

Aviation Noise and Its  
Impact on Community  
Health: Research and  
Proposed Legislation



# About National Organization to Insure a Sound Controlled Environment (N.O.I.S.E.)

- **WHO WE ARE**

- At N.O.I.S.E., we've served for 40 years as America's only nation-wide, community-based association composed of local elected officials representing millions of Americans across the country, committed to reducing the impact of aviation noise on local communities.

- **OUR MISSION**

- We are committed to reducing the impact of aviation noise on local communities by partnering with communities to join and inject the concerns of their constituents into the national debate on airport expansion and other issues relating to the effects of aviation noise.

# N.O.I.S.E. Team Members

## Executive Officers

### **PRESIDENT**

- The Honorable Brad Pierce  
Chair, Centennial Airport  
(Colorado) Community Noise  
Roundtable  
Former Council Member  
City of Aurora, CO

### **1ST VICE PRESIDENT**

- The Honorable Mary Rose  
Evans  
Commissioner  
City of Parkway Village, KY

### **2ND VICE PRESIDENT**

- The Honorable Ambrose Clay  
Council Member  
College Park, GA

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- The Honorable Libby  
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- The Honorable Linea  
Palmisano  
Council Member  
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## Staff

### **EXECUTIVE DIRECTOR**

- Emily Tranter

### **COMMUNICATIONS DIRECTOR**

- Vince Spinner

### **PRESS AND COMMUNICATIONS**

- Greg Rubio

# Congressional Legislation Proposed: Past and Present

1. 112th Congress (2011-2012) - *S.223 - FAA Air Transportation Modernization and Safety Improvement Act*, Sponsor: Sen. John D. Rockefeller IV (D-WV)
2. 115th Congress (2017-2018) - *H.R.6168 - Aviation-Impacted Communities Act*, Sponsor: Rep. Adam Smith (D-WA)
3. 115th Congress (2017-2018) - *S.2422 - A bill to require a study on the health impacts of air traffic noise and pollution*, Sponsor: Sen. Elizabeth Warren (D-MA)
4. 115th Congress (2017-2018) - *H.R.3938 - Air Traffic Noise and Pollution Expert Consensus Act of 2017*, Sponsor: Rep. Stephen F. Lynch (D-MA)
5. 116th Congress (2019-2020) - *H.R.5109 - F-AIR Act*, Sponsor: Rep. Jackie Speier (D-CA)
6. 116th Congress (2019-2020) - *H.R.976 - Air Traffic Noise and Pollution Expert Consensus Act of 2019*, Sponsor: Rep. Stephen F. Lynch, (D-MA)



# Present Legislation

- 117th Congress (2021-2022) - *H.R.6050 - Aviation Noise and Emissions Mitigation Act*, Sponsor: Rep. Adam Smith (D-WA)
- 117th Congress (2021-2022) - *H.R.712 - Air Traffic Noise and Pollution Expert Consensus Act of 2021*, Sponsor: Rep. Stephen F. Lynch (D-MA)

# Example of Proposed Legislation 2021

- Adam Smith (D-Wash.) introduced the *Aviation Noise and Emissions Mitigation Act* which will help to better understand the effects of noise and emissions in communities and fund initiatives driven by communities to mitigate these effects on the environment, public health, and quality of life of residents living near airports and air flight pathways.
- Original cosponsors: Rep. Eleanor Norton (D-DC, Quiet Skies Caucus Co-Chair), Rep. Stephen Lynch (D-MA, Quiet Skies Caucus Co-Chair)

# Example of Federal Airport Noise Regulations and Programs

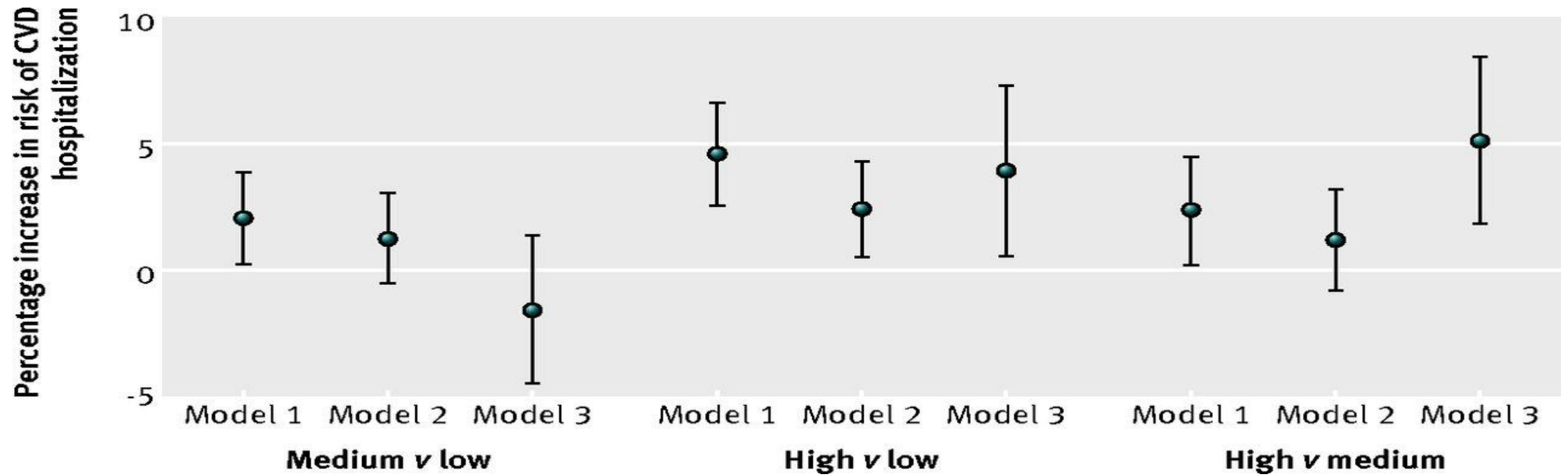
- Section 189 of the *FAA Reauthorization Act of 2018*\* (Public Law 115-254) directed the FAA to study the health impacts of noise from aircraft flights on residents exposed to overflight noise.
- The provision required the study to be focused on the impact on residents in the metro areas of Boston, Chicago, DC, NY, California metropex, Phoenix, the Southern California Metroplex, Seattle and other areas.
- FAA has contracted with Boston University and the Massachusetts Institute of Technology for this three-year study that is scheduled to be completed in 2022

[\\*FAA Reauthorization Act of 2018 \(Public Law 115-254\)](#)

# Harvard School of Public Health (HSPH) and Boston University School of Public Health (BUSPH) Study\*

- On average, zip codes with 10-decibel higher aircraft noises had a 3.5% higher cardiovascular hospital admission rate.
- In total, 2.3% of hospitalizations for cardiovascular disease in the Medicare cohort were attributable to aircraft noise.
- Twenty-three per cent of the Medicare cohort was exposed to greater than 55 decibels using the 90th percentile exposure metric, and this population contributed half of the attributable hospitalizations.
- In comparison, across the zip codes with air pollution data, 6.8% of hospitalizations for cardiovascular disease were attributable to fine particulate matter and 4.2% to ozone.
- The population attributable fraction for noise was similar in the subset of zip codes with air pollution data (2.2%).





# Comparison with Other Studies

- This study investigated the noise-cardiovascular hospitalization relation across grades of airport noise exposure levels for the largest number of airports and population of older people studied to date.
- Large number of events to pull data from.
- Evaluated the relation of noise with cardiovascular hospitalization as the outcome, which had rarely been considered in previous noise studies.
- Improved upon previous studies by assessing the relation for individual at risk people, and by estimating the whole exposure-response relation.
- Accounted for the potential confounding of regional air pollution and near-road air pollution/noise.
- There may be a threshold for the effect of noise.

# Boston Study Conclusion

- Aircraft noise, particularly characterized by the 90th percentile of noise exposure among census blocks within zip codes, has a large effect in raising the relative rate of hospitalization for cardiovascular disease among older people residing near airports.
- This relation remained after controlling for other factors.



# Questions about N.O.I.S.E.?

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