

# Key stakeholder perceptions of food allergies within the airline industry

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Food allergens threaten the safety of any allergic consumer, particularly in the context of air travel as inadvertent exposure is likely, increased air pressure may exacerbate symptoms<sup>(1)</sup> and access to medical assistance is limited. As 220–520 million people worldwide are estimated to be sensitive to one or more allergens<sup>(2)</sup>, airlines are under increasing pressure to mitigate risk. Whilst the passenger of concern may alleviate risk by taking responsibility for their own safety, prevention is primarily managed by the airline, their cabin crew and their caterers. However, protocol effectiveness is limited by supply chain complexities, and there is no international regulation concerning food allergies in international airspace.

In this study perceptions of food allergies were explored among key airline stakeholders (n = 83 cabin crew, n = 11 caterers, n = 4 management, and n = 16 passengers who have (n = 14) or care for individuals (n = 2) with allergies). Four questionnaires, adapted to each stakeholder, were constructed using Qualtrics software, version 02.2021 and made accessible from November 2020 through February 2021. Following questionnaire completion, nine subjects volunteered to participate in interviews (n = 2; cabin crew and catering company employee) or focus groups (n = 7; airline catering (n = 4) and cabin crew personnel (n = 3)) which were conducted online (ZOOM Video Communications, version 5.3.1). Quantitative data were analysed using SPSS statistical software version 24 (Chi-squared test determined associations to a 5% significance level), and analytical software NVivo 11 was used to manage qualitative data through coding.

The following themes were identified and explored; awareness and prevalence of allergens, accountability (cross contact, labelling, limitations and supply chain complexities), and recommendations. Most cabin crew (87.5%) have received sufficient food allergy training within the last five years but industry-wide awareness of allergens between countries is limited and most relevant protocols focus on nut allergies. Whilst allergies are not the most prevalent cause of in-flight emergencies (only 25% of passengers have experienced symptoms in-flight), cases may be underreported as manifestations are often mild<sup>(2)</sup> and can be treated by the passenger of concern<sup>(3)</sup>. Any food may trigger an allergic reaction along a spectrum of severity<sup>(2)</sup> but the complex aircraft food service supply chain prevents their mitigation. Food is procured from multiple international caterers before service to a culturally diverse range of consumers; allergens may be brought on the aircraft by other passengers; globally inconsistent legislations concerning allergen exposure and declaration causes confusion among stakeholders making policies difficult to implement.

Due to the magnitude of limitations, international standardisation is an unfeasible solution. Enhanced communication throughout the supply chain will increase food allergy awareness, enhance perceptions concerning its importance and encourage further implementation of regulative measures. Additionally, disclosure of responsibilities of airlines will encourage allergic passengers to take the onus for their safety.

## References

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