Cultivating Partnerships for Practice- and Policy-Relevant Health Research: Lessons Learned from the UCSF Population Health Data Initiative
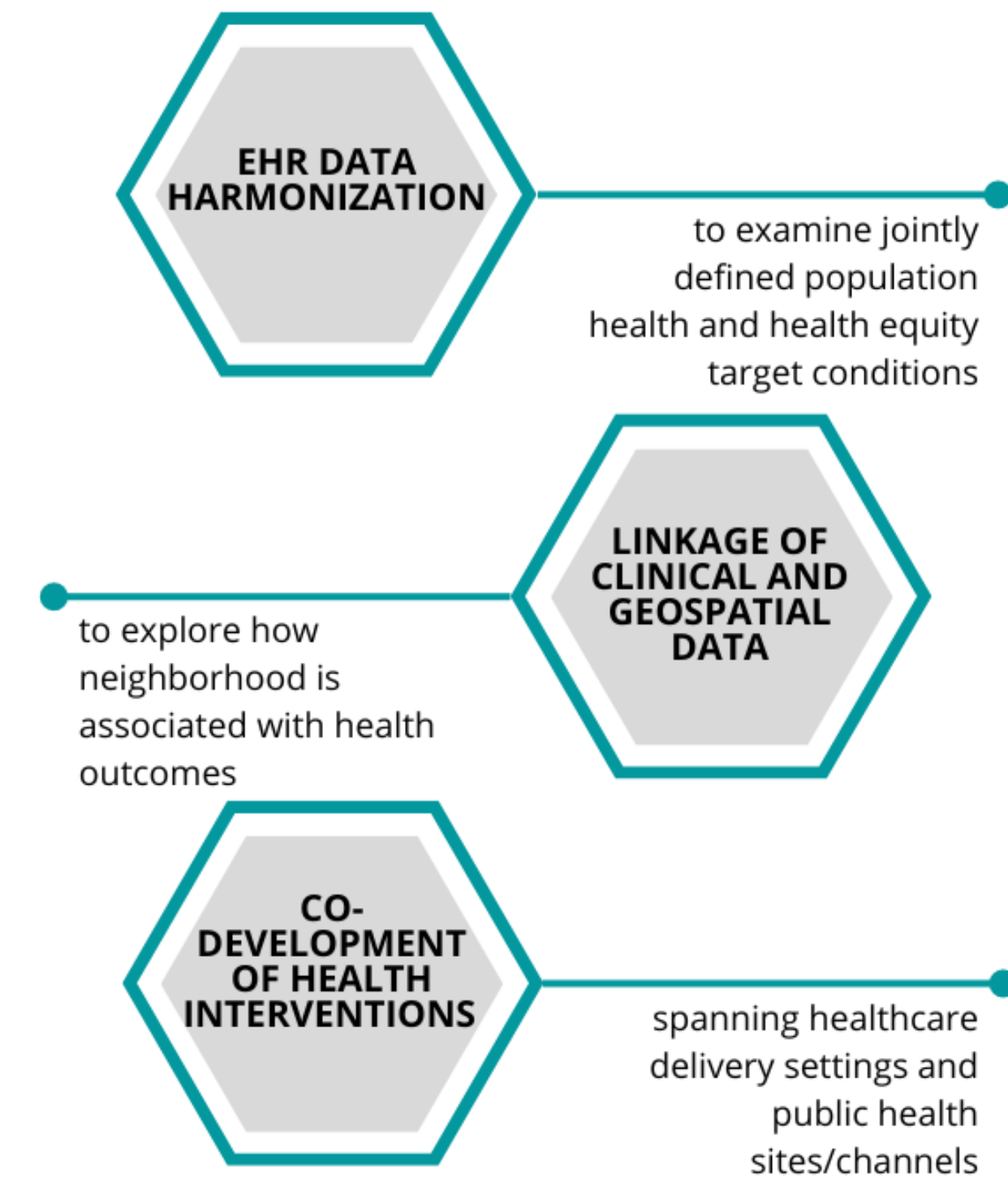
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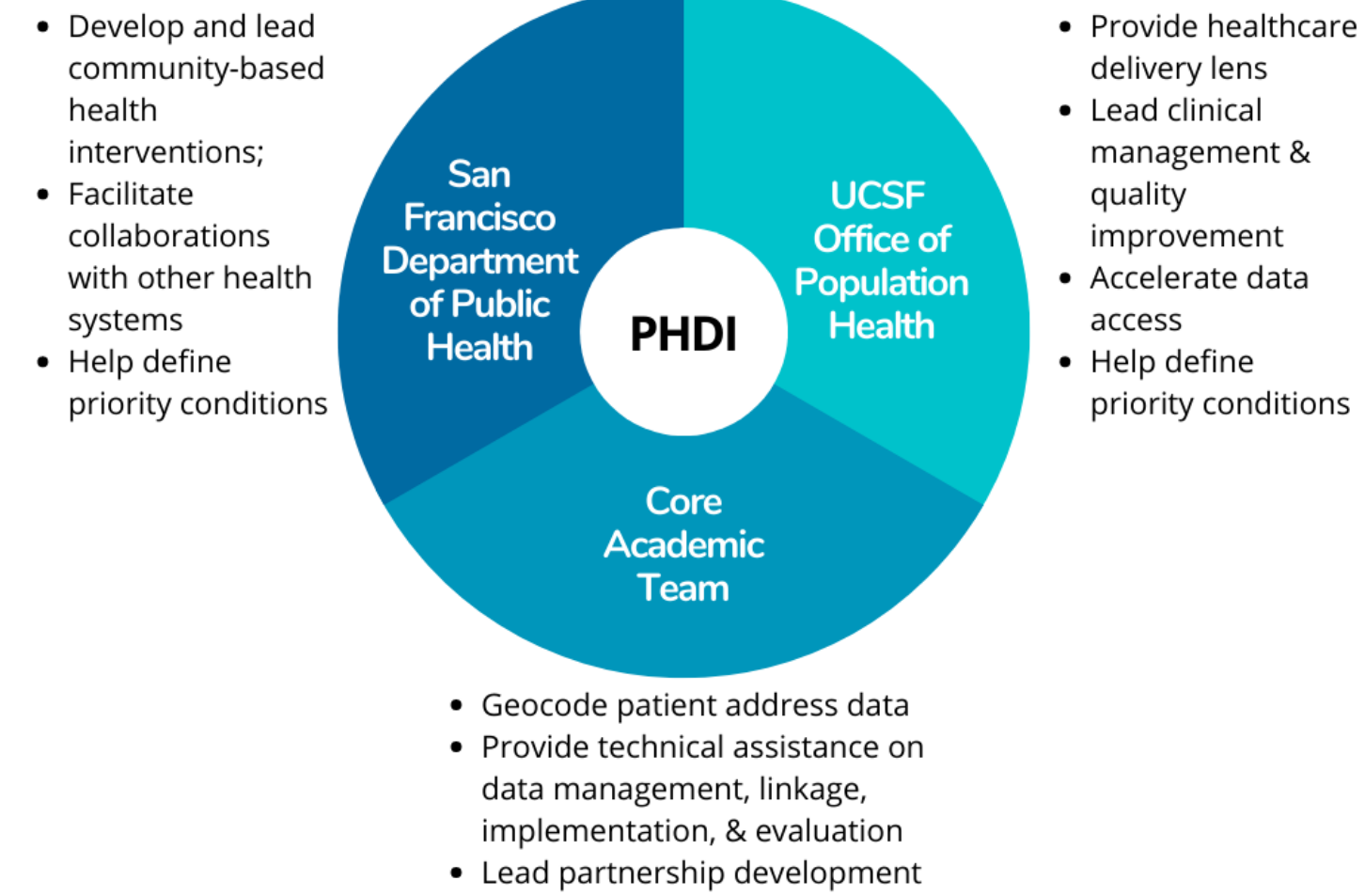UCSF Department of Epidemiology & Biostatistics

Background

The UCSF Population Health Data Initiative (PHDI) is an applied research program with the goals of:

1) Informing clinical and community interventions to promote health equity

2) Building infrastructure for collaborations between public health and health system leadership and academic population health researchers

Core Activities

- **EHR DATA HARMONIZATION** — to examine jointly defined population health and health equity target conditions
- **LINKAGE OF CLINICAL AND GEOSPATIAL DATA** — to explore how neighborhood is associated with health outcomes
- **CO-DEVELOPMENT OF HEALTH INTERVENTIONS** — spanning healthcare delivery settings and public health sites/channels

Ongoing Partnerships

PHDI

San Francisco Department of Public Health
- Develop and lead community-based health interventions;
- Facilitate collaborations with other health systems
- Help define priority conditions

UCSF Office of Population Health
- Provide healthcare delivery lens
- Lead clinical management & quality improvement
- Accelerate data access
- Help define priority conditions

Core Academic Team
- Geocode patient address data
- Provide technical assistance on data management, linkage, implementation, & evaluation
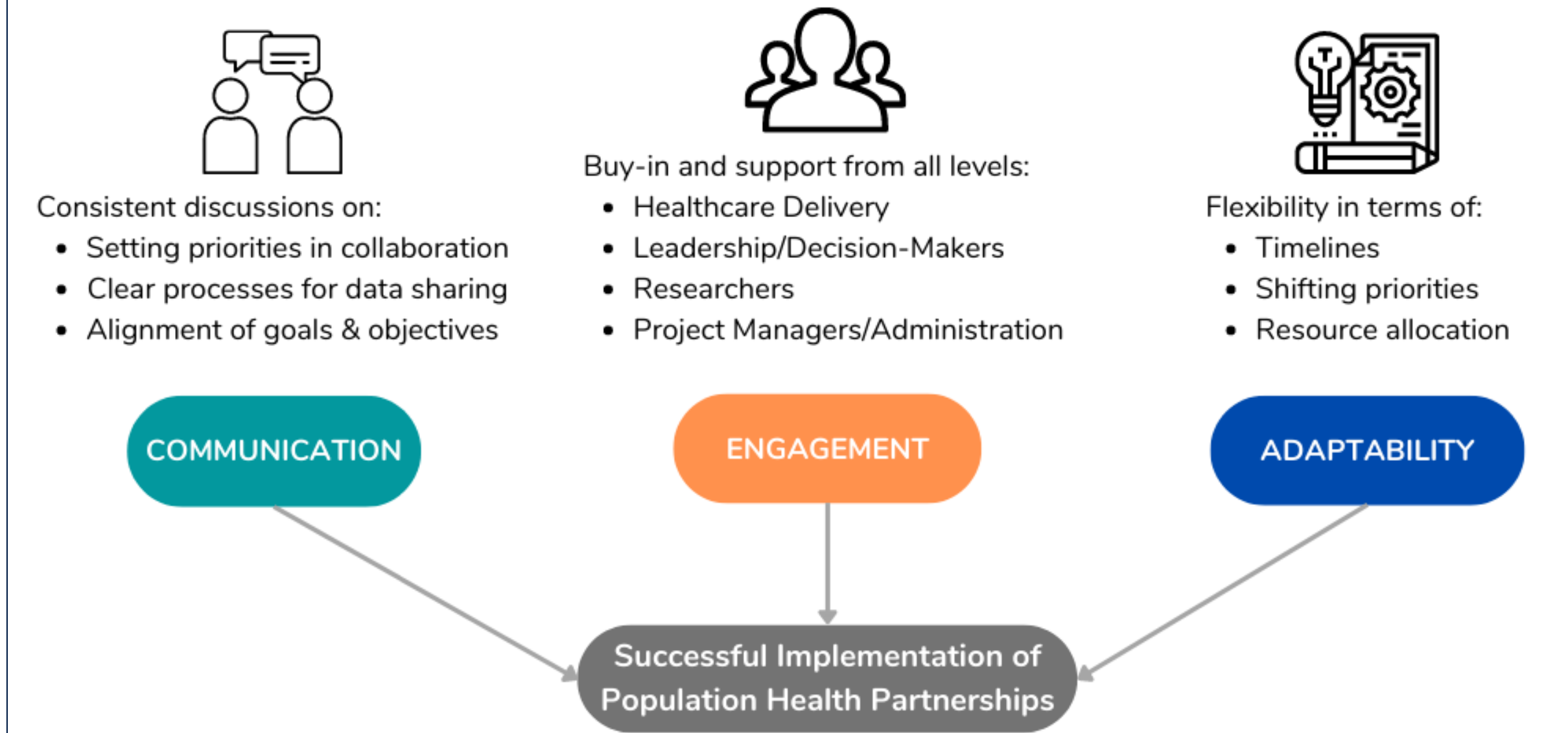- Lead partnership development

Methods

PHDI specializes in stakeholder engagement and linkage of data sources across disciplines and organizations. For example:

- Since 2017, PHDI has regularly geocoded electronic health records made available to researchers with IRB approval and to health care systems for quality improvement

- Geocoded health record data can be linked with public neighborhood data to examine population health and health equity conditions and interventions

- In 2021, the San Francisco Department of Public Health and UCSF collaboratively launched a CDC grant on pandemic preparedness to advance health equity
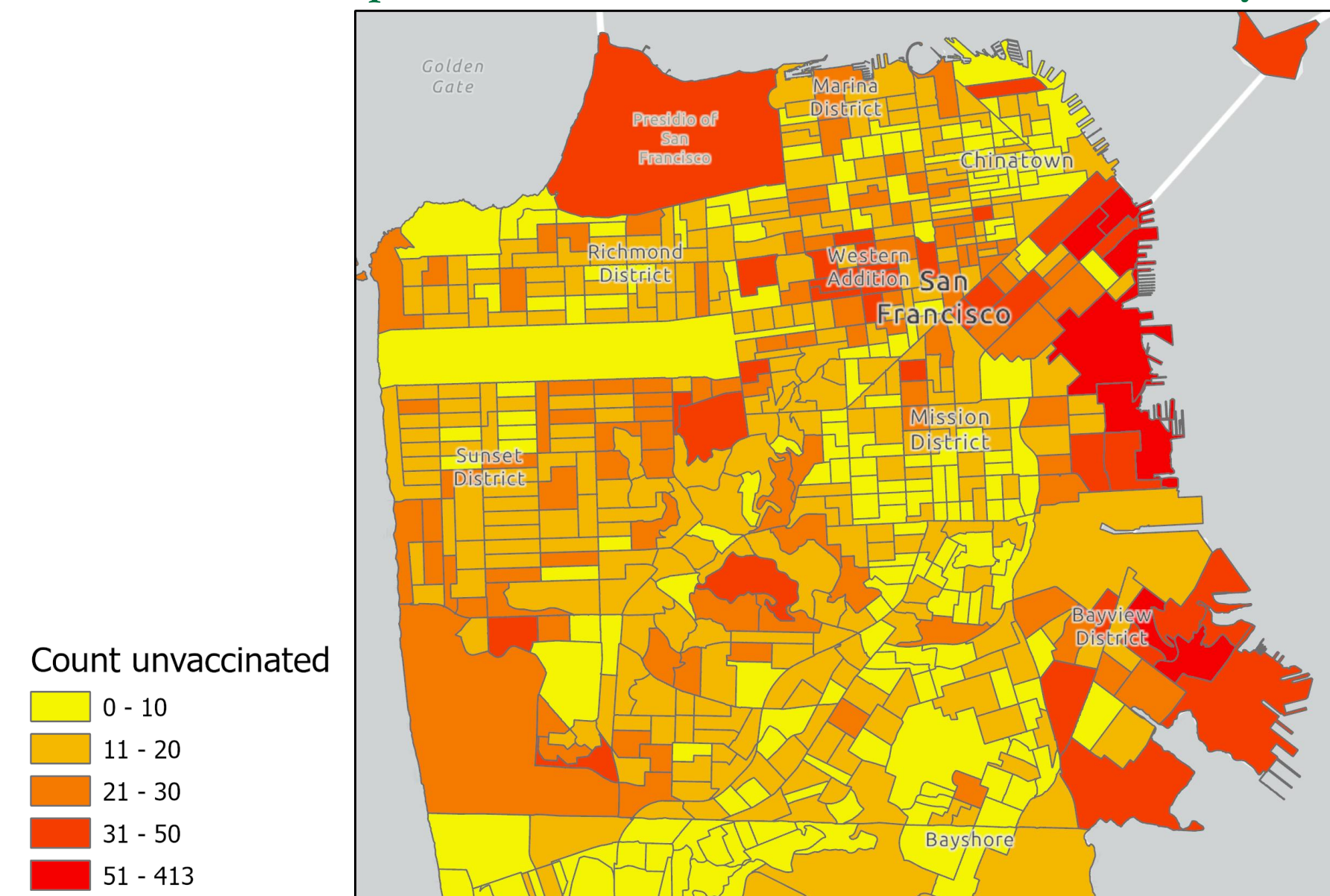
Partnership in Action

- PHDI researchers partnered with faculty from the UCSF Office of Population Health (OPH) to facilitate a project using geocoded health record data to identify geospatial concentrations of UCSF patients due for COVID-19 vaccination

- Detected a multi-unit supportive housing residence with 90 unvaccinated or under-vaccinated UCSF patients, nearly all (94%) of whom were populations prioritized for equity outreach: Black and Hispanic/Latinx individuals, children aged 5-11, individuals with low income

- OPH collaborated with community partners to organize a vaccine popup, reaching 75+ patients and community members and vaccinating 21 people

Choropleth map of census tract-level counts of UCSF patients due for COVID-19 vaccination, February 2022

Count unvaccinated
- 0 - 10
- 11 - 20
- 21 - 30
- 31 - 50
- 51 - 413

California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

Key Partnership Components

COMMUNICATION
Consistent discussions on:
- Setting priorities in collaboration
- Clear processes for data sharing
- Alignment of goals & objectives

ENGAGEMENT
Buy-in and support from all levels:
- Healthcare Delivery
- Leadership/Decision-Makers
- Researchers
- Project Managers/Administration

ADAPTABILITY
Flexibility in terms of:
- Timelines
- Shifting priorities
- Resource allocation

→ Successful Implementation of Population Health Partnerships

Implications for D&I Science

- Insights from partnership-building experiences are relevant to communities nationally to shape our responses to public health emergencies like COVID-19 as well as long-standing population health challenges such as chronic disease

- This work highlights the importance of building trust and collaboration across community, public health, academic, and clinical partners for transforming data into action

Acknowledgements

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