

HOW TO CREATE A DATA MANAGEMENT PLAN WITH CARE AND FAIR

UHC Summer Institute- June 26-30, 2023

Ana Ortigoza, MD PhD



THE SALURBAL STUDY



SALURBAL

Salud Urbana en América Latina =
Urban Health in Latin America

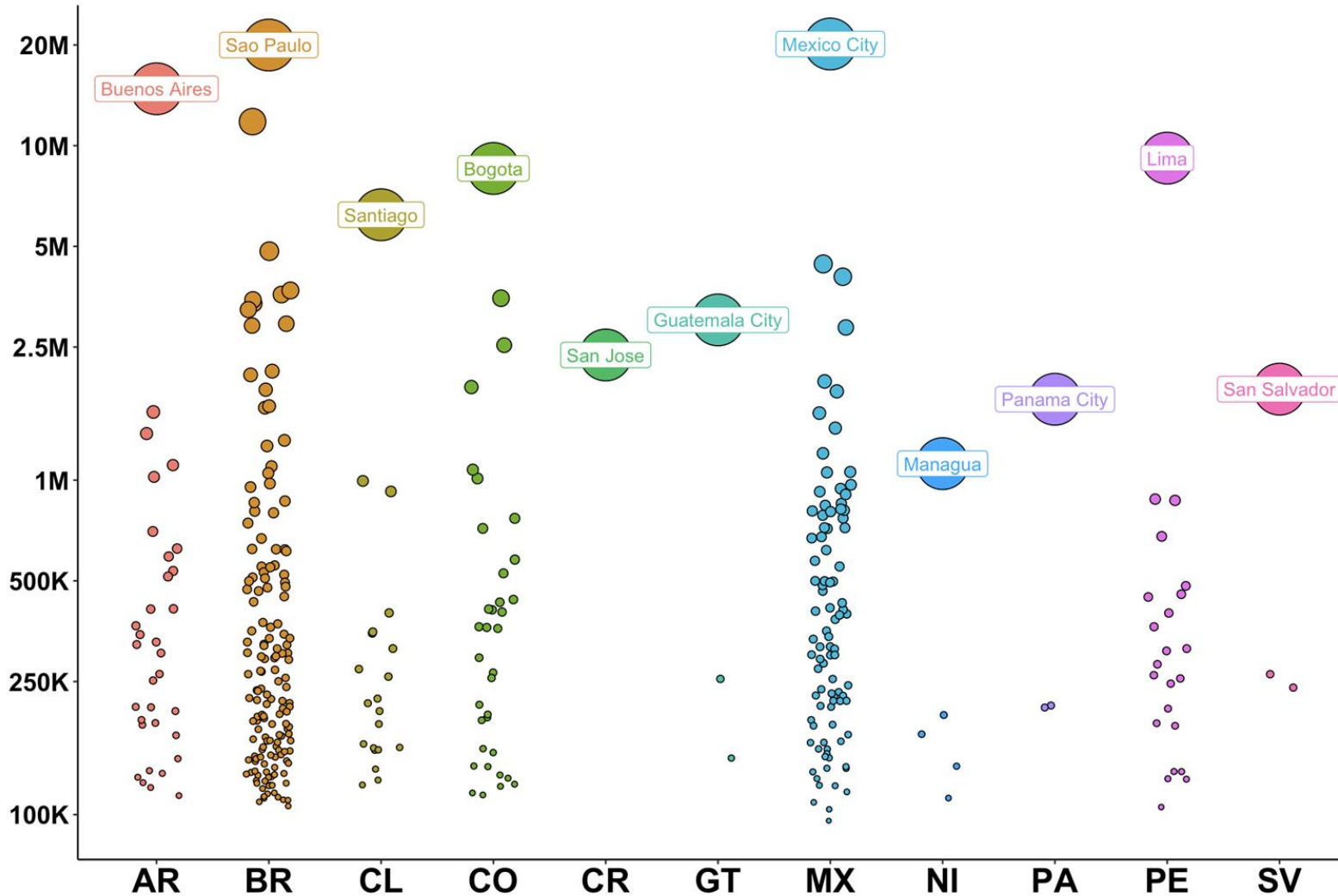
- An initiative of the Urban Health Network for Latin America and the Caribbean (LAC-Urban Health).
- Implemented by Drexel University and 14 partners primarily based in Latin America.
- Funded through Wellcome Trust's "Our Planet, Our Health" global initiative.

SALURBAL ...

1. ...Analyzes **urban data** to reveal how **cities impact health** outcomes, health inequities, and environmental sustainability.
2. ...Evaluates the **impact of urban policies and interventions** on health and the environment.
3. ...Uses systems approaches to **gain insight** into the dynamic relationships between the urban environment, health, and environmental impact.
4. ...Works with policymakers and the media to **disseminate our research** so that it can be used to create change.

SALURBAL DATA

Population of 371 SALURBAL Cities (2010)



SALURBAL DATA

371
cities



33
cities



152
cities



21
cities



35
cities



1
city



3
cities



3
cities



92
cities



5
cities



3
cities



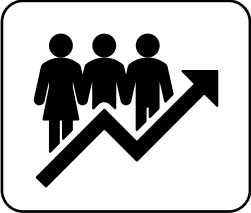
23
cities

Health	Built Environments	Social Equity
<ul style="list-style-type: none"> • <u>Deaths and causes of death</u> • <u>Life expectancy</u> • Health risk factors • Health-related behaviors • Violence 	<ul style="list-style-type: none"> • Land use and urban form • Transit options • Traffic congestion • Air pollution • Walkability • Green space • Water and sanitation • Housing 	<ul style="list-style-type: none"> • Poverty • Income inequality • Housing conditions • Education • Employment



URBAN CHARACTERISTICS RELATED TO HEALTH

SOCIOECONOMIC SCORES



Population Growth

-Population growth rate 2010-2015



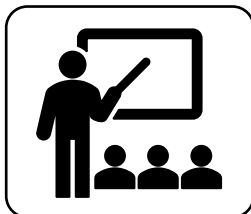
Living conditions

% households with piped water in the house
% of households with overcrowding conditions (3+/room)
% population 15-17 age attending school



Services provision

% of households with water connected to municipal network
% of households with sewage system connected to municipal network



Population education

% population 25+≥ high school level
% population 25+≥ university level

URBAN CHARACTERISTICS RELATED TO HEALTH



Natural Spaces

- Normalized Vegetation Index (NVDI)
- Park Density



Built Environment

- Population Density
- Urban Patch Density/ Distribution
- Isolation and Fragmentation



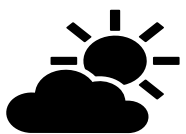
Traffic

- Street design and length
- Street Connectivity
- Average traffic time
- Traffic Delay index



Rapid Transportation systems

- Availability of Bus Rapid System(BRT)
- Availability of Subway network



Environmental Exposures

- Annual Average PM2.5
- Annual Average NO2
- Annual/ Monthly average temperature

URBAN HEALTH EVIDENCE

naturemedicine

[Explore content](#) ▾ [About the journal](#) ▾ [Publish with us](#) ▾

[nature](#) > [nature medicine](#) > [articles](#) > article

Article | [Open Access](#) | [Published: 25 January 2021](#)

Life expectancy and mortality in 363 cities of Latin America

**LEARN MORE AND
CONTACT US**



LACURBANHEALTH.ORG
SALURBAL@DREXEL.EDU



FOLLOW US

@LACURBANHEALTH



Articles

The effect of population mobility on COVID-19 incidence in 314 Latin American cities: a longitudinal ecological study with mobile phone location data

Josiah L Kephart PhD ^a  , Xavier Delclòs-Alió PhD ^d, Prof Daniel A Rodríguez PhD ^{e f}, Prof Olga L Sarmiento PhD ^g, Prof Tonatiuh Barrientos-Gutiérrez PhD ^h, Manuel Ramirez-Zea PhD ⁱ, D Alex Quistberg PhD ^{a c}, Usama Bilal PhD ^{a b †}, Prof Ana V Diez Roux MD ^{a b †}

naturemedicine

[Explore content](#) ▾ [About the journal](#) ▾ [Publish with us](#) ▾

[nature](#) > [nature medicine](#) > [articles](#) > article

Article | [Open Access](#) | [Published: 27 June 2022](#)

City-level impact of extreme temperatures and mortality in Latin America

SALURBAL Data Lessons

- 1) Systematization for **city definition and operationalization**
integrating multiple ways in which a city can be delimited;
- 2) Creation of **data structure** that integrated different data sources
making it shareable across several cores and disciplines
- 3) Development of **procedures and standards** that systematically documented issues related to data access, quality, and completeness during the process of data harmonization.

WORLD-FAIR

**A GLOBAL COOPERATION ON FAIR
DATA POLICY AND PRACTICE**



**Funded by
the European Union**

BACKGROUND

- Open Science fosters more transparent, efficient, and participatory science to tackle the global societal challenges of our age.
- Open Science is highly supported by the FAIR principles
- Common understanding and implementation of the FAIR principles is uneven and fragmented geographically and across disciplines.

GOALS & APPROACH

**Advance implementation
of the FAIR principles
within and across a
number of research
disciplines**



GOALS & APPROACH

**Advance implementation
of the FAIR principles
within and across a
number of research
disciplines**



WHY WORLD-FAIR FOR URBAN HEALTH?

- Cities at the center of mitigation and adaptation strategies to promote human health & environmental sustainability
- Urban Health is a domain of multiple disciplines involved in understanding how urban environment contributes to shape population health
- The transdisciplinary approach of Urban Health makes its challenges and solutions translatable beyond its discipline

URBAN HEALTH CHALLENGES IN FAIR IMPLEMENTATION

- Data **acquisition** and **use**
- Availability of data at **spatial scales** for studying problems in cities
- **Integration** of data using different spatial reference (related to the city-definition used)
- Disparities in **quality and completeness** of data over time and across geographies
- Adequate standardisation processes to make **data comparable** (across cities within and between countries and regions)

URBAN HEALTH GOALS

- Explore and further refine the approaches used in SALURBAL to **provide recommendations** for urban health data that reflect **the FAIR and CARE principles**
- Contribute to the promotion of **good practices** in data sharing and use **within and beyond** the Urban Health field

FAIR = Findable, Accessible, Interoperable, Reusable

CARE = Collective benefit, Authority to control, Responsibility, and Ethics



WORLD- FAIR/ URBAN HEALTH MEMBERS

Urban Health Collaborative (UHC), Drexel University



Ana Diez Roux, MD PhD
PI & Director UHC



Ran Li, MS.
UHC Analytics Engineer



Ana Ortigoza, MD PhD
Health Equity Advisor, PAHO

CODATA



Simon Hodson, PhD.
Executive Director, CODATA



Theresa Anderson, PhD.
Data Ethicist , CODATA



Arofan Gregory, PhD
IT Specialist, CODATA

THANK YOU

Welcome to this course!

