physical capabilities and technical skills. Over time, especially following significant incidents, there has been a growing recognition of the importance of mental health. However, despite these changes, there remains a stigma associated with mental health issues, often deterring individuals from seeking help. This stigma is a critical barrier that the industry needs to address.



The following factors often come into play:

- **Career implications:** Pilots fear that disclosing mental health issues could lead to being grounded or could end their career. This fear is rooted in historical practices in which mental health issues were seen as indicating a lack of fitness to fly.
- **Cultural factors:** The culture in aviation, which often values toughness and completing the mission under any circumstances, can be a barrier to seeking help. Admitting mental health issues may be wrongly perceived as a weakness.

- **Underreporting and lack of support:** The stigma and fear of losing one’s livelihood leads to underreporting of mental health issues. Pilots and air traffic controllers often choose to suffer in silence rather than seek help, leading to unaddressed mental health problems.

Overcoming the stigmatization of mental health issues requires a concerted effort from all aviation stakeholders to foster a culture of openness and support. By addressing the stigma and prioritizing mental health alongside physical health, the industry can ensure the well-being of its workforce and the safety of its operations.

## Case Studies

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Examining case studies in which mental health played a significant role provides valuable insights into the consequences of neglecting this issue. These cases underscore the need for robust mental health policies and proactive measures within the aviation industry.

### Case Study 1: Germanwings Flight 9525

- **Incident Overview:** On March 24, 2015, Germanwings Flight 9525, an Airbus A320 en route from Barcelona, Spain, to Dusseldorf, Germany, crashed in the French Alps, killing all 150 passengers and crew. Investigations revealed that the first officer, who had a history of severe depression, deliberately crashed the plane.
- **Lessons Learned:** This incident highlighted several issues, including the importance of thorough mental health screening, the need for better monitoring systems and reporting systems, and the necessity of reducing the stigma associated with mental health in aviation.
- **Impact:** After this incident, several airlines and regulatory bodies revised their policies, emphasizing the need for two people to be in the cockpit at all times and for improved mental health assessments for pilots.

### Case Study 2: Horizon Air (Alaska Airlines Flight 2059)

- **Incident Overview:** On Oct. 22, 2023, an off-duty pilot seated in the cockpit jump seat aboard Alaska Airlines Flight 2059, an Embraer 175 operated by Horizon Air from Everett, Washington, U.S., to San Francisco, attempted to disable the aircraft’s engines by activating the engine fire-suppression system. Thanks to the prompt action of the crew, the plane was safely diverted to Portland, Oregon, where the off-duty pilot was arrested and faced numerous charges, including attempted murder and endangering an aircraft.
- **Lessons Learned:** This incident underscores several critical points. First, it highlights the necessity of continuous mental health support and rigorous screening processes, not just at the hiring stage but throughout a pilot’s career. The fact that the pilot had been a part of the aviation industry for years without his certifications being denied, suspended, or revoked indicates potential gaps in monitoring and support systems for pilots’ mental health.

Furthermore, the incident brings to light the delicate balance between ensuring pilots’ privacy and aviation safety. Pilots, like all aviation personnel, are required to self-report any mental health conditions, which raises questions about the effectiveness of self-reporting mechanisms and the stigma around mental health issues in the aviation sector.

Other lessons learned include the nuanced understanding of mental health screening’s role and effectiveness across different regions. For example, while Europe and Asia have



implemented rigorous mental health screenings during the hiring process, the absence of such measures in other regions makes it more difficult to identify behaviors that may adversely affect safety. This situation highlights the broader issue of healthcare avoidance within the aviation industry and policies that inadvertently encourage individuals to seek non-medical or undisclosed solutions to mental health challenges, thereby circumventing formal reporting mechanisms. The efficacy of increasing the frequency and thoroughness of mental health screenings among aviation personnel remains a subject of debate.

Regulatory guidance from the European Union Aviation Safety Agency (EASA) and other international regulators suggests that establishing a solid and trusting relationship with an aviation medical examiner (AME) may be effective in minimizing incidents and accidents. This approach underscores the importance of open communication and supportive environments as foundational elements for proactive and preventive mental health care in aviation.

- **Impact:** This case study serves as a reminder of the importance of mental health awareness and proactive interventions. It highlights the need for a supportive culture that encourages individuals to seek help without fear of reprisal or career jeopardy. The incident has sparked discussions around improving policies related to mental health, with suggestions for more robust support systems and reintegration processes for pilots returning to work after experiencing mental health issues. This includes considering mental health issues on par with physical disabilities, ensuring thorough treatment and rehabilitation processes to safely reintegrate affected pilots back into their duties.

### Case Study 3: JetBlue Flight 191

- **Incident Overview:** On March 27, 2012, a JetBlue flight from New York to Las Vegas diverted to Amarillo, Texas, due to the erratic behavior of its captain, who suffered a mental breakdown mid-flight. The copilot and passengers managed to subdue him, averting a potential disaster.
- **Lessons Learned:** This case study emphasizes the unpredictability of mental health issues and the importance of having protocols in place to handle such situations. It also brought to light the need for ongoing mental health support and regular evaluations for airline staff.

### Case Study 4: EgyptAir Flight 990

- **Incident Overview:** On Oct. 13, 1999, EgyptAir Flight 990 crashed into the Atlantic Ocean. The investigation suggested that the relief first officer, who had expressed grievances against the airline, might have intentionally crashed the plane.
- **Lessons Learned:** This accident underscores the need for comprehensive mental health evaluations and the importance of addressing workplace grievances that could potentially impact an employee's mental health.

### Analysis and Common Themes

- **Underreporting of Mental Health Issues:** A common thread in these cases is the reluctance of pilots to report their mental health issues due to fear of stigmatization and career implications.
- **Importance of Regular Mental Health Assessments:** These incidents highlight the necessity for effective mental health screenings for aviation personnel and a trusting relationship with medical and mental health professionals.

- **Need for Strong Support Systems:** The case studies demonstrate the importance of having strong support systems, including access to mental health professionals and peer support programs within the aviation industry.
- **Crisis Management Protocols:** There is a clear need for effective crisis management protocols to handle situations in which a crewmember's mental health could pose a risk to flight safety.

These case studies are reminders of the potential consequences of undetected or unreported mental health issues. They point to the need for a systemic overhaul of how mental health is perceived and managed within the industry, emphasizing proactive approaches, regular screenings, destigmatization efforts, and the establishment of strong support systems. The lessons learned from these accidents and incidents are crucial for preventing future occurrences and ensuring the safety and well-being of aviation personnel and passengers.

## Mental Health Policies in Aviation

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Mental health policies in aviation, while acknowledging the importance of psychological well-being, often lack comprehensiveness and uniformity across the industry. Overall, health policies primarily focus on assessing physical fitness for duty, with mental health evaluations typically being less rigorous and less frequent. The U.S. Federal Aviation Administration (FAA) Aviation Rulemaking Committee (ARC) on Aviation Mental Health and Medical Certification<sup>13</sup> identified seven major barriers to seeking mental health support and made 24 recommendations to reduce these barriers and create a supportive environment for aviation professionals.

The following are some important gaps in existing policies:

- **Stigma and fear of disclosure:** Current policies do not adequately address the stigma associated with mental health issues. This leads to underreporting because personnel fear career repercussions if they disclose mental health issues. The lack of protective measures for those seeking help exacerbates this problem.
- **Varied international standards:** There is a notable lack of standardization in mental health policies across different countries and airlines. This inconsistency leads to varied levels of mental health support and monitoring in the global aviation industry.
- **Reactive approaches:** Many existing policies are reactive, focusing on mental health after incidents occur. There is a need for more proactive approaches that include regular screenings and early intervention strategies.
- **Financial barriers:** Financial barriers often prevent aviation personnel from seeking necessary mental health support, due to the high costs associated with specialized care.
- **Limited access to mental health care professionals knowledgeable about aviation:** The scarcity of mental health care professionals with expertise in aviation contributes to limited access for aviation workers seeking professionals who understand the unique stresses and demands of their industry.

Updating and enhancing mental health policies in aviation is crucial for the well-being of the workforce and the safety of the aviation industry. A shift toward more holistic, proactive, and standardized approaches can significantly improve how mental health is managed in this high-stakes field.

## Global Aviation Mental Health Challenges

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The aviation industry, while globally interconnected, operates within a diverse mosaic of cultures, regulatory environments, and resource availability. These factors contribute to a wide range of challenges in addressing mental health effectively across different regions. Understanding and addressing these challenges is crucial for creating a supportive and safe environment for aviation professionals worldwide.

### Cultural Perspectives on Mental Health

One of the significant challenges lies in the varied cultural perspectives on mental health. In some cultures, mental health issues are heavily stigmatized, discouraging individuals from seeking help for fear of social ostracization or professional repercussions.

Therefore, it will be critical to implement culturally sensitive awareness and education programs that respect and acknowledge local beliefs and practices. These programs should aim to destigmatize mental health issues and promote a universal understanding of mental health as a critical component of overall well-being.

### Regulatory Variations and Enforcement

The lack of standardized global regulations for mental health in aviation presents another challenge. Different countries have varying levels of requirements for mental health screening and support, leading to inconsistent practices worldwide. Furthermore, the enforcement of these regulations also can vary significantly, with some regions lacking the resources or infrastructure to implement comprehensive mental health programs.

There needs to be a comprehensive approach to advocate for, and work toward, the establishment of global standards and best practices for mental health in aviation. The International Civil Aviation Organization (ICAO) and the World Health Organization (WHO) can serve in leading roles in facilitating collaboration among industry stakeholders.

### Access to Mental Health Resources

Access to mental health resources, including trained professionals, support services, and educational materials, varies greatly around the world. In many regions, especially in developing countries, there is a significant shortage of mental health professionals and services. This shortage can hinder the implementation of effective mental health programs and support for aviation professionals.

Enhancing access to resources can be achieved through partnerships with local and international mental health organizations. Leveraging technology and telehealth services can also provide remote support to aviation professionals in underserved areas.

### Screening Practices and Privacy Concerns

Screening practices must balance the need for safety with the need to respect individual privacy and confidentiality. Different regions may have different approaches to this balance, influenced by local regulations and cultural norms regarding privacy.

Privacy concerns can be addressed by establishing clear international guidelines for mental health screening that prioritize safety while respecting privacy and confidentiality. These guidelines should include protocols for protecting personal information and ensuring that the process of seeking help does not negatively impact an individual's career.

## Economic Constraints and Resource Allocation

Economic constraints can significantly impact the availability and quality of mental health services in the industry. Budget limitations may lead to inadequate funding for mental health programs, training, and support services, particularly in regions with limited financial resources. Therefore, persistent advocacy for the allocation of adequate resources for mental health programs will be needed. This may include seeking funding from government bodies, international organizations, and the private sector to support the development and implementation of comprehensive mental health services.

By addressing these global challenges with targeted strategies and collaborative efforts, the aviation industry can move toward a more supportive and inclusive approach to mental health. This requires the collective action of regulatory bodies, airlines, health professionals, and the broader aviation community to create an environment where mental health is recognized as a priority, stigma is reduced, and all aviation professionals have access to the support and resources they need.

## Regulatory Shortcomings in Addressing Mental Health in Aviation

Existing aviation regulations, while extensive in many aspects of safety and operations, have notable gaps when it comes to addressing mental health issues. Some of the key issues with these regulations include:

### Limited Scope in Mental Health Evaluation and Screening

While pilots undergo regular physical examinations, mental health assessments are not as thorough or frequent. This limited scope can lead to undetected mental health issues, which might affect a pilot's performance and, consequently, flight safety.

For example, Miranda et al.<sup>11</sup> advocate a shift from traditional clinical diagnostic methods to a performance-based approach for mental health screening for the pilot community. This strategy emphasizes the utilization of validated performance measures to assess pilots' mental fitness for duty at the point of operation, rather than relying solely on clinical diagnoses or mental health history. The researchers argue that such a shift aligns with broader changes in aviation training and competency assessment like evidence-based training (EBT) and crew resource management (CRM), and that it fits within the safety management system paradigm using a risk management model.

This performance-based screening could include self-administered neuropsychological tests on personal devices to evaluate cognitive skills essential for flying, allowing pilots to assess their mental fitness in real time. The approach offers a more dynamic and practical way to ensure pilots are mentally fit for flying without the stigma or career impact of a clinical diagnosis, potentially improving aviation safety and pilot well-being by allowing for immediate and unbiased assessment of fitness for duty.

### Stigma and Underreporting

Stigma associated with mental health is a pervasive barrier to seeking help. There is a prevailing perception in aviation

Figure 3

A 2019 study of more than 600 U.S. military, commercial, and general aviation pilots

**78.6%**  
worried about seeking medical care and

**60.2%**  
reported forgoing or delaying care due to concerns related to their status as a pilot

A 2019 study of more than 600 U.S. military, commercial, and general aviation pilots reported that 78.6% disclosed a history of having been worried about seeking medical care and 60.2% reported forgoing or delaying care due to concerns related to their status as a pilot.

that admitting to mental health issues is a sign of weakness or incompetence. This stigma is deeply rooted in the industry's culture, where the emphasis on reliability and resilience can unintentionally discourage open discussions about mental health.

Pilots, air traffic controllers, and other aviation staff often worry that disclosing mental health issues might lead to suspension or revocation of their licenses. The fear of being grounded or facing other career-limiting repercussions creates a significant deterrent against seeking help. For example, in a cross-sectional study of U.S. and Canadian pilots, Hoffman et al.<sup>10</sup> found a significant prevalence of healthcare avoidance behaviors that exist because of pilots' fear of losing their flying status. The study, based on two independent non-probabilistic cross-sectional surveys, revealed healthcare avoidance behaviors in 56 percent of U.S. pilots and 55 percent of Canadian pilots.

Aviation personnel may also internalize negative stereotypes and feel a sense of shame or failure for experiencing mental health issues. This self-stigma may lead to denial, underestimating the severity of one's condition, and reluctance to access mental health resources.

The culture in aviation typically values stoicism and the ability to perform under pressure. Admitting to struggles with mental health can be seen as not conforming to these norms, further exacerbating the stigma.

### **Insufficient Emphasis**

While regulations in aviation prioritize safety, they often lack sufficient emphasis on mental health, inadvertently contributing to the stigma. For example:

- Current regulations may not provide clear or adequate protections for those reporting mental health issues. This lack of clarity can increase fears about the consequences of seeking help.
- Mandatory reporting requirements, while intended to ensure safety, can sometimes dissuade staff from disclosing mental health issues due to fear of mandatory stand-down periods or investigations into their fitness for duty.
- Variations in how different countries and airlines handle mental health disclosures add to uncertainty and fear among aviation personnel.

### **Need for a Cultural Shift**

Addressing stigma and underreporting in aviation requires a multifaceted approach that includes the following:

- Implementation of enhanced training and awareness programs for all levels of staff would increase awareness about mental health, aid in the recognition of the early signs of mental distress, and drive home the importance of seeking help.
- Cultivating a work culture that actively supports mental well-being, encourages open discussions, and normalizes seeking help for mental health issues.
- Developing and implementing industry policies that provide clear guidance and support for staff facing mental health challenges, including confidentiality assurances and pathways for treatment and timely return to duty.

Stigma and underreporting are complex challenges that require concerted efforts to overcome. By promoting a culture of openness and support, alongside clear and protective policies, the aviation industry can make significant strides in addressing these issues, ultimately enhancing both the well-being of its workforce and overall flight safety.

## Broadening the Horizon: Mental Health Support Across All Aviation Sectors

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The significance of mental health extends beyond the commercial airlines, permeating other segments of the industry such as general aviation, business aviation, university aviation programs, and training academies. In these sectors, the challenges and stresses may differ, but the imperative for robust mental health support remains constant. General aviation pilots often operate with less support and oversight, making access to mental health resources crucial for managing the unique pressures of solitary flight operations. In business aviation, the demands of client service and irregular schedules can impact mental well-being, underscoring the need for tailored mental health strategies. Across all these segments, prioritizing mental health not only enhances individual well-being but also contributes to the safety and efficiency of operations, advocating for an industry-wide culture that supports and encourages mental health awareness and intervention.

Universities and training institutions play a pivotal role in shaping the future generation of aviation professionals' attitudes toward mental health, particularly as these institutions prepare Gen Z aviators for the challenges of the industry. This new generation, known for its progressive views on mental wellness, brings a fresh perspective that values openness and proactive approaches to mental health. Educational settings are uniquely positioned to influence these attitudes positively, integrating mental health education and support into their curricula and fostering an environment where seeking help is normalized and encouraged. By doing so, they can equip future aviation professionals not only with the technical skills needed for aviation but also with the mental resilience required to navigate the stresses of their careers. This evolution in the educational approach reflects a broader cultural shift within the aviation industry, recognizing mental health as a critical component of safety and operational effectiveness, and aligns with Gen Z's expectations for holistic well-being support in their professional lives.

## Bringing Mental Health Into an SMS Framework

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Integrating mental health into a safety management system (SMS) framework is essential for the future of aviation safety. It requires a holistic approach that encompasses accountability, fairness, and trust, ensuring that mental health is not siloed but integrated into the broader safety culture. This integration can be facilitated by developing mental health protocols, training for all staff on mental health awareness, and establishing clear reporting and support mechanisms. By doing so, the aviation industry can foster an environment that prioritizes not only physical safety but also the psychological well-being of its workforce, ultimately leading to safer skies for everyone. The following are three essential elements for integrating mental health into an SMS framework:

- 1. Accountability:** Accountability in aviation medicine, particularly regarding mental health, involves the clear delineation of responsibilities among aviation personnel, medical examiners, and regulatory bodies. It's about creating an environment where issues related to mental health can be reported without fear of undue punishment, ensuring that individuals feel responsible for not only their well-being but also the safety of their colleagues and passengers. Currently, there may be a gap in establishing clear lines of accountability, especially in identifying and managing mental health issues within the aviation sector. Personnel might hesitate to report their mental health conditions due to concerns about career implications, highlighting a need for clearer policies that define what needs to be reported,

by whom, and through what mechanisms, ensuring that accountability fosters a supportive, not punitive, environment.

- 2. Fairness:** Fairness is crucial in the context of aviation medicine as it ensures that actions taken in response to reported mental health issues are non-discriminatory and consistent across the board. A just culture in aviation medicine should ensure that individuals are not penalized for their mental health conditions but are instead provided with the necessary support to address their health while ensuring aviation safety. The challenge lies in overcoming the stigma associated with mental health, which can lead to inconsistent and unfair treatment of affected individuals. Establishing clear guidelines on how mental health issues are managed, ensuring confidentiality, and promoting mental health awareness can help create a fairer environment where all personnel feel valued and supported.
- 3. Trust:** Trust in the system is paramount for a just culture to thrive. This means creating an SMS in which aviation personnel trust that their mental health concerns will be handled with discretion, professionalism, and care. It involves transparent processes where individuals understand how their information will be used, the steps taken to ensure their fitness to fly or control, and the support available to them. Currently, there may be skepticism or mistrust in how mental health data are handled and the implications for one's career, leading to underreporting and missed opportunities for intervention. To bridge this gap, aviation organizations must work toward a more transparent, informative, and supportive SMS that prioritizes mental health as a key component of overall aviation safety.

## Who Is Responsible for Mental Wellness and Well-Being in Aviation?

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The question of responsibility when it comes to mental wellness and well-being in aviation is multifaceted and reflects the complexity of the industry itself. Addressing mental health effectively requires a comprehensive understanding of the roles and responsibilities of various stakeholders within the aviation ecosystem. These stakeholders, which include airlines, air navigation service providers (ANSPs), airports, regulatory bodies, mental health professionals, aviation personnel, and industry associations, play pivotal roles in addressing mental health issues.

### Operators, ANSPs, and Airports

Front-line organizations, such as airlines and other operators, ANSPs, and airports, are primarily responsible for supporting the mental health of their employees. This aviation community is tasked with creating a safe, supportive work environment that prioritizes mental wellness. This involves implementing and enforcing supportive policies that encourage open discussions, providing access to mental health resources and counseling services, and establishing programs that promote work-life balance. Moreover, the aviation community needs to ensure that its leadership and management teams are trained to recognize signs of mental distress among employees and understand how to respond appropriately.

### Regulatory Bodies

Regulatory bodies such as the FAA, EASA, ICAO, and others play a critical role in setting industry-wide standards for mental health practices. These organizations are responsible for and should develop and enforce regulations that mandate mental health assessments, ensure confidentiality and non-punitive reporting, and promote standardized protocols and guidelines for mental health screening and support across different countries and airlines. They also

provide guidance on best practices and encourage continuous improvement based on the latest research and technological advancements. In addition, regulators can fund research into aviation-specific mental health issues and advocate for industry-wide changes based on these findings, and develop their own innovative programs, such as the “Safe Haven” concept for pilots and air traffic controllers being developed by the Civil Aviation Safety Authority of Australia and the Civil Aviation Authority of New Zealand,

### **Mental Health Professionals**

Mental health professionals, including psychologists, psychiatrists, and counselors specializing in aviation psychology, are key players in delivering support and treatment needed by aviation personnel. They should offer services tailored to the unique stressors and challenges faced by those in the aviation industry. These professionals also should work in collaboration with airlines and regulatory bodies to develop effective mental health programs and policies, ensuring that aviation personnel have access to the best possible care. It is essential that health professionals build relationships of trust with aviation personnel and encourage them to seek help without fear of repercussions.

### **Aviation Professionals**

Pilots, air traffic controllers, technicians, cabin crew, and other aviation personnel are also stakeholders in their own mental health. They have a responsibility to use available resources, participate in mental health assessments, and seek help when needed. Equally important is their role in supporting peers by fostering a culture of openness and mutual aid within their workplaces, which can significantly reduce the stigma associated with mental health issues.

### **Industry Associations**

Industry associations and advocacy organizations play a crucial role in advocacy, research, and policy development related to mental health in aviation. They facilitate the sharing of best practices, conduct industry-wide studies, and host forums for discussion on mental health issues. These associations also work toward building consensus on global standards for mental health practices and promote cooperation among different stakeholders.

### **Support Staff and Peer Networks**

Peer support programs should be established to allow staff to share experiences and offer mutual support in a safe and confidential environment. For example, the Foundation’s Basic Aviation Risk Standard (BARS) Program is leading the establishment of the Community of Aviation Peer Support (CAPS) initiative, currently being prototyped in Australia. It targets safety-critical personnel, including flight and cabin crew, as well as maintenance engineers. CAPS aims to create a supportive network of trained peers across various aviation sectors, facilitating assistance for those dealing with personal or work-related challenges. A similar program, Peer Assistance Network (PAN) NZ, exists in New Zealand. Also, role models in the industry who have successfully navigated mental health challenges can help break down the stigma.

The effective management of mental wellness in aviation cannot be achieved in isolation. A collaborative approach that involves all stakeholders working together is essential. This includes:

- Sharing knowledge, research findings, and best practices across the industry;
- Developing collaborative policies that address mental health needs comprehensively;
- Jointly advocating for changes in regulations and standards to support mental health initiatives; and,
- Establishing partnerships between aviation companies, mental health organizations, and regulatory bodies to enhance access to mental health resources.



The responsibility for mental wellness prevention and well-being in aviation is distributed across the entire spectrum of the industry. It requires a concerted effort to create a culture that values mental health as much as physical health and technical proficiency. By acknowledging their roles and collaborating effectively, the various stakeholders can ensure a healthier, safer, and more supportive aviation industry for all.

## A Vision for Mental Health in Aviation

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In envisioning the future of mental health within the aviation industry, the Foundation encourages cultivation of an environment where mental wellness is integral to the culture of safety, resilience, and operational excellence that defines aviation. This vision encompasses a seven-point comprehensive and holistic approach to mental health, recognizing it as fundamental to the well-being of aviation professionals and the safety of the flying public.

Key elements of this vision include:

- 1. Eradication of Stigma:** The Foundation envisions an industry where the stigma surrounding mental health is eradicated. Open and supportive dialogues about mental health challenges become the norm, encouraging individuals to seek help without fear of judgement or career repercussions. This cultural shift is supported by leadership at all levels, fostering an environment of understanding, compassion, and proactive support.
- 2. Comprehensive Mental Health Support Systems:** A robust framework of mental health support becomes a standard across the industry. This includes access to mental health professionals specializing in aviation, peer support networks, and confidential counseling services. Mental wellness programs are tailored to address the unique stresses and challenges faced by aviation personnel, including irregular work schedules, jet lag, and the high-stress nature of aviation roles.
- 3. Regular and Proactive Mental Health Screening:** Routine mental health assessments are integrated into the regular medical evaluations for all aviation personnel. These screenings are designed to identify potential mental health issues early, ensuring timely intervention and support. The process respects the privacy and dignity of individuals, with a focus on fostering wellness rather than penalizing those who seek help.
- 4. Industry-wide Collaboration and Standardization:** The Foundation seeks a future with a unified, industry-wide approach to mental health. Collaboration between airlines, regulatory bodies, labor unions, and mental health organizations leads to the development of standardized practices and protocols. This effort includes consistent training programs, shared resources, and global benchmarks for mental health support in aviation.
- 5. Integration of Technology and Innovation:** Advancements in technology and data analytics play a crucial role in monitoring and supporting mental health. Wearable devices, mobile apps, and online platforms offer new ways to assess wellness, provide support, and deliver training. These tools enhance privacy, accessibility, and effectiveness of mental health interventions.
- 6. A Culture of Continuous Learning and Improvement:** The aviation industry commits to ongoing research and learning about mental health, constantly seeking to improve understanding and support mechanisms. This includes regular review and adaptation of policies and practices based on the latest scientific evidence, technological advancements, and feedback from aviation professionals. Implementing training programs for pilots, air traffic controllers, and support staff can help them recognize

signs of mental distress and coping strategies; these actions can help in creating a more supportive environment.

7. **Clear Paths to Recovery and Reintegration:** The Foundation advocates for policies that facilitate the recovery and reintegration of aviation personnel who have faced mental health challenges. This includes supportive return-to-work programs and continuous access to mental health resources. The focus is on empowerment and rehabilitation, ensuring that individuals can return to their roles with confidence and support.

The Foundation’s vision for mental health in aviation is ambitious yet attainable. It requires commitment, collaboration, and sustained effort from all stakeholders within the aviation community. It will also require clear guidelines on confidentiality and reporting that balance safety with confidentiality, standardized global practices that ensure a uniformly high level of care and support, and a commitment to continuous improvement. By working together toward this vision, the aviation industry can ensure a future where mental health is prioritized, stigma is eradicated, and all aviation professionals have access to the support they need. This enhances not only the well-being of individuals but also the safety, efficiency, and resilience of aviation operations worldwide.

## A Case for Proactive Measures

In the context of aviation safety and workforce well-being, the proactive measures for managing mental health are not merely beneficial but imperative. The high-stress environment in which pilots and air traffic controllers operate necessitates a preventive approach to mental health issues. Proactive measures can lead to improved safety outcomes, enhanced performance, and an overall healthier work environment.

### Mental Health Education and Awareness

Education and awareness are vital components of a proactive mental health strategy. Regular workshops and training sessions can help destigmatize mental health issues and encourage open discussions. Educating staff about the signs of mental distress, coping mechanisms, and available resources can empower them to seek help when needed. This also includes training



for management and human resources personnel to enable them to recognize signs of mental health struggles and respond appropriately. For example, Hoffman et al.<sup>10</sup> offers storytelling as a powerful strategy to encourage preventive practices among pilots. By sharing true, relatable stories by pilots, this approach can help destigmatize mental health issues and inspire pilots to adopt healthful behaviors and seek help when needed.

### **Implementing Comprehensive Screening Programs**

Regular mental health screenings can be a part of routine health assessments. These screenings should be designed to respect privacy while identifying potential mental health concerns. The utilization of validated tools like the PHQ-9 (Patient Health Questionnaire-9) can be effective in early detection of conditions like depression or anxiety.

### **Enhancing Access to Mental Health Resources**

Mental health resources such as counseling, therapy, and support groups should be readily available. These resources should be confidential and easily accessible to encourage utilization. Incorporating telehealth options can also provide flexibility and privacy, making it easier for aviation professionals to seek help without concerns about stigma or job security.

### **Building a Supportive Work Environment**

Creating a work culture that supports mental well-being is key. This involves policy changes that promote work-life balance, reduce job-related stress, and offer support systems for employees going through difficult times. Support can come in many forms, including peer support programs, mentorship, and access to wellness programs.

### **Importance of Early Intervention**

Early intervention is crucial in the realm of mental health. Identifying and addressing symptoms before they escalate can prevent the development of more severe mental health issues. In aviation, where mental clarity and decision-making are paramount, early intervention can have a direct impact on safety. The goal is creating an environment where pilots and air traffic controllers feel comfortable seeking help at the earliest signs of mental distress.

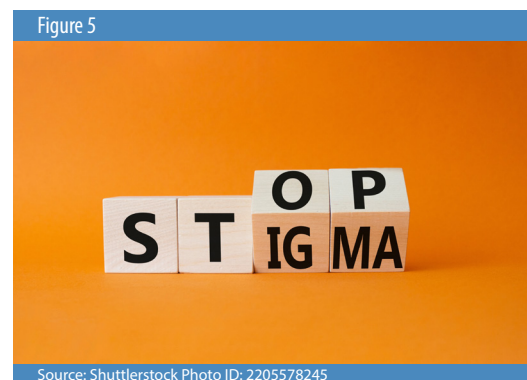
### **Tailoring Strategies to Individual Needs**

Mental health is not one-size-fits-all. Proactive measures must consider individual differences in coping mechanisms, stressors, and mental health needs. Personalized approaches can include offering different types of therapy, flexible work arrangements, and customized support plans.

### **Evaluating and Adapting Measures**

Continuous evaluation of the effectiveness of these measures is crucial. Regular feedback from pilots and controllers can help tailor programs to be more effective. Adapting strategies based on current research, technological advancements, and changing workforce dynamics ensures that the proactive measures remain relevant and effective.

In aviation, where the stakes are high, proactive measures in mental health are not just an option but a necessity. By implementing these strategies, the industry can ensure the well-being of its workforce, enhance safety, and set a standard for mental health management in high-stress professions.



## A Call to Action

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The challenges posed by mental health in the aviation industry require immediate and decisive action. With the vision as outlined above, the Foundation outlines specific actions and policies that need to be implemented by various stakeholders to effectively address mental health concerns among aviation personnel across the aviation industry spectrum.

### Establishing Comprehensive Mental Health Screening Programs

1. **Regular Mental Health Assessments:** Implement targeted mental health screenings as a critical component of routine health evaluations for aviation personnel, including pilots and air traffic controllers. Conducted by mental health professionals, these screenings should be tailored to individual needs, ensuring early detection and intervention for mental health conditions.
2. **Anonymous Self-Assessment Tools:** Develop and promote the use of anonymous self-assessment tools that allow individuals to evaluate their mental health status without fear of stigma or repercussions.

### Developing Clear and Supportive Policies

1. **Revision of Current Regulations:** Revise existing aviation regulations to include detailed provisions for mental health support, confidentiality, and non-punitive reporting.
2. **Protective Measures for Reporting:** Establish clear protective measures that safeguard the careers of those who report mental health issues, ensuring they are not unfairly penalized but provided with necessary support and resources.

### Enhancing Training and Awareness Programs

1. **Mental Health Education:** Mandate comprehensive mental health education and training programs for all levels of aviation staff, focusing on destigmatization, early identification of mental health issues, and the importance of seeking help.
2. **Leadership Training:** Train leaders and supervisors in recognizing signs of mental distress among their teams and responding appropriately.

### Fostering a Culture of Support and Openness

1. **Promote Open Discussions:** Encourage open dialogue about mental health within the workplace to break down stigmas and build a supportive community.
2. **Peer Support Programs:** Implement peer support programs where employees can share experiences and support each other in a confidential and non-judgmental environment.

### Investing in Mental Health Resources

1. **Access to Mental Health Professionals:** Provide easy access to qualified mental health professionals, including counselors and therapists, as part of the employee benefits.
2. **Employee Assistance Programs (EAPs):** Strengthen EAPs to offer comprehensive mental health services, including crisis intervention, counseling, and follow-up services.

### Continuous Research and Policy Evaluation

1. **Ongoing Research:** Invest in continuous research to better understand the specific mental health challenges in aviation and develop effective interventions.

2. **Regular Policy Review and Adaptation:** Regularly review and update mental health policies to reflect new research findings, changing industry dynamics, and feedback from aviation personnel.

Addressing mental health in the aviation industry is not just a matter of regulatory compliance; it is a moral imperative and a critical safety issue. Through this call to action, the Foundation urges all stakeholders in the aviation industry — from regulatory bodies and airlines to individual employees — to commit to these actions and policies. Through collective efforts, we can ensure a safer, healthier, and more supportive work environment for all those who keep our skies safe.

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