



Vaccinate LA Research Symposium

Showcasing our Impact: Highlighting USC Research
to Combat Vaccine Hesitancy in Los Angeles

VaccinateLA Research Symposium

May 21, 2021



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VaccinateLA.com

EVENT SUMMARY

OVERVIEW & GOALS

The Vaccinate LA Research Symposium was a one-day event that took place virtually on May 21, 2021.

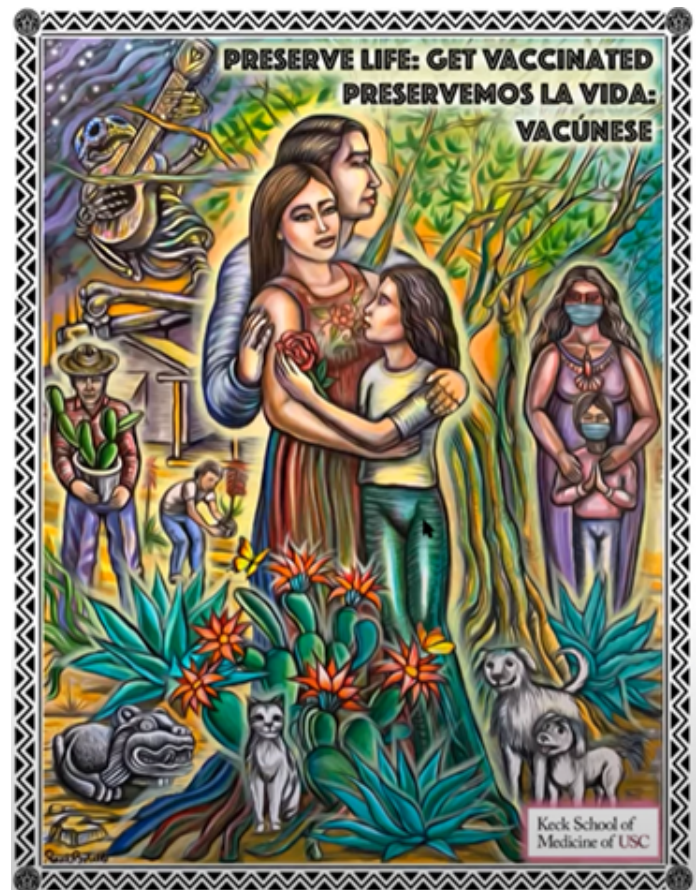
The goal of the event was to bring together USC faculty and investigators conducting COVID-19 research to share their findings and discuss strategies to decrease vaccine hesitancy and increase vaccination in communities with the lowest vaccination rates in Los Angeles County.

The symposium featured four context-setting presentations that highlighted the current research regarding COVID-19 vaccination rates, both nationally and locally, sources of vaccine hesitancy, barriers to vaccination and disparities in COVID-19 vaccine hesitancy and testing, and COVID-19 related disparities in Los Angeles County.

Symposium participants then met in small breakout rooms for small workgroup discussions. Each breakout group discussion began with brief (3-5 minute) presentations, followed by group discussion and the development of recommendations. Participants then met again as a larger group to review these recommendations. This report summarizes the key takeaways from the symposium presentations and discussions.



[Click here to view the symposium agenda.](#)



A mural by local artist Paul Botello designed to deliver vaccine messaging to the Latino communities in Boyle Heights, Lincoln Heights, and El Sereno.

KEYNOTE PRESENTATIONS



Catherine Chao, VP of Insights and Strategy, The Ad Council
National Data for COVID-19 Vaccination Hesitancy

Catherine Chao and The Ad Council have been doing research on vaccine confidence since December 2020. The following presentation identified key themes learned and messaging considerations to address vaccine hesitancy. On The Ad Council's website, there are extensive vaccine messaging resources for different audiences, which you are encouraged to access and share.

KEY POINTS

- Black, Hispanic, and Conservative groups are more likely to be hesitant and less likely to perceive the vaccine as safe. Adults under the age of 50 are more likely to be hesitant.
- Although vaccination has gained momentum, opportunities remain with select audiences. The Ad Council is focused on developing vaccination messaging to address hesitancy in the "wait and see" group, people who want to wait three to six months or longer before vaccinating.
- Barriers to vaccine confidence include: the speed of the development process, distrust in the government, mainstream media, and pharma companies to be transparent about vaccine risks, concerns about the unknown long-term safety and side effects of vaccination, and a belief that the unknowns of the vaccines pose a greater risk than the COVID-19 virus.
- In order to resonate across audiences, vaccination messaging should: acknowledge concerns and hesitancy rather than challenge it, appeal with transparency and facts, emphasize protection of self and loved ones, and use a positive tone that is inviting and acknowledges vaccination is ultimately your choice. Vaccination messaging that does not resonate includes: negativity and fear, reminders of how difficult the year has been, implies vaccination is "the right thing to do," overpromises or implies vaccine availability will "flip the switch," or suggests life will "go back to normal" because for most, life will never be "the way it was."
- Trusted messengers are particularly important. The Ad Council has been linking trusted influencers and messengers alongside medical professionals and experts to create and deliver the dialogue around vaccination and answer vaccine questions.
- When we balance the emotional and rational needs of our audiences, the message is much more powerful. For example, we can connect data to address concerns and show how vaccines are a way to get back those moments missed. Illustrative videos and seeing others getting vaccinated also help internalize benefits and promote confidence in vaccination.

KEYNOTE PRESENTATIONS



Kayla de la Haye, PhD
Associate Professor of Preventive Medicine, KSOM at USC
LA County Data for COVID-19 Vaccination Hesitancy

Dr. Kayla de la Haye has been gathering data to monitor COVID-19 indicators and disparities in an effort to: 1) inform the development of two USC/CHLA community campaigns, Stay Connected LA and Vaccinate LA, and 2) share and triangulate data with community members and partners. The following presentation provides a snapshot of COVID-19 indicators and disparities in Los Angeles County. Results from the Understanding Coronavirus in America study, which includes 1800 adults demographically representative of Los Angeles County, were also presented.

KEY POINTS

- As of May 19, 2021, the LA County Department of Public Health reported 1.2 million COVID-19 cases and 24,100 deaths resulting from COVID-19. Latinos (49% of the Los Angeles County population) are disproportionately affected, making up 65% of COVID-19 cases and 54% of COVID-19 deaths. As of May 5, 2021, the LA County Department of Public Health reported 59% of residents age 16+ had at least 1 dose of the vaccine (44% fully vaccinated). Only 40% of Latinos and 37% of African Americans age 16+ had at least 1 dose of the vaccine. Similarly, while 83% of seniors have had at least 1 dose of the vaccine (68% fully vaccinated), only 63% of Latino seniors and 61% of African American seniors have had at least one dose of the vaccine.
- Racial/ethnic disparities can be seen when examining vaccination rates by neighborhood. For example, 71% of residents in Santa Monica have been vaccinated whereas only 39% of residents in Watts have been vaccinated.
- Across racial and ethnic groups, there is a high rate of hesitancy among the population who has yet to be vaccinated, where 34% of Latinos, 39% of African Americans, and 32% of Whites reported they are very unlikely or unlikely to get vaccinated.
- Groups most likely to be vaccine hesitant include females, younger Latino adults, older White adults, and residents from households with lower annual income.
- Across racial/ethnic groups, people see the benefits of vaccination, particularly the White population. But when examining the risks, the Latino and African American populations have a higher perceived risk of vaccination, including risk of harmful side effects or even serious illness or death.
- When looking at trust of government, 49% of Latinos and 57% of African Americans do not trust or somewhat trust the governmental approval process to ensure the COVID-19 vaccine is safe for the public, compared to 26% of the White population.

KEYNOTE PRESENTATIONS



Sonali Saluja, MD,
PMH, FACP
Assistant
Professor of
Clinical Medicine,
KSOM at USC
Disparities in
COVID-19 Vaccine
Hesitancy and
Testing in Los
Angeles

Dr. Sonali Saluja's research distributed an online cross-sectional survey of nearly 2,000 Los Angeles County adults in December 2020 and January 2021 in Spanish and English to examine racial/ethnic and income-based disparities in Los Angeles in COVID-19 testing and barriers, access to routine care during the pandemic, and COVID-19 vaccine hesitancy. The following presentation highlights the results of her research.

KEY POINTS

- Even after adjusting for many known predictors of hesitancy, access to care, and socio-demographic factors, Black and Latino residents were significantly more likely to be hesitant compared to White residents. Similarly, residents making less than \$20,000 per year were twice as hesitant to receive the vaccine compared to people making over \$100,000 per year.
- Technology barriers may play a significant role in hesitancy, such that people who had little or no confidence in doing things online were much more likely to be hesitant.
- When asked why they were hesitant, the number one reason reported was worry about COVID-19 vaccine side effects or safety. The second most reported reason was wanting to wait to see how it works first. Black residents were more likely to report lack of trust in the government.
- In terms of access to COVID-19 testing, structural barriers still exist. Asian residents were least likely to have ever had a COVID test. Black and Asian residents were least likely to get their COVID-19 test results the same day or next day. Among those tested for COVID-19, Hispanic residents were most likely to receive a positive test result. Findings indicate a disconnect where the group most likely to test positive did not have significantly higher testing rates, compared to Whites.
- Residents reported the most common barrier to COVID-19 testing was their worry that the wait times would be too long. Racial/ethnic minorities were more likely to use drive through test sites and less likely to use clinics or doctor's offices as COVID-19 testing locations. Residents from low-income households were more likely to get tested at a school or college and less likely to get tested at work or a doctor's office.
- To increase vaccination, we must promote policies that allow time off from work, utilize vaccine navigators who provide support via phone and in-person, collaborate with clinics and health care providers who can do outreach, and implement creative solutions, such as mobile clinics or rewards.

KEYNOTE PRESENTATIONS



Richard Dang,
PharmD, RPh,
BCACP
Assistant
Professor of Clin
Pharmacy, School
of Pharmacy at
USC
Vaccination
Rates in LA
County

Dr. Richard Dang and the School of Pharmacy has partnered with the City of Los Angeles and others to implement initiatives to increase vaccination rates in LA County. The following presentation highlights these initiatives and strategies to increase vaccination rates.

KEY POINTS

- As of May 16, 2021, over nine million doses of the COVID-19 vaccine have been administered in LA County, including over five million residents (61.1%) age 16+ with at least one dose and over 1.1 million residents (83.9%) age 65+ with at least one dose.
- Los Angeles neighborhoods with lower vaccination rates often have few or no vaccination sites.
- Compared to 61% vaccination rates in younger White adults, younger Black adults and younger Latino adults have lower rates of vaccination, 39% and 44% respectively.

July 2020
Sept 2020
Dec 2020
Jan 2021
Feb 2021
Mar 2021
Apr 2021
May 2021
June/July 2021

City of Los Angeles begins discussion with SOP on vaccine deployment

Launch of LA City Flu Clinic pilot to provide influenza vaccines via mobile clinics

City launches first public, non-hospital-based vaccine site in Lincoln Park

City launches Dodger Stadium site, the largest vaccination site in the world at its peak

City launches "MOVE" mobile vaccine program

500K COVID-19 vaccine doses administered at City-run sites

1M COVID-19 vaccine doses administered at City-run sites

Dodger Stadium vaccination site closes; 1.3M vaccine doses administered at City-run sites,
57% of which administered at City/USC-run sites

All fixed public sites will be closing and transitioning to mobile vaccination clinics



SUMMARY OF BREAKOUT SESSIONS

Two breakout room sessions were administered to foster discussion around the following topics:

- 1) sources of COVID-19 vaccination discomfort and hesitancy, and
- 2) strategies to address discomfort and reduce barriers to COVID-19 vaccination.

Each breakout room session consisted of three to four mini presentations, followed by a discussion around the following prompts:

- a. What are the top three issues that need to be addressed to encourage vaccination (overall or by sub-group)?**
- b. What barriers or assets can be leveraged?**
- c. What are your recommendations? Are there specific recommendations for different segments of the population (e.g., Latinos, African Americans, youth, etc.)? What are the messages? Who are the messengers (and where is the information coming from)?**

BREAKOUT SESSION 1



Rachel Carmen Ceasar, PhD Preventive Medicine, KSOM at USC COVID-19 Vaccine Access in the LGBTQIA Community

Dr. Rachel Ceasar presented findings from five focus groups of 33 people, designed to identify barriers and facilitators to vaccine uptake among members of the LGBTQIA communities. This study is being conducted by PI Dr. Michele Kipke.

- Barriers to the vaccine are most harmful to Trans* people (Trans* is a more inclusive term), LGBTQIA aging adults, and LGBTQIA people experiencing homelessness. Violence against Trans* people are so severe that people are afraid to leave their homes to get vaccinated.
- It is necessary to meet the community where they are, including elders and people experiencing homelessness, to deliver the vaccine.
- Better LGBTQIA representation is needed in developing vaccine programs that reflect LGBTQIA lived experiences at every step. Let LGBTQIA leaders lead.
- Safe vaccine spaces should provide affirming vaccinations at medical sites, or better yet, in the community itself.

BREAKOUT SESSION 1



Kaidi He, MD

Pediatrics Infectious Diseases Fellow, CHLA
Impact of the COVID-19 Pandemic on
Childhood Vaccine Hesitancy

Dr. Kaidi He presented findings from an anonymous cross-sectional mobile-phone based study to survey 271 parents on childhood vaccine hesitancy before and during the pandemic to understand the impact of the COVID-19 pandemic on routine childhood vaccine hesitancy.

- During the pandemic, overall childhood vaccine hesitancy and risk perception increased.
- Vaccine confidence and intent to vaccinate with routine childhood vaccines and influenza vaccine was unchanged.
- Latino and African American communities had increased risk perception regarding childhood and COVID-19 vaccine hesitancy.
- Households with higher income (\$50-99K, >\$100K) had decreased COVID-19 vaccine hesitancy.

BREAKOUT SESSION 1



Wael Abd-Almageed, PhD
**Associate Professor of Electrical and
Computer Engineering, Viterbi School of
Engineering at USC**
Detecting Visual Misinformation

Dr. Abd-Almageed presented findings from his research designed to detect visual misinformation.

- There is evidence that visual misinformation on social media is contributing to vaccine hesitancy. This includes the modification of pictures and videos to manipulate information.
- Any visual information online should be vetted. Search for provenance of information.
- Artificial Intelligence (AI) technology is improving rapidly. Computer-generated people appearing on and delivering messages online look real.

BREAKOUT SESSION 1



Yan Liu, PhD

**Professor of Computer Science & Director of
Machine Learning Center, Viterbi School of
Engineering at USC**

**COVID-19 Vaccine Misinformation and
Conspiracies on Social Media**

Dr. Yan Liu presented findings from her research designed to study social media data on COVID-19 vaccines using a combination of machine learning and social network analysis.

- Social media discussions on COVID-19 vaccines are vulnerable to false, misleading, and questionable (unverified/unproven, conspiracy theories, non-scientific myths) claims.
- Vaccine misinformation on social media typically falls into one of six categories, including: scientific facts, side effects, effectiveness, deaths, vaccine refusal, and rollout.
- There are between social media data and officially reported side-effects in vaccine hesitancy and misinformation topic clusters.

BREAKOUT SESSION 1 DISCUSSION

What are the top three issues that need to be addressed to encourage vaccination (overall or by sub-group)?

- For undocumented residents, the fear of being asked for identification at vaccination sites is a huge barrier because of intersecting risks if their undocumented status is revealed.
- For LGBTQIA service providers, there is frustration in terms of being asked to collect and provide data when partnering with departments of public health. The burden of collecting data detracts from more important efforts of distributing vaccines in the community.
- The lack of trust in science, the medical field, and the government provides room for rampant vaccine misinformation, especially via social media.

What are your recommendations? Are there specific recommendations for different segments of the population (e.g., Latinos, African Americans, youth, etc.)? What are the messages? Who are the messengers (and where is the information coming from)?

- For undocumented residents, encourage policies that accept alternative forms of identification that do not disclose citizenship status, such as government-issued IDs.
- Empower pediatricians and primary care doctors, who have ongoing and long-term relationships with patients, to deliver vaccine information during routine visits. Likewise, empower nurses, specialists, technicians, and other providers, who see patients intermittently, to also deliver vaccine information at all levels of care.
- Utilize trusted messengers, such as faith leaders, DACA recipients, promotoras de salud, and local social media influences to combat misinformation and deliver accurate messaging. The more the messengers represent the target audience, the more likely the message will be received and believed.

What are people's communication and information preferences? Do we need a mix of digital and outdoor? If outdoors, where?

- For reaching younger audiences who may not regularly see a health care provider, combat misinformation online and on social media by creating memes with correct information and circulating them via local influencers, for example. Also, emphasize that vaccination not only affects them but their parents/grandparents, their community, and the greater good.
- For LGBTQIA residents who are focused on survival, utilize Trans* celebrities and athletes as trusted messengers, who are not only surviving but thriving.
- Develop messaging that reminds Angelenos of the activities they have missed over the last year and emphasize the opportunity to return to those activities once vaccinated. Provide incentives for residents who are vaccinated, such as cheaper pricing to attend public events.

BREAKOUT SESSION 2



**Lourdes Baezconde-Garbanati, PhD
Professor of Preventive Medicine,
KSOM at USC**

**Stay Connected LA: Public Health Meets the
Arts Campaign to Mitigate the Impact of
COVID-19 in Hispanic/Latino Communities**

**Dr. Lourdes Baezconde-Garbanati shared some of the strategies
utilized by Stay Connected LA to increase COVID-19
vaccinations in local Latino communities.**

- Partnering with 96 churches, 79 senior centers, 15 schools, and 89 community organizations.
- Shifting focus to younger populations by partnering with the Neighborhood Academic Initiative Program that includes 900 students.
- Training community health workers as community vaccine navigators (CVNs) to guide and educate the community about COVID-19, vaccination, and mental health.
- Collaborating with 11 community artists to develop prevention messaging within murals and other art forms to be displayed within the community.

BREAKOUT SESSION 2



Jennifer Unger, PhD
Professor of Preventive Medicine,
KSOM at USC
USC Trojan Pandemic Response
Initiative (TPRI)

Dr. Jennifer Unger shared preliminary findings from the USC Trojan Pandemic Response Initiative (TPRI) research study to understand COVID-19 and the vaccination response on the USC campus.

- The TPRI survey has garnered over 4,400 responses since early April 2021, with the goal of surveying all USC students and staff.
- 79% of students reported they have never had a COVID-19 diagnosis, 14% of students reported they have had a positive COVID-19 diagnosis, and 7% of students reported they do not know.
- Students who reported their race/ethnicity as “Other” were most likely to report a positive COVID-19 diagnosis, followed by Hispanic students and White students.
- 46% of students reported being fully vaccinated, 30% of students reported being partially vaccinated, 17% of students reported plans to get vaccinated ASAP, 4% of students reported they will probably get vaccinated but want to wait, and 1% of students reported they absolutely will not get the vaccine.

BREAKOUT SESSION 2



Ashlesha Datar, PhD
Director of Program for Children and Families, Dornsife Center for Economic and Social Research at USC Watts Neighborhood Health Study

Dr. Datar shared lessons learned from a study conducted in the Watts community to provide useful context about this specific neighborhood and potential reasons for relatively low vaccination rates in Watts.

- The Watts Neighborhood Health Study is a natural experiment study to assess impacts of a major public housing redevelopment on residents' obesity and related behaviors. Since 2018, the study has recruited over 800 adults and over 700 children from three public housing sites.
- The study assessed the biggest challenges due to COVID-19 restrictions and found children's education was the top concern, whereas food security and access to food were least problematic.

BREAKOUT SESSION 2 DISCUSSION

What are the top three issues that need to be addressed to encourage vaccination (overall or by sub-group)?

- For residents who are focused on survival and who experience multiple barriers in life, vaccination is not a high priority. There are worse social issues afflicting vulnerable communities, such as violent crime, that make it difficult to think about vaccination.
- Many communities may not have a relationship with the healthcare system or a healthcare provider where they may ask questions and address their concerns with vaccination. Often community-based organizations, churches, and local pharmacies are the first line of defense when it comes to health care. When relationships do exist, Latino, African American, and Asian residents are more likely to report not being able to see their doctors when they needed to, compared to other groups.
- Some residents are concerned about missing work and losing their job because of side effects experienced after vaccination. Although employers are supposed to cover time off for vaccination, it is unknown whether all employers have implemented these policies or even if residents are aware of these policies designed to protect their employment.

What are your recommendations? Are there specific recommendations for different segments of the population (e.g., Latinos, African Americans, youth, etc.)? What are the messages? Who are the messengers (and where is the information coming from)?

- Utilization of incentives to get vaccinated or after vaccination, tailored to target audiences, such as financial incentives, tickets to sports games, school vaccine competitions, etc.
- Utilization of trusted messengers to deliver vaccination messaging.

What are people's communication and information preferences? Do we need a mix of digital and outdoor? If outdoors, where?

- Develop vaccine messaging based on proven motivators, marketing psychology, and emotional needs.
- Different audiences require different types of messaging. Vaccine messaging requires a both/and or multi-pronged approach that utilizes different types of tactics to appeal to a variety of audiences with different communication needs.
- Delivering vaccine messaging within the context of care is critical. However, healthcare providers may not have the knowledge or tools necessary for delivering vaccine messaging. For example, at KSOM, healthcare providers do not have a vaccine handout to provide patients.
- According to LGBTQIA service providers, when delivering vaccine messaging, there must also be acknowledgment of other needs. For example, vaccination sites may offer food or other resources to that are needed in that community.

RECOMMENDED NEXT STEPS FOR COVID-19 VACCINATION EFFORTS IN LA COUNTY

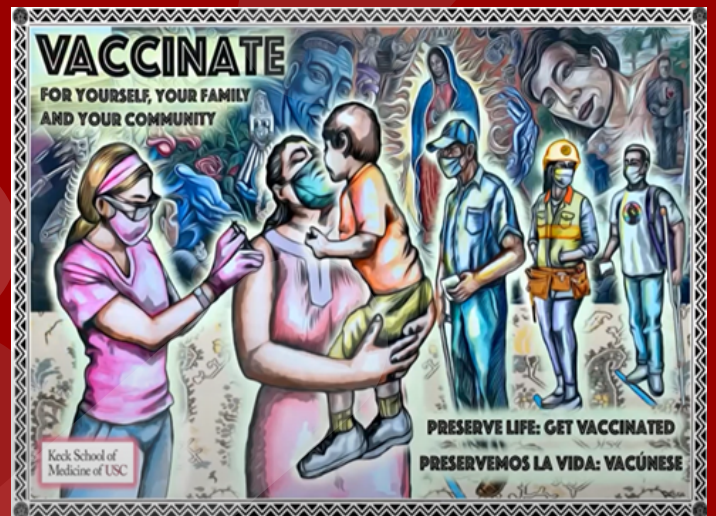
1) Ensure healthcare providers at all levels and of all specialties have access to and knowledge of how to disseminate vaccine messaging to their patients.

2) Identify and develop relationships with trusted messengers and example vaccinators who represent the Angelenos most likely to be vaccine hesitant to deliver accurate vaccine messaging.

3) When delivering vaccine messaging, always affirm the lived experiences of the community and consider ways to meet their other needs. Always meet the community where they are at, physically and otherwise.

4) Acknowledge that vaccine messaging requires a multifactorial approach because Los Angeles County is one of the most ethnically diverse cities in the United States.

5) Incentives tailored to match specific emotional needs have proven effective.



[Click here to view a recording of this event.](#)