

NYC Health Care Coalition (NYCHCC) Leadership Council Meeting

NYC DOHMH OFFICE OF EMERGENCY PREPAREDNESS AND RESPONSE BUREAU OF HEALTHCARE AND COMMUNITY READINESS

Thursday, September 30, 2021





Welcome!





- 10:00 10:05 AM: Arrivals / Opening Remarks and Welcome
 - Heather Murphy, Stakeholder Engagement Specialist, OEPR-Bureau of Healthcare and Community Resiliency, NYC DOHMH
 - Marsha Williams, Director, Healthcare System Readiness, OEPR-Bureau of Healthcare and Community Resiliency, NYC DOHMH
- ▶ 10:05 10:35 AM: DOHMH Updates / Overview of BP3 HPP Grant
 - David Miller Jr., Executive Director, OEPR-Bureau of Healthcare and Community Resiliency, NYC DOHMH
- ▶ 10:35 11:10 AM: Bridging the Public Health and Health Care in the COVID-19 Era
 - Dr. Michelle Morse, Deputy Commissioner for the Center for Health Equity and Community Wellness and Inaugural Chief Medical Officer at the NYC Department of Health and Mental Officer, Center for Health Equity and Community Wellness
- ▶ 11:10 11:55 AM: COVID-19 and Beyond: Implications for Disaster Management for the Coming Decade
 - Jeffrey Schlegelmilch, Director of the National Center for Disaster Preparedness at Columbia University's Climate School
- 11:55 12:00 PM: Coalition Announcements
- > 12:00 PM: Adjourn

DOHMH Updates / Overview of BP3 HPP Grant

David Miller Jr., Executive Director, OEPR-Bureau of Healthcare and Community Resiliency, NYC DOHMH

NYC Health Care Coalition Governance Board

Board Director Introduction



Greater New York Hospital Association Director

Jenna Mandel-Ricci, MPA, MPH Senior Vice President Healthcare System Resilience Greater New York Hospital Association



NYC Health + Hospitals Director

Laura Iavicoli, MD, FACEP Senior Assistant Vice President for Emergency Management NYC Health + Hospitals Deputy CMO NYCHH/ Elmhurst Emergency Medicine Associate Professor Icahn School of Medicine at Mount Sinai



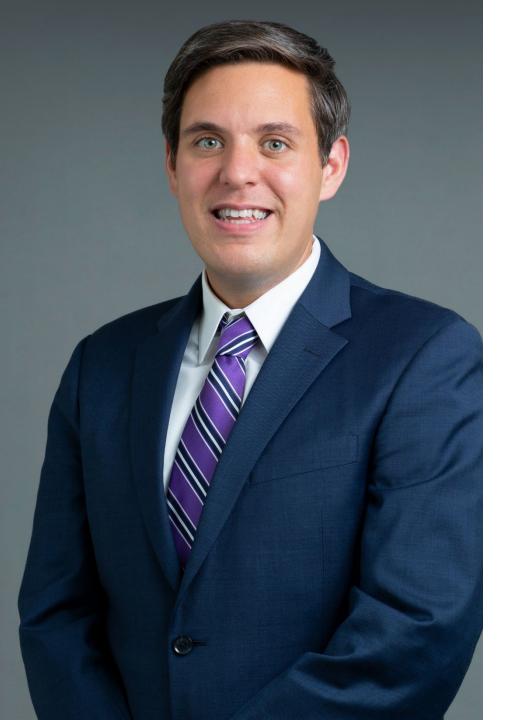
Fire Department of the City of New York Director

Dario Gonzalez, MD Deputy Medical Director Fire Department of the City of New York Medical Director NYC Emergency Management



NYC Department of Health and Mental Hygiene Director

David J. Miller, Jr., MPH, CPH, CEM, NHDP-BC, FRSPH Executive Director, Healthcare System Readiness Bureau of Healthcare and Community Readiness Office of Emergency Preparedness and Response



Healthcare Network Coalition Director

Andrew Dahl, MPA Manager – Emergency Management NYU Langone Health



Independent Hospitals Coalition Director

Patricia Roblin, MS Director Emergency Preparedness SUNY Downstate Medical Center New York Institute for All Hazard Preparedness Division of Disaster Medicine Research Instructor, Pediatric Infectious Diseases SUNY Downstate Medical Center



Borough Coalition Director

Pia Daniel, MD, MPH Assistant Professor Emergency Medicine Director of Emergency Preparedness Fellowship Medical Director of Emergency Preparedness Division SUNY Downstate Medical Center



Nursing Home Associations Director

Lisa Fenger, BS, AMLS, MPA Senior Project Manager Continuing Care Emergency Preparedness Greater New York Hospital Association



Primary Care Coalition Director

Alexander Lipovtsev, LCSW Senior Director, Emergency Management Community Health Care Association of New York State



Pediatric Disaster Coalition Director

Michael Frogel, MD, FAAP

Co-Principal Investigator, NYC Pediatric Disaster Coalition Chairman, National Pediatric Disaster Coalition Medical Director, Pediatric Disaster Mental Health Intervention



New York State Department of Health Representative

Kate Butler-Azzopardi, MS Healthcare Facility Preparedness Manager Office of Health Emergency Preparedness New York State Department of Health

Bridging the Public Health and Health Care in the COVID-19 Era

Michelle Morse, MD, MPH

Chief Medical Officer | Deputy Commissioner Center for Health Equity and Community Wellness New York City Department of Health and Mental Hygiene (NYC Health Department) September 30, 2021





NYC Health Department: Values, Mission, Vision

- **Core Values** Science, Equity, Compassion
- Mission Protect and promote the health of all New Yorkers
- Vision A city where all New Yorkers can realize their full potential, regardless of who they are, where they are from and where they live.
- Priorities
 - Promoting healthy childhoods
 - Creating healthier neighborhoods
 - Implementing anti-racist health practices
 - Improving public health surveillance systems
 - Bridging public health and health care





Overview

1. State of COVID inequities

2. CHECW COVID equity initiatives

3. Future direction





Poll Questions

- Do you know the vaccination rate in the zip code where your clinic or hospital is located?
- Are you aware of the Health Department's "Use Every Opportunity" vaccination tool?





Key Concepts

1. State of COVID inequities

2. CHECW COVID equity initiatives

3. Future direction





Citywide COVID-19 Cases

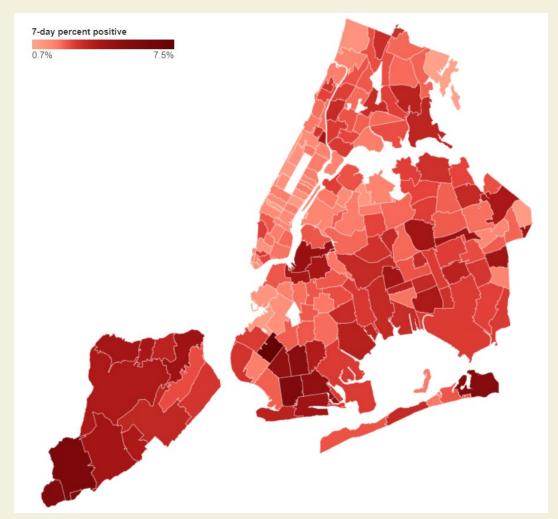


Image source: <u>https://www1.nyc.gov/site/doh/covid/covid-19-data.page#maps</u> as of 9/24/2021





Vaccinations by Demographic Group (All ages)

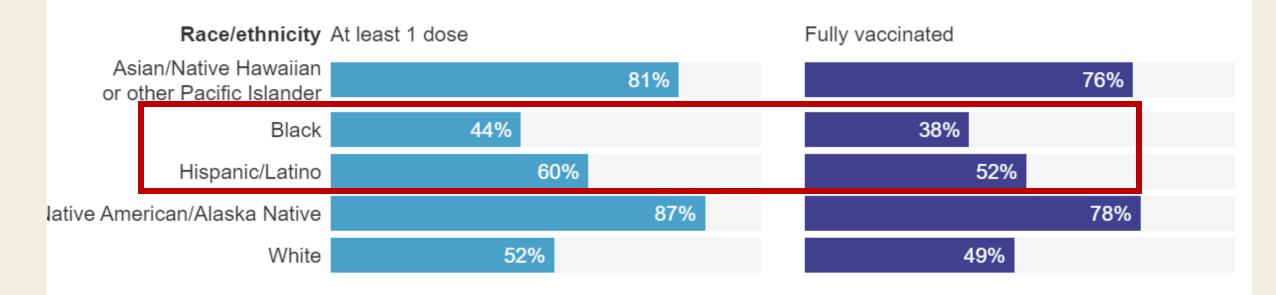


Image source: <u>https://www1.nyc.govv/site/doh/covid/covid-19-data.page</u> as of 9/24/2021





Key Concepts

1. State of COVID inequities

2. CHECW COVID equity initiatives

3. Future direction





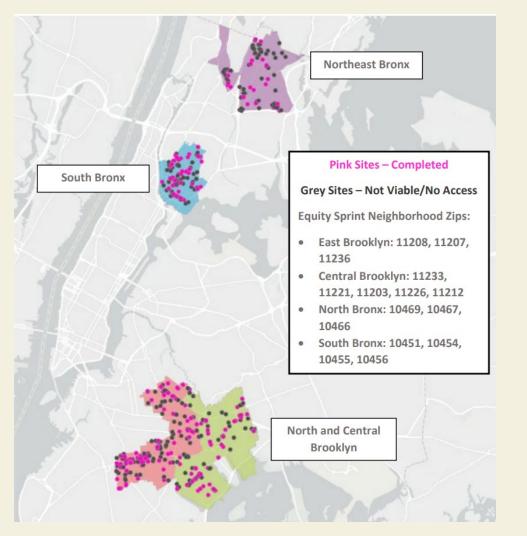
Vaccine Detailing Overview

- Engage health care providers and staff in the equity sprint neighborhoods (North/South Bronx and East/Central Brooklyn) on COVID-19 vaccine confidence and access.
 - Promote communication best practices and opportunities to increase access and uptake of the COVID-19 vaccines.
- Use the public health detailing approach to provide one-on-one education with health care providers and staff.

• Collect provider and practice data.



Vaccine Access and Confidence Campaign







Provider Recommendations Matter

- Providers are one of the most trusted sources of COVID-19 vaccine information.^{1,2}
- Provider recommendations are one of the strongest predictors of vaccination.²

¹ Kaiser Family Foundation Daily Global Health Policy Report. Information And Communications Technology Revolution In The Developing World. <u>https://www.kff.org/news-summary/informationand-communications-technology-revolution-in-the-developingworld/</u>. Published September 2, 2011. ² See "References" slides.

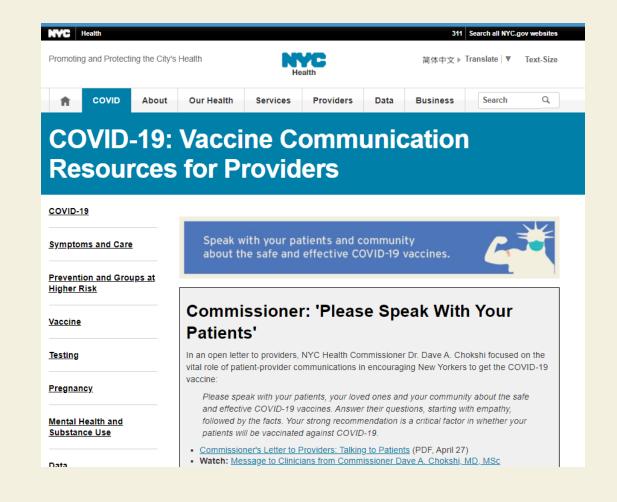


Image Source: nyc.gov/vaccinetalks



NYC VACCINE FOR ALL: SAFE, FREE, EASY

Use Every Opportunity Campaign

Health

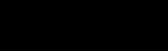
NYC VACCINE FOR ALL: SAFE, FREE, EASY

COVID-19 Vaccine Use Every Opportunity Campaign Implementation Tool

The COVID-19 Vaccine **Use Every Opportunity** implementation tool provides strategies for ensuring COVID-19 vaccination is being offered to every eligible patient during their encounters with your organization. The **Use Every Opportunity** framework is an adaptable tool for implementing workflows to achieve the highest level of COVID-19 vaccine coverage possible in all health care settings over the coming months. This framework is especially important for increasing vaccination of patients at increased risk for severe COVID-19 illness and members of communities that have been historically marginalized, including Black, Indigenous and People of Color (BIPOC) people who have translation and interpretation needs, people with disabilities, and people live in priority neighborhoods as determined by the Task Force on Racial Inclusion and Equity (TRIE), among other priority groups. Not all activities listed may be necessary or feasible in all hospitals and hospital systems, but at least one activity from each domain should be implemented.

Area	Activities	Established	Comments
Leadership	1. Designate a senior executive that serves as a point of contact or "champion"	□ Yes	
Commitment	to ensure the program has resources and support to accomplish its mission.	🗆 No	
and	2. Convene a leadership team that includes:	□ Yes	
Accountability	•	🗆 No	
	Executive "Champion"		
	Clinical lead		
	Technical expertise		
	 Day to day (operational) lead 		

Image Source: https://www1.nyc.gov/assets/doh/downloads/pdf/covid/providers/covid-19-vaccine-use-every-opportunity-tool.pdf





Commissioner's Advisory: Vaccine Information for New Yorkers

- For all unvaccinated patients during every patient visit, providers should give them the following information on the COVID-19 vaccines:
 - ✓ Efficacy
 - 🗸 Availability
 - Administration
- If a patient agrees to get vaccinated, providers should offer the vaccine or refer the patient somewhere to get the vaccine.
- Providers should document all of their efforts to comply with the Commissioner's Advisory in the patient's medical record.





COVID-19 VACCINE COMMUNICATION TOOLS FOR PROVIDERS

COVID-19: Vaccine Communication Resources for Providers

<u>Coronavirus Disease 2019</u> (COVID-19)				
Symptoms and Care	Speak with your patients and community about the safe and effective COVID-19 vaccines.	C		
Prevention and Groups at		Co		
<u>Higher Risk</u>	Commissioner: 'Please Speak With Your			
<u>Vaccines</u>	Patients'	In almost e		
Testing	In his recent open letter to providers, NYC Health Commissioner Dr. Dave A. Chokshi for on the vital role patient communications can play in encouraging New Yorkers to get the COVID-19 vaccine:	Use this s		
Pregnancy	Please speak with your patients, your loved ones and your community about the se and effective COVID-19 vaccines. Answer their questions, starting with empathy, followed by the facts. Your strong recommendation is a critical factor in whether you			
Mental Health and Substance Use	patients will be vaccinated against COVID-19. Commissioner's Letter to Providers: Talking to Patients (PDF, April 27) Watch: Message to Clinicians from Commissioner Dave A. Chokshi, MD, MSc			
Data	New Communications Guide and Appointments Option			
Information for Providers	The following new resource from the Health Department answers common COVID-19 vaccine questions and offers guidance on how to begin and continue vaccine conversations with			

https://www1.nyc.gov/site/doh/covid/covid-19providers-vaccines-communication.page

COVID-19 VACCINATION: BUILDING VACCINE CONFIDENCE AMONG HEALTH CARE PROVIDERS, SUPPORT STAFF AND PATIENTS

n almost every setting, there may be staff and patients who may have concerns or be unsure about vaccination. Use this slide deck and adapt for use in your setting to address hesitancy and build vaccine confidence.

NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Created January 22, 2021 Last Revised March 26,2021

https://www1.nyc.gov/assets/doh/downlo ads/pdf/covid/providers/covid-19provider-presentation-vax-buildingconfidence.pdf Addressing Patients' COVID-19 Vaccine Questions: A Guide for Health Care Providers

recommendation is one of the strongest predictors of a patient getting vaccinated against /ID-19. Patients consider their health care provider to be one of the most trusted sources of mation about vaccines.

t now, keeping our communities safe from COVID-19 is one of our primary goals as health providers. We acknowledge that Black, Latino, Indigenous and people of color in NYC have disproportionally impacted by COVID-19 because of historic and ongoing systemic racism oppression. As providers, we must commit to advancing equity and protecting and promoting wealth of all patients.

document outlines ways to support your patients in making informed decisions about the ID-19 vaccines. The intention is to help you answer patients' questions, provide them with rate information, and honor and respond to their needs.

w to use this document

e are three sections:

1 Y -

1: Start the conversation. Ideas for open-ended questions and a focus on listening (Page 1).

2: Tips for responding to questions and concerns. A brief orientation to common questions es 2 to 5).

Part 3: Suggested answers to common questions and concerns. Detailed answers to the questions in Part 2 (Pages 5 to 18).

For up-to-date information on the COVID-19 vaccines, visit <u>nyc.gov/health/covidvaccineprovider</u>. You can also visit <u>nyc.gov/vaccinetalks</u> for a variety of online resources and handouts to help you talk about COVID-19 vaccination with your staff and patients. Information for patients, including printable resources in various languages, can be found at <u>nyc.gov/covidvaccine</u> and <u>nyc.gov/vaccinefacts</u>. To receive periodic updates from the NYC Health Department via email, subscribe to our <u>Health Alert Network</u> and <u>City Health Information</u> mailing lists.

https://www1.nyc.gov/assets/doh/downloads/pdf/covid/pr oviders/covid-19-vaccine-questions-answers.pdf



NYC VACCINE FOR ALL: SAFE, FREE, EASY

Build Vaccine Confidence Among Patients Motivational Interviewing

• If patient is uncertain about vaccination, follow up with a guided conversation:

1. Ask open-ended questions

"What are your concerns about getting vaccinated?"

2. Reflect and respond

Patient: "I know getting vaccinating will help me but I am afraid." HW: "I understand that you want to make the best choice for yourself but are nervous."

3. Affirm strengths and validate concerns

"It's great that you are starting to think about vaccines." "Your health is important to you."

4. Ask-provide-verify

"So, what do you already know about vaccines?" "Could I provide you with some information based on what you just shared?" "Given our discussion, how do you view things now?"

5. Summarize and describe action

"What that means to you is..."

"Could I schedule a follow up appointment soon?"





Vaccine Outreach and Counseling Program

- A program to reimburse practices for proactive outreach to unvaccinated individuals to counsel them on vaccination.
 - \$50 if the counseling is done by a clinician (includes at least 3 minutes of clinician time)
 - \$25 if the counseling is done by a non-clinician <u>using a script</u> approved by the billing provider
- Once all necessary steps have been completed, providers can bill for a Complete Counseling Session.
- Health plans will have various start dates in September and will run until the end of October 2021

https://www1.nyc.gov/assets/doh/downloads/pdf/han/advisory/2021/covid-19-pay-for-vaccination-counseling.pdf

NYC VACCINE FOR ALL: SAFE, FREE, EASY



Vaccine Outreach and Counseling Provider Toolkit

	Symptoms and Care	General Vaccines Talking with Patients Facilities Guidance			
Go to nyc.gov/health Click on "COVID"	<u>Prevention and Groups at</u> <u>Higher Risk</u>	Vaccine Information for Providers			
Click on "Information for Providers"	Vaccine	New from the Health Department Health Advisory #33: New Compensation Program for Vaccination Counseling and			
Click on "Vaccines"	Testing	<u>Commissioner's Advisory to Offer COVID-19 Vaccine Information</u> (PDF, September 9) announces a new program that offers compensation for proactive vaccination counseling, and a Commissioner's Advisory for health care providers to use every opportunity to offer			
	Pregnancy	 COVID-19 vaccine information. COVID-19 Vaccine Outreach and Counseling Program Toolkit (PDF, September 9) provides an overview of the compensation program for eligible health care providers, provides sample language to initiate vaccination conversations with unvaccinated 			
	Mental Health and Substance Use	 patients, and answers frequently asked questions about the program. As of September 9, plans participating in the payment program are: HealthFirst, MetroPlus Health, Empire BCBC/HealthPlus and Amida Care. We expect additional 			
	<u>Data</u>	plans to join the program. Check back for updates. Commissioner's Advisory for Health Care Providers to Offer Unvaccinated Patients Information on COVID-19 Vaccination at Each Patient Visit (PDF, September 9) strongly urges health care providers to always offer their unvaccinated patients information on			
	Information for Providers	the efficacy, availability and administration of COVID-19 vaccination at every patient visit. Patients who agree to vaccination should be offered the vaccine or referred to a vaccination site.			
	Reopening Businesses and Schools	 <u>FAQ on Commissioner's Advisory</u> (PDF, September 9) 			

1. 2.

3

4

NYC VACCINE FOR ALL: SAFE, FREE, EASY



Community Engagement

Impact

- 68 CBOs, 74 zipcodes, 100,000 contacts per week
- Goal: 100 CBOs before January 2022

Funding

\$9 million → COVID-19 Vaccine Equity Partner Engagement Project

Key Learnings

- 1. PPE and literature start conversation
- 2. Consistent community presence facilitates conversation
- 3. 4-5 conversations needed for individual change
- 4. Mobile vans or buses in walking distance make the difference
- 5. CBO staff escort and navigation support are invaluable

Mayor De Blasio Announces \$7.8M In Funding for CBOs to Promote Covid-19 Testing And Tracing Efforts | NYC Health + Hospitals (nychealthandhospitals.org)





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Community Engagement Efforts by 68 CBOs

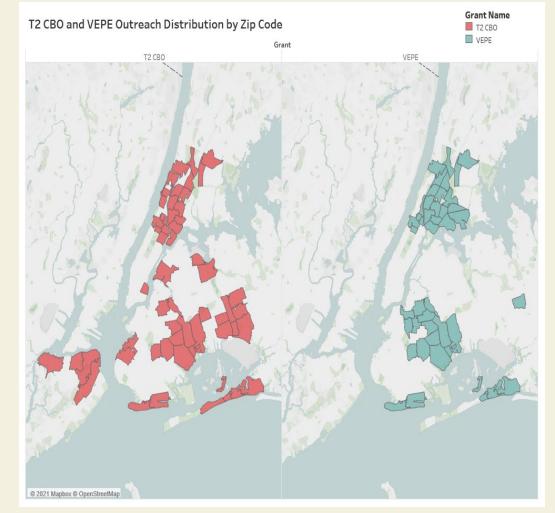


Image source https://www1.nyc.gov/site/doh/covid/covid-19-data-vaccines.page#people as of 9/24/21

NYC VACCINE FOR ALL: SAFE, FREE, EASY



Vaccines for Homebound New Yorkers

Strategy:

- Priority appointments at vaccine sites, dedicated sites and workforce hubs
- Temporary Onsite Clinics in naturally-occurring retirement communities (NORCs)
- Work with in-home providers and build new capacity

Connections:

- NYC Department for the Aging (DFTA)
- Mayor's Office for People with Disabilities (MOPD)
- Medicaid insurers
- Community-based organizations
- Self-identification via online form and vaccine hotline

Online Form nyc.gov/homebound

NYC Vaccine Hotline 877-VAX4NYC (877-829-4692)

Source: https://www1.nyc.gov/assets/coronavirus/downloads/vaccines/in-home-vaccination-plan.pdf

NYC VACCINE FOR ALL: SAFE, FREE, EASY



Key Concepts

1. State of COVID inequities

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3. Future direction





An Anti-Racist Agenda for Medicine

RACE

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An Antiracist Agenda for Medicine

Colorblind solutions have failed to achieve racial equity in health care. We need both federal reparations and real institutional accountability.

BRAM WISPELWEY, MICHELLE MORSE

Image: Flickr

We are experienced physicians. But in the early days of the pandemic, when we felt like fresh interns nervously awaiting a flood of disease presentations we had never seen before, we had a nagging sense of déjà vu: it seemed that a disproportionate number of COVID-19 patients admitted to our Boston hospital were people of color. We asked around; our colleagues corroborated. The trend was confirmed by data coming out of Milwaukee first, then sporadically elsewhere. Now it is a wellknown and tragic fact of the pandemic.

http://bostonreview.net/science-nature-race/bram-wispelwey-michelle-morseantiracist-agenda-medicine?fbclid=lwAR00_QUOq4V_zp7MdjwdxR_epjl7Yrk3ehlYnSTt5SHUL0yll9YxIrwogo

Déjà vu

- Disproportionate admission of Black and Latino patients to general hospital vs. cardiology service
- Ten-year trend white patients more likely to be admitted to cardiology service.
- Disparities not explained by insurance status, links to care, medical conditions, or neighborhood socioeconomic status
- Patient self-advocacy worked for some



A Missed Opportunity: Reparations for Black Americans and lower COVID-19 transmission

Check for updates

Reparations for Black American descendants of persons enslaved in the U.S. and their potential impact on SARS-CoV-2 transmission

Eugene T. Richardson ^{a,b,1,*}, Momin M. Malik ^{c,1}, William A. Darity Jr. ^d, A. Kirsten Mullen ^e, Michelle E. Morse ^{a,b}, Maya Malik ^f, Aletha Maybank ^g, Mary T. Bassett ^h, Paul E. Farmer ^{a,b}, Lee Worden ^{i,2}, James Holland Jones ^{j,2}

^a Department of Medicine, Brigham and Women's Hospital, Boston, MA, USA
 ^b Department of Olobal Health and Social Medicine, Harvard Medical School, Boston, MA, USA
 ^c Berknan Klein Center for Internet & Society, Harvard University, Cambridge, MA, USA
 ^d Sanford School of Public Policy, Duke University, Durham, NC, USA
 ^d Arrefactual, Durham, NC, USA
 ^f Arefactual, Durham, NC, USA
 ^f Medical Association, Chicago, IL, USA
 ^h François-Xavier Bagnoud (FXB) Center for Health and Human Rights, Harvard T.H. Chan School of Public Health, Boston, MA, USA
 ⁱ Proctor Foundation, University of California, San Francisco, USA
 ^j Department of Earth Svietm Science. Stanford University: USA

ARTICLE INFO

ABSTRACT

Keywords: Background: In the United States, Black Americans are suffering from a significantly disproportionate incidence of Racism COVID-19. Going beyond mere epidemiological tallying, the potential for racial-justice interventions, including COVID-19 reparations payments, to ameliorate these disparities has not been adequately explored. Reparations Methods: We compared the COVID-19 time-varying R_t curves of relatively disparate polities in terms of social Mathematical model equity (South Korea vs. Louisiana). Next, we considered a range of reproductive ratios to back-calculate the Health disparities transmission rates $\beta_{i \to i}$ for 4 cells of the simplified next-generation matrix (from which R_0 is calculated for **Risk structure** structured models) for the outbreak in Louisiana. Lastly, we considered the potential structural effects monetary payments as reparations for Black American descendants of persons enslaved in the U.S. would have had on preintervention $\beta_{i \rightarrow i}$ and consequently R_0 . Results: Once their respective epidemics begin to propagate, Louisiana displays Rt values with an absolute difference of 1.3–2.5 compared to South Korea. It also takes Louisiana more than twice as long to bring R_t below 1. Reasoning through the consequences of increased equity via matrix transmission models, we demonstrate how the benefits of a successful reparations program (reflected in the ratio $\rho_{b\to b}/\beta_{w\to w}$) could reduce R_0 by 31–68%. Discussion: While there are compelling moral and historical arguments for racial-injustice interventions such as reparations, our study considers potential health benefits in the form of reduced SARS-CoV-2 transmission risk. A restitutive program targeted towards Black individuals would not only decrease COVID-19 risk for recipients of the wealth redistribution; the mitigating effects would also be distributed across racial groups, benefiting the population at large.

Image Source: https://www.sciencedirect.com/science/article/pii/S0277953621000733



NYC VACCINE FOR ALL: SAFE, FREE, EASY

NYC Health Department Declares Racism a Public Health Crisis: Call to Action (June 2020)

As a public health organization, we recognize that racism is a public health crisis. We know that racism is a key social determinant of health that leads to poor health outcomes and increased premature deaths. We are unapologetically committed to addressing racism and center our daily work in equity and justice.

Image Source: twitter.com/nycHealthy/status/1270046521879379968





National Center for Disaster Preparedness EARTH INSTITUTE | COLUMBIA UNIVERSITY

COVID-19 and beyond: Implications for disaster management for the coming decade

About the National Center for Disaster Preparedness

- Established in 2003, the National Center for Disaster Preparedness works to understand and improve the nation's capacity to prepare for, respond to and recover from disasters.
- Four focus areas:
 - System readiness
 - Disaster recovery
 - Citizen engagement, and
 - Vulnerable populations
- NCDP carries out research and policy analysis in these areas, and provides education, training and technical support to public health workers, local and regional governments, and public health, hospital, and community partners.

NCDP is a Recognized "Go To" Center for Translating Science into Impact – and Practice

- **Research, Policy and Practice** mission with a focus on vulnerable populations, especially children
- A Learning Management System with over 40 courses offered and over 100,000 users trained domestically and internationally.
- National Disaster Readiness Surveys conducted annually for many years providing a detailed snapshot of U.S, population readiness for disasters



Sandy Child and Family Health Study (SCAFH)

- Pediatric Preparedness for Disasters, conferences of experts conducted three-times since 9/11 and designed to focus on recommendations around topics which required expert consensus, since sufficient research was not available
- Children as Targets of Terrorism was a year-long endeavor to analyze the history of terrorism directed at children and the risks going forward leading to a School Preparedness program in NYC
- Staff have served in numerous official **advisory roles** including to the Mayor of NYC, the Governor of New York, the White House, and serving as a member of the **National Commission on Children in Disasters**
- Conducting some of the largest **longitudinal cohort studies** to follow the trajectory of children's recovery after Katrina and the Deepwater Horizon Oil Spill

National Center for Disaster Preparedness EARTH INSTITUTE | COLUMBIA UNIVERSITY

COVID-19

Lessons Learned from the Pandemic so Far



The COVID-19 experience is (and will be) uneven and persistent

Hot spots

Driven by:

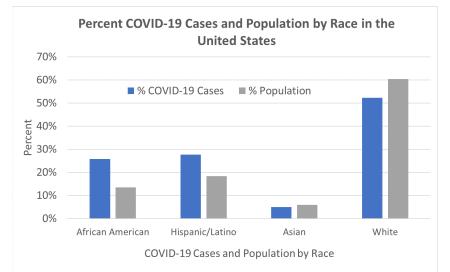
- Intervention effectiveness
- Availability of vaccines and other countermeasures
- Natural disease spread
- Population density and movement
- Ecological conditions
- Introduction of cases
- Herd Immunity*

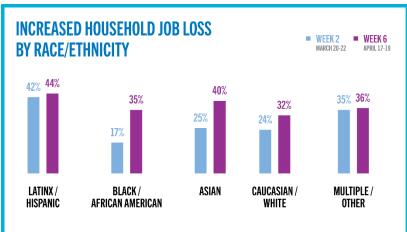
*Many unknowns about immunity

National Center for Disaster Preparedness EARTH INSTITUTE | COLUMBIA UNIVERSITY

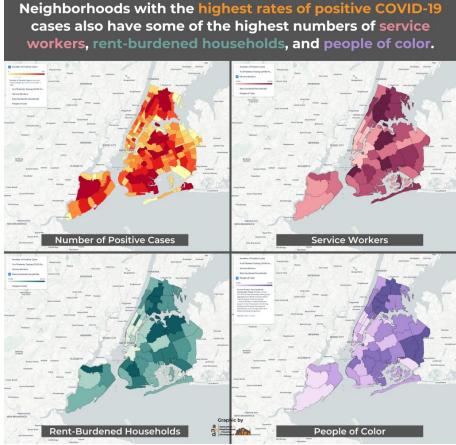
Image source: https://www.nytimes.com/interactive/2020/world/co ronavirus-maps.html retrieved 9-21-21

Marginalized communities continue to fare the worst...





CUNY Graduate School of Public Health and Health Policy Tracking Survey April 17-19, 2020, MM, n=1000, +/-3%



National Center for Disaster Preparedness EARTH INSTITUTE | COLUMBIA UNIVERSITY

Multiple sources cited in: https://ncdp.columbia.edu/ncdpperspectives/racial-disparities-and-covid-19/

Vulnerability and COVID-19

BY THE NUMBERS Vulnerability and COVID-19* Since the beginning of the pandemic, Americans living in our most vulnerable areas have been: **29**% 35% 23% more likely more likely less likely more likely to be to be diagnosed with to have died from to be tested for unemployed due to COVID-19 COVID-19 COVD-19 COVID-19 *As of January 21, 2021; case and death data compare the most vulnerable third of U.S. counties against the least vulnerable third; testing and unemployment data are compared at a state level.

The Many Facets of Vulnerability

CCVI THEMES:

- **1.** Socioeconomic status
- 2. Minority status & language
- 3. Household & transportation
- **4.** Epidemiological factors
- 5. Healthcare system factors
- 6. High-risk environments
- 7. Population density

Each theme has its own score, ranging from 0 (lowest vulnerability) to 1 (highest vulnerability). These scores are aggregated to a single, composite score for each census tract, county, and state, ranging from 0 to 1 (lowest to highest vulnerability).

In this report, unless otherwise stated, "vulnerable" counties are the one-third of counties with the highest composite CCVI score.

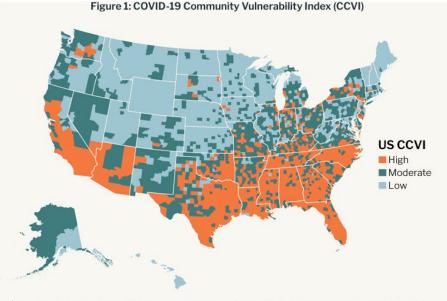


Figure 1: County-level vulnerability to COVID-19, as measured by the Community Vulnerability Index (CCVI). US CCVI categories include very high (top 20% of counties by vulnerability, with a score of 0.8-1), high (0.6-0.8), moderate (0.4-0.6), low (0.2-0.4), and low (the bottom 20% of counties by vulnerability, with a score of 0-0.2).

Source: Surgo Foundation <u>https://surgoventures.org/resource-library/report-vulnerable-communities-and-covid-19</u>

Insights from Behavioral Science

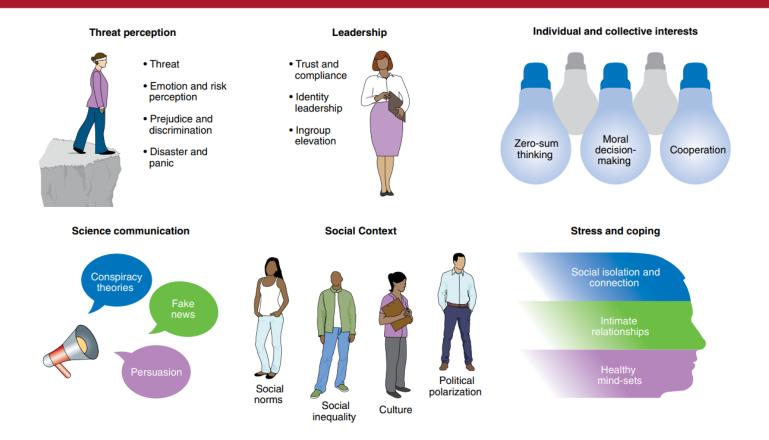


Fig. 1 Infographic depicting a selection of topics from the social and behavioural sciences relevant during a pandemic. Topics covered here include threat perception, social context, science communication, individual and collective interests, leadership, and stress and coping.

Source: Bavel, J.J.V., Baicker, K., Boggio, P.S. *et al.* Using social and behavioural science to support COVID-19 pandemic response. *Nat Hum Behav* **4**, 460–471 (2020).

Opportunities In the New Normal

- Remote Collaboration
 - Office, education, telemedicine
 - Software and hardware
 - Cybersecurity
- E-Commerce (some sectors)
- Healthier Buildings
 - Active and Passive Infection Control
 - Temperature screening, air filtration
- Green energy and building solutions
- Professional education and development
- Domestic / regional production resurgence

Image sources: <u>https://www.bbc.com/news/world-asia-51691967</u>; <u>https://www.businessinsider.com/photos-stay-at-home-order-reduced-los-angeles-notorious-smog-2020-4</u>



Wildcards

- New Variants
 - Immunity evasion
 - Infectiousness
 - Virulence
- Government interventions
 - Reactiveness to changes in caseloads
 - Stimulus infuses certain markets with resources
 - Small and community-based business investments may have profound impacts on their survival
- Protectionist Behaviors
 - Reducing exports, hoarding resources
 - Vaccine nationalism
- Borrowing Capacity
- Real Estate Investments/Divestments
 - How much space will be needed for businesses?
 - What kind of space?
- Healthcare
 - Lot of patients, but lots of costs
 - Loss of high margin revenue sources (e.g. elective surgery)
- Other Disasters
 - Civil Unrest
 - Natural Hazards (hurricanes, wildfires, etc)
- Consumer Behaviors and Preferences





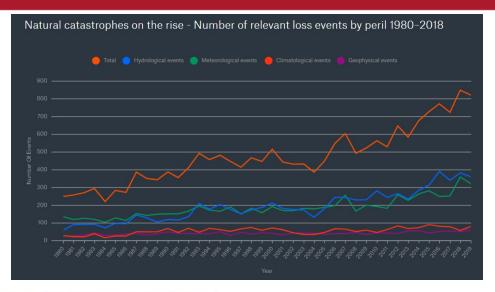
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Climate Change

A Growing Impact on Civil Society

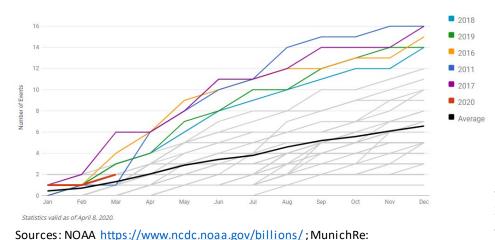


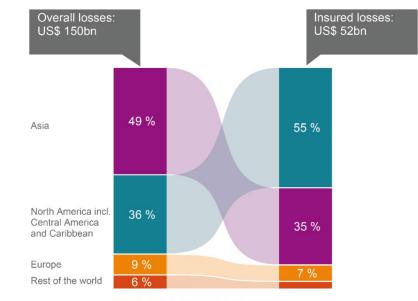
Weather Related Disasters



1980-2020 Year-to-Date United States Billion-Dollar Disaster Event Frequency (CPI-Adjusted)

Event statistics are added according to the date on which they ended





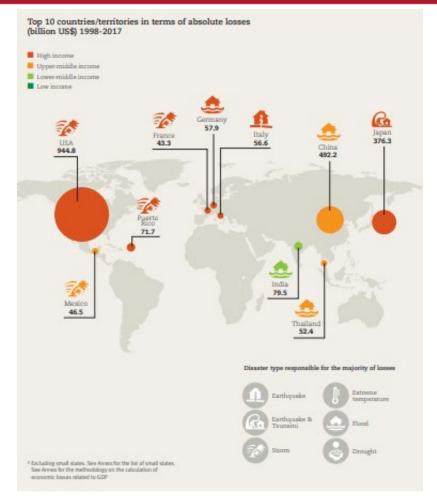
© 2020 Munich Re, NatCatSERVICE - As at January 2020

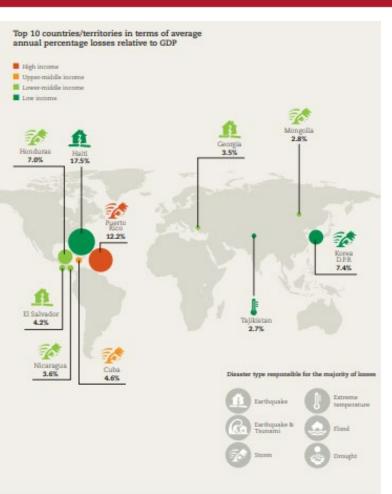
Source: MunichRe https://www.munichre.com/topicsonline/en/climate-change-and-natural-disasters/naturaldisasters/natural-disasters-of-2019-in-figures-tropicalcyclones-cause-highest-losses.html

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https://www.munichre.com/en/risks/natural-disasters-losses-are-trending-upwards.html

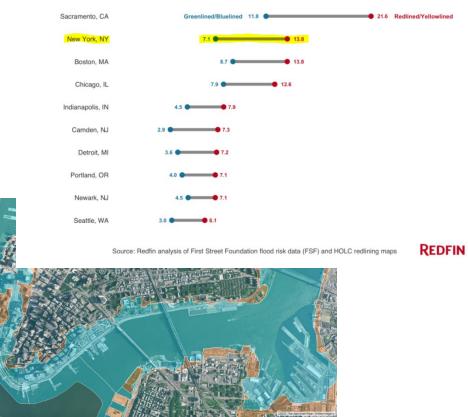
Disasters are already creating significant losses to economies





Images Source: UNDRR - https://www.preventionweb.net/files/61119 credeconomiclosses.pdf

Local Impacts



Top 10 Metros with Greater Share of Homes at Risk in Redlined and Yellowlined Areas

Percentage of homes, by redlining grade, that face high flood risk; %

Sources: https://insideclimatenews.org/news/23102017/nyc-sea-level-storm-surge-climate-change-building-codes-sandy/; https://www.redfin.com/news/redlining-flood-risk/

Why an East Harlem Street Is 31 Degrees Hotter Than Central Park West

If you want to map inequality in New York, you can just count trees.



Manhattan neighborhoods, two heat experiences. Desiree Rios for The New York T

Above left: the Upper West Side. Right: Spanish Harlem. Desiree Rios for The New York Times

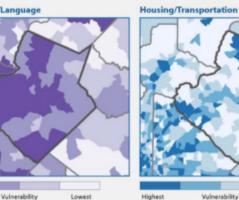
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Source: <u>https://www.nytimes.com/2021/08/20/nyregion/climate-inequality-nyc.html</u>

Broader Social Vulnerability

SVI Themes

Socioeconomic Status Household Composition Highest Vulnerability Lowest Highest Vulnerability Race/Ethnicity/Language Housing/Transportation



Maps show the range of vulnerability in Gwinnett County, Georgia for the four themes

CDC SVI Databases and Maps Can be Used to:

- Estimate the amount of needed **supplies** like food, water, medicine, and bedding.
- Help decide how many **emergency personnel** are required to assist people.
- Identify areas in need of emergency shelters.
- Plan the best way to evacuate people, accounting for those who have special needs, such as people without vehicles, the elderly, or people who do not understand English well.
- Identify communities that will need continued support to **recover** following an emergency or natural disaster.

For more information, please contact the <u>CDC SVI</u> <u>Coordinator (svi_coordinator@cdc.gov)</u>.

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Lowest

We know where vulnerability is, what do we do about it?

- Invest in communities
- Build partnerships
- Offer additional flexibility
- Target programs to the most vulnerable
- Increase opportunities before and after disasters
- Increase access to post-disaster recovery programs
- Increase representation

Are we ready to make sacrifices?



Emergency management is having a #MeToo moment

BY JEFF SCHLEGELMILCH, OPINION CONTRIBUTOR - 09/06/18 04:30 PM EDT 4 COMMEN VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HI

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As Disaster Costs Rise, So Does Inequality Junia Howell, James R. Elliott First Published December 4, 2018 | Research Article | Check for updates https://doi.org/10.1177/2378023118816795 Article information ~

A Climate Plan in Texas Focuses on Minorities. Not Everyone Likes It.

For years, money for flood protection in the Houston area went mostly to richer neighborhoods. A new approach prioritizes minority communities, and it's stirring up resentments.



105 SHARES

Christopher Flavelle



Sources cited in: https://www.nytimes.com/2020/07/24/climate/houston-floodingrace.html; https://coloradosun.com/2021/01/26/coronavirus-vaccine-disparity-incolorado/; https://thehill.com/opinion/energy-environment/405366-emergencymanagement-is-having-a-metoo-moment, https://academic.oup.com/socpro/article/66/3/448/5074453, https://iournals.sagepub.com/doi/full/10.1177/2378023118816795

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Damages Done: The Longitudinal Impacts of Natural Hazards on Wealth Inequality in the United States 🕮 Junia Howell 🖾, James R Elliott

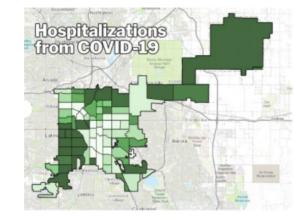
Social Problems, Volume 66, Issue 3, August 2019, Pages 448-467, https://doi.org/10.1093/socpro/spy016 Published: 14 August 2018

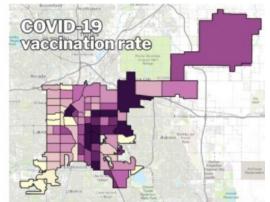
CORONAVIRUS

In Denver, getting the coronavirus vaccine may depend on where you live

The vaccine disparity is statewide, with a higher proportion of whites getting vaccinated. Here's what public health workers and equity task forces are doing about it.







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Cross-Cutting Themes

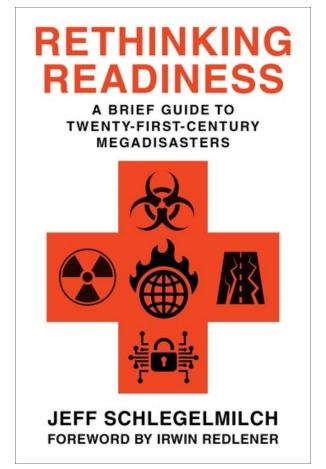


Beyond COVID-19

We face a myriad of challenges where <u>development</u> <u>drives threats and vulnerabilities</u>:

- Biothreats
- Climate Change
- Critical Infrastructure Failure
- Cyberthreats
- Nuclear Conflict
- Crosscutting Threats and Vulnerabilities

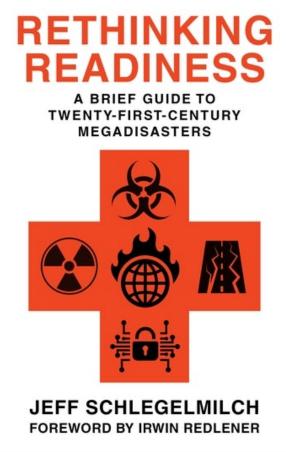
Adaptive systems that embrace uncertainty are required to build resilience.



Source: Columbia University Press <u>https://cup.columbia.edu/book/rethinking-readiness/9780231190411</u>

Preparing for 21st Century Disasters

- More research, more evidence
- Meaningfully engage communities
- Lean-in to uncertainty
- Rewire incentive structures
- Invest in the next generation



Tools for Managing Uncertainty

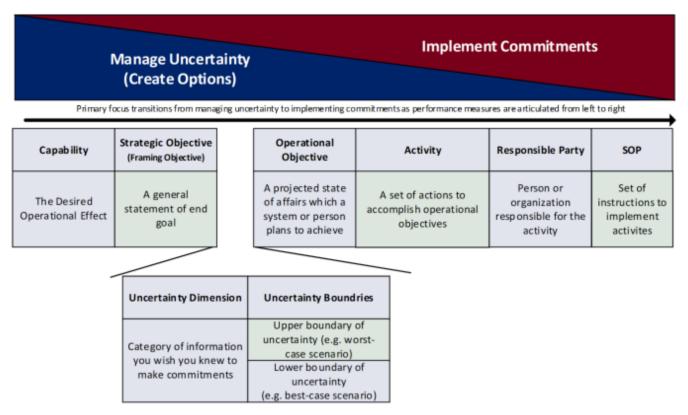
Figure 2: Organizational levels and relationship to managing uncertainty Adapted from Raynor ²⁹

Organizational Level	Strategic Balance	Strategic Question	Strategic Objective
Board	Manage Uncertainty (Create Options)	What could threaten our survival?	Flexibility
Corporate			He deire e
Business Unit		What could undermine our strategy?	Hedging
Function	Implement Commitments	What could derail our project?	Learning

Source: Establishing a Foundation for Performance Measurement for Local Public Health Preparedness, Journal of Disaster Medicine and Public Health Preparedness–In Press, adapted from Raynor ME. The strategy paradox: Why committing to success leads to failure (and what to do about it). Crown Business; 2007

Tools for Managing Uncertainty

Figure 3: SOARS Framework with Integration of Uncertainty



Source : Establishing a Foundation for Performance Measurement for Local Public Health Preparedness, Journal of Disaster Medicine and Public Health Preparedness– In Press, adapted from Raynor ME. The strategy paradox: Why committing to success leads to failure (and what to do about it). Crown Business; 2007 and Keim ME. An innovative a pproach to capability-based emergency operations planning. Disaster Health. 2013;1(1):54-62

Coronavirus Pandemic (COVID-19)

	DECISIONS NECESSARY	THREAT INFORMATIO	NC	CONTEXT
INFORMATION NEEDED	 Implement Group A Interventions as necessary Implement Group B Interventions as appropriate Initiate Group C Interventions as appropriate Identify additional interventions that may be necessary 	 What is the severity of the viru hospitalization and fatality rate What is the current rate and tratransmission in the area? What is the rate of transmission virus? What is the rate of transmission virus? What is the attack rate/likeling infection? What is the average duration o What is the average duration for serious cases? 	es)? end of n for the peak? pod of f the illness?	 What social distancing measures are in place by local/state governments? How effective is it? For how long as this trend held? What are the measures implemented in surrounding areas? How long have control measures been in place? How long are they expected to be in place? What is the capacity/reliability of testing? What is the availability of personal protective equipment? What is the availability of pharmaceutical countermeasures?
	LEADERSHIP COORDINATION		ANALYTICAL SUPPORT	
ACTION NEEDED	 essential functions Implement additional interv Cross-train staff for re-assig Re-assign staff to essentiate in the strategies Identify operations at high restrategies Monitor changes in electric patterns Monitor/modify distribution consumer demand Modify distribution operative event of worker absenteeis 	inment if necessary isential functions as needed isk for infection; and mitigation ity loads due to changing consumer noperations to meet changes in ons for increased resilience in the m nications and resources to support	 Analyze current epidemiological curve(s) amd project rates of increase and potential peaks Evaluate ComEd absenteeism and illness relative to community- wide spread Monitor absenteeism for trends and clusters of potential infection Model transmission scenarios (no change, significant reduction, 	

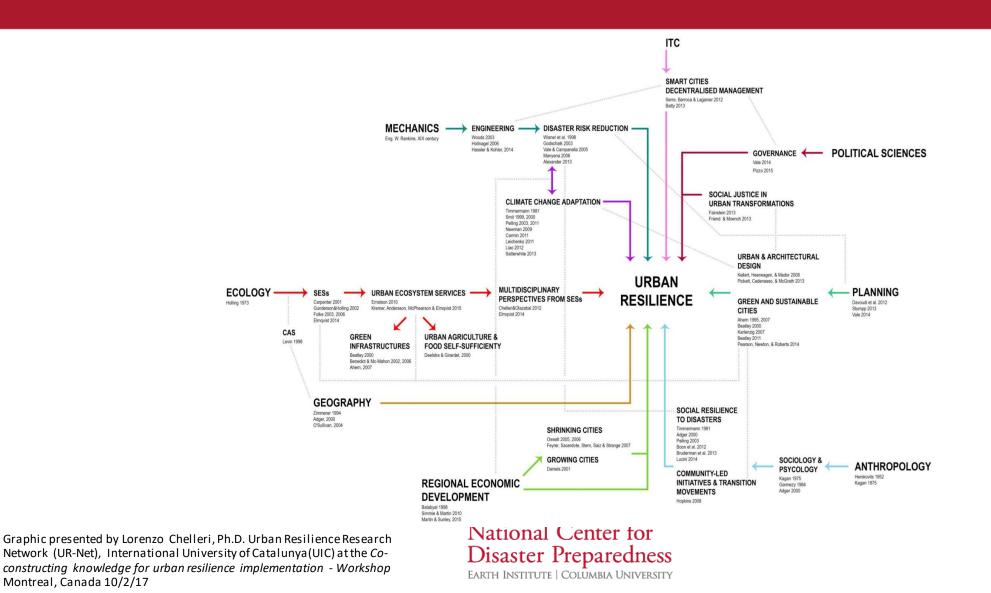
Source: Schlegelmilch, Jeff, Aleksi Paaso, Jackie Ratner, Gunjan Saxena, Zackery White, Susanna Aguilar, Daniel Kushner, Norayr Matevos yan, Jaime Ortega, and Shay Bahramirad. "Using a nalytics to support a utility's initial response to the COVID-19 pandemic amid an uncertain evidence base." Journal of Business Continuity & Emergency Planning 14, no. 3 (2021): 226-238.

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Building Resilience

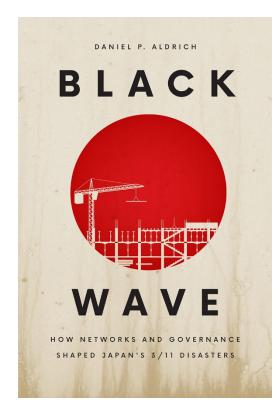


There is no single "lever" for resilience



Socialites and politics matter, perhaps more than infrastructure...

- Horizontal Connections between people
- Vertical Connections between levels of government
- Research on the 2011 Tsunami in Japan demonstrates:
 - Horizontal connections
 - save lives
 - Improves mental health
 - Vertical connections
 - speed up the recovery process



Source : University of Chicago Press<u>https://press.uchicago.edu/ucp/books/book/chicago/B/bo40026774.html</u>

Uncertainty is Here to Stay

- Organizations that build adaptive systems will succeed in the face of uncertainty
 - Rigid commitments will be less likely to withstand unknown shocks
- Past performance is *not* the best predictor of future behavior
- There is no single indicator of resilience
- Managing uncertainty and adapting to emergent situations will be more important than ever over the next century
- Rhetoric advocating for equity is in abundance, so is data on social vulnerability
 - Accountability and progress is still lacking

Thank you!

https://ncdp.columbia.edu/





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Coalition Announcements

Adjourn