## Proposed course name:

**Instructors:**

Ana Ortigoza, MD, PhD. Senior Research Scientist, Urban Health Collaborative. Drexel University

Ran Li, MS. Analytics Engineer, Urban Health Collaborative

Theresa Anderson (guest lecturer), PhD. Data Ethicist and CODATA consultant

**Preferred Course Option**

Option 1: Week/Weekend Intensive Courses (in-person or online)

**Instruction Method**

TBD

**Course Dates**

**TBD**

**Course Description and relevance**

Urban health requires the interconnection of knowledges and practices from different disciplines to depict the complexity of urban systems. This poses several challenges in the study of urban health such as the need for a common vocabulary (i.e., how we define urban areas, informal settlements); the use of data from different sources (i.e., place based and spatial data, health registries); the creation of data that could be comparable across urban areas and over time (i.e. accounting for differences between cities and within cities over time), among others [Quistberg 2019]. All these challenges are closely related to the principles of FAIR (Findable, Accessible, Interoperable, Reusable) and CARE (Collective benefit, Authority to control, Responsibility, and Ethics) data policies and practices [Wilkinson 2016; Russo Carroll 2021]. The implementation of these principles contributes to a more transparent, efficient, participatory, technology enabled, and interdisciplinary science to tackle current and future global societal challenges

Beginning in 2023, **all NIH- funded** grant applications or renewals that generate Scientific Data must include a **robust and detailed plan** for how researchers will manage and share data during the entire funded period (**data management and sharing plan, DMSP) [NIH Data Management and Sharing Policy 2023]**. This includes information on data storage, access policies/procedures, preservation, metadata standards, and distribution approaches, which are closely related to the knowledge and implementation of FAIR and CARE principles.

The common understanding of the FAIR and CARE principles is fragmented and uneven among researchers and practitioners in urban health. Therefore, the overall purpose of this course is to provide participants with a broad understanding of FAIR and CARE principles that could help them to design and develop data management plans for research and community -based projects according to NIH data management requirements.

**Course objectives**

1. Understand concepts and frameworks related to FAIR and CARE principles in Open Science

2. Recognize and compare challenges in FAIR and CARE implementation within the urban health discipline.

3. Identify components and requirements of a data management plan development

4. Appreciate the impact and benefits of FAIR and CARE data principles implementation

**Content**

1. Day 1: Introduction to FAIR principles. How to make data and metadata FAIR. Challenges related to its implementation in urban health: examples from SALURBAL case studies (data platform, harmonization and interoperability of data, data cycle visible and invisible work)
2. Day 2: Introduction to NIH grant requirements for data management and sharing policy 2023. Data stewardship plans. Examples
3. Day 3: Introduction to CARE principles. Challenges related to its implementation in urban health: examples from SALURBAL case studies (race data, live birth data)
4. Day 4: Data privacy and protection. Summary guidelines for FAIR and CARE implementation
5. Day 5: presentation and discussion of data management proposals by participants

**Target Audience**

Participants in this course come from many disciplines including public health, health care, data science, as well as public health practitioners working with data in community projects

**Prerequisites Required**

None

**Prerequisites Preferred**

None

**Required Software and Computer Requirements**

Internet connection and Zoom if connecting remotely