Data to drive decisions:
How can research inform philanthropic giving?



Photo: <u>Lukas Blazek</u> on <u>Unsplash</u>

APRIL 14, 2022
CENTER FOR DISASTER PHILANTHROPY



### Sally Ray

Director, Domestic Funds

Center for Disaster Philanthropy









### **HOW TO PARTICIPATE**

### **Submit questions.**

Use Q & A box at the bottom of your screen.

### Use #CDP4Recovery to tweet along.

Follow CDP: @funds4disaster

### Complete the survey.

The link will open as you exit the webinar.

## Look for the fully captioned webinar recording and summary at disasterphilanthropy.org.

Live captioning is available now via Zoom. Click on Closed Caption/Live Transcript to access it.

### Thank you to our co-sponsors

This webinar is co-sponsored by:







## Land Acknowledgment

"Acknowledgment is a simple, powerful way of showing respect and a step toward correcting the stories and practices that erase Indigenous people's history and culture and toward inviting and honoring the truth."

https://usdac.us/nativeland

CDP's Land Acknowledgment is inspired by Dawn Knickerbocker, Native Americans in Philanthropy.



### GOALS

### At the end of the webinar, funders will:

- 1. Have an increased understanding of data sources and how this is useful for decision-making.
- 2. Develop an enhanced understanding of what is available to guide their giving.
- 3. Build a heightened commitment to collect, analyze and share information.



Photo Credit: ACAPS



### What is data?

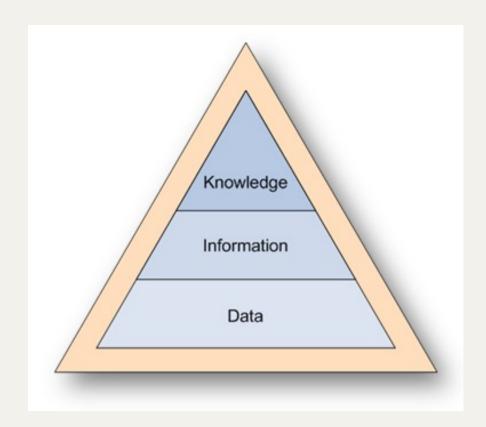


Image credit: The Content Philosopher

### Data:

Unorganized facts and figures.

### **Information:**

Contextualized, categorized, calculated and condensed data.

### **Knowledge:**

"Fluid mix of framed experience, values, contextual information, expert insight and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information



### **Speakers**

Thank you to our guests for joining us today. #CDP4Recovery





Director, Midwest Early Recovery Fund

CDP

@CariLoganCullen



**Dr. Andrew Schroeder** 

Vice President of Research and Analysis

Direct Relief

@simulacrandrew



**Dr. Shao-Chee Sim** 

Vice President for Research, Innovation and Evaluation

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# Dr. Shao-Chee Sim

Vice President for Research, Innovation and Evaluation

Episcopal Health Foundation







# EHF's Journey in Using "Real Time" Data to Inform Strategy During Two Disasters: Hurricane Harvey and COVID-19



In a messy environment, need to weigh tradeoffs between responding emotionally and quickly vs. being intentional and thoughtful



It is important to understand what others are responding to the disasters. Are the **needs** and gaps being addressed? What value do we bring to the table?



See our engagement within a larger eco-system effort. How could we complement others' efforts? Is there opportunities to collaborate?



Depending on the nature of these disasters, we have used various tools (data/research grantmaking, convening, engagement, capacity building)



It is important to understand the time limited nature of our engagement. Need to assess when to turn our attention back to our strategic plan priorities.

### **Cari Cullen**

Director, Midwest Early Recovery Fund Center for Disaster Philanthropy







### **Key Indicators for Midwest** Early Recovery Fund

### **Impact Indicators**

What vulnerabilities and barriers were highlighted or emerged as a result of the disaster that we should consider?

### **Vulnerability Indicators**

What are the potential barriers to recovery, based on the preexisting disparities in the community, that we should consider?

- Density, isolation, population, composition
- · Social, environmental and health factors
- · Land use, economy and agriculture
- History of disaster

### **Capacity Indicators**

What capacity/assets does the community have for recovery?



Photo above by Dave Kaup, REUTERS/Alamy Stock Photo.





# Dr. Andrew Schroeder

Vice President of Research and Analysis

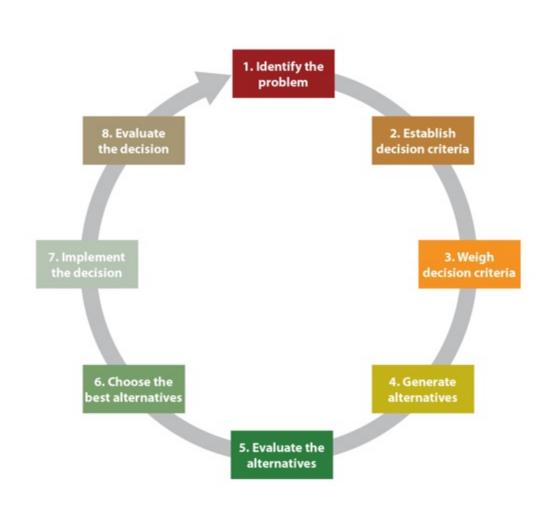
Direct Relief

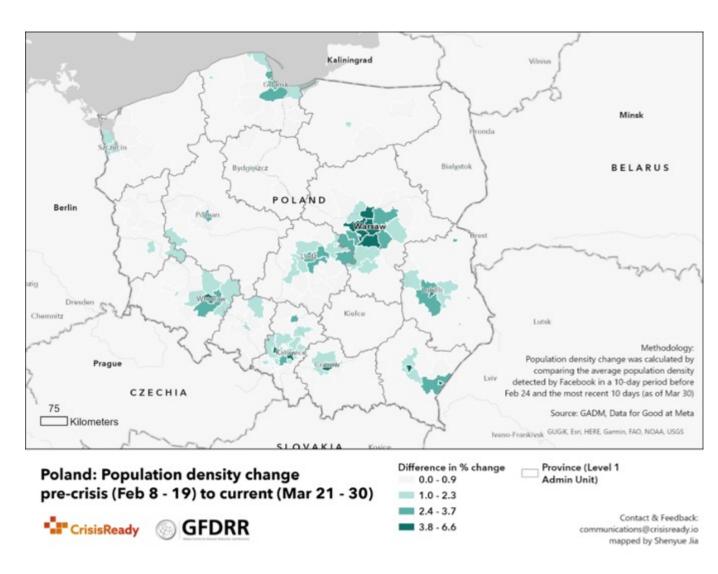






### **Data-Driven Decision Making**





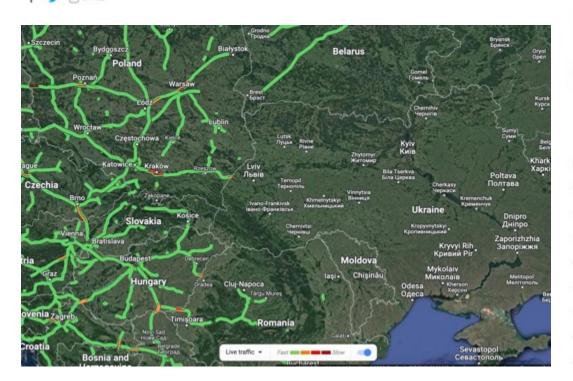


### **Complex Emergencies vs. Disasters**



By James Vincent | Feb 28, 2022, 5:22am EST



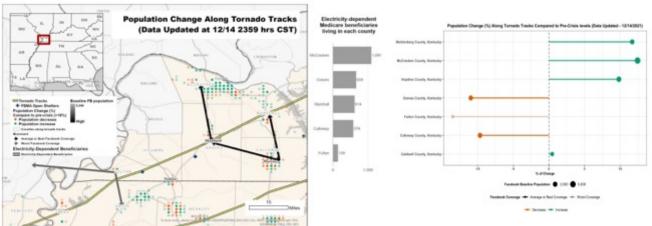




#### **Kentucky Tornado Situation Report**

Central United States Tornado: Kentucky (14 December, 2021)

SUMMARY: On Friday, December 10, 2021, a historic, long-track tornado entered western Kentucky and moved northeast from 9:00 PM - 11:20 PM CST, producing widespread destruction in Graves, Caldwell, Fulton, Hopkins, Marshall, Muhlenberg, Taylor, and Warren counties. The visualizations below show the changes in population densities along the tornado's path in the aftermath of the disaster on Tuesday, December 14, 2021.



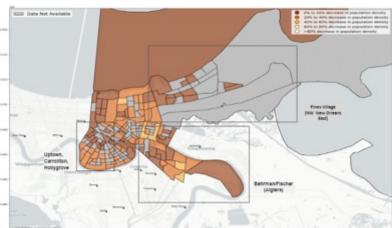
### CrisisReady

#### Population Change Situation Report

Hurricane Ida: Orleans Parish (7 September - 8 September, 2021)

SUMMARY: Hurricane Ida, a Category 4 hurricane, made landfall early on Sunday, 29th August about 25 miles west of New Orleans with wind speeds close to 150 mph.

#### POPULATION DENSITY CHANGES



#### Data Sources

- Inset map based on: Facebook Data for Good Population Density Changes Data, 2021
- Population Density Unanges Data, 2021
- American Community Survey, 5 year estimates, 2018. Note on the calculations: Change in population
- density is calculated according to the change in the proportion of Facebook users relative to a baseline measure from 90 days prior to the onset of the crisis.
- Basemap based on: Camo Positron, 2021

#### Limitations

- Census tract data from 2018.
- Aligning centroid tiles with census tract data could result in errors of over and under estimation of population changes in select areas. Future heat maps may help differentiate these areas
- This reflects changes for a 24 hour period ending on Sept 8th, midnight. Future maps may reflect changes over a longer period and/or more recent data

Creation Date - 10th Sept ContactFeedback - ASchroeder@directralief.org/ jonnifecchan@northrestlem.edu CrisisReady - https://oreioneady.ip



### Use of Survey, Mapping and Economic Analysis

Statewide and
Regional Polling
Projects Assessing
Impact, Attitude
and Outlook of
Harvey and COVID-19





"Real Time" Mapping
Efforts Linking Harvey
and COVID-19 Data
with Social
Vulnerability Index

Economic Analysis of COVID-19 Related Hospitalizations and Deaths on Health Disparities of Black and Hispanic Texans





Use of Research and Mapping Data to Inform **Grant-making Strategy** and Inform **Policy Discussion** 



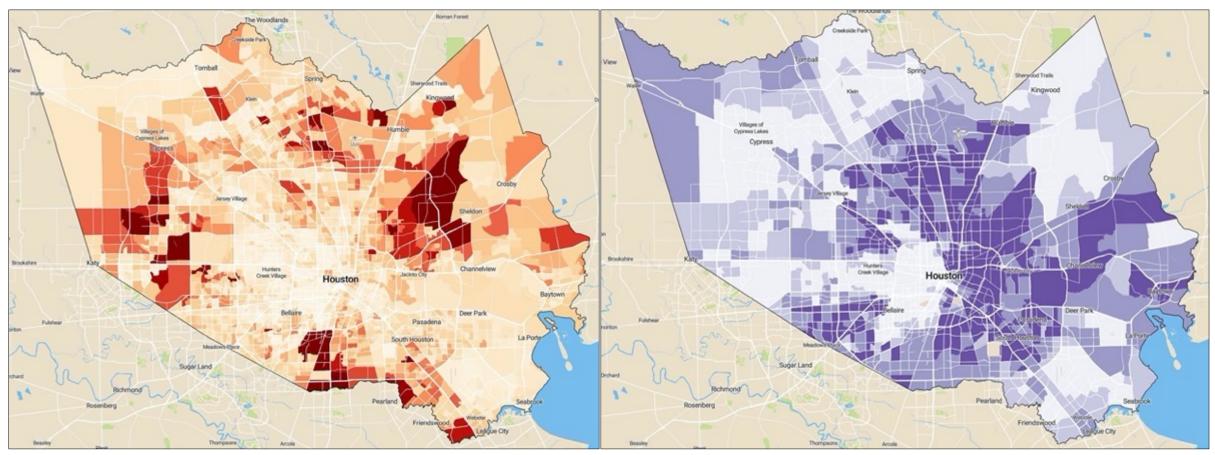
### Mapping Areas of High Need and High Vulnerability

### Map: Total Number of FEMA Applications by Census Block Group in Harris County

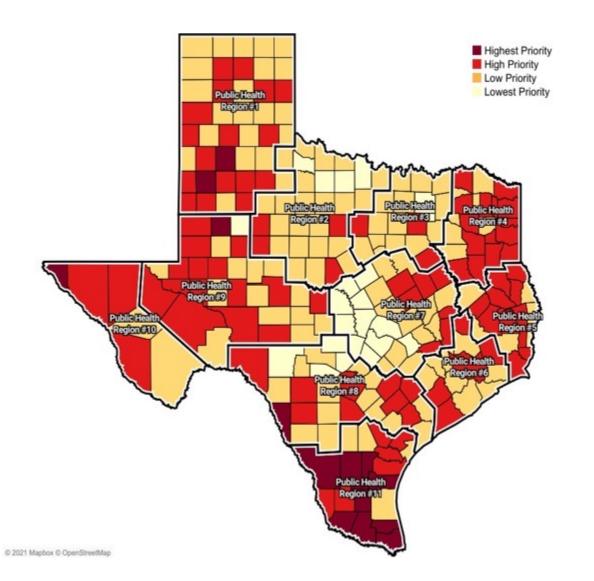
**Darker red areas** had the most number of FEMA applications

### Map: Social Vulnerability by Census Tract in Harris County

Darker purple areas have higher social vulnerability



## Mapping Analysis #1: A Real-Time Effort to Inform the One Star Foundation's COVID-19 Relief Fund in 2020-21



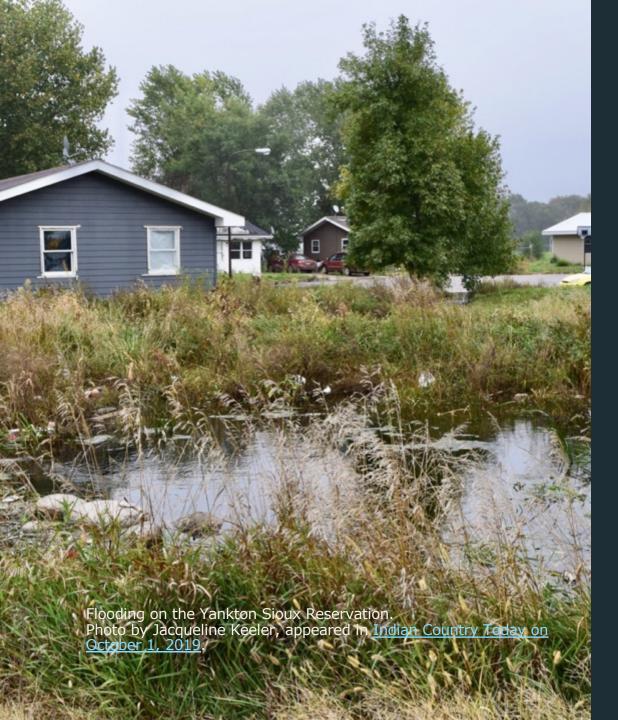
### **Public Health Indicators:**

- COVID-19 Related Hospitalizations
- COVID-19 Related Deaths

### **Resiliency Indicators:**

- CDC's Social Vulnerability Index
- Unemployment Statistics
- Access to a local philanthropic fund

19

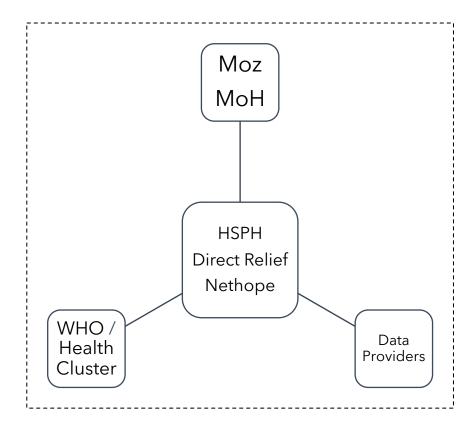


### No data without story. No story without data.

Data should not shape our interactions and decisions absent of the faces and stories of those living in community and with lived experience.

- Use data as a highlighter not a sharple or a checkbox.
- Use data and story to gut check assumptions and reveal biases.
- Use story and relationship to see what is invisible in the data and provide context.
- Use data and story to empower and advocate alongside communities and organizations. Whenever possible give it away.

### Data as a "Translational" Social Relation



- Cholera Case Data
- Cholera Endemicity Studies
- Remotely Sensed Flood Imagery
- Weather / Climate Data
- High-Resolution Settlement Data
- Movement Dynamics Data

### Cholera in Mozambique

We modeled cholera outbreak risk based on four measures

Gravity model risk index: In the gravity (diffusion) model, we assume that the volume of travel between two pairs of districts is based on the population size of the two
districts and the geodesic distance between the districts. The risk index calculates a weighted average of the simulated travel from all places that reported cases in the previous
week, with the weights determined by the proportion of cases for each reporting district.

Input the number of cases in the past week to update the gravity model

High resolution population data comes from Facebook.

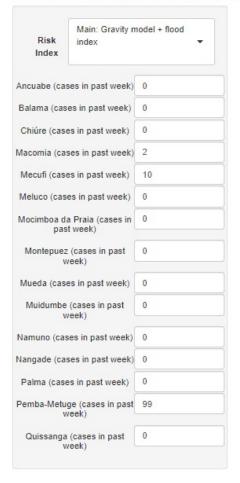
2) Flooding risk index:

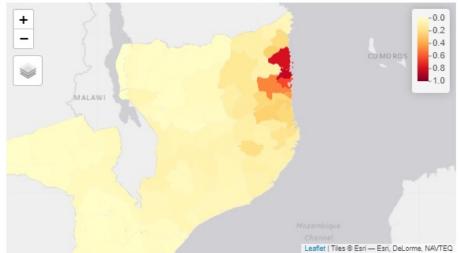
Cyclone Kenneth: We used reported flooding data from here and calculated the percent of each district with flooding.

- 3) Annual cholera incidence: This risk index is based on modeled annual cholera incidence, based on previous cholera outbreak data and ecological data, from Lessler et al.
- 4) El Niño sensitivity index: This risk index is based on comparisons of cholera incidence between El Niño and non El Niño years, from Moore et al

We scaled all risk scores to be between zero and one. The maps display each risk score separately, as well as an average of the scores when multiple indices are selected.

lover cursor over areas to see district name and population size





District	Population
Nampula	1040691.66
Monapo	417314.05
Nacala Velha	379915.24
Namapa	344589.15
Memba	292041.06
Ancuabe	250173.26
Chiúre	171263.52
Mocimboa da Praia	113355.43
Muidumbe	86906.76
Quissanga	38763.74



### Tools

### **Ask questions**

### Go to a smaller grocery store

A few on my list:

**CDC's Social Vulnerability Index (SVI)** 

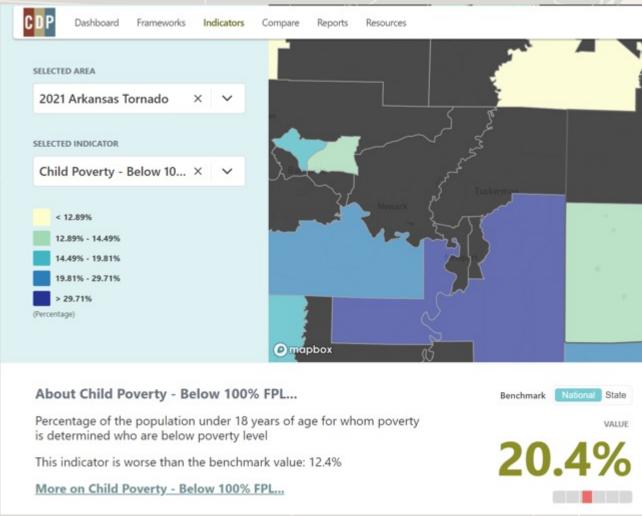
**Headwaters Economics** 

**SparkMap** 

**The National Risk Index** 

**Community Commons** 

Dig in



Midwest Recovery Fund Assessment Platform



# Some Key Steps in Communicating and Socializing the Survey and Mapping Findings



Presented survey and mapping findings to governments, funders, community groups, community stakeholders



Published blog articles in national and state blogsites, such as Health Affairs, Texas Medical Association, Understanding Houston



Published newspaper op-eds in major newspapers calling attention to the findings

Using Harvey data, partnered with State Relief Fund and CDP in engaging stakeholders to discuss relief and rebuilding priorities



COVID economic analysis on health disparities informed advocacy strategies, op ed articles, and bill development to address health equity



COVID maps and data dashboards have informed two major COVID grant-making strategies – relief effort and vaccine uptake - in Texas

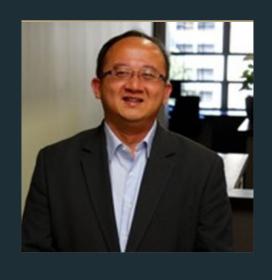
### **Q & A**

### Submit questions using the Q & A box at the bottom of your screen. #CDP4Recovery









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### **NEXT STEPS AND ACTIONS**

- 1. Don't be intimidated by data.
- 2. Use freely available sources.
- 3. Ask the experts.

### **Expert Resources**



### **Disaster Philanthropy Playbook**



### **Special Reports**

- Measuring the State of Disaster Philanthropy
- COVID-19 and Philanthropy
- U.S. Household Disaster Giving Report



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### Using Indigenous knowledge to prevent and respond to disasters

May 12, 2 p.m. ET/1 p.m. CT

disasterphilanthropy.org/events



## Thank You

For additional information, contact: **Tanya Gulliver-Garcia**Tanya.Gulliver-Garcia@disasterphilanthropy.org

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