

The impact of COVID-19 and enhancing response and resilience in communities at higher risk for adverse health outcomes: A mixed-methods study

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Background

- COVID-19 amplified health disparities among people in Oklahoma who live/work in settings that elevated their risk of infection or exposure to hazards



- Disparate trends in COVID-19 cases and deaths in Oklahoma City-County revealed pronounced differences between High SVI (Social Vulnerability Index) ZIP Codes and all others (Figure)

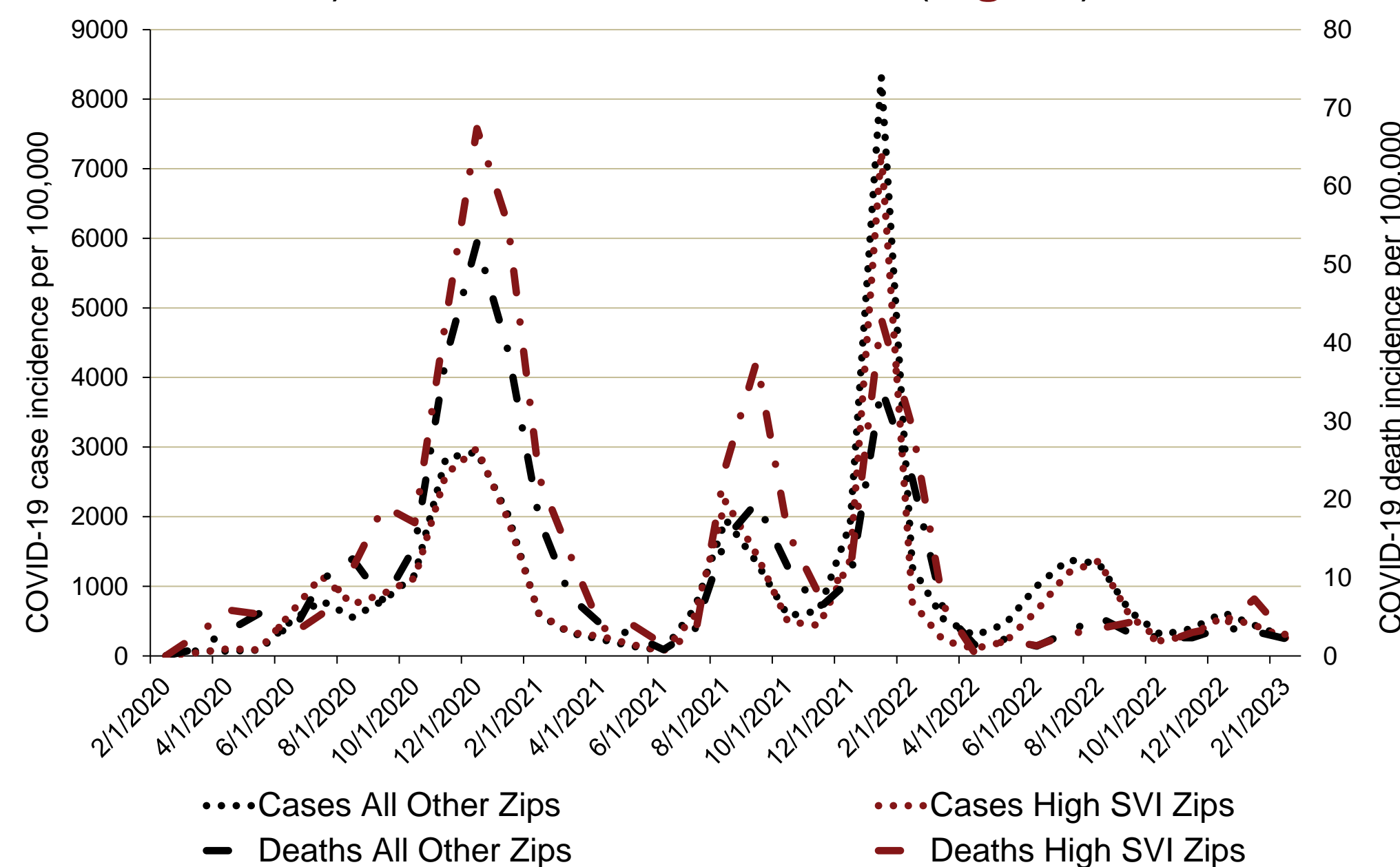
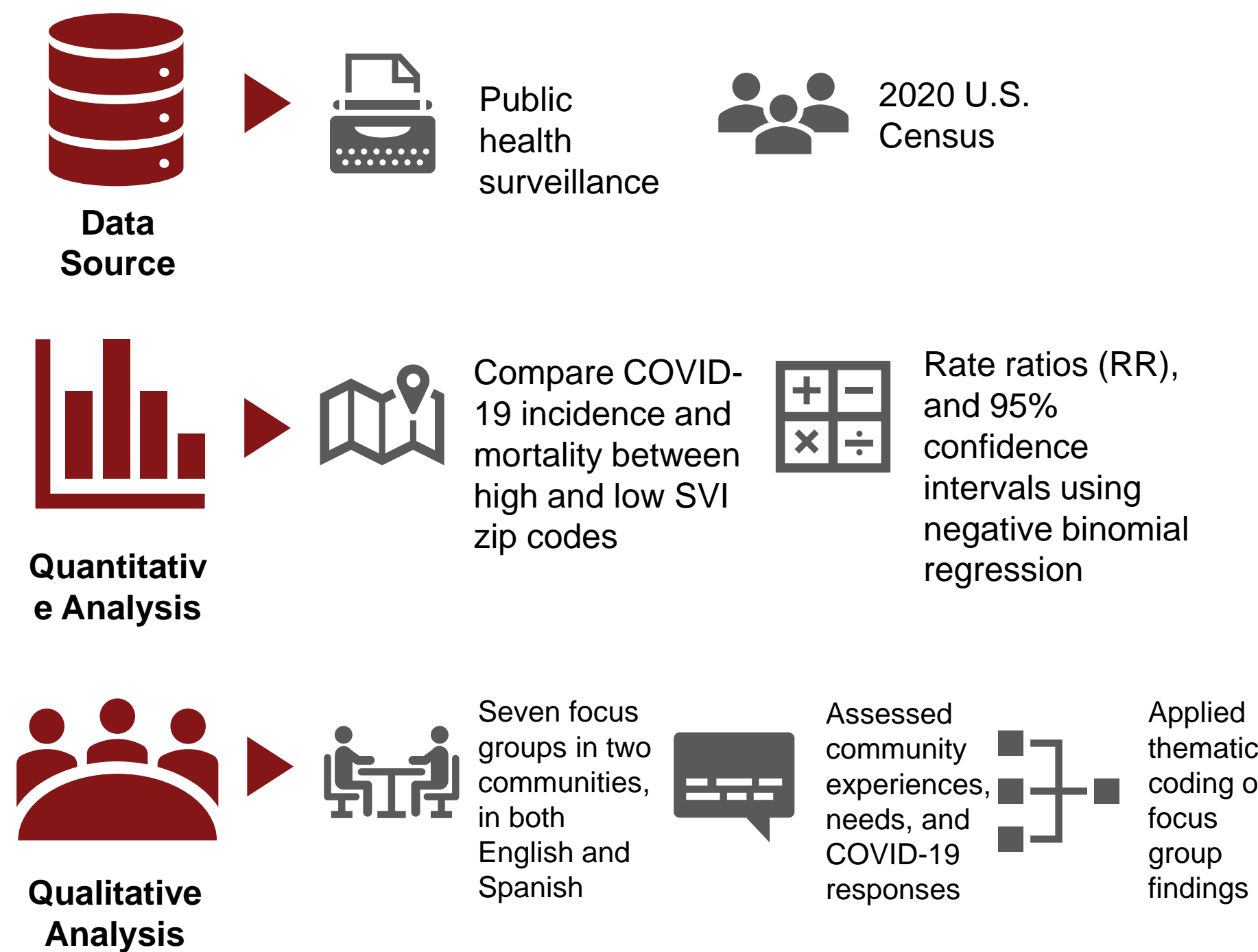


Figure. Incidence of COVID-19 cases and deaths over time, OKC-County, by zip code grouping, February 2020 to February 2023

Objective

- This study investigated the extent to which COVID-19 outcomes and lived experiences over the course of the pandemic would inform program development and improve community response in communities with high social vulnerability (per CDC SVI)

Methods



Results

Race/Ethnicity	High SVI Zips		All other OKC Zips	
	Cases (incidence per 100k)	Deaths (incidence per 100k)	Cases (incidence per 100k)	Deaths (incidence per 100k)
American Indian or Alaska Native persons	702.61	7.30	687.21	3.34
Asian or Pacific Islander persons	220.50	1.15	588.00	2.60
Black or African American persons	3,203.82	38.80	2,533.90	16.16
Hispanic or Latino persons	3,061.30	23.82	1,864.34	11.52
Persons of multiple races	145.59	3.84	141.01	2.97
Unknown	6,077.28	64.92	8,470.24	62.42
White persons	5,484.53	115.63	10,225.71	106.08
Total	18,895.64	251.62	24,510.41	205.10

Table. Demographics of COVID-19 cases and deaths over time, OKC-County, by zip code grouping, February 2020 to February 2023

Results

Quantitative:

- Among high SVI zips:
 - Lower morbidity RR=0.77 (95% CI: 0.7, 0.8)
 - Higher mortality RR=1.2 (95% CI: 1.1, 1.3)

- ### Highest mortality incidence
- Native American or Alaska Native persons RR=2.2 (95% CI: 1.2, 3.6)
 - Black or African American persons RR=2.4 (95% CI: 1.9, 2.9)
 - Hispanic or Latinx persons RR=2.1 (95% CI: 1.6, 2.6)

Qualitative:

- Key themes from focus groups:

- Economic stress:** "That was my favorite job. Because I had COVID two times in a row... and I lost that job because I was gone for like 14 days."
- Guilt, grief, and loss:** "A couple of friends of mine, now they brought it home. And then Mom and then Dad died. And so that was their world."
- Mistrust and confusion:** "Unfortunately, they made it political. We have always trusted our doctors; that's the way it's always been done. The problem is that they placed a lot of mistrust in the doctors, the experts, so when you mistrust the other experts, what is one to think?"

Conclusions

- The enduring emotional aftermath of COVID-19, such as **stress** and **grief**, exacerbates health disparities among high-risk communities, potentially leading to long-lasting detriments to community health and resilience.

Public Health Implications

- Local agencies and community partners must urgently **develop and implement targeted interventions**, informed by **needs assessments**, to enhance **health literacy** and **equity**, thus **empowering communities** to respond to future public health emergencies.