



# Gas Leaf Blowers

**Oregon House Committee  
on Energy and Environment**

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**Founder, President**  
**May 17, 2021**

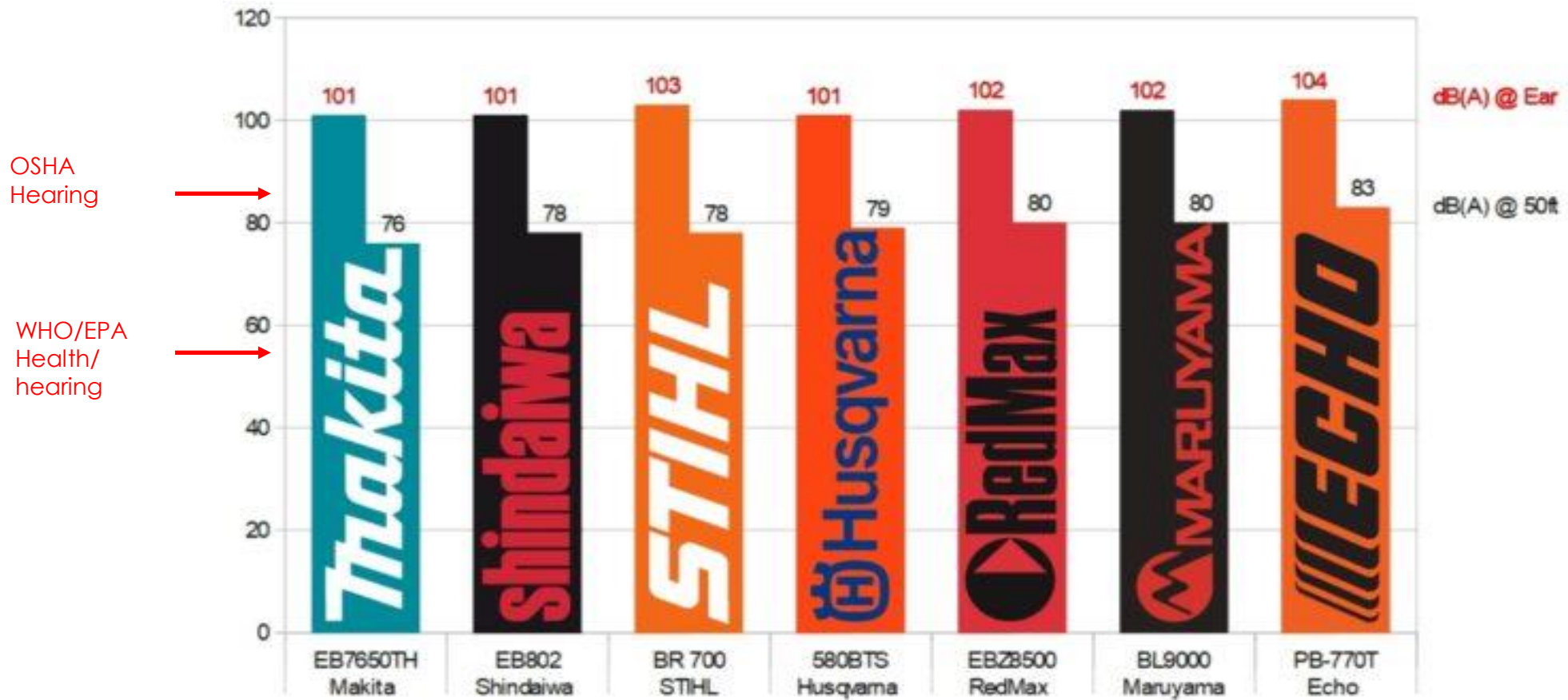


# The Egregious Gas Leaf Blower



Photo courtesy of Wikimedia Commons;  
Charles and Hudson

- Ubiquitous
- >1 at a time (non-compliant use)
- Loud, penetrating noise
- Throttling up and down
- “You can’t get away from it.”



## Cover Your Ears

"No, really, cover your ears! All this great power from the best backpack blower shootout comes at a cost, or several costs. No matter how you slice it, they're loud."

-- Quote from OPE Reviews, Dec 2017

## Concerned with GLB Noise

- ◉ American Speech-Language-Hearing Association
- ◉ Children's Environmental Health Center
- ◉ Children's Environmental Health Network
- ◉ State Medical Societies
  - ◉ New York
  - ◉ Massachusetts
- ◉ National Institutes of Health
  - ◉ NIDCD
  - ◉ NICHD
- ◉ The National Academy of Engineering/Sciences
- ◉ US CDC
- ◉ US EPA
- ◉ World Health Organization

CDC: Centers for Disease Control; EPA: Environmental Protection Agency; NICHD: National Institute of Child Health and Human Development; NIDCD: National Institute for Deafness and other Communication Disorders



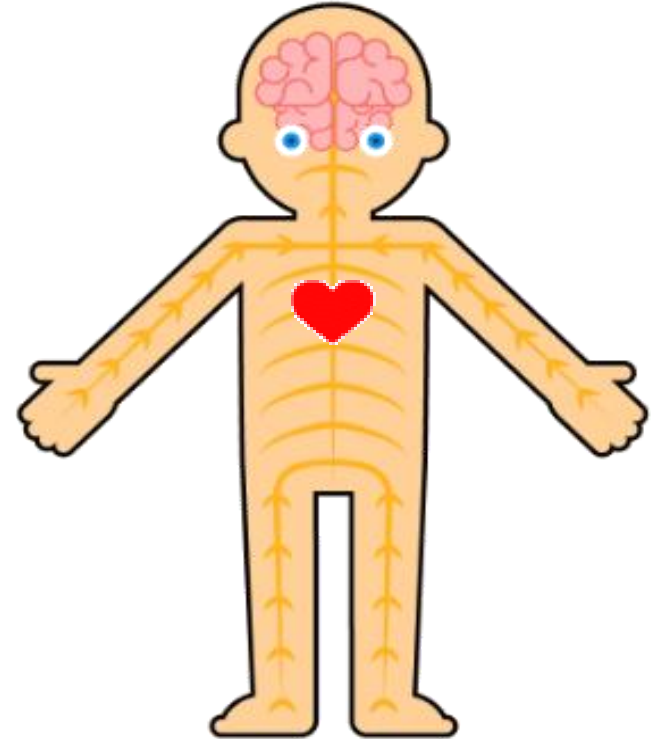


*The noise that causes sensorineural hearing loss is usually not one deafening bang but decades' worth of exposure to the high-decibel accessories of daily life: leaf blowers, car horns, traffic, movie theater sounds, and so on.*

*-- Harvard Medical School, Special Health Report, Hearing Loss: A Guide to Prevention and Treatment, 2016*

## Noise: Not Just Hearing Damage

- Cardiovascular disease
- Increased anxiety, depression, stress
- Diminished learning, cognition
- Metabolic disturbances – suspected increase in risk of obesity, diabetes
- Reduced work productivity
- Reduced quality of life
- Increased health care and societal costs



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#### REVIEW TOPIC OF THE WEEK

## Environmental Noise and the Cardiovascular System



Thomas Münzel, MD,<sup>a</sup> Frank P. Schmidt, MD,<sup>a</sup> Sebastian Steven, MD,<sup>a</sup> Johannes Herzog, MD,<sup>a</sup> Andreas Daiber, PhD,<sup>a</sup> Mette Sørensen, PhD<sup>b</sup>

#### ABSTRACT

Noise has been found associated with annoyance, stress, sleep disturbance, and impaired cognitive performance. Furthermore, epidemiological studies have found that environmental noise is associated with an increased incidence of arterial hypertension, myocardial infarction, heart failure, and stroke. Observational and translational studies indicate that especially nighttime noise increases levels of stress hormones and vascular oxidative stress, which may lead to



- Hypertension
- Heart attack
- Heart failure
- Stroke
- Mortality

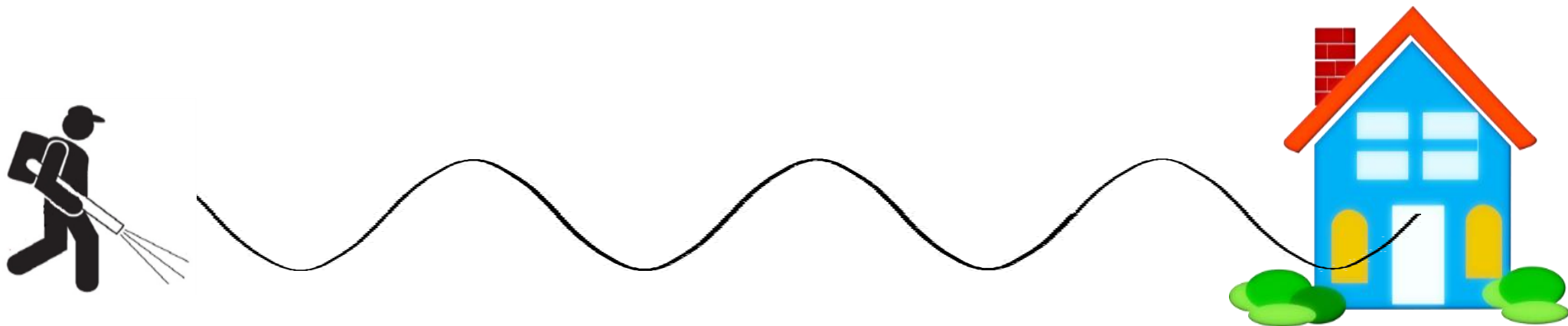
# Vulnerable populations





# Gas engine noise is distinctive

- ◉ Predominant low frequency component
- ◉ Travels over long distances
- ◉ Readily penetrates windows and structures



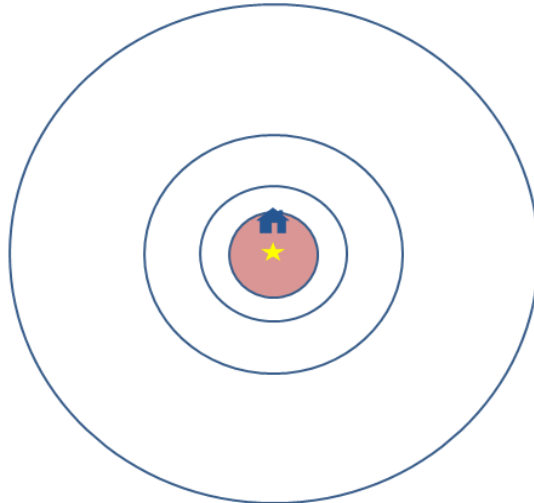
Sources: Pollock C. J Environ Toxicol Stu, 2018; Walker E. J Environ Toxicol Stu, 2017; Pasanen T. Joint Baltic-Nordic Acoustics Meeting 2004.

***If the noise includes a large proportion of low-frequency components, values even lower than the guideline values will be needed because low-frequency components in noise may increase the adverse effects considerably.***

**-- World Health Organization**



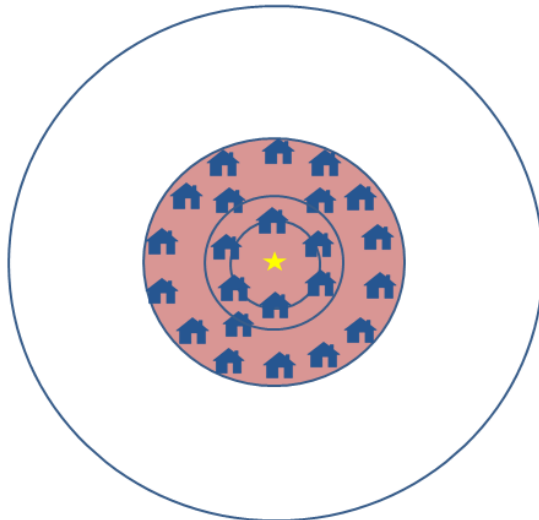
**Stihl BGA 100**  
**56 dBA**



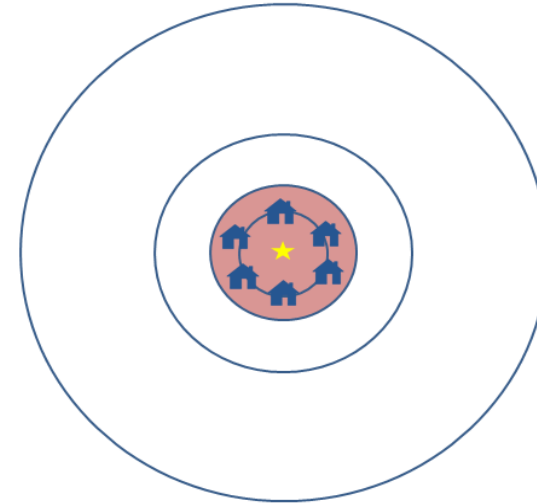
**1 home**



**Echo PB 760:**  
**65 dBA**



**23 homes**



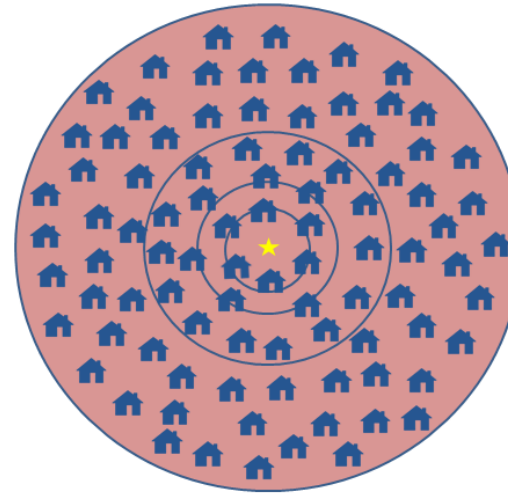
**6 homes**



**GW GBB 700 &  
600; Ego 600**  
**65 dBA**

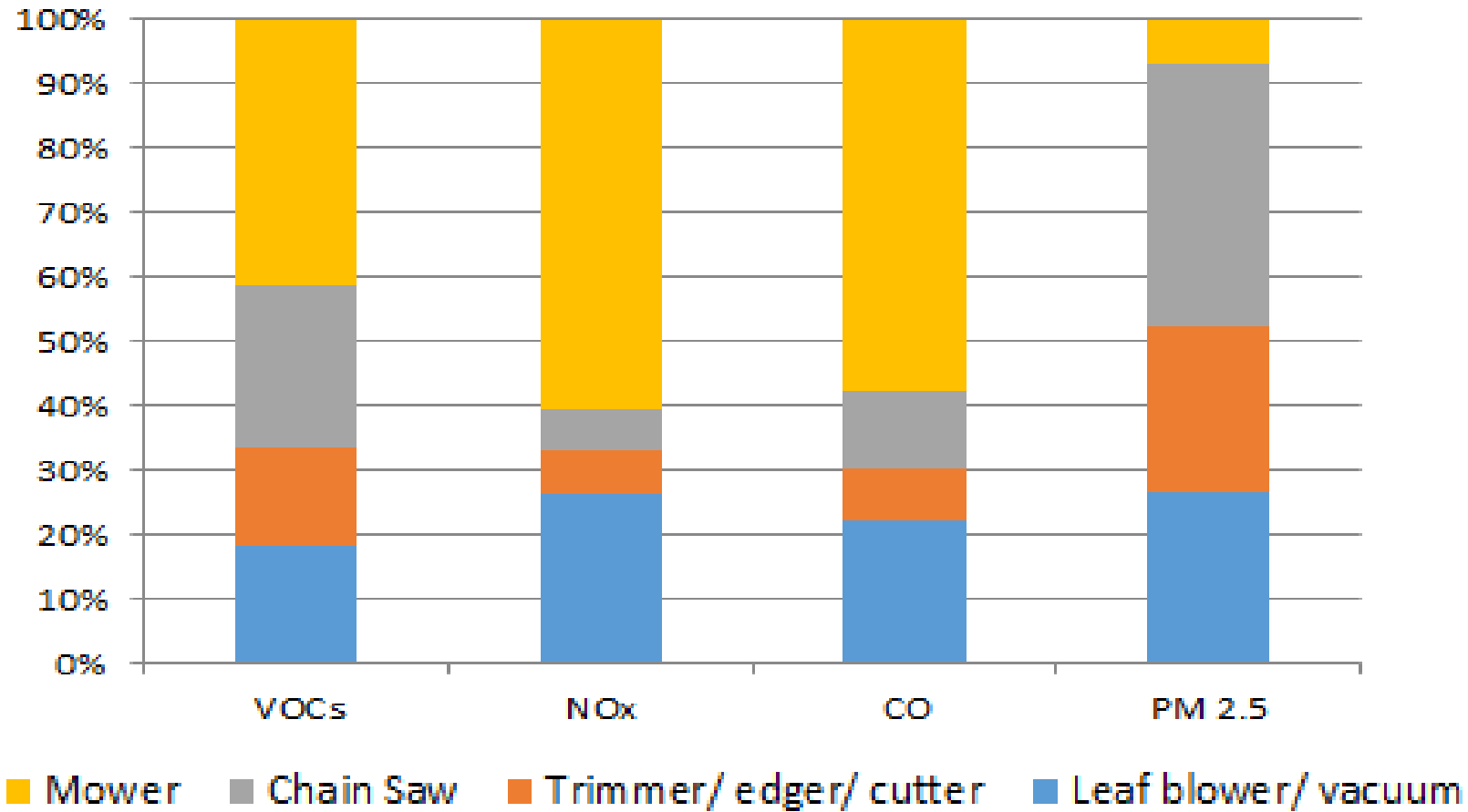


**Stihl BR 700x;  
Redmax  
EBZ8500**  
**78, 80 dBA**



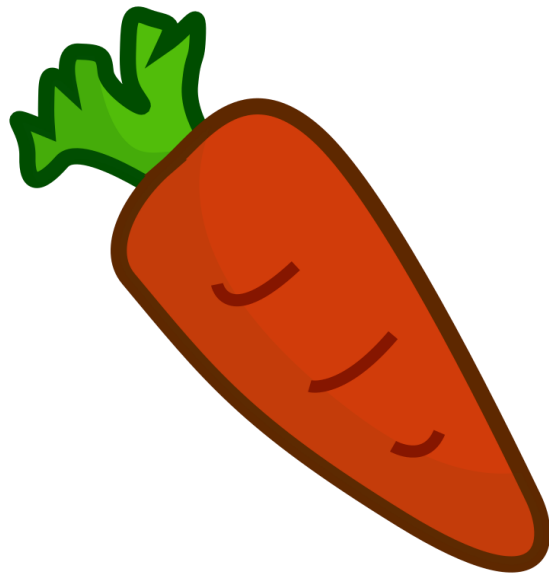
**91 homes**

## GLME Pollutants by Type of Machine, US, 2011



Source: Banks, McConnell. National Emissions from Lawn and Garden Equipment, 2015.

# Making change work



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