

CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research

Research Agenda-Setting Paper

This paper was written to help advance convergence-oriented research in the hazards and disaster field. It highlights areas where additional research could contribute new knowledge to the response to and recovery from the pandemic and other disasters yet to come. Questions about the research topics and ethical and methodological issues highlighted here should be directed to the authors who contributed to this paper.

Working Group Name:

Cultural and Geospatial Analyses of Risk Communication in Marginalized Urban Neighborhoods

Working Group Description:

This Working Group seeks to better understand the cultural effectiveness of and receptivity toward current public health messaging and communication about COVID-19 among under-resourced urban populations. As considerations for improved disaster communication practices emerge from this work, outcomes will help enhance knowledge of the everyday experiences of marginalized communities, and in concert with their voice, aid public health entities and policymakers to employ more culturally effective communication methods both in times of crisis and during the ensuing recovery.

Priority Research Topics and Specific Research Questions:

The COVID-19 pandemic has highlighted existing inequities and differences in the effectiveness of public health messages across cultural groups. Data suggest a relationship among poverty, race-ethnicity, disability status, English proficiency, internet access, and locality where COVID-19 cases have increased. Research is needed to better understand the relationship between the intersecting conditions and statuses noted above and negative health outcomes (i.e., COVID-19 status, hospitalization, and morbidity rates) within historically under-resourced neighborhoods.

Priority Research Topics	Potential Research Questions
1. Health Communication Processes	<ul style="list-style-type: none"> • <u>Research Question 1</u>: What have current public health messaging mediums (e.g., radio, newspaper, television, online media, and community connectors) about COVID-19 entailed? • <u>Research Question 2</u>: How accessible and relevant have these messaging processes been for under-resourced urban populations? • <u>Research Question 3</u>: To what extent have differences in sociocultural variables (e.g., language) impacted aspects of messaging processes?

	<ul style="list-style-type: none"> • <u>Research Question 4</u>: How does lack of broadband internet access affect these communication processes?
2. Health Communication Effectiveness	<ul style="list-style-type: none"> • <u>Research Question 1</u>: In light of various sociocultural variables, how receptive and effective have public health communications been? • <u>Research Question 2</u>: How can the comprehensive model of health information seeking, more fully aid in understanding the impact of cultural variables (e.g., demographics, direct experience, salience, trust, and perceptions of usefulness) on the receptivity and effectiveness of current public health messaging?
3. Informational Injustice	<ul style="list-style-type: none"> • <u>Research Question 1</u>: What are ethical considerations related to reliance on corporate media, public agencies, and private non-profits to communicate health recommendations—especially when these entities may unevenly convey information to different groups of citizens due to the varied interests of advertisers, political agendas, and other forces?
4. Differential COVID-19 Status and Disease Outcomes	<ul style="list-style-type: none"> • <u>Research Question 1</u>: What sociocultural factors have led to differential and disproportionate COVID-19 statuses and outcomes? • <u>Research Question 2</u>: How have cultural groups impacted by poverty, disability status, English proficiency, internet access, and locality been differentially impacted by COVID-19? • <u>Research Question 4</u>: How does lack of broadband internet access affect these processes?
5. COVID-19 Response and Mitigation	<ul style="list-style-type: none"> • <u>Research Question 1</u>: How does better understanding of sociocultural factors impact COVID-19 resource allocation and response? • <u>Research Question 2</u>: How does better understanding of these sociocultural factors add to our knowledge more generally as it relates to the inequities in health and health care access in under-resourced areas? • <u>Research Question 3</u>: How does lack of broadband internet access affect these processes?
6. Role of Emerging Geospatial Technologies in Understanding Public Health Outcomes	<ul style="list-style-type: none"> • <u>Research Question 1</u>: What are effective ways to expand the use of geospatial tools in understanding public health and development of related interventions and policies? • <u>Research Question 2</u>: How can geospatial technologies be more effectively utilized within historically under-resourced neighborhoods? • <u>Research Question 3</u>: What challenges exist in the geospatial analysis and visualization of sociocultural qualitative data? • <u>Research Question 4</u>: How does lack of broadband internet access impact these tasks?
7. Use of Concept Mapping in Community-Led Research Design	<ul style="list-style-type: none"> • <u>Research Question 1</u>: How can oppressed groups produce knowledge and solutions to problems they deem important? • <u>Research Question 2</u>: How can the use of concept mapping in community led research more effectively include marginalized groups in policy decision-making? • <u>Research Question 3</u>: In what ways can impacted communities visualize interrelationships among ideas and policy statements captured in complex qualitative data from a diverse group of stakeholders?

	<ul style="list-style-type: none"> • <u>Research Question 4</u>: How can academics, community organizations, funders, and impacted communities develop an equitable public health message?
8. Role of Community-Based Organizations in Health Communications	<ul style="list-style-type: none"> • <u>Research Question 1</u>: How effectively do community-based organizations communicate health messages to their constituents? • <u>Research Question 2</u>: What types of organizations are most effective in delivering health communications?

Ethical / Methodological Considerations:

We believe it is critical to avoid the perception (or reality) that researchers are simply “harvesting data” from under-resourced communities—with limited returns to the community. Any plans to work with community partners should ensure these communities remain active *collaborators* in the research.

Geospatial analysis uses geographic data and other types of information to depict spatial relations and characteristics to connect seemingly disparate data and provide a geographical mode to collect, analyze, interpret, and manage geo-location based information. Qualitative geospatial analyses have the potential to illuminate complex relationships in attributes shared between people and place. The addition of these data and tools as complement to other more traditional types of data (e.g., focus group, interview, and/or survey data) can help to illuminate (and visualize) the impact of social, cultural, and economic factors on a community.

Other Frameworks, Considerations for Collaboration, and/or Resources:

According to the American Community Survey (2018), St. Louis City’s digital divide largely occurs north of Delmar Boulevard (known as the [Delmar Divide](#)) that runs from the city into the county. This parallels the highest rates of negative COVID-19 impacts in St Louis City. The digital divide also affects the greater St. Louis area, particularly [East St. Louis](#). This contextual knowledge is key to the ongoing work of this particular Working Group.

Contributors:

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