# Susy Echeverría-Londono, PhD

## Researcher and data scientists


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## About me

I am a researcher and data scientist specialising in policy oriented research projects in public health and biodiversity. I have successfully contributed to international organisation and research teams combining expertise in data science in the areas of public health, epidemiology, ecology and evolution. My expertise lies in analysing large, complex datasets and leveraging statistical approaches and spatial analysis to uncover global patterns in public health coverage and the intricate relationships between biodiversity, environment, and human impact.

## Skills

R Programming

GIS, Statistics

Python, Git, LaTeX

Spanish (Native)

English (Professional Proficiency)

French, Italian (Intermediate)

(Skill scale from 0 (Fundamental) to 6 (Expert))

# Experience

**2022– now** Research Consultant — Freelance

- Supported policy-making institutions in assessing the potential for harmonising and integrating vaccine impact estimates across platforms.
- Conducted a comparative analysis of vaccine impact estimates for dengue, tuberculosis, group B streptococcus, and shigella.
- Compared GAVI's Vaccine Investment Strategy 2024 estimates with those modeled by the Vaccine Impact Modelling Consortium (VIMC).

**2019–2022** Research Consultant and Research Associate — Imperial College London, UK

- Collaborated with a multidisciplinary team of researchers, technical experts, policy-oriented organisations, and project managers.
- Ensured robust and policy-relevant outputs for decision-making in global health and produced regular technical reports to inform stakeholders and support evidence-based vaccine investment and advocacy.
- Analysed, organised, and prepared time series vaccine impact estimates for 12 pathogens across 112 countries from 21 models developed by institutions worldwide. *PI: Prof. Neil M. Ferguson and Line manager: Dr Katy Gaythorpe*

**2017–2019** NSF Postdoctoral Associate — Kenyon College, OH, USA

- Demonstrated advanced skills in spatial data analysis and handling large ecological datasets by conducting in-depth quantitative analysis of functional diversity among plant species across North and South American biomes.
- Utilised a dataset of 85,000 plant species and over 9 million georeferenced data points. *PI: Prof. Andrew Kerkhoff and Prof. Brian J. Enquist*

**2018–2019** Visitor scholar — University of Pittsburgh, PA, USA

- Explored spatial and temporal ecological patterns to understand species vulnerability.
- Performed spatial data analysis on 300 plant species using spatial point pattern analysis.

**2013–2017** Lecturer and demonstrator — Natural History Museum Imperial College London, UK

Lectured and demonstrated for several quantitative courses in the Taxonomy and Biodiversity MSc and Life Sciences BSc programmes

# Education

**2013–2017** Ph.D. in Life Science — Imperial College London, UK

**2012–2013** M.Res. with Distinction in Biodiversity, Informatics and Genomics — Imperial College London, UK

**2004–2010** B.Sc. in Biology. 1st-class honours — Universidad Industrial de Santander, Colombia

# Selected publications

2022 *Echeverría-Londoño, S,.* Hartner, A. M., Li, X., Roth, J., Portnoy, A., Sbarra, A. N., ... & Gaythorpe, K. A. Exploring the subnational inequality and heterogeneity of the impact of routine measles immunisation in Africa. *Vaccine*, 40(47), 6806-6817.

2021 *Echeverría-Londoño, S,.* Li, X., Toor, J., de-Villiers, M., Nayagam, S., Hallett, T.B., Abbas, K., Jit, M., Klepac, P., Jean, K. & Garske, T. How can the public health impact of vaccination be estimated? *BMC Public Health*, 21, 2049 (2021).

2020. *Echeverría-Londoño, S,.* Särkinen, T., Fenton, I. S., Knapp, S. and Purvis, A. Dynamism and context dependency in the diversification of the megadiverse plant genus Solanum L. (Solanaceae),

*Journal of Systematics and Evolution*, 58(6), 767-782.

2018. *Echeverría-Londoño, S.,* Enquist. B. J., Neves, D. M., Violle, C. and Kerkhoff, A. J. Plant functional diversity and the biogeography of biomes in North and South America. *Frontiers in Ecology and Evolution*, 6(DEC), 219.