



The Development of Infographics to Communicate Risk of Ultrafine Particle Air Pollution



Kynza Khimani, Janet Wang, Health Research Program 2021
Dr. Douglas Brugge PhD, M.S.
UConn Department of Public Health Sciences



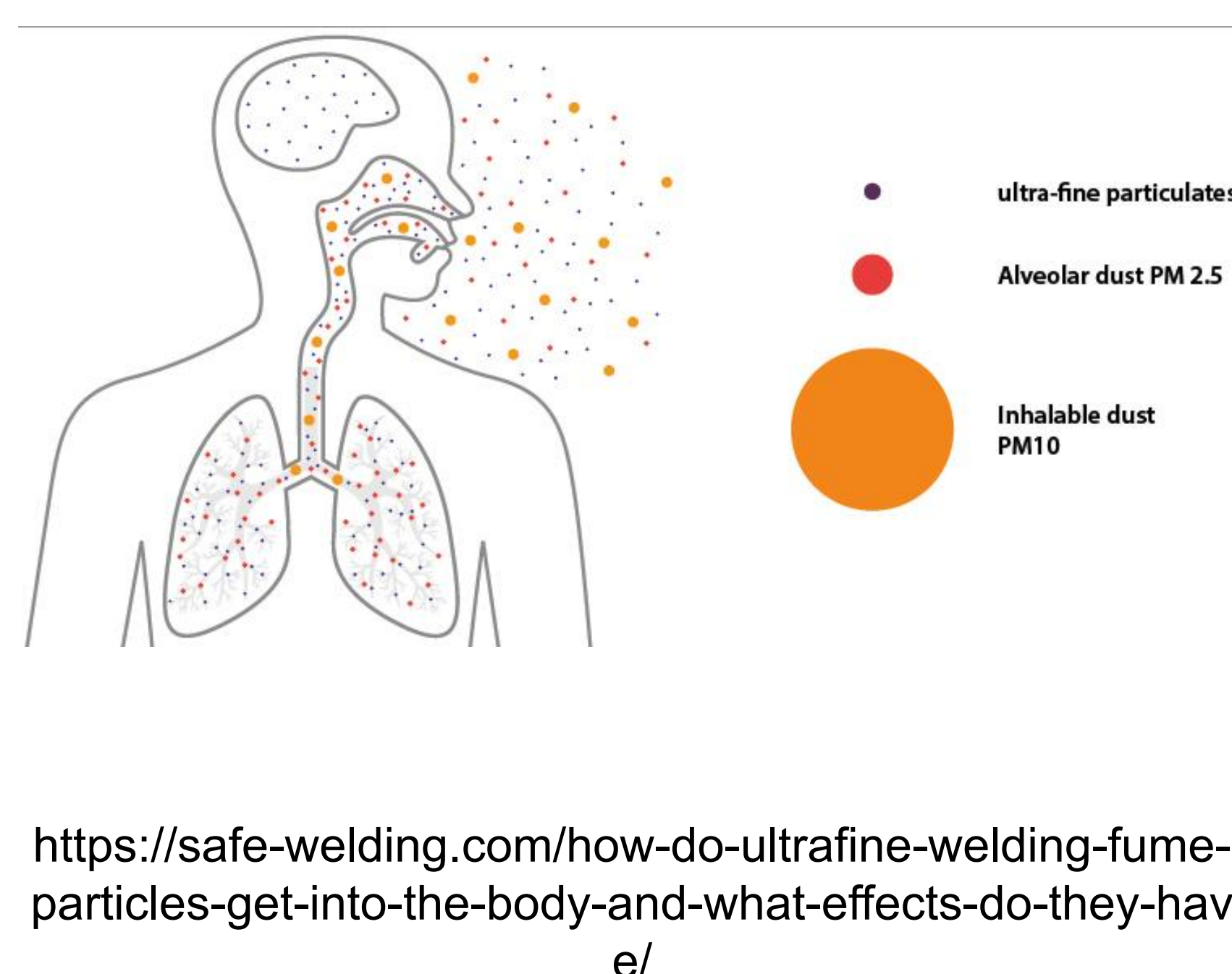
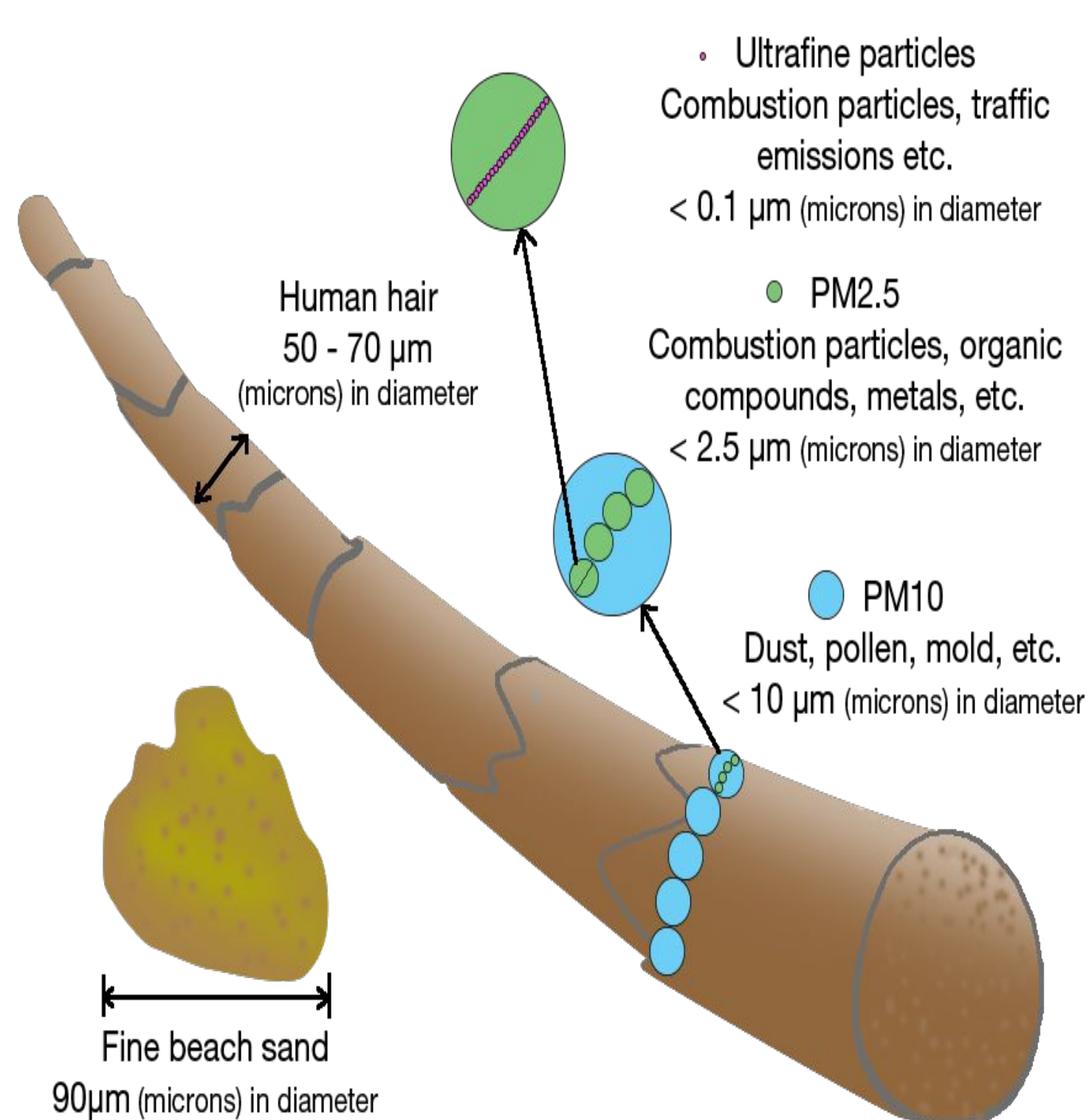
Abstract

This project aims to develop linguistically and culturally appropriate infographics that communicate the risk of ultrafine particle air pollution to marginalized populations living near I-93 in Somerville and Boston Chinatown. Non-English and Indoor UFP infographics were created. Infographics would then be revised based on feedback from communities.

Background

UFPs (ultrafine particles) are the smallest type of air pollution less than a millionth of a meter in diameter. They originate from both indoor and outdoor sources. In large concentrations, UFPs can pose health risks, particularly cardiovascularly.

Infographics are important health communication tools that convey complex information more simply using text and images. In this project, infographics were developed in order to communicate risks, mitigation efforts, and educational tools.



<https://safe-welding.com/how-do-ultrafine-welding-fume-particles-get-into-the-body-and-what-effects-do-they-have/>

<https://www.epa.gov/pm-pollution/particulate-matter-pm-basics>

Methodology

To create non-English infographics, the original English infographic was first translated linguistically and culturally in collaboration with native speakers. Canva was then used to design and produce the infographic. In order to evaluate the Spanish infographic produced, an IRB-approved Qualtrics survey was sent to Somerville communities.

To create the indoor UFP infographic, relevant literature about UFPs and the use of infographics in health communications efforts was first collected and used to produce a literature review. Next, a sketch of a preliminary infographic plan was created.

Canva was used to develop a digital version of these sketches. Over the course of a few weeks, the infographic went through many revisions based on feedback from the rest of the research team. Further analysis and summary of data from interviews with stakeholders in Chinatown was completed by reading interview data and summarizing themes observed (i.e. challenges, outreach & education, policy change, etc.)

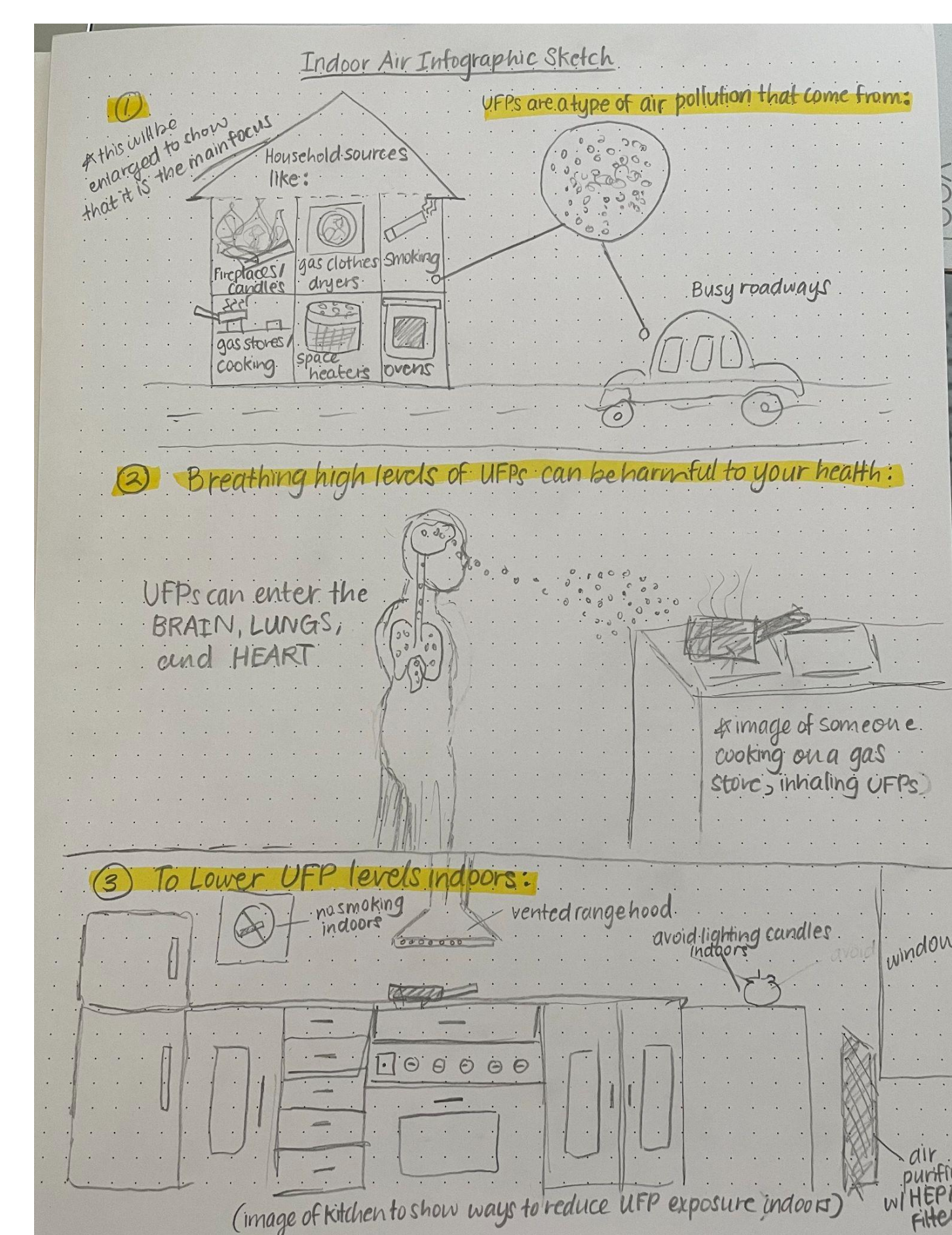


Fig. 1: Indoor Air Infographic Sketch

Acknowledgements

Thank you Dr. Brugge, Shir Ginzburg, Pilar Botana Martinez, Linda Martinez, CAFEH Research, The Welcome Project, Rowena Grainger, and the Health Research Program.

Results

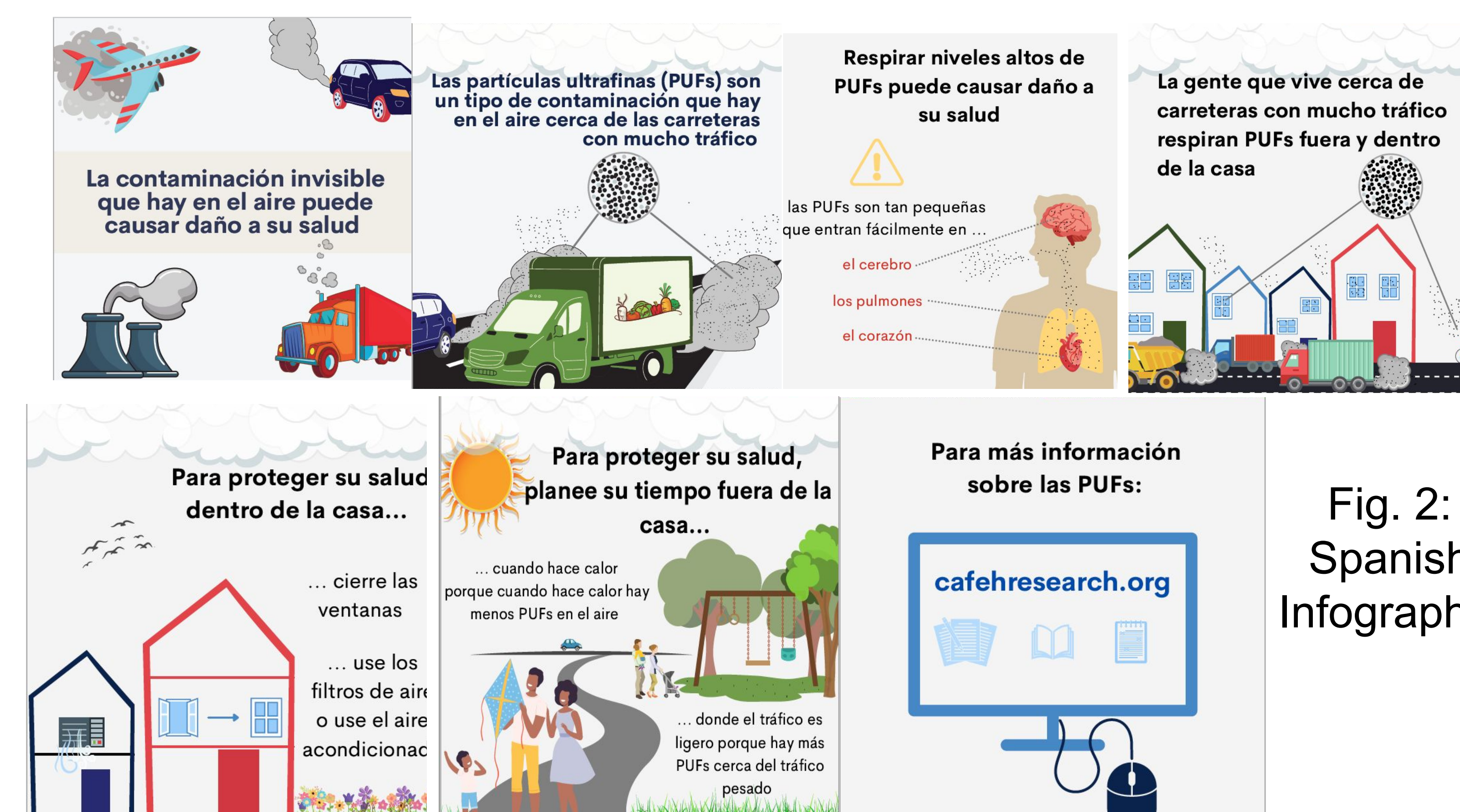


Fig. 2: Spanish Infographic



Fig. 3: Indoor Infographic

Spanish and Indoor UFP infographics were successfully created. Due to time limitations, however, the infographics

were not revised based on community feedback. Thus, in the future, feedback must first be gathered via online surveys, focus group interviews, and key informant interviews, and then incorporated into the modification process of the infographics. Additionally, another future goal is to create infographics in more languages to target a wider audience.