

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 Profisionay)

English (Professional Proficiency)

French (Intermediate)

Italian (Intermediate)

Experience

2022- now Research Consultant

Conducted a comparative analysis of vaccine impact estimates for dengue, tuberculosis, group B streptococcus, and shigella from GAVI's Vaccine Investment Strategy 2024 against those modeled by the Vaccine Impact Modelling Consortium (VIMC), to support policy-making institutions in exploring the potential for harmonizing and integrating impact estimates across platforms to

strengthen global vaccine advocacy efforts.

2019–2022 Research Consultant and Research Associate

Imperial College London, UK

Freelance

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

2017–2019 NSF Postdoctoral Associate

Kenyon College, OH, USA

Conducted in-depth quantitative analysis of functional diversity distributions among plant species across North and South American biomes, utilising a dataset of approximately 85,000 plant species and over 9 million georeferenced geographic data points. Integrated publicly available functional traits to assess and model biodiversity patterns, demonstrating advanced skills in spatial data analysis and large-scale ecological datasets. *PI: Prof. Andrew Kerkhoff and Prof. Brian J. Enquist*

2018-2019 Visitor scholar

University of Pittsburgh, PA, USA

Conducted spatial data analysis on 300 plant species by applying spatial point pattern analysis to time-series distribution data, assessing and predicting extinction risks through the exploration of spatial and temporal ecological patterns. *PI: Dr. Justin Kitzes*

Education

2013-2017 Ph.D. in Life Science

Imperial College London, UK

Plant Macroevolution and

biodiversity responses to land-use change

2012–2013 M.Res. with Distinction

in Biodiversity, Informatics and Genomics

Imperial College London, UK

Effects of land use

on local biodiversity in Colombia

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.