August 4, 2010

OSHA Docket Office
Docket No. OSHA-2010-0003
U.S. Department of Labor, Room N-2625
200 Constitution Avenue, NW
Washington, DC 20210

RE: Docket No. OSHA-2010-0003, Infectious Diseases, Request for Information

The Association of Flight Attendants – Communications Workers of America, AFL-CIO (AFA) represents over 50,000 flight attendants at 22 airlines. AFA welcomes this opportunity to comment on the Occupational Safety and Health Administration (OSHA) request for information (RFI) on “occupational exposure to infectious agents in settings where healthcare is provided … and healthcare-related settings.”1 Through this RFI, OSHA is seeking information on “strategies that are being used in such healthcare and other healthcare-related work settings to mitigate the risk of occupationally-acquired infectious diseases,” as well as “information and data on the facilities and the tasks potentially exposing workers to this risk; successful employee infection control programs; control methodologies being utilized (including engineering, work practice, and administrative controls and personal protective equipment); medical surveillance programs; and training;” subsequently, the information obtained through the RFI will be used “to determine what action, if any, the Agency may take to further limit the spread of occupationally-acquired infectious diseases in these types of settings.”2

Flight attendants working for U.S. commercial passenger transport airline operators are trained to perform numerous healthcare tasks. Furthermore, and especially during periods of heightened communicable disease activity such as the recent (and ongoing, according to the World Health Organization3) H1N1 pandemic, flight attendants are required to perform or lend support to various patient care giving activities as situations dictate. Clearly, commercial air transport airplanes are in fact occupational settings where “healthcare is provided.” The comments below expand on the healthcare tasks flight attendants perform and are trained to perform, summarize the workplace safety and health regulation of commercial airplanes in operation, and present recommendations to OSHA regarding the need for an infectious diseases rule and its application to the work performed by flight attendants.

1 OSHA; Infectious Diseases; 75 FR 87; May 6, 2010; p. 24835.
2 OSHA p. 24835.
3 WHO; Current WHO phase of pandemic alert for Pandemic (H1N1) 2009; http://www.who.int/csr/disease/swineflu/phase/en/index.html; viewed July 28, 2010, states that the “current WHO phase of pandemic alert for Pandemic (H1N1) 2009 is 6,” the global pandemic phase.
The Commercial Air Transport Airplane Cabin is a “Healthcare Setting”

Flight attendants are trained to act as healthcare providers for treatment of injuries, medical events and minor accidents that might occur during flight, and receive training in the use of the automated external defibrillators and in cardio-pulmonary resuscitation (CPR). They may operate defibrillators, perform CPR, or assist “Good Samaritan” doctors or nurses with caring for injured, ill or pregnant passengers. Furthermore, according to one airline’s flight attendant manual: “In the absence of a licensed medical professional, a [flight attendant] may be designated the emergency caregiver and may be authorized … to administer certain limited contents of the [Emergency Medical Kit] (e.g., Nitroglycerin tablet) while under the direction of a … physician.”

The cabin of a commercial transport airplane is a low oxygen environment (cabin pressure altitudes may range from 0 to 8000 ft above sea level) and is typically fully loaded with passengers; these conditions can adversely affect the underlying health of cabin occupants and combine with other environmental stressors including immobility, vibration, noise, dryness and turbulence to increase risks for injuries and illnesses among passengers and crew. With the potential on some long haul routes for several hours of travel time to the nearest fully-equipped hospital facility, it is clear that an airplane cabin under certain conditions is in fact a “healthcare setting”.

Review of Flight Attendant Workplace Safety and Health Regulation

On July 10, 1975, the Federal Aviation Administration (FAA) published a statement in the Federal Register asserting complete and exclusive jurisdiction over crewmember health and safety on “civil aircraft in operation … from the time it is first boarded by a crewmember, preparatory to a flight, to the time the last crewmember leaves the aircraft after completion of that flight, … even if the engines are shut down.” In asserting its jurisdiction over crewmember

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4 14 CFR 121.417 and 14 CFR 121.805.
7 Rayman RB; Passenger safety, health, and comfort: a review; Aviat Space Environ Med; May 1997; 68(5):432-40.
8 Rodenberg H; Medical emergencies aboard commercial aircraft; Ann Emerg Med; December 1987; 16(12):1373-7.
10 Quoted from one airline flight attendant manual, portions redacted to de-identify the airline and associated contractor[s].
11 Silverman D, Gendreau M; Medical issues associated with commercial flights; Lancet; June 13, 2009; 373(9680):2067-77.
12 Brundrett G; Comfort and health in commercial aircraft: a literature review; J R Soc Promot Health; March 2001; 121(1):29-37.
13 Rayman p. 433.
14 Tvaryanas AP; Epidemiology of turbulence-related injuries in airline cabin crew, 1992-2001; Aviat Space Environ Med; September 2003; 74(9):970-6.
15 FAA; NOTICE: Occupational Safety or Health Standards for Aircraft Crewmembers; 40 FR; July 2, 1975; p. 29114
health and safety, the FAA claimed that “with respect to civil aircraft in operation, the overall FAA regulatory program … fully occupies and exhausts the field of aircraft crewmember occupational safety and health.”

Since 1975, the FAA has continued to claim complete and exclusive jurisdiction over crewmember health and safety aboard a civil aircraft; unfortunately, at all relevant times since 1975, the FAA also has declined to exercise its authority to prescribe or enforce standards or regulations affecting the occupational safety and health of crewmembers. Significant areas of regulatory neglect include, but are not limited to, blood borne pathogens; noise; sanitation; hazard communications; access to employee exposure and medical records; and anti-discrimination protections for reporting safety and health violations.

On May 8, 1990, AFA filed a petition for rulemaking with the FAA that asked the agency to adopt selected OSHA safety regulations and apply them to the crewmembers working in the airline industry, addressing such areas as the recording and reporting of injuries; access to employee exposure and medical records; right to inspections; safety definitions; the handling of hazardous materials; personal protective equipment; medical and first aid; fire protection, and toxic and hazardous substances. In submitting its petition, AFA was attempting to fill the void created when the FAA asserted jurisdiction over crewmember health and safety without actually exercising that authority. As AFA stated in its petition:

This petition offers one solution to the gaps in crewmember health and safety coverage caused by the FAA’s de facto industry-wide preemption of OSHA. Although this industry-wide preemption is probably incorrect as a matter of law, it is the rule currently followed by OSHA and the FAA, with the possible exception of OSHA’s recordkeeping requirement. If the FAA is going to claim total jurisdiction over crewmembers, it should exercise that jurisdiction by providing protections equal to those provided by OSHA. It is for that reason that this petition asks the FAA to adopt the OSHA regulations and apply them to crewmembers. (Emphasis added).

Just over seven years after AFA filed its petition for rulemaking, the FAA finally responded in a letter dated June 6, 1997, in which it stated in part:

The FAA has determined that the issues identified in your petition may have merit but do not address an immediate safety concern. Because of budgetary constraints, and the need to meet the demands of a changing aviation industry and a complex air transportation system, the FAA finds that it must dedicate its rulemaking resources to the most pressing problems and issues associated with safety. For these reasons, we are unable to consider your petition for Rulemaking; therefore it is denied.

Significantly, footnote 18 of the 1990 AFA petition proposed that “[a]n alternative solution to the problem [lack of OSHA protections for crew members] would be for OSHA to enforce its standards where the FAA is not actively regulating. AFA would not oppose either spontaneous

17 AFA; Petition for Rulemaking: Occupational Safety & Health Standards for Airline Crewmembers; May 8, 1990; http://ashsd.afacwa.org/docs/1990%20OSHA%20petition.PDF
18 FAA; Letter from Ida Klepper, Acting Director, Office of Rulemaking, to Patricia Friend, National President, Association of Flight Attendants; June 6, 1997; http://ashsd.afacwa.org/docs/1997%20FAA%20letter%20rejecting%20OSHA%20petition.PDF
OSHA action or clarifying legislation that would achieve this goal. In the interim, we hope that OSHA will carefully monitor the FAA’s response to this petition.” Also significantly, in the June 6, 1997 letter that responded to AFA’s petition, the FAA acknowledged its historical failure to exercise jurisdiction over occupational safety and health on board aircraft in operation to ensure that flight attendants are provided statutory protections equivalent to those furnished by OSHA by stating that “FAA … must dedicate its rulemaking resources to the most pressing problems and issues associated with safety … therefore [the petition] is denied.”

On August 7, 2000, following several more years of increased pressure from AFA, the FAA and OSHA entered into an historic Memorandum of Understanding (MOU), the purpose of which was “to enhance safety and health in the aviation industry.” With this MOU, FAA and OSHA agreed to establish a joint team (FAA/OSHA aviation safety and health team or Joint Team) to identify the factors to be considered in determining whether the OSH Act’s requirements could be applied to the working conditions of employees on aircraft in operation (other than flight deck crew) without compromising aviation safety. In December 2000, the first report of the FAA/OSHA aviation safety and health team concluded that several OSHA standards under consideration could be implemented for all employees in the aviation industry without implicating aviation safety concerns.

This report also proposed that the Joint Team give further consideration to establishing “a procedure for coordinating and supporting enforcement of the OSH Act with respect to working conditions of employees on aircraft in operation (other than flight deck crew) and for resolving jurisdictional questions.” Although the December 2000 report recommended that the Joint Team continue to meet to resolve this and other issues, they did not meet again until January, 2002, at which time they could not agree on a timeline for implementation of relevant OSHA regulatory standards for employees on aircraft in operation.

Given this checkered history, it is now long overdue for OSHA to acknowledge the FAA’s failure to exercise the exclusive jurisdiction it claimed in 1975, and finally recognize the right of flight attendants, while working on board aircraft in operation, to OSHA regulatory protections.
**Recommendations**

In the Attachment, AFA responds to numerous specific questions posed by the OSHA RFI on Infectious Diseases in settings where healthcare is provided. Based on these responses and the above comments describing flight attendant healthcare responsibilities and their lack of access to occupational safety and health regulatory protections while working on airplanes in operation, AFA makes the following two recommendations:

- Any future OSHA infectious diseases rulemaking process should include commercial air transport airplanes as workplaces where healthcare services are provided;
- OSHA must ultimately regulate all exposures of flight attendants to infectious diseases.

Thank you for considering these comments and recommendations. We look forward to working with OSHA to formulate and implement a strong, enforceable infectious disease rule, and also to apply OSHA protections to all U.S. flight attendants.

Sincerely,

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Director  
Air Safety, Health and Security Department

Dinkar R. Mokadam, CIH  
OSHA Specialist  
Air Safety, Health and Security Department

Attachment: AFA Responses to Questions Posed in the OSHA RFI
Attachment

AFA Responses to Questions Posed in the OSHA RFI
II. Request for Data, Information and Comments
(75 FR 87, May 6, 2010, pp. 24839-43)
A. General

The following general information will assist OSHA in more fully understanding each commenter’s submissions and the possible differences in their approaches to infection control. The answers to the questions will also help OSHA understand the risk of workers contracting various infectious diseases in different types of workplaces.

1. Since healthcare is provided in a wide variety of settings (as previously described), OSHA is interested in being able to sort the responses received by the characteristics of the workplace about which each responding entity is providing information. As such, please describe the characteristics of the workplace to which you are referring. For example: type of workplace (e.g., hospital, long-term care, physician/dentist office, emergency medical services); size (e.g., number of hospital beds, number of residents, average number of patients/clients); total number of employees (both direct care and administrative support).

AFA Response: The workplaces in question are located within commercial transport airplanes, used in either scheduled or charter operations, in which Federal regulations require the presence of flight attendants to ensure the safety and health of occupants. The number of flight attendants working on board may vary from only one on some short haul, low passenger capacity (20 to 50 non-crew occupants) aircraft, to as many as 15 or more on high capacity (could reach 1,000 non-crew occupants in the foreseeable future) wide-body airplanes performing long haul operations. On any given flight, one or more passengers and/or crew members may require occasional first aid or minor emergency medical assistance.

2. While OSHA is primarily concerned about worker exposure to infectious agents in traditional healthcare settings, the Agency recognizes that there are other settings where healthcare may be provided and where occupational exposure to infectious agents may be a significant concern (e.g., drug treatment facilities, home health services, prison clinics, school clinics, and laboratories that handle potentially infectious biological materials). Please describe any other work settings with an increased risk for occupational exposure to infectious agents that OSHA should consider, including why they should be considered. Please describe the nature and extent to which occupational exposure to infectious agents is a significant concern. For example, to which infectious agents are workers in these settings exposed and how often are they exposed? Please describe any infection control measures that can be or are being used in these settings.

AFA Response: AFA recommends that OSHA consider the commercial transport airplane an example of a “non-traditional” healthcare setting. The possibility of occupational exposures to infectious agents is a significant concern among the flight attendant workforce. Published studies in the medical literature attest to the increasing frequency of in-flight medical events, as greater numbers of people travel on airplanes with pre-existing conditions. There have been numerous documented on board transmissions of infectious disease, including H1N1 influenza, norovirus, TB, SARS, measles, meningitis and mumps; this is hardly a comprehensive list. Doubtless the medical literature reflects only a small percentage of the actual illness cases that have resulted from on board exposures. Any given airplane flight presents some risk to workers of exposure to communicable diseases, as close proximity to large number of persons, traveling to and from various domestic and international locations, and experiencing diverse health conditions, is

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1 Silverman D, Gendreau M; Medical issues associated with commercial flights; Lancet. June 13, 2009;373(9680); pp. 2067-77.
4 Driver CR, Valway SE, Morgan WM, Onorato IM, Castro KG; Transmission of Mycobacterium tuberculosis associated with air travel; JAMA; October 5, 1994; 272(13); pp. 1031-5.
6 Coleman KP, Markey PG; Measles transmission in immunized and partially immunized air travellers; Epidemiol Infect; July 2010; 138(7); pp. 1012-5.
7 O'Connor BA, Chant KG, Binotto E, Maidment CA, Maywood P, McAnulty JM; Meningococcal disease--probable transmission during an international flight; Commun Dis Intell; 2005; 29(3); pp. 312-4.
8 CDC; Update: multistate outbreak of mumps--United States, January 1-May 2, 2006; MMWR Morb Mortal Wkly Rep; May 26, 2006; 55(20); pp. 559-63.
unavoidable. One infection control (IC) measure cited by the airlines, airplane manufacturers and others involves the use of the airplane’s ventilation system as an engineering control to minimize airborne transmissions; however, AFA is skeptical that current FAA minimum ventilation requirements (which are design and not operational standards) and airline practices and procedures are sufficiently protective. Anecdotally, AFA members at some airlines report other basic airline IC measures that may include worker vaccinations; reseating of symptomatic passengers to empty rows (if available); exclusive use of a single lavatory by a symptomatic passenger; different forms of PPE (gloves, surgical masks, and in some cases, N95 respirators but without training and fit testing) and running water in lavatories to allow soap and water hand hygiene. Unfortunately, some airplanes used for short haul domestic flights are not even equipped with running water facilities; on these aircraft the airline may provide nothing more effective than pre-moistened wipes to passengers and crew.

3. One of the most important steps in determining how to effectively protect workers from infectious diseases is identifying who is at risk of exposure. What recommendations do you have for how to determine which employees are potentially exposed to contact, droplet, and airborne transmissible diseases in the type of workplace about which you are responding? How many of your total workers have a risk of exposure to such diseases during the performance of their job duties? What proportion of your workforce does this represent? What are the job titles or classification(s) of these workers? What are the job duties of these workers? To which diseases are they exposed?

**AFA Response:** Those flight attendants and other airline employees who have close personal contact with or are in near proximity (within 6 to 10 feet) of one or more passengers who are either known to be carrying infectious diseases or are displaying symptoms consistent with someone who is carrying an infectious disease should be considered potentially exposed to droplet and airborne transmissible diseases. In addition, flight attendants working on board aircraft on which passengers are known to be carrying germs that transmit through contact (e.g., norovirus) should also be considered potentially exposed. It is exceedingly difficult to quantify the number of workers at risk of exposure to such diseases; to our knowledge there have been no detailed, published population studies including both travelers and workers that would shed light on transmission rates, even for a single infectious agent. All flight attendants (100% of the active workforce) in all job classifications risk exposure to any of the common communicable diseases (as well as some less common diseases, given the international aspect of air travel) during the normal course of their duties, which include the provision of personal services to “ensure the safety and comfort of airline passengers during flight.” Flight attendant job titles vary from company to company, but generally include, from lowest to highest seniority, probationary (approximately the first six months), post-probationary, senior, supervising and instructor.

4. Workplaces vary in the types of infectious diseases and the number of infected individuals encountered. OSHA is interested in the types of diseases that your workplace encounters and how often they are encountered. Please describe your workplace’s experience with infectious diseases over the past ten years (e.g., which diseases, how often).

**AFA Response:** AFA has no systematic access to this sort of airline-specific data; information on the types of diseases encountered and the frequencies of exposures, if available, should be requested from the individual airline operators. We expect that the disease types and exposure frequencies would be a function of the individual airline route structures and mix of passenger demographic and health characteristics, among other relevant factors.

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9 Per recent informal communications from AFA members, airlines are shutting down air conditioning systems during boarding and deplaning of airplanes to conserve fuel.

10 Murawski, J; *COMMENTS ON AIRCRAFT AIR QUALITY;* Submitted by The Association of Flight Attendants to the Committee on Air Quality in Passenger Cabins of Commercial Aircraft, National Academy of Sciences/National Research Council Commission on Life Sciences; January 3, 2001 (Updated section on cabin altitude, November 2002); http://ashsd.afacwa.org/docs/NRCjan01.pdf

5. OSHA is interested in data and information that will further assist in characterizing workers' occupational exposure to contact, droplet, and airborne transmissible infectious diseases.

(a) OSHA encourages the submission of your workplace or your industry’s experience with these diseases and the impact of infectious diseases on your workers (e.g., type and number of exposure incidents, occupationally acquired infectious diseases, days of work missed, and fatalities).

AFA Response: The research studies cited in response to Question 2, above, indicate some of the airline industry’s experience with infectious diseases. AFA has no access to systematic, comprehensive data collected on the impact of infectious diseases on flight attendants; again, such information, if available, should be requested from the individual airline operators.

(b) Please provide information about any database that collects and aggregates data on occupationally-acquired infectious diseases (e.g., Federal, State, provider network, or academic).

AFA Response: AFA is unaware of any proprietary or publicly accessible database that aggregates such data for flight attendants, either within a single airline operator or across multiple operators.

(c) Please provide any additional information, including peer-reviewed studies, which addresses occupational exposure to infectious agents that you think OSHA should consider.

AFA Response: The information and studies cited in other sections of this document are sufficient at this time.

6. Infection control (IC) programs are currently the primary means of controlling occupational exposure to infectious agents. However, these programs are largely voluntary. OSHA is particularly interested in case studies that highlight experience in the implementation and effectiveness of IC programs in protecting workers against infectious diseases (e.g., the extent to which employers are fully implementing and consistently following their written IC programs). For example, has your workplace had instances where a significant increase in infections (among either patients or workers) required more rigorous implementation of your IC program? If so, please describe any factors that contributed to the increase and what steps your workplace took to address the situation. Please provide any studies that demonstrate the difference in infection rates between situations where the IC program had lapsed and situations where rigorous implementation of control measures was instituted.

AFA Response: We believe that the data required to answer these questions may only be obtained from individual airline operators.

7. While OSHA has a Bloodborne Pathogens standard (§ 1910.1030), the Agency does not have a comprehensive standard that addresses occupational exposure to contact, droplet, and airborne transmissible diseases. The Agency has other standards (e.g., Respiratory Protection (§ 1910.134) and General Personal Protective Equipment (§ 1910.132)) that may apply and, in some situations, Section 5(a)(1) of the OSH Act (the General Duty Clause) would apply. OSHA is interested in commenters’ insights regarding the adequacy of existing OSHA requirements to protect workers against occupational exposure to infectious agents.

AFA Response: As stated in the main body to this comment letter, flight attendants lack OSHA regulatory protections while working on board airplanes. Thus, application of any of the regulatory and statutory protections cited in this question would be a vast improvement over the status quo for flight attendants. However, a comprehensive transmissible disease standard – in particular one that mandates 1) enlightened and non-punitive leave policies (for workers who are ill or required to stay at home to care for affected family members); 2) worker access to appropriate respiratory protection and fit-testing, other forms of PPE, and training; 3) comprehensive information collection and data sharing with potentially-affected employees and authorized representatives in addition to public health authorities; 4) rigorous standards for workplace sanitation, hygiene practices and procedures and employee training; and 5) strong audit and enforcement programs to ensure compliance – would assure workers and the general public, especially during periods of epidemic or pandemic infectious disease activity, that their risks of exposure are minimized.
8. California OSHA recently issued a standard for occupational exposure to “Aerosol” Transmissible Diseases that covers infectious diseases transmitted through the airborne and droplet routes. IC programs that are established in most healthcare settings address exposure to contact, droplet, and airborne transmissible diseases. Please explain whether the Agency’s deliberations on occupational exposure to infectious diseases should focus on only droplet and airborne transmission or if contact transmissible diseases should also be included.

   **AFA Response**: OSHA should include contact routes of transmission. Many communicable diseases are spread predominantly through contact routes. Strong, enforceable regulatory protections that mandate hand hygiene and adequate restroom facilities, proper sanitation practices, engineering and administrative controls, PPE, and comprehensive worker training should be effective in limiting the spread of these diseases.

9. If the Agency pursues rulemaking and promulgates a standard, jurisdictions with OSHA-approved State plans will be required to cover workers who OSHA determines are at occupational risk for exposure to infectious agents, including public employees. State and local governments are defined very broadly, and would typically include such entities as a university hospital associated with a State university as well as public hospitals and health clinics. What public sector healthcare or healthcare related workers are at increased risk for occupational exposure to infectious agents? Please describe conditions unique to any of these occupations that are not seen in the private sector. Please describe any other issues specific to OSHA-approved State plans that the Agency should consider.

   **AFA Response**: The above questions regarding public employees are not relevant to this discussion, as flight attendants in civil aviation work exclusively for private employers.

### B. Infection Prevention and Control Plan

10. CDC/HICPAC’s 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings recommends an IC program for addressing the transmission of airborne and other infectious diseases. In certain settings, the Center for Medicare and Medicaid Services (CMS) and the Joint Commission require that healthcare facilities have such programs.

   (a) If you are subject to the CMS or Joint Commission requirements or otherwise have an IC program, please provide information on the elements of this program (e.g., early identification of infectious patients, implementation of transmission-based control measures, HCW training) and how the program works.

   (b) If you are not subject to these requirements and do not have an IC program, how does your workplace address preventing contact, droplet and airborne transmissible infectious diseases?

   **AFA Response**: The above questions are best directed to individual airline operators’ medical departments or their third party medical contractors.

11. In most cases, an IC program is managed by an infection control preventionist or other designated person. For example, the CDC/HICPAC guidelines recommend that the IC program be managed by individuals with training in infection control. Who manages your program? What percentage of this individual’s time is spent managing the IC program?

   **AFA Response**: The above questions are best directed to individual airline operators’ medical departments or their third party medical contractors.

12. For the IC program(s) established in your workplace, please describe, in detail, the resource requirements and associated costs, if available, expended to initiate the program(s) and conduct the program(s) annually. Please estimate, in percentage terms where possible, the extent to which the components or elements in your program(s) are typical of those practiced throughout your industry.

   **AFA Response**: The above questions are best directed to individual airline operators’ medical departments or their third party medical contractors.
13. In your industry, for the IC programs established in your workplace or for IC programs in other workplaces of which you are aware, are there any components or features that may present economic difficulties to small businesses? Please describe and characterize in detail these components and why they might present difficulties for small businesses.

**AFA Response:** The airline operators that employ AFA member flight attendants would not be classified as small business entities; therefore, we are unable to respond to this question.

14. Periodic evaluation of IC program effectiveness is recommended by CDC/HICPAC and required by the Joint Commission and CMS for most types of facilities under their jurisdiction. Please describe how your workplace or industry evaluates the effectiveness of its IC program, including the methods and criteria used. How often does your workplace evaluate its program? Please describe the results your program has achieved (e.g., if there has been a decrease in patient and/or worker infections). Please describe any specific problems and/or successes that have been encountered in the implementation and operation of the program.

**AFA Response:** The above questions are best directed to individual airline operators’ medical departments or their third party medical contractors.

15. Most peer-reviewed literature evaluating IC programs focuses on protecting patients from contracting HAIs [healthcare-associated infections]. While this body of evidence can be an indicator of worker exposure, OSHA is seeking data that more specifically address the occupational risk to workers. If your workplace has a system for tracking worker exposures or infections that may have been occupationally acquired, please share with us the following information:

(a) A description of the tracking system and how it works;

(b) The types of infection diseases encountered in your workplace and the number of exposures and/or infections tracked;

(c) Exposure/infection rates; and

(d) Any trend data.

**AFA Response:** The above questions are best directed to individual airline operators’ medical departments or their third party medical contractors.

C. Methods of Control

16. If your workplace has a process for early identification of patients or clients who may have an infectious disease, please explain how your workplace conveys information to workers about individuals who are confirmed or suspected of being infectious, so that proper precautions can be implemented. Please describe the degree of success with these procedures and whether you think that such procedures are likely to be effective in other healthcare or healthcare-related settings.

**AFA Response:** Owing to contractual obligations, some airline operators that employ AFA member flight attendants share reports of possible communicable disease incidents on an ongoing, near real-time basis with local union representatives; other operators do not share any relevant information, especially if the flight attendant workgroup has been unable to negotiate an enabling contract provision. Those local union affiliates working under contract provisions mandating employer information sharing are able to assist affected workers navigate the process of identifying and obtaining adequate post-exposure medical care and treatment. In many cases, this assistance has been quite helpful to affected workers; a regulatory standard mandating this sort of information sharing would be very beneficial, but in its absence, all AFA airlines are encouraged to implement similar contractual provisions.
17. CDC/HICPAC, CMS, and the Joint Commission provide a variety of approaches that employers can implement to reduce or eliminate workers’ exposure to infectious agents. For example, a well-structured IC program can include: immunizations for vaccine-preventable diseases, isolation precautions to prevent exposures to infectious agents, training, personal protective equipment, management of workers’ risk of exposure to infected persons, including post exposure prophylaxis, and work restrictions for exposed or infected personnel. Please describe the types of problems/obstacles your workplace or industry encountered with implementing specific control measures. Please include a discussion of each control measure, the problem/obstacle encountered, the affected worker group, and any particularly effective solutions your workplace or industry has implemented to address the obstacle/problem.

AFA Response: AFA is unaware of any specific problems or obstacles encountered by the airline operators when instituting specific infectious disease exposure control methods. Again, the above questions are best directed to individual airline operators’ medical departments or their third party medical contractors.

18. When developing and implementing infection control measures in your workplace, are there any recommended controls that you have found to be ineffective or unnecessary in controlling infectious diseases? If so, please explain how you arrived at this conclusion.

AFA Response: AFA is unaware of any specific ineffective or unnecessary controls; however, this question is best directed to individual airline operators’ medical departments or their third party medical contractors.

19. Airborne infection isolation rooms (AIIRs) are recommended as one aspect of controlling certain airborne transmitted diseases (e.g., TB, SARS). OSHA recognizes that most workplaces outside of hospitals do not have an AIIR and will transfer persons requiring airborne precautions to a facility with the necessary capabilities. If your workplace provides healthcare or other services to individuals requiring airborne precautions, how many of these patients/individuals has your workplace encountered in each of the last ten years? If individuals requiring airborne precautions must be transferred to another facility, please describe how your workplace identifies and isolates them while they are awaiting transfer. If your workplace provides extended care to these individuals (e.g., a hospital), does it have sufficient AIIRs to isolate the number of infected individuals your workplace has handled at any one time? If not, how does your facility provide alternate means of isolation and how many additional AIIRs would be necessary to fully accommodate your normal patient load? Please describe how your workplace plans to address surge capacity in the event of an outbreak, epidemic, or pandemic. Please provide any additional information, including peer-reviewed studies, which addresses issues relevant to the use of AIIRs in your workplace or industry.

AFA Response: AIIRs are not relevant in the context of the commercial passenger air transport industry.

20. CDC/HICPAC’s 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings addresses the need for a safety culture and its role in improving a workplace’s IC program (e.g., worker adherence to safe work practices). Please describe the policies and actions undertaken in your workplace or industry to develop and maintain a culture of worker safety. Please describe any means that have been particularly effective in fostering a safety culture and any problems or obstacles that have been encountered in developing and/or maintaining the safety culture.

AFA Response: The above questions are best directed to individual airline operators.

21. Poor adherence to infection control measures (e.g., failure to use necessary PPE or to follow recommended hand hygiene practices) can be one indicator of the breakdown of an IC program. Please describe what actions have been undertaken in your workplace or industry to assess and enforce adherence to infection control measures. What obstacles has your workplace encountered in maintaining adherence and are there any particularly successful ways you have found to maintain adherence (e.g., training initiatives, worker incentives)? Please discuss any underlying factors that you feel may affect non-compliance with current infection control guidelines and standards in your facility.

AFA Response: The above questions are best directed to individual airline operators’ medical departments or their third party medical contractors.
22. The use of proper PPE is an essential component of an effective IC program. For example, CDC/HICPAC recommends that facemasks (e.g., surgical masks) be worn by workers when droplet precautions are implemented and respirators be worn under certain circumstances when airborne precautions are in place. Please describe how your workplace determines when a facemask (e.g., surgical mask) is used for worker protection and when a respirator is used for worker protection. How does your workplace determine which employees use a facemask and which use a respirator? If your workplace uses different types of respirators, please describe what types and when they are used.

**AFA Response:** During periods of heightened alert for infectious disease transmission, most airlines reference at least some portions of CDC guidance to inform their operations. For example, during the H1N1 pandemic, CDC interim guidance\(^\text{12}\) did not require airline operators to allow respirator use by flight attendants; it suggested rather that face masks (not respirators), if they can be tolerated and are available, should be offered to symptomatic passengers. Other CDC guidance\(^\text{13}\) that was linked to within the air crew guidance further mentioned that, “where workers cannot avoid close contact with persons with ILI [influenza-like illness], some workers may choose to wear a facemask or N95 respirator on a voluntary basis … requirements for voluntary use of respirators in work sites can be found on the OSHA website [http://www.osha.gov/SLTC/etools/respiratory/voluntaryuses.html].” Some airlines did allow flight attendants to use respirators, but without the benefits of fit testing or proper training.

23. NIOSH regulates the testing and certification of respiratory protective equipment, has established minimum performance standards, and conducts independent testing and verification of all respirators prior to certification. The Food and Drug Administration (FDA) approval process for facemasks does not have established minimum performance standards and allows manufacturer submitted data. As noted in a 2009 IOM report,\(^\text{54}\) a 2008 study that examined the filter performance of nine different types of facemasks using the sodium chloride NIOSH challenge test, found wide variation in penetration (4 percent to 90 percent) of smaller aerosol particles.\(^\text{55}\) Therefore, the protective properties of different manufacturers’ facemasks may vary. Is there a need for a more rigorous certification/approval process for facemasks and additional independent verification of the personal protective properties of these devices?

**AFA Response:** Given the wide measured variations in performance, it would appear that there should be a more rigorous, independent process for certifying and approving surgical facemasks as PPE. Some airlines advise their flight attendants to provide these masks in order to minimize the quantities of cough and sneeze droplets and aerosols that are expelled from the lungs of visibly symptomatic individuals into the airplane cabin environment. Improvements in mask performance and uniformity would be helpful.

24. Some HCWs have medical conditions or are receiving treatments that impair their ability to resist infection. These HCWs may be unable to develop protective immune responses after vaccination. What is your workplace or industry doing to educate its workers about these conditions? What approaches are being used or should be used to address the special needs of HCWs with these conditions?

**AFA Response:** AFA is unaware of any specific initiatives among the airline operators to educate employees who may have compromised immune systems or to address their issues and concerns; however, this question is best directed to individual airline operators’ medical departments or their third party medical contractors. Approaches that would assist workers with these medical conditions include education and training to facilitate informed decision making regarding work-related health risks; employer support for and provision of appropriate PPE such as N95 or better respirators and non-latex gloves when providing medical support or picking up trash and other service items.

\(^{12}\) CDC; *Interim Guidance for Management of Influenza-Like Illness aboard Commercial Aircraft during the 2009-10 Influenza Season*; updated November 30, 2009 5:30 PM ET; http://www.cdc.gov/h1n1flu/guidance/air-crew-dom-intl.htm.

\(^{13}\) CDC; *Interim Recommendations for Facemask and Respirator Use to Reduce 2009 Influenza A (H1N1) Virus Transmission*; updated September 24, 2009 10:00 AM ET; http://www.cdc.gov/h1n1flu/masks.htm.
D. Vaccination and Post-Exposure Prophylaxis

25. In the Bloodborne Pathogens standard (§ 1910.1030), OSHA requires that hepatitis B vaccinations be made available to employees occupationally exposed to blood or other body fluids. It should be noted that while employers are required to offer the vaccine, employees are permitted to decline it. CDC/ACIP recommends a number of other vaccines for various groups of HCWs including: influenza (both seasonal and the 2009 H1N1); measles, mumps, rubella (MMR); varicella; tetanus, diphtheria, pertussis (Td/Tdap); and meningococcal vaccines. What vaccinations, other than hepatitis B, do you consider to be necessary to protect workers from occupational exposure to infectious agents? Who should receive these vaccinations, and why? Does your workplace offer vaccines other than the hepatitis B vaccine to workers and how do you determine who is offered these vaccines?

AFA Response: Answers to the above questions vary by airline, and are best directed to individual airline operators’ medical departments or their third party medical contractors. In general, though, AFA is strongly in favor of employer-provided, international travel-related vaccinations (as recommended by CDC) for flight attendants. Requiring employers to offer these vaccines to employees who want them would remove the pressure on employee representatives to find concessions in other areas to obtain this important health-related protection.

26. The Bloodborne Pathogens standard (§ 1910.1030) requires that employers follow certain administrative and recordkeeping procedures (e.g., signing a declination statement; placing an employee’s vaccination status in his/her medical record). Does your workplace or industry use similar administrative and recordkeeping procedures for vaccines other than hepatitis B? If not, please describe what administrative and recordkeeping procedures are or should be used.

AFA Response: Answers to the above questions vary by airline, and are best directed to individual airline operators’ medical departments or their third party medical contractors.

27. Post-exposure prophylaxis (PEP) and evaluation for bloodborne pathogen exposures, such as hepatitis B and HIV, are addressed in the Bloodborne Pathogens standard (§ 1910.1030(f)). OSHA is interested in post-exposure evaluation and PEP for other infectious diseases. Please describe the current PEP and evaluation practices in your workplace. For what infectious agent exposures should workers be provided with PEP and/or evaluation? Please describe the disease, its associated PEP, and the PEP efficacy.

AFA Response: Answers to the above questions vary by airline, and are best directed to individual airline operators’ medical departments or their third party medical contractors.

28. In some instances, a vaccine may be available for a disease but a worker may decline vaccination. Please describe procedures in your workplace that ensure workers who have declined vaccination have access to necessary PEP.

AFA Response: Answers to the above questions vary by airline, and are best directed to individual airline operators’ medical departments or their third party medical contractors.

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29. In order to appropriately evaluate the health status of a worker, some basic health information is needed. CDC/HICPAC recommends a personnel health service program for infection control that includes a number of components including: pre-placement evaluations, evaluation and treatment of exposure-related illnesses, and work restriction or work-exclusion policies for exposed HCWs. OSHA is interested in the prevalence, content and efficacy of such personnel health service programs.

(a) What should be included in a preplacement medical evaluation for a worker who will be exposed to infectious agents? Please describe the possible components of the medical history and physical exam and specific tests (e.g., TB skin test, spirometry, blood tests). How are pre-placement medical evaluations of workers addressed in your workplace? What do these evaluations include? If preplacement medical evaluations are used in your workplace, have they been effective, and what metrics are used to evaluate effectiveness? Give the rationale, including references if available.

(b) What type of ongoing medical surveillance or periodic medical evaluations should be provided for exposed workers? Please describe the possible components of such surveillance or evaluations. How often should periodic medical evaluations be conducted? In what situations should medical evaluations or surveillance be performed (e.g., return-to-work, fitness for duty)? How are periodic medical evaluations addressed in your workplace?

(c) In your State, are there State laws that apply to pre-placement and periodic medical evaluations of exposed workers? If so, what are they?

(d) Please describe the administrative procedures used by your workplace to evaluate and treat workers who have been occupationally exposed and/or infected (e.g., who do they notify of the exposure/infection). How are the costs for treatment and follow-up (e.g., visits to physician, lab tests) handled in your workplace? If a worker is put on restrictions or excluded from work due to a work-related infectious exposure or illness, how are the worker's salary, benefits, and seniority handled by your workplace?

**AFA Response:** Answers to the above questions vary by airline, and are best directed to individual airline operators’ medical departments or their third party medical contractors.

E. Communication of Hazards

30. Training is generally considered a necessary component of an effective IC program in order to assure that workers understand the hazards they are exposed to and the proper methods of protection. Please describe how your workplace assures that workers are adequately trained in the use of infection control measures, including how your workplace assesses if a worker has been adequately trained. Please describe the contribution of training and education to improving adherence to your IC program. Please describe the format used by your workplace to conduct training (e.g., computer-based, written material, interactive classes, hands-on practice, other) and whether you have found some more effective than others. Please describe what role, if any, knowledge and/or competency assessment plays in your workplace training program.

**AFA Response:** Answers to the above questions vary by airline, and are best directed to individual airline operators’ training departments, medical departments or their third party medical contractors.
31. Both initial and periodic worker training are recognized as important components of an effective IC program. Initial training provides information that workers need to protect themselves against exposures to hazards while periodic training refreshes worker knowledge, reinforces the importance of the IC program and provides a means of introducing new information and procedures.

(a) What information should be included in initial training for workers who may be exposed to infectious agents? What is the best format for providing initial training to these workers (e.g., specifying a minimum number of hours of training, specifying training content based on job tasks, specifying that training be adequate to demonstrate specified competencies, by a combination of these methods or by some other method)?

**AFA Response:** Information and training methods should help ensure that flight attendants are able to both limit their own personal exposures to infectious agents, and support the prevention of exposures to other passengers. Initial training should have a minimum acceptable time limit; content should be based on anticipated job tasks and routes flown (destination and layover cities and countries) among other criteria; and specific competencies should be demonstrated.

(b) How frequently does your workplace provide workers with refresher training on its IC program? What information should be included in periodic refresher training for workers who may be exposed to infectious agents? What is the best format for providing periodic training to these workers (e.g., specifying a minimum number of hours of training, specifying training content based on job tasks, specifying that training be adequate to demonstrate specified competencies, by a combination of these methods or by some other method)? Should refresher training be provided based on lack of competency, or be provided at regular time intervals regardless of demonstrated competency?

**AFA Response:** Answers to some of the above questions vary by airline, and are best directed to individual airline operators’ training departments, medical departments or their third party medical contractors. In general, though, periodic refresher training should include the latest alert information on the newest disease pathogens and the corresponding signs and symptoms, should be provided for a minimum number of training hours, should include competency checks, and should be provided at regular time intervals to coincide (for economic reasons and to minimize schedule disruptions) with other recurrent training activities (which occur every 12 months for flight attendants).

F. Recordkeeping

32. Please describe the worker health surveillance system used in your workplace. Does the system include tracking of occupational exposures to infectious agents and/or occupationally acquired infectious diseases? Please describe the procedures used by your workplace to determine whether an infectious disease is considered to have been occupationally-acquired. How is the worker health surveillance information collected under the system used in your IC program? Please describe the factors that affect the successful implementation of such surveillance systems.

**AFA Response:** Answers to the above questions vary by airline, and are best directed to individual airline operators’ medical departments or their third party medical contractors.

33. The OSHA requirements for recording and reporting occupational injuries and illnesses contain an exemption for the common cold and flu (§ 1904.5(b)(2)(viii)). However, the Agency has determined that, if certain criteria are met, occupationally-acquired 2009 H1N1 pandemic influenza is recordable (OSHA Directive CPL–02–02–075). As OSHA more broadly considers the issue of occupational exposure to infectious agents, what are the implications, if any, for the Agency’s existing recording and reporting requirements under § 1904?

**AFA Response:** The exemption for recording and reporting the common cold and flu should be dropped whenever an infectious disease standard is adopted; these diseases have wide-ranging impacts on worker health and productivity, especially among the flight attendant workforce, which is relatively old in comparison to other service sectors.
G. Economic Impacts and Benefits

As part of the Agency’s consideration of occupational exposure to infectious agents, OSHA is interested in the costs, economic impacts, and benefits of related practices to prevent such exposure. OSHA is also interested in the benefits of such practices in terms of reduced deaths, illnesses, and compromised operations (i.e., infirm personnel, quarantined or disabled units, unexpected reallocation of resources). The following questions will provide OSHA with needed economic impact and benefits information.

34. As the Agency considers possible actions to address the prevention and control of infectious diseases (e.g., prospective standards or guidelines), what are the potential economic impacts associated with the promulgation of a standard specific to the hazards of infectious diseases? Describe these impacts in terms of benefits from the reduction of incidents and illnesses; effects on revenue and profit; and any other relevant impact measure. If you have any estimates of the costs of controlling infectious disease hazards, please provide them.

**AFA Response**: AFA has no specific information on economic impacts of an infectious disease standard.

35. What changes, if any, in market conditions would reasonably be expected to result from issuing a comprehensive infectious diseases standard? Describe any changes in market structure or concentration, and any effects on services, that would reasonably be expected from issuing such a standard.

**AFA Response**: AFA has no specific information on market structural impacts of an infectious disease standard.

36. What are the potential benefits of more widespread compliance with infection control guidelines? How can OSHA best assure such compliance takes place?

**AFA Response**: Widespread compliance with IC measures in the commercial passenger air transport industry would lower the prevalence of diseases among flight attendants and the traveling public, yielding economic benefits to the industry from increases in worker productivity and decreases in absenteeism. Measures of customer satisfaction should also show improvement. OSHA can best assure compliance by inspecting and auditing airline IC programs and documentation, which should be possible given the limited number of U.S. based airline operators.

H. Impacts on Small Entities

As part of the Agency’s consideration of occupational exposure to infectious agents, OSHA is concerned whether its actions will have a significant economic impact on a substantial number of small entities. If the Agency pursues development of a standard and the standard has such impacts, OSHA is required to develop a regulatory flexibility analysis and assemble a Small Business Regulatory Enforcement Fairness Act (SBREFA) Panel prior to publishing a proposal. Regardless of the significance of the impacts, OSHA seeks ways of minimizing the burdens on small businesses consistent with OSHA’s statutory and regulatory requirements and objectives.

37. How many, and what type of small firms, or other small entities, have infectious disease hazards, and what percentage of their industry (NAICS code) do these entities comprise? Please specify the types of infectious diseases encountered.

**AFA Response**: The airline operators that employ AFA member flight attendants would not be classified as small business entities; therefore, we are unable to respond to this question.

38. How, and to what extent, would small entities in your industry be affected by a potential comprehensive OSHA infectious diseases standard regulating occupational exposure to infectious agents? Do special circumstances exist that make controlling infectious diseases more difficult or more costly for small entities than for large entities? Describe these circumstances.

**AFA Response**: The airline operators that employ AFA member flight attendants would not be classified as small business entities; therefore, we are unable to respond to this question.