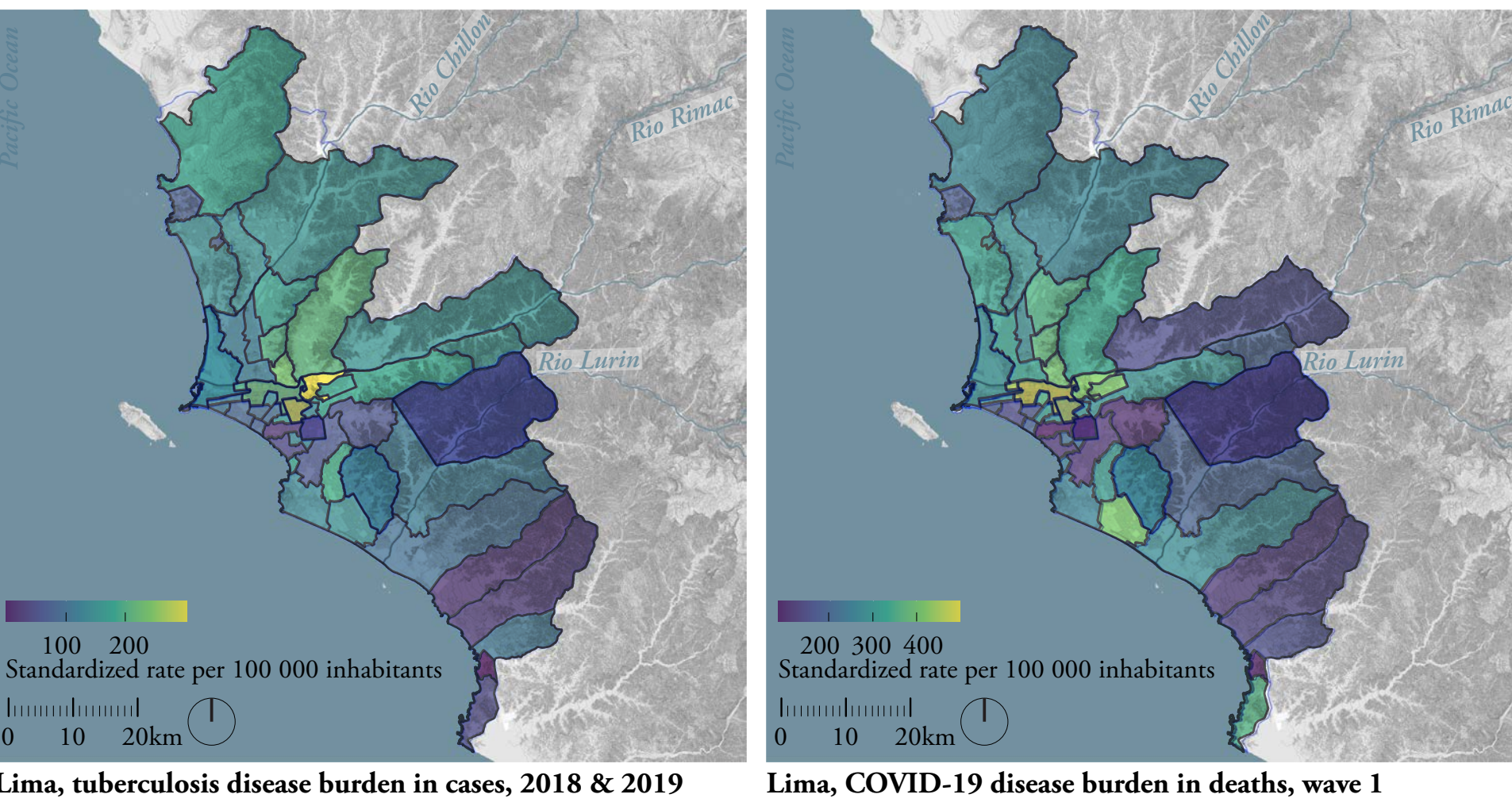


Intro

- Peru > SARS-CoV-2 started March 2020 among highest mortality rates in the world
 - > Tuberculosis one of the highest TB burden in the Americas

- TB & COVID-19
 - > Common transmission characteristics
 - > Socio-environmental factors (wave 1) also seemed to explain vulnerability to both COVID-19 and TB

- Interdisciplinary mixed methods: **we aimed to explain broader systems' characteristics that shape inhabitants of Lima's vulnerability towards respiratory infectious diseases.**



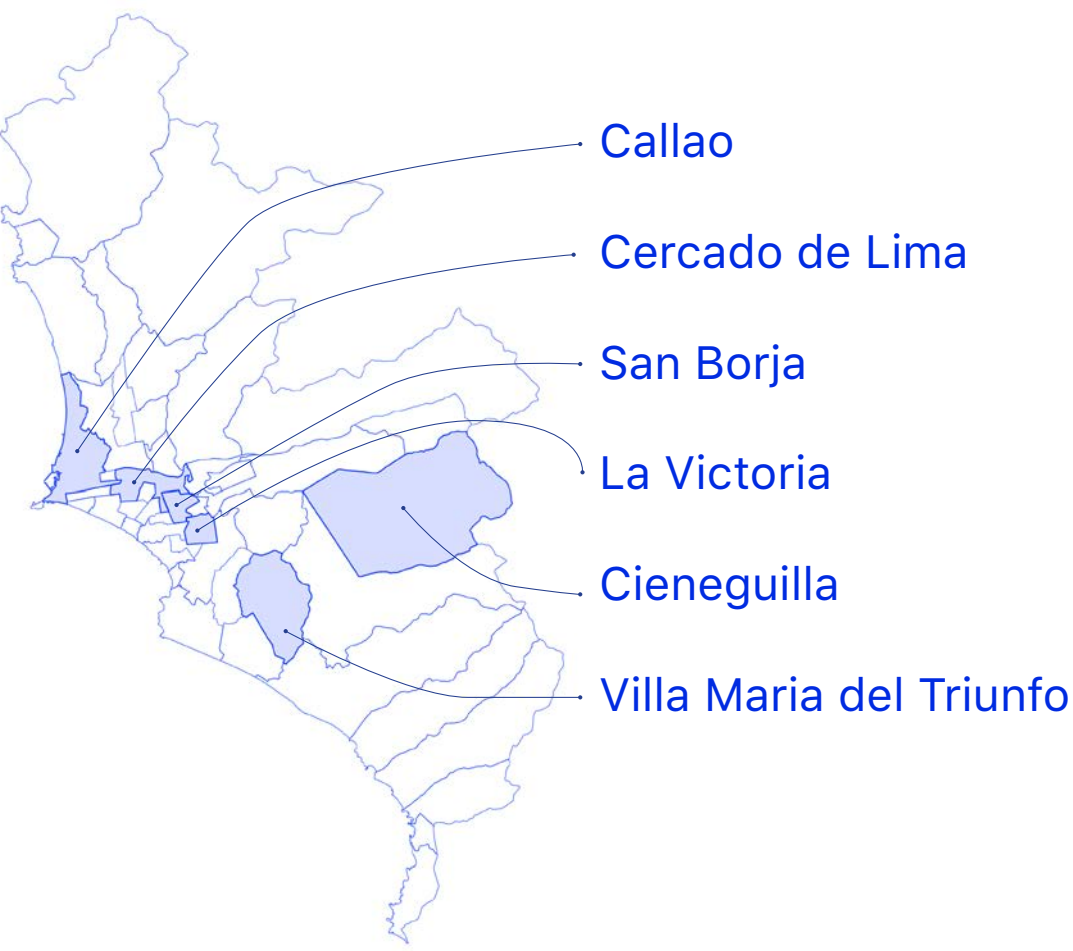
Methods

- **Social sciences - documenting COVID-19 experiences in relation to known and emerging risk factors, as well as population responses to the pandemic.**

- concepts of **'disease situations'** (Hinchliffe et al., 2016), and of **'assemblages'** of bodies, spaces/places, practices and infrastructures impacting pathogenicity of disease agents

- data from 3 disciplines: epidemiology, social sciences, urbanism **to explore risk factors and emerging responses to the COVID-19 crisis**

- qualitative data collection 07/21 till 01/22, in 6 districts



Results: 3 aspects of 'disease situations'

social situatedness

2 elements impacting experiences during the first 2 waves:

- **Capacity to respond to stay-home and physical distance**
 - > Food insecurity
 - > Precarious working conditions
 - > Family situations

- **Health seeking itineraries**
 - > Differences between public and private health systems

> Existing mistrust on health providers reinforced by the perception of overwhelmed facilities

> Closure of first line attention centers and concerns about larger hospitals often derived into self-treatment

"The situation is really difficult [...] people in the floor below us have taken possession of the showers; they're lucky because they have showers and if they want, they share them with their neighbours, otherwise, they don't."

spatial situatedness

- **Different forms of ownership**, rental modalities, building cultures, habitational models, and material conditions of homes impacted **implementation of isolation and other prevention practices.**

- For neighbourhoods located in the vicinity of public spaces such as hospitals, markets, or commercial areas, important **transformations of the public space** were experimented.

- **Uses of public transformation** impacted by availability of jobs and services.

"I was really afraid (...) My husband insisted [for her to go to a health facility] but I refused because I was very scared. What about my daughters? (...) I told my husband that we would sell whatever was necessary, and we sold several of our belongings to guarantee that I could follow my treatment from home. But I never went to the hospital because I was afraid of not coming back."

resignification of risk

- **Risk constantly reevaluated** in relation to perceived susceptibility and available resources.

- **Social networks played a fundamental role** in individual and groups' capacity to respond the social crises derived from the pandemic.

- In districts known for high concentration of TB cases such as Villa Maria del Triunfo, Callao and La Victoria, **patient associations and voluntary services facilitated access to COVID-19 services.**

- Along with the disruption of social life, **stress, fear and guilt** were frequently mentioned in relation to the experience of COVID-19

"People learned how to cure themselves (...) we agreed that if we were to die, we would die at home."

Conclusions

Through the very **situated nature of the experiences and responses** previously presented we could explain **how the urban context**, through its concrete material and non-material networks, **can alter the pathogenicity of the virus and potentially impact disease burdens.**

Under these lenses, it is possible to argue that **the expedited way in which control measures**— particularly stay home orders and mobility restrictions—**were issued in Peru could have played a role in the distribution of burden** throughout the city.

Analysed as disease situations, we can venture an explanation for the overlap between COVID-19 and TB in specific areas of the city: **the possibilities for infectious disease exist and thrive in particular forms of inhabiting the city.**

These situations also talk of **highly contextualised responses articulated through time to this and other crises.**

Implications

Employing a complex—multiscale, socially and contextually situated—spatial imagination (Hinchliffe et al., 2016), **we were able to reconstruct disease situations** emerged around COVID-19 that mirror and in some cases overlap with the experience of TB in the diverse social and spatial landscapes that constitute Lima's urban context.

This exercise provides indications about:

- the limitations of larger units of analysis (i.e., the district) to portray important interactions between risk factors impacting disease trajectories;

- the extensive heterogeneity of spatial and social assemblages involved in heterogeneous distribution of COVID-19 and TB throughout the city

- the impact of vertical control measures that neglect the complexity of the urban context at multiple scales.

