

February 10, 2020

The Honorable Maggie McIntosh
Chair
House Appropriations Committee
Room 121
House Office Building
Annapolis, Maryland 21401

Re: HB310/SB184-University of Maryland, Baltimore-Study on the Health Effects of Air Traffic Noise.

Dear Chairman and Committee Members:

I currently serve as an Assistant Professor of Pharmaceutical Health Services Research with an emphasis on health economics at the University of Maryland School of Pharmacy and as a Public Policy Researcher at the American Lung Association. I strongly support the merits of **HB310/SB184-University of Maryland, Baltimore-Study on the Health Effects of Air Traffic Noise**. This bill aims to study health effects of air traffic noise on residents of communities near the Baltimore/Washington International (BWI) Thurgood Marshall Airport since the implementation of the Next Generation Air Transportation System (NextGen).

Recently, Dr. Peter Muennig, Professor of Health Policy at Columbia University, and I conducted a similar study in New York City (NYC) (1). Historically, the 'TNNIS Climb' flight path had been only deployed during the United States (US) Open tennis tournament in Queens, NY, USA, that is adjacent to LaGuardia Airport (LGA). The use of runway 13 at LGA has become a common route of departure in the era of NextGen and 'TNNIS Climb' has become year-round since 2012. The year-round use of TNNIS has made significant noise increases for residents of the Community Boards 7 and 11 of Queens, NY, USA.

In our previous published study, we built a decision-analytic Markov model to assess the cost-effectiveness of limiting the year-round use of 'TNNIS Climb' in NYC compared to *status quo* (i.e., year-round use of TNNIS) (1). In this study, we mapped the TNNIS-caused noise to increased risks of cardiovascular disease (CVD) and general anxiety disorder and modeled quality-adjusted life years (QALYs). QALYs provide a universal measure of health by capturing both longevity and health-related quality of life over the lifetime of a patient. In this study, we also modeled direct medical costs of CVD and general anxiety as well as indirect costs (i.e., productivity losses) associated with the year-round use of TNNIS.

The study showed that limiting use of TNNIS in NYC would increase QALYs and life years for affected communities by noise, and would be cost-effective, with an incremental cost-effectiveness ratio (ICER) of \$10,006/QALY, compared to the year-round use of TNNIS, at current recommended willingness-to-pay thresholds by US cost-effectiveness guidelines (2,3). Our study was published in the *International Journal of Environmental Research and Public Health* and has gained significant media attention and appeared on major print media sources such as the *Wall Street Journal* (<https://www.wsj.com/articles/lawmaker-urges-laguardia-flight-path-changes-1534895807>), the *Queens Tribune* (https://issuu.com/thequeenstribune/docs/tribune_08232018_all_low), and multiple other media outlets.

HB310/SB184 aims to analyze noise contours in the wake of the implementation of NextGen and their health effects over communities near BWI Thurgood Marshall Airport. With multiple earlier published studies reporting on detrimental health effects of transportation and especially air traffic noise on health (4–13), HB310/SB184 aims to develop a mathematical Markov model to consolidate data from multiple published resources of evidence and project the long-term potential losses of QALYs and longevity as well as medical costs that can be envisaged for Maryland residents living beneath noise corridors of NextGen-caused flight routes around BWI Airport.

The estimated costs of conducting the proposed study under HB310/SB184 includes time effort for myself (Principal Investigator of the study) and my research team, as well as indirect costs of conducting the study at the University of Maryland School of Pharmacy.

If effectuated, HB310/SB184 will provide needed public health data for Maryland communities directly affected by noise corridors of NextGen's flight paths around the BWI Thurgood Marshall Airport. All in all, as a public health researcher wearing my health economics hat, I am strongly in favor of the merits of HB310/SB184 and its bone fide intention of improving the public health and wellbeing of Marylanders.

Sincerely,



Zafar Zafari, M.Sc., PhD

Assistant Professor at University of Maryland School of Pharmacy

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