

Data has been continuously collected since 2019. It is available to any professional or amateur scientist. Analyzed Data (unpublished) suggested a drop of 22% of air pollution in Porto Alegre during the first wave Covid-19 lockdown, making headlines in local media. Two Whatsapp groups were created with over 50 collaborators. A partnership with the municipality was initiated. A Brazilian pioneering medical environmental health NGO was created, aiding other NGOs and federal prosecutors to stop the project of the largest Latin American open coal mine in the Porto Alegre region.

This CS project has partially fulfilled a gap in air pollution monitoring in Porto Alegre. CS has potential to expand, innovate and consolidate low-cost sensors to monitor air pollution in LMIC. Many caveats emerged while implementing this project, including the need for sustained motivation and teamwork, and that community health clinics are potential allies. In the long term, such CS projects could include other environmental health indexes to integrate planetary health watch systems.

Planetary Health in Engineering: building a community

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Planetary Health (PH) is a transdisciplinary domain from the point of view of its foundations and its actions. A core principle is that everyone has a role, as the São Paulo Declaration on Planetary Health clearly states. Engineering as a professional field can considerably promote a better relationship between humankind and the planet. Engineering transforms the world based on scientific knowledge in order to improve our lives. However, in doing so, it can negatively impact the planet because of a lack of consideration of the multiple aspects involved in a project, for instance. There are many examples, good and bad, of how engineering and engineers have impacted our lives and our planet. That is why it is crucial to bring this community as an essential ally to achieve planetary health. That is the proposal of Planetary Health in Engineering, a group created within Planetary Health Brazil, to promote discussions, practice, and adoption of PH principles into engineering courses, research, and practice. We started with a core group of faculty and students, most of them from different areas of engineering from the Escola Politécnica da Universidade de São Paulo, and with seed funding from the Amigos da Poli Endowment Fund. Initially, we are developing outreach materials that explicit the connections between engineering and PH. Podcasts, texts, and



seminars that showcase examples of professionals and projects are also important to corroborate such objectives. The exercise reveals that PH already underpins many engineering actions. However professionals are unaware of the movement on the global scale. A video about PH and engineering is almost finalized. Ways to include PH into engineering curricula are also in our mission. There is room to expand the group including other engineering schools, students, and professionals all around the world.

Africa Community of Planetary Partners for Health and Environment (ACOPPHE): A grassroots initiative to celebrate diversity, bridge divides, and build equitable community partnerships which are grounded in shared values such as love, justice, and unity.

Nightingale Wakigera (University of Glasgow) and Nathaniel Uchtmann (University of California San Francisco)

Our Africa Community of Planetary Partners for Health and Environment (ACOPPHE) project was started in late 2020, following a recognition that Planetary Health values and priorities can readily serve as an impactful, unifying, and welcoming space. We came together for the common purpose of connecting and mobilizing advocates for issues like health equity, sustainable development, child rights, and climate justice. Intentionally linking these issues that are directly tied to people, place, and planet facilitates the coordination of activities, harmonization of advocacy priorities, and sharing of ideas, opportunities, and solutions. In the short time since our team coalesced, we have actively participated in and presented at multiple conferences including the 2021 Planetary Health Annual Meeting and the 2021 inVivo Planetary Health Conference. We have also hosted several online gatherings for global events such as World Environment Day and organized several Action Teams that are guided by leaders from a variety of disciplinary and geographical backgrounds.

A fundamental ACOPPHE goal is to cultivate a diverse network of leaders and advocates who connect and integrate human health with environmental sustainability. Our Planetary Partnership model for promoting international, intergenerational, and interspecies justice serves as the foundational platform for regular communication and idea exchange between academics, children and youth, and members from Indigenous communities.

We share a common vision about these 3 objectives:

1. Pursuing and prioritizing community-centered solutions, leadership, and organizational development.
2. Building dynamic partnerships with our target audience of friends, family, and allies for healthy people in loving communities and diverse environments on a healthy planet.
3. The importance of working to collaboratively link and integrate interdisciplinary and holistic approaches to health and development such as EcoHealth, One Health, Planetary Health, and Indigenous Knowledge Systems/Traditional Ecological Knowledge through cultivating individual and institutional relationships that align our activities, research, and priorities.