

# 2CEERIAS

“Examining At-Risk Stroke Communities During the COVID-19 Pandemic: Effective Engagement and Educational Interventions”



ATW HEALTH SOLUTIONS  
Raising Healthcare's Standard™



# Today's Faculty



**Knitasha Washington, DHA**  
Principal Investigator

Dr. Washington has earned the recognition of being a prominent figure in healthcare transformation serving in the capacity of thought-leader, advocate, researcher, and performance improvement expert. She has worked with healthcare systems, U.S. government agencies, and numerous policymaker groups to ensure that patient-centered and equitable approaches are at the heart of healthcare redesign. Dr. Washington founded and serves as President & CEO of ATW Health Solutions, a management consulting and research firm base in Chicago. She is a board member for the National Quality Forum in Washington D.C. and the American Association for Family Physicians (AAFP) foundation. Shaped by her passion and belief in social justice.



**Shyam Prabhakaran, MD**  
Co-Principal Investigator

Dr. Prabhakaran is currently Professor and Chair of Neurology at University of Chicago. He is a stroke neurologist who has led several projects to understand epidemiology of stroke in Chicago and disparities in acute stroke treatment. He chairs the Chicago Regional Stroke Advisory Committee and helped develop and draft the pre-hospital stroke policies and procedures which were implemented in March 2011 and again in November 2018. These policies encourage patients who are suspected of having stroke to call 9-1-1 and ensure rapid evaluation and triage to hospitals with the highest level of stroke care possible. He has led numerous funded initiatives including the ongoing MYRIAD study of imaging biomarkers of ICAD, the E-SPEED study focused on prehospital and inter-hospital barriers to timely stroke treatment, and the THESIS study targeting diagnostic error in the ED.



**Neelum Aggarwal, MD**  
Co-Principal Investigator

Dr. Aggarwal is a neurologist at Rush University Medical Center in Chicago, who specializes in diagnosing and managing all types of dementia. As Co PI for 2CEERIAS, she provides guidance and direction to the design and approach taken for this community-based dissemination grant. As Co PI of the CEERIAS study, she developed the community engagement plan, field operations and data collection surveys. Her present work is focused on how to prevent cognitive decline and dementia in community stroke survivors through dietary interventions through (NIA 1R01AG062637-01A1) funded study. She serves as the senior examining neurologist and co-Investigator to multiple large-scale community-based studies in Chicago's under-represented communities; the Chicago Health and Aging Project (CHAP) and Preserving Cognitive Resilience: A Biracial Parent Offspring Study (R01AG058679).



**Desiree Bradley**  
Project Coordinator

Desiree Collins Bradley is responsible for ATW's Patient Advisory Network and served 2CEERIAS coordinating Promoter community activities. Her passion is patient and family engagement in healthcare and ensuring that patient's voices are always represented. She is the mother of three wonderful children Darius, Jr., Deonc, and Daniel. Her daughter Deonc was born with a genetic disorder, Jarcho Levin Syndrome. It is extremely rare and often carries a very high mortality rate and grim prognosis. Deonc's medical journey inspired Desiree to become an advocate not only for her, but in the medical community as a whole.



# About Us



”Raising Healthcare’s Standard through quality, safety and health equity.”

- Quality Improvement and Healthcare Transformation
- Person and Family Engagement / Stakeholder Engagement / Consumer Engagement
- Disparities and Health Equity
- Research / Education / Learning and Dissemination
- Health Services, Payers, Systems and Delivery



# Past Performance

- Department of Defense Non-Clinical Nurse Case Management (ILARNG)
- CMS Partnership for Patients Hospital Improvement and Innovations Network (HIIN)
- CMS Transforming Clinical Practice Initiative (TCPI)
- MIDS Person and Family Engagement (PFE)
- American Academy of Family Physicians (AAFP)
- University of Illinois at Chicago (UIC)
- Vizient HIIN
- Iowa Healthcare Collaborative (HIIN)
- Northwestern (CEERIAS PCORI Award)



# Today's Objectives

- Discuss the unique challenges of at-risk acute stroke populations during COVID19.
- Brief background of 2CEERIAS project and its research goals.
- Discussion of lessons learned from key strategies for developing meaningful patient and community partnerships.



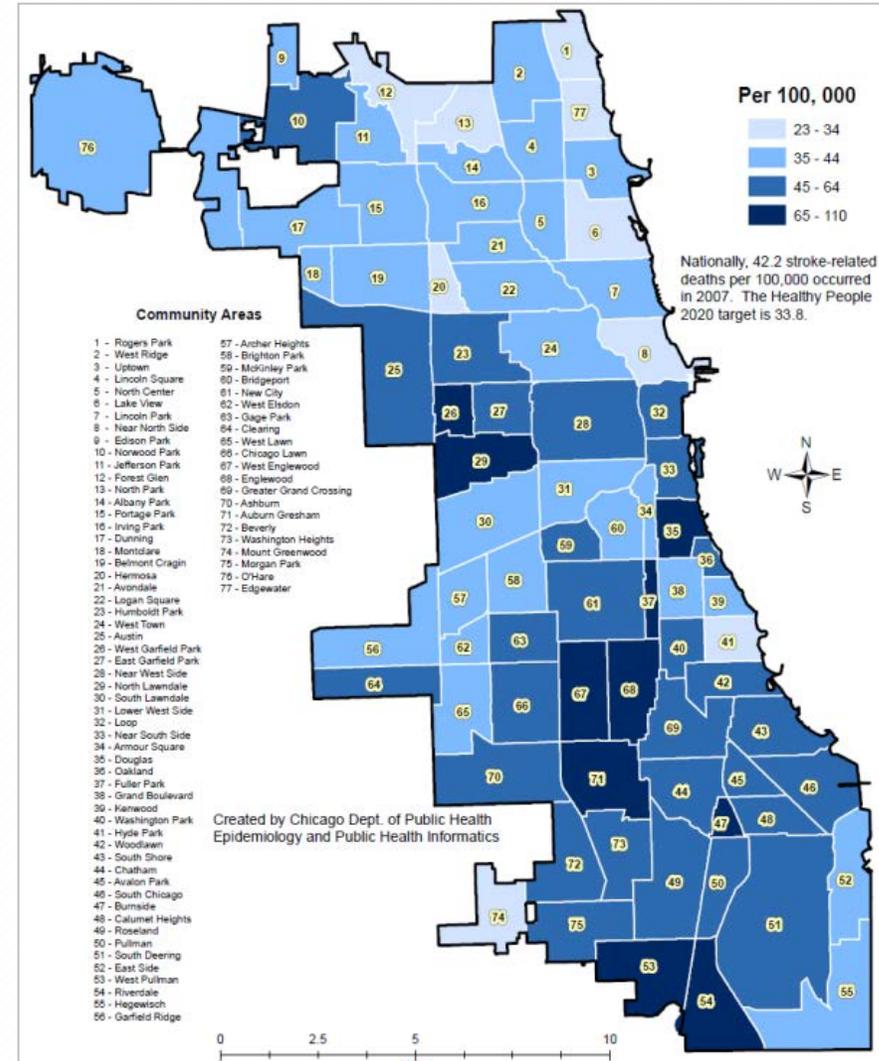
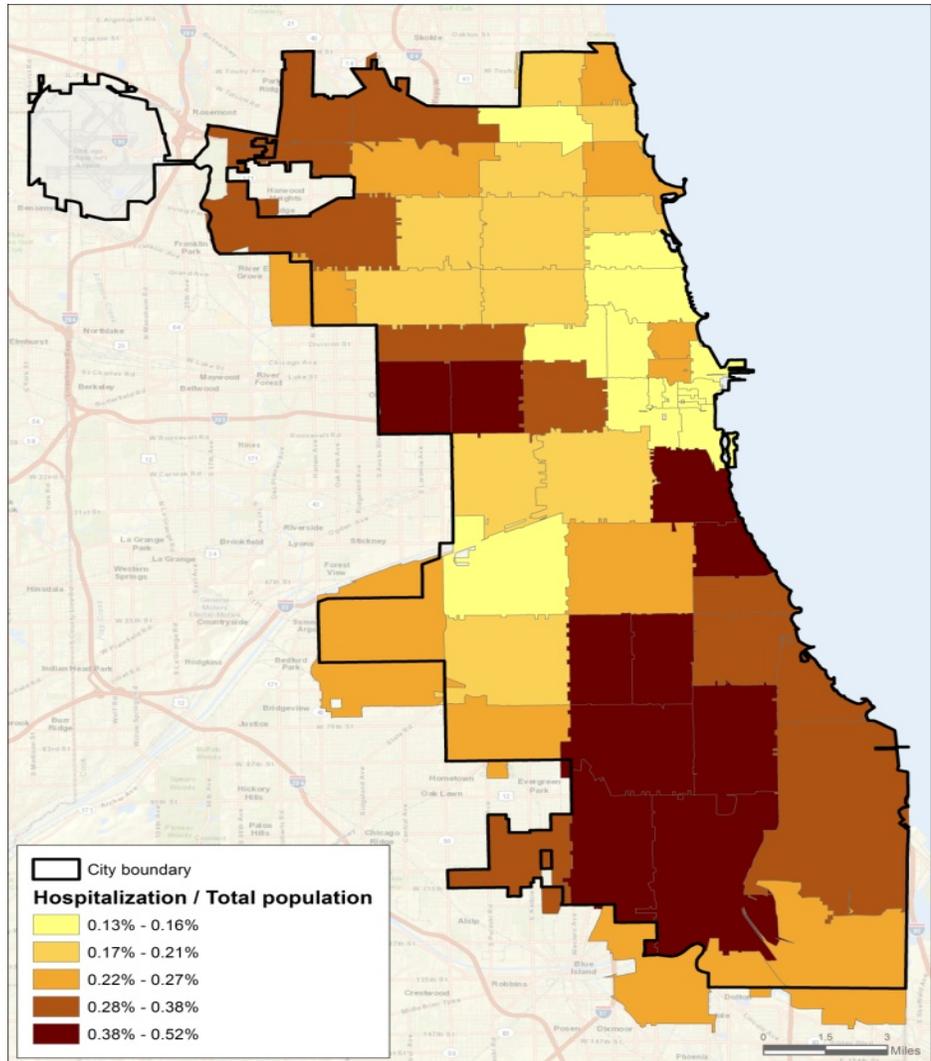
# Objective One

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- Discuss the unique challenges of at-risk acute stroke populations during COVID19.



# Stroke Prevalence in Chicago Communities



# Stroke and COVID-19 Comparative

Figure 4. Chicago Stroke Deaths per 100,000<sup>VI §</sup>

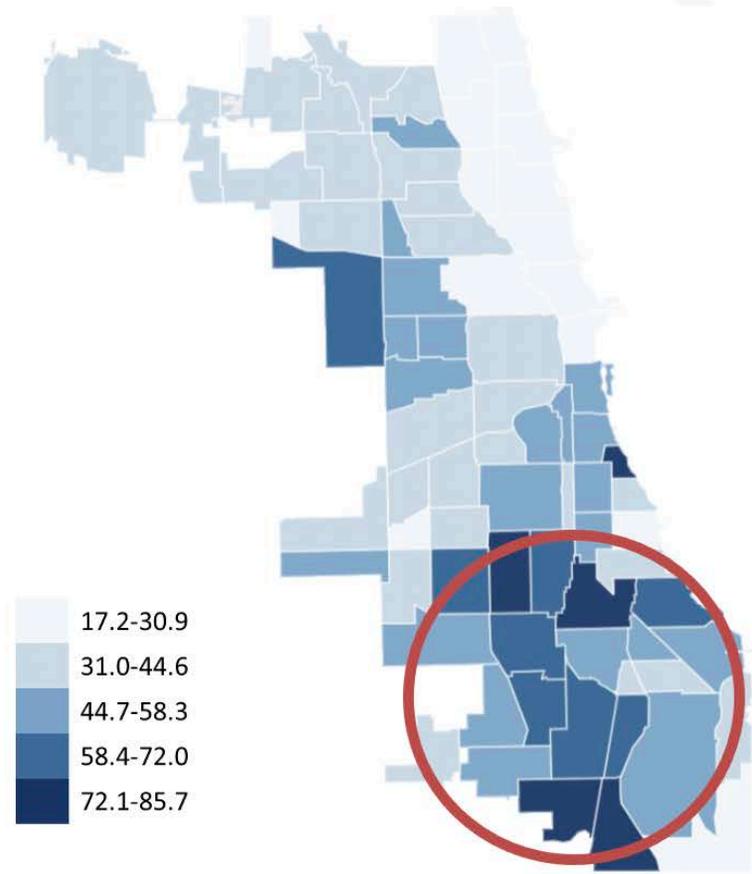
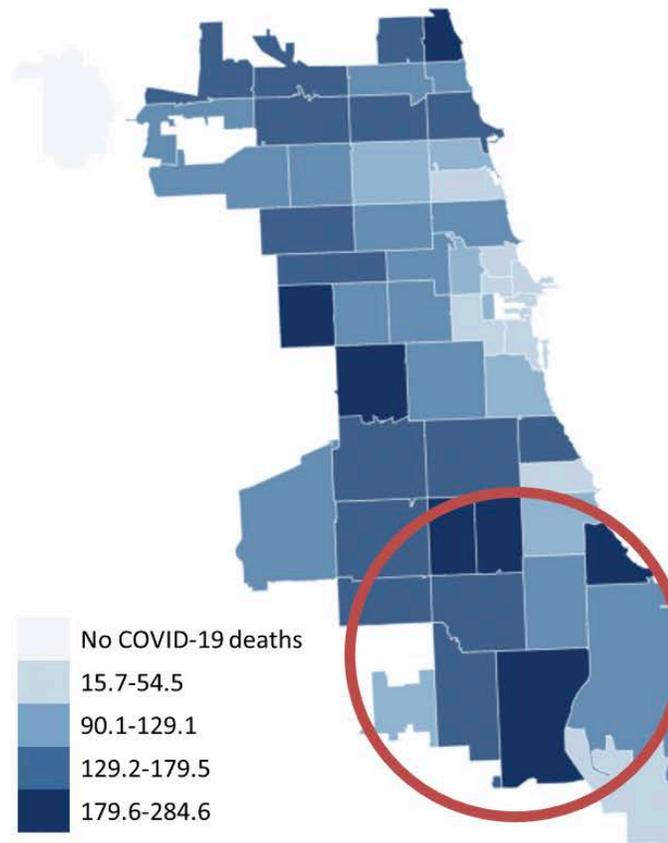


Figure 5. Chicago COVID-19 Deaths per 100,000<sup>VII \*\*</sup>

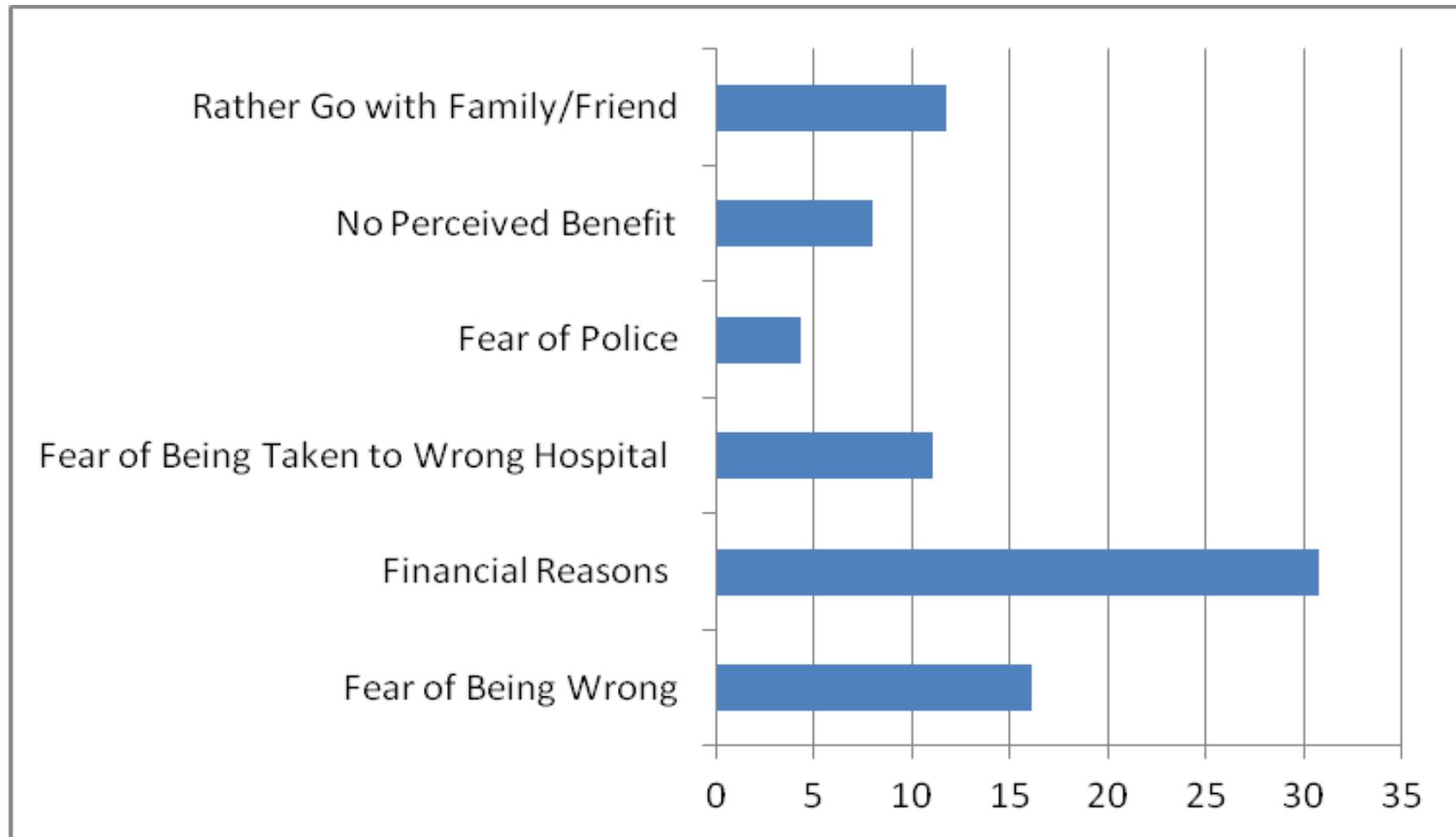


§ Adapted from Chicago Health Atlas; data last updated April 9, 2019.

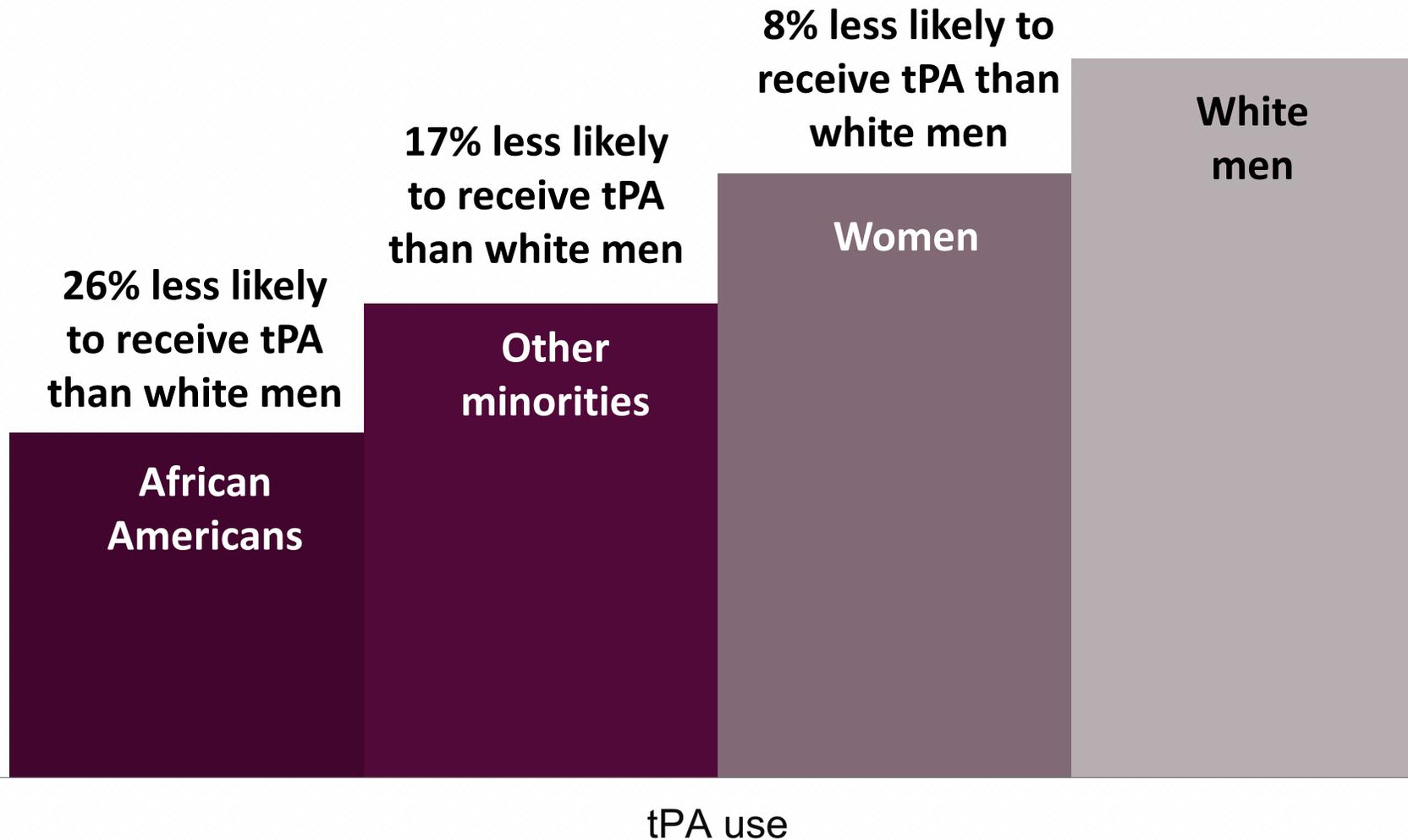
\*\* Adapted from Chicago.gov; data last updated December 3, 2020.

# Barriers to Timely Arrivals

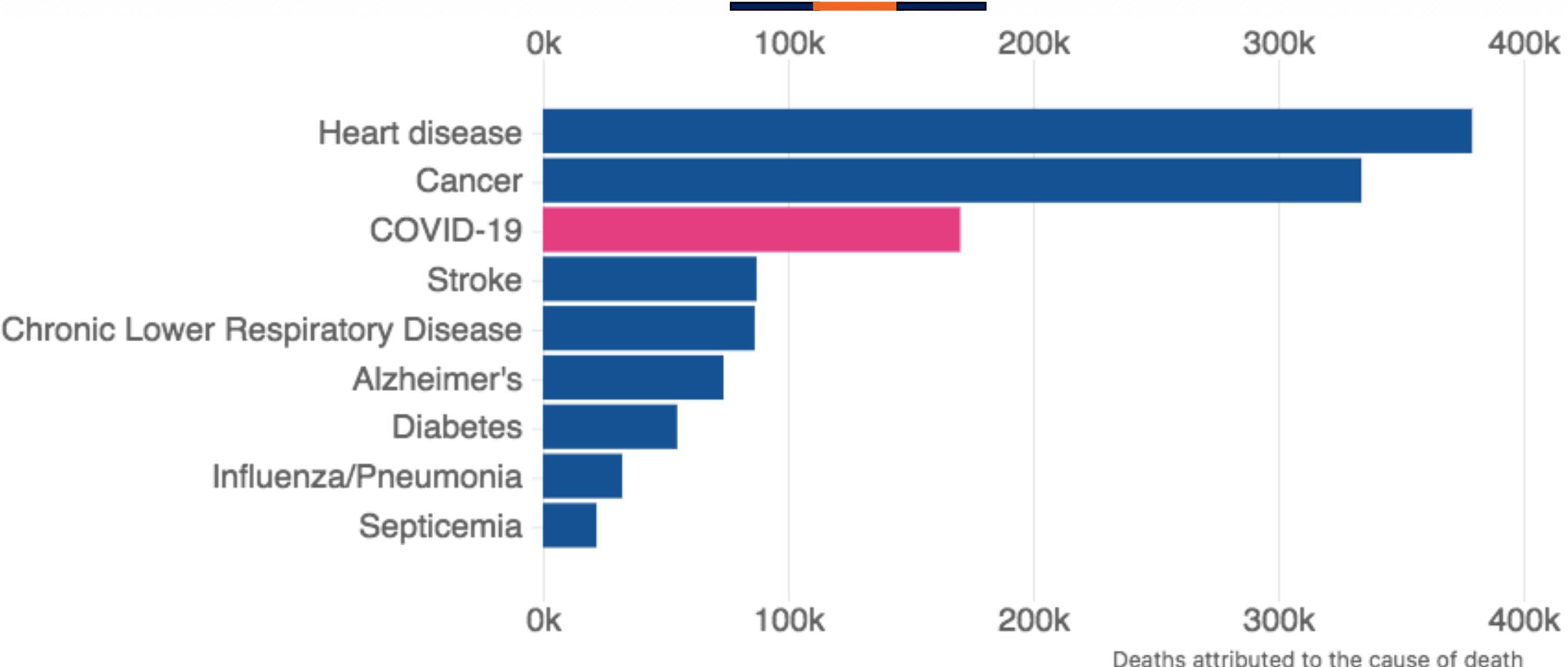
**A survey of 143 Chicago community members identified barriers to timely arrival.**



# tPA Utilization Comparison



# COVID-19 Deaths



Based on number of deaths in the United States between February 1, 2020 and June 27, 2020

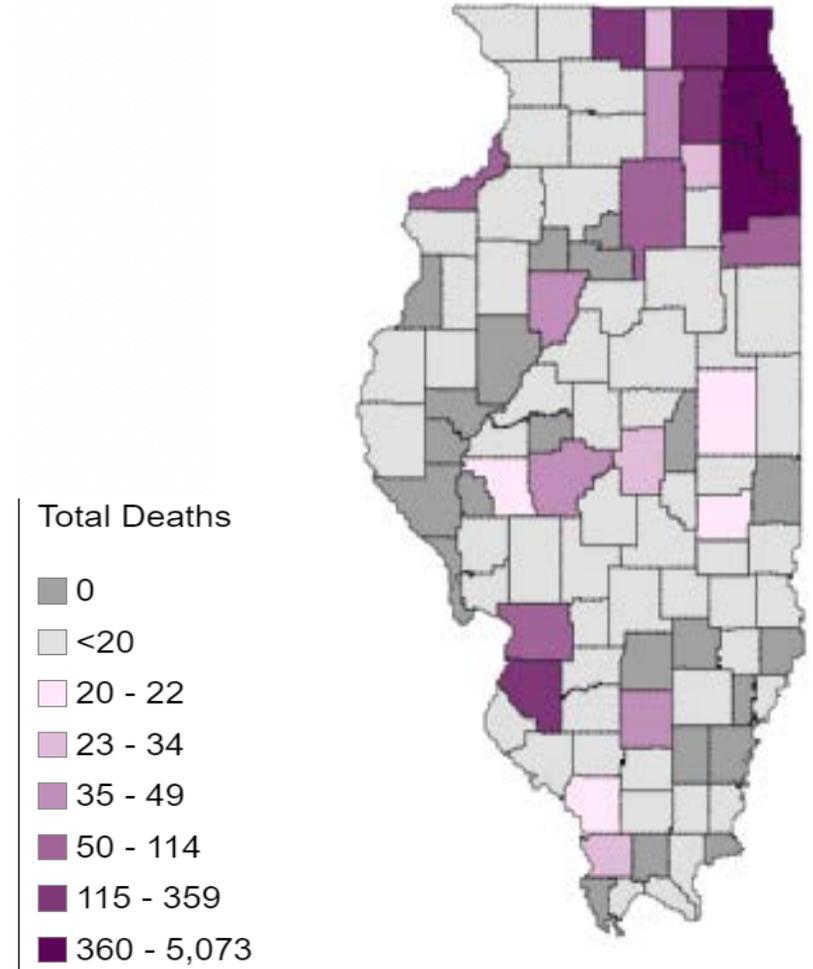
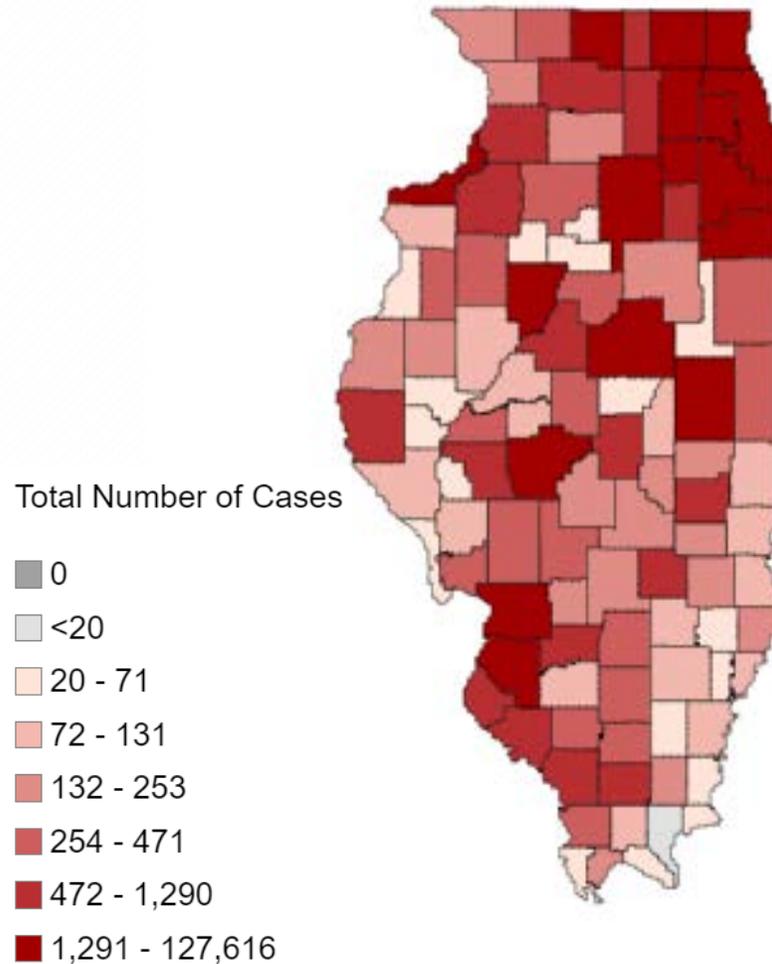
# COVID-19 Prevalence



Total COVID-19 Cases in Illinois

Total COVID-19 Deaths in Illinois

*The COVID-19 pandemic has exposed similar disparities in outcomes among the Black and Latino populations.*



# COVID-19 and Health Equity

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- A study published in May found that fewer people are seeking medical care for stroke during COVID-19. Patients who did seek care for stroke waited significantly longer in 2020 than in 2019.
- There is increasing evidence that some racial and ethnic minority groups are being disproportionately affected by COVID-19 and are at increased risk of getting sick and dying from COVID-19.

# Objective Two

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- Learn about the background of the 2CEERIAS project and its research goals.



# CEERIAS Program Background

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- CEERIAS study was funded by PCORI in 2014
- Objective was to use a patient- and community-partnered approach to develop and implement an intervention to increase early hospital arrival for acute stroke in two high-risk Chicago neighborhoods
- The CEERIAS team trained community leaders or “**Stroke Promoters**” to recognize and train others in the community on the need to “Act FAST for Stroke”
- After the program, more younger people, men, and African Americans got to the ER early than before the program
- The number of people who used an ambulance when they thought they were having a stroke increased after the program started

# PHASE II CEERIAS – *2CEERIAS*

- During **COVID-19**, communities have practiced social distancing and families have sheltered in place
- Further, COVID-19 has demonstrated disparities in health outcomes and has shown an early connection to stroke
- PCORI has funded a second phase of the CEERIAS project to adapt the program to the **virtual environment**

## Project Aims

1. Produce recommendations for future patient, family and community-driven research priorities focused on stroke education and early treatment for Black and Latino communities.
2. Address barriers to community stroke activation and assess the impact of neighborhood-level factors on stroke-related disability in the COVID-19 environment.
3. Disseminate and track a modified educational intervention response among Chicagoland Stroke Promoters using online, social, and broadcast media.

# Project Infrastructure

## Community Advisory Board

- Consists of 5 total members (patient and community-based stakeholder participants)
- Project governance ensuring activities have high impact on stroke patient lives.

## One Day Virtual Convening

- Attended by Stroke Promoters and CAB members.
- 4 hr. training focused on sharing clinical, social and engagement learning.

## 90-Day Virtual Campaign

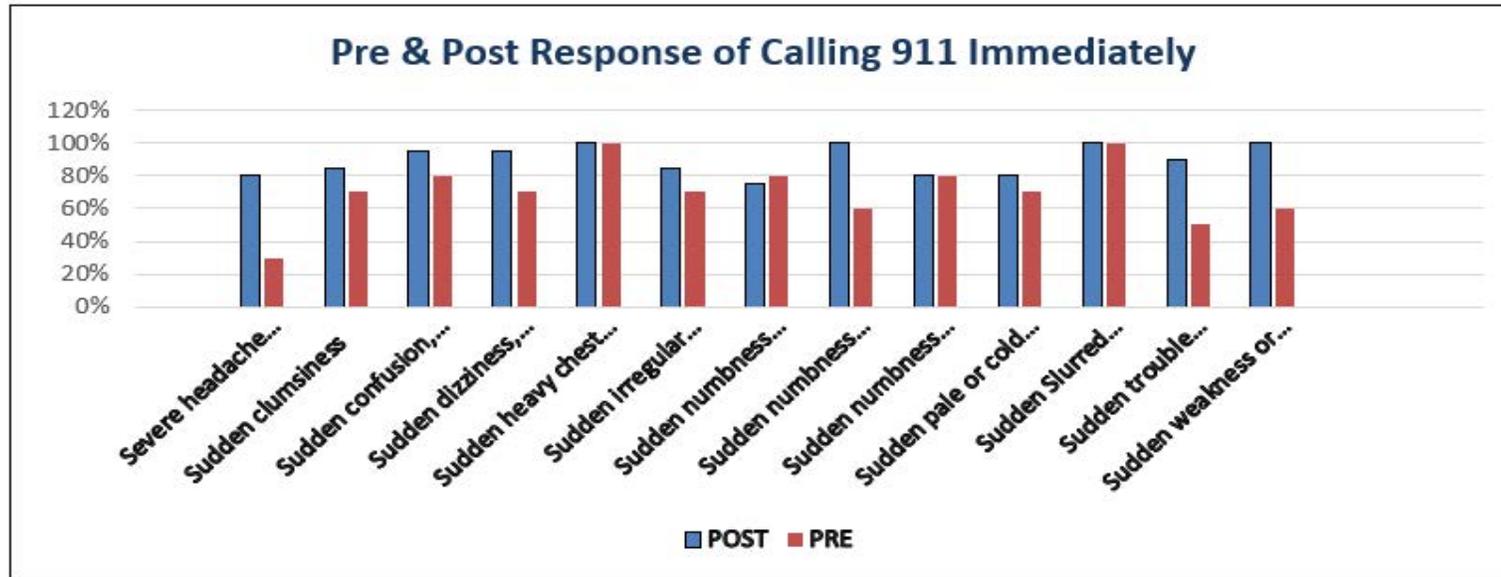
- Website
- Facebook
- Twitter
- Instagram
- Tik Tok
- Other (Telephone, Text, Email, Zoom, etc.)

## Analytics & Final Report

- Pre and Post Testing
- Office Hours for ongoing data capture and learning
- Social media analytics



# Pre and Post Testing



A Pre and Post Community Stroke Survey was carried out to assess changes in knowledge, self-efficacy, and barriers to calling 911 (i.e. mechanisms for behavioral change). The Pre-Survey was completed to provide the 2CEERIAS research team with baseline information about Stroke Promoters. This survey included 30 questions on demographics, stroke knowledge, stroke knowledge attitudes, experience with health care system, and impact of COVID-19 pandemic. The Post Survey completed 2-weeks after the Pre-Survey included 13 questions on effectiveness of convening, stroke knowledge and impact of COVID-19 pandemic.

**Table1: Survey instruments for the primary aim (knowledge, attitudes, and barriers)**

Instruments	Items	Time to complete
Stroke Action Test (STAT)	28 items	5 minutes
Cynical Distrust Scale	8 items	2 minutes
Perceived Discrimination scale	9 items	3 minutes
Health Care Trust Survey	24 items	5 minutes
Self-efficacy Rating (Likert Scale)	2 items	1 minute
Other Barriers (Likert Scale)	5 items	2 minutes
COVID-19 Questionnaire	43 items	10 minutes

# 2CEERIAS Community Engagement



Phase II - Community Engagement for Early Recognition and Immediate Action in Stroke Initiative (2CEERIAS)

# Pact to Act FAST Messaging

- Target messaging to your networks and known networks within the Chicagoland area specifically:
  - Black and Latino populations*
  - Chicagoland area*
- Virtual platforms include:
  - Social media*
  - Radio*
  - Zoom webinar*
  - Text messaging*
  - Podcasts*
  - Telephone*



# Social Media Playbook

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- Website [www.2ceerias.com](http://www.2ceerias.com)
- Facebook <https://www.facebook.com/2CEERIAS/>
- Twitter @2ceerias <https://twitter.com/2ceerias>
- Instagram 2ceerias <https://www.instagram.com/2ceerias/>
- YouTube <https://www.youtube.com/channel/UC0u5iWVyx10oNT-OBVvFqag>
- TikTok.com @2ceerias
- Podcast <https://podcasts.apple.com/us/podcast/patient-partner-innovation-community-podcast/id1455397957>

# Objective Three

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- Discuss lessons learned from key strategies for developing meaningful patient and community partnerships.



# 2CEERIAS Engagement Principles

## Community Ownership

The use of a structured and deep learning intervention that endorsed culturally appropriate application.

## Inclusive, Open Dialogue

Targeted all teach...all learn engagement strategy.



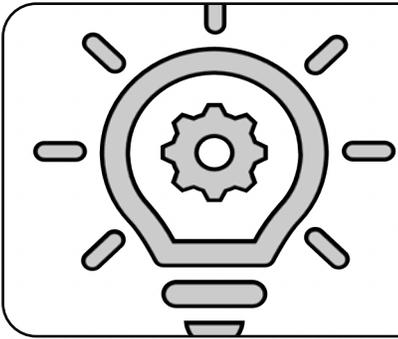
## Agile, Flexible Approach

Researchers partnered with patients and community partners by promoting equal voices to determine the path for success.

## Experimental Learning Model

Kolb experiential learning cycle model was used via virtual platforms to surface recommendations for future patient family and community-driven research.

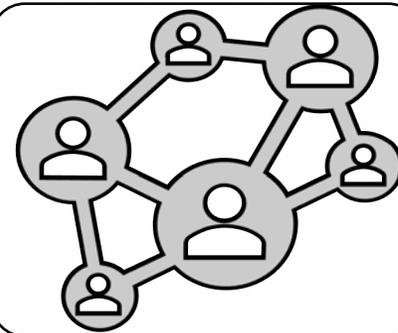
# Virtual Convening Goals



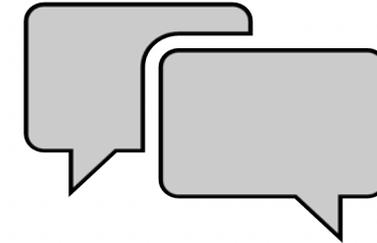
**Increase knowledge**  
about stroke warning signs, treatments, and expected outcomes



**Understand**  
the impact of COVID-19 on stroke early warning education for Black and Latino communities



**Review**  
social media strategies for engaging communities



**Enhance**  
messaging to teach Black and Latino communities about the signs and symptoms of stroke

# Lessons Learned

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- Approximately 3000 pledges have been signed to date.
- More pledges were completed using telephone method in comparison to all other methods used. Socially distanced community events such as COVID-19 testing sites and holiday food give-aways ranked second.
- Community researchers created the message in partnership with the target audience and therefore community participants believed even more in the message.
- The message wasn't overwhelmingly complicated and easily translatable. **ACT FAST!**
- Participants were encouraged to make the message our own. Promoters used practices aligned with their culture to pass along the message such as music and dance.



# Other Insights

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# Other Insights



**Nonyne Smith**  
Stroke Survivor  
2CEERIAS CAB Member



**Apostle Carl White**  
Southland Ministerial Health Network  
2CEERIAS CAB Member



Virtual Network of Patients, Caregivers  
and Advocates committed to research  
and health care quality improvement.  
More than 1000 diverse members.

**For More Information Contact:**

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