BU Student Project: Community-Based Research Assessing Noise Impacts on Sleep Disturbance

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Dear Interested Participant,

Please take some time to read through the following information for a class project conducted by graduate students enrolled at the Boston University School for Public Health. If you have additional questions about the project, please e-mail the students at busphstudentproject@gmail.com.

Study Purpose
The purpose of this project is to assess the relationship between residential noise exposure and sleep. The study will focus on residents living anywhere in East Boston or in one of three locations in West Somerville (Ball Square, Teele Square, or the campus of Tufts University). The study involves collecting noise using a phone app and filling out surveys related to sleep. The noise collection and survey period will target the week of April 5.

Participant Information
We will gather some basic demographic and home information in the survey. Any information gathered for this project will be confidential, and all information used for reporting purposes will exclude personal identifying information.

To enhance the success of this student project, participants will only be eligible if they:
- have a smartphone that supports the NoiseTube app
- can use the NoiseTube app to collect noise information on the evenings of April 5 to April 8 from the consecutive hours of 10 P.M. to 7 A.M.
- sleep at some point between the hours of 10 P.M. to 7 A.M.
- have access to a computer and the ability to download noise data from the host site (noisetube.net) or provide permission to students to download noise data
- can take short surveys on the evening of and morning following noise sample collection
- are not taking sleep aids or other medications that can impact sleep (e.g. cold medicine, antihistamines) during the study period

In addition to the above criteria, preference is for residents who do not currently have newborns or infants in their home.

If you are interested in participating and meet the above criteria, please contact us at busphstudentproject@gmail.com. Your participation in this class project will help students and community leaders better understand how noise influences sleep. We appreciate your time and look forward to hearing from you.

Instructions for Downloading and Using the Smartphone NoiseTube App

NoiseTube

Getting Started

1. Visit the NoiseTube webpage at: www.noisetube.net and select "Join!" By clicking on the "Join!" item in the menu bar, you will be led to the sign-up form.
2. Create an account by choosing a username and password and entering your email, hometown location, as well as brand and model of your mobile phone. Note: Please record your username and password and have it available to share with the student researchers so they may download your data.

Downloading Mobile App

1. Go to the PlayStore on your Android smartphone or AppStore on your iPhone.
2. Search for "Noisetube" in the store and download the *FREE* app.
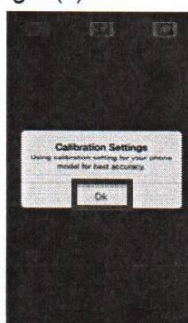
Testing and Using the App

1. Ensure that your phone is connected to the internet and the GPS is on. An internet connection is needed to upload your data when the phone is finished collecting noise measurements, and GPS is required to show where the measurement is taken. The data file created is small. If you are concerned with data usage, connecting the phone to WiFi may reduce data use.
1. Click the NoiseTube app icon on your phone to start the app and log into the app on your phone.
2. Complete a test run noise sample by selecting "MEASURE" (a) and then "START" (b) on the NoiseTube application. Press "OK" to the pop-up message for "Calibration Settings" (c).
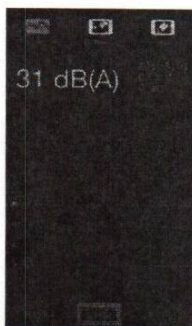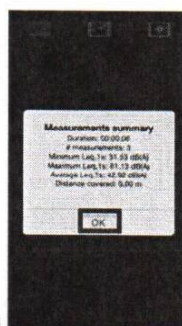

(a)   (b)   (c)

3. Complete data collection by selecting "STOP" (d) and selecting "OK" (e) to the pop-up message for "Measurements summary."

(d)   (e)

The data will take a few hours to load onto the NoiseTube server. You will receive an email confirmation stating "Your NoiseTube track has been processed." Once you have received this email, you will be able to log into your online NoiseTube account and see your noise measurements. Students will also be able to download your noise data.

The developers of the app have also written a user guide. To read the full user guide, please visit:
http://www.noisetube.net/downloads/NoiseTubeUserGuide.pdf