



Immunization Coalition of Los Angeles County (ICLAC)

The Fall Vaccine Forum, is the final 25th anniversary series general educational session sponsored by the Immunization Coalition of Los Angeles County (ICLAC) 2022-2023

Goal

For Los Angeles County partnering organizations to share the latest vaccine guidance & best practices to improve immunization education & coverage, especially among those at highest risk.



Fall Vaccine Forum Agenda



	25 Years	
79 0	8-2	02



8-1-1-1		
<u>Time</u>	Agenda Topic & Speaker	
08:30 am	(In-person attendees only)	
	Registration Complimentary Continental Networking Breakfast onsite	
09:00 am	Welcome, Introductions & Opening Remarks	
	Keri Hurley-Kim, PharmD, MPH, BCACP, Aph, ICLAC Chair	
	Tracey Veal, DrPH, MBA, ICLAC Sr. Adviser	
	Arely Briseño, MPH, ICLAC Coordinator	
09:05 am	Ilan Shapiro, MD, Chief Health Correspondent and Medical Affairs Officer	
	AltaMed Federally Qualified Health Center, Los Angeles County, CA	
	"Immunization Clinical Engagement Best Practices for Seniors and Families"	
	Team AltaMed:	
	Stacy DeCario, RN, BSN- Director of Vaccines Ivelys Vega MS, RN Rosa Vasquez	
09:45 am	Community Spotlight- Hispanic Heritage Month	
	"The Power of Cultural Validation in Immunization Engagement"	
	Julissa Soto, CEO Health Equity Consultant Public Health Advocate	
10:25 am	BREAK	
10:30 am	"Prescription for Success: Flu+2 Clinical and Equity Vaccine Update"	
	Richard Dang, PharmD, APh, BCACP, FCPhA	
	Vice Chair, ICLAC	
	Immediate Past President, California Pharmacists Association	
	Assistant Professor of Clinical Pharmacy, USC Mann School of Pharmacy and Pharmaceutical Sciences	
	Keri Hurley-Kim, PharmD, MPH, MPH, BCACP, APh	
	Chair, ICLAC	
	Associate Clinical Professor	
	University of California, Irvine, School of Pharmacy and Pharmaceutical Sciences	
	Saban Community Clinic	
11:55 am-12pm	Wrap-Up & Adjournment, Keri Hurley-Kim, PharmD, ICLAC Chair	



Ilan Shapiro, MD
Chief Health Correspondent and Medical Affairs Officer

Email: shapirostrygler@altamed.org

#ThisIsOurShot / #VacunateYa

AltaMed



Ilan Shapiro, MD, FAAP, FACHE, was appointed Chief Health Correspondent and Medical Affairs Officer at AltaMed Health Services, Los Angeles County, California, the nation's largest independent Federally Qualified Community Health center (FQHC) in 2022.

Dr. Shapiro has spent his entire career providing care to medically underserved populations. Prior to joining AltaMed, Dr. Shapiro worked for the Mexican Secretary of Health as the liaison between Mexico and the World Health Organization (WHO). He also served as an Advisor for the Foreign Affairs and Health Mexican Ministries. In 2011, he was invited to join the White House Hispanic Policy Group and help raise Affordable Care Act awareness. Dr. Shapiro is a recipient of the Othli Award, the highest civilian honor from the Mexican Federal Government and the American Academy of Pediatrics Holroyd-Sherry Award that recognizes his ability to harness the media to deliver important children's health information.

Dr. Shapiro created programs and services expanding health services access to improve patient outcome since joining AltaMed in 2016, as Medical Director of Health Education and Wellness. During the pandemic, he led the outreach and education department transition to digital platforms to address community social determinants of health including support groups, weight management programs, long-term care, patient advocacy and connection to food services, social support and other essential resources.

Dr. Shapiro is highly-sought after expert source on local and national television and radio. He has developed key relationships with top-tier media outlets, delivering bi-lingual medical information on trending health topics to audiences worldwide. He has collaborated with local, state and federal health agencies to craft and disseminate vital public health information throughout the COVID-19 pandemic.

Special Welcome Message from Dr. Shapiro

ICLAC Fall Vaccine Forum September 19, 2023







Julissa Molina Soto CEO | Health Equity Consultant | Public Health Advocate | Colorado | Nationwide TEDx Speaker | Bilingual Spanish - English Transcreator | Public Radio Host

Email: Julissamolinasoto@gmail.com

<u>|www.julissasotoconsulting.com| Follow Me on LinkedIn</u> (LinkedIn Top Voice in Public Health)

Ms. Julissa Soto is a trailblazer and visionary, providing consulting and education services in Colorado and nationally. Ms. Soto has led efforts for Latino immigrant equality, inclusion, and health equity in Colorado and nationally for the over 20 years. From serving on the Colorado Vaccine Equity Task Force to promoting health equity at the American Diabetes Association, she is often featured in media including *Time* magazine, National Public Radio, and a Tedx Talk. The documentary "Mexicanos Exitosos" chronicles her story of triumph after coming to the U.S.

Ms. Soto currently serves on the Health Equity Commission for the Colorado Department of Public Health and co-chairs the state's Regional Accountable Entity Program Improvement Advisory Committee, which advises the state Medicaid program on health equity issues and outcomes. At the national level, Ms. Soto serves on the United States Substance Abuse and Mental Health Services Administration's National Network to Eliminate Disparities in Behavioral Health steering committee.

Her success leading and managing evidence-based prevention programs serving new immigrants earned numerous awards from various state and national organizations such as the Centers for Disease Control and United States senators' recognition. In 2021, Ms. Soto's innovative programming and community-based intervention strategies earned one of Colorado's most prestigious honors when the Governor proclaimed September 20,2021 as "Julissa Soto Day." Her efforts have led to the vaccination of more than 14,000 Latino adults and children.



The Power of Cultural Validation

For Immigrants and Refugees

Julissa Soto, CEO

Latino Health Equity Consulting

What is Cultural Validation

Definition

The process of bilingual, bi-cultural community members reviewing and providing feedback prior to implementation, to ensure the environment materials, etc. have the best possible impact and approach for the intended audience.

Source: Cultural-Validation-Toolkit-07212022.pdf (nrcrim.org)

Key Advice from Public Health Community Leaders

- Respect. Know and respect your target audience and their needs and preferences, not just about vaccinations but about social issues; listen and talk with them to develop trusting relationships. Refrain from judgment and meet people "where they are at." Connect in person rather than solely with flyers, and ensure services are information are available and accessible. Ensure the demographic being served is well represented by the people who serve them.
- ✓ **Cultural [Validation].** Engage vulnerable groups through a culturally competent lenses; acknowledge the added burden underserved populations experience when accessing health due to systemic oppression.
- Connect. Identify community partners, leaders, and champions and establish relationships with them. Additionally, keep partners accountable for their reciprocity of efforts.
- ✓ **Organize.** Properly and effectively plan, coordinate, and organize. Be flexible, patient, persistent, and diligent, especially when working with hesitant groups or individuals.
- ✓ **Persevere.** Be patient with results, and be prepared for, and steadfast in the face of anti-vaccination adversity and vaccine hesitancy. Do not become discouraged.
- ✓ **Be informed and agile**. Stay current on research and information about changing health issues, as well as changing events, people, needs and barriers.
- Celebrate. Be celebratory and engage in culturally-appropriate recognitions of individual and community achievements. Make it fun and stay positive.
- ✓ **Communicate.** Rely on multi-channel, multi-method communication, such as visual, vocal, and social media communication platforms and messaging.
- ✓ Incentivize. Use effective and appropriate incentives



Outcomes of Cultural Validation

- Use of Cultural Validation
 - Breaks down barriers to accessing health and public health resources
 - Increases public trust in providers and the health care systems
 - Increases preventative health practices among vulnerable communities





Research Populations Where are people from?

What are the common religions?

What foods do people eat?

Hang out - Community centers, clubs, churches, events?

Likes and dislikes?

Events and cultural symbols?

Fears, past traumas common in the community?

Discrimination or barriers to access that are common?

Examples: ICE, language barriers, privacy, data, how that impacts families and decisions

Innovation & Integration

- Integration at non-health specific events and activities
- Example: Vaccine Sundays

Join **Julissa Soto** for Vaccine Sundays

Are you worried about your family's health during these uncertain times?

Are you looking for information that can keep your family safe?

Join Julissa Soto for Vaccine Sundays and learn more about what you can do.

WHAT ARE VACCINE SUNDAYS?

Vaccine Sundays is a project designed to provide vetted information from trusted resources to the underserved Spanish-speaking community in Colorado. The goal is to make prevention education and outreach part of the Church's ministry.

Julissa provides trusted, and vetted information on COVID-19 information that fosters preparedness rather than stoking fear and perpetuating myths. She provides information in Spanish on the signs and symptoms of COVID-19. She educates the congregation on infection prevention habits, like proper handwashing techniques and other common practices frequently taught to combat influenza. She



Identify Additional Providers and Resources



Identify resources that could be helpful to this population in addition to your services: I.E., dental care, food services, etc.



Invite relevant partners, and create partnerships; For example, have health service vendors there.



CAUTION: Can be overwhelming - Make sure not to distract from primary goal. Limit to most necessary and relevant. Can impact meeting targeted goals. Focus on target: Vaccine, dental care, and stay focused.



Prepare Materials

- Prepare materials in the languages and using common lingo the community is most likely to use or understand
- Important that translations are relevant and appropriate
- ► Transcreate!!! Transcreate!!!
 Transcreate!!!
- ► Translation is about saying the same thing the English language flyer says without the cultural component; Transcreate is about ensuring the cultural connection through words and pictures.



Delivering Services

- ▶ Be sure to...
 - Welcoming
 - Intentionally break down barriers and fear
 - Have people who speak languages of target audiences
 - Comfortable and approachable
 - Authentic interactions
 - Making people feel valued and heard
 - ► Taking the time with time with people to answer questions; No rushing



Following Up

- ► If there will be follow up, let people know.
- Set expectations; Be clear with families
- Talk about next events or other opportunities
- Provide assurance that people are not in trouble, particularly if they have encountered "compliance" language;
 Provide education and guidance

What Success Looks Like

"When Cultural Validation is done right you should see more of this when you are in community."



For more information

Julissa Soto
CEO | Health Equity Consultant | Public Health Advocate
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Denver | Colorado | Nationwide

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TEDx Speaker | Bilingual Spanish - English Transcreator LinkedIn Top Voice in Public Health | Public Radio Host | Lifestyle Coach

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BREAK: 5 MINUTES



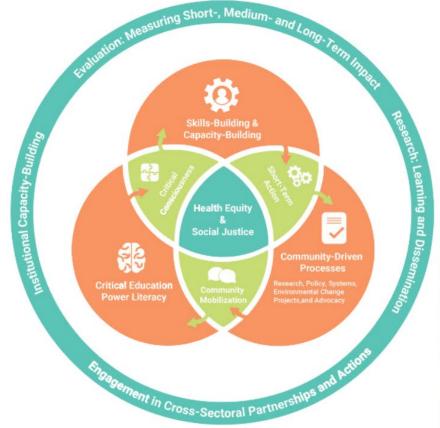
Community-Centered Approaches for COVID-19 Response, Vaccination and Mitigation: Community Members as Central Public Health Agents of Change

Prepared by Rosa Vazquez
Campaign Management and Community Engagement Consultant
AltaMed Institute for Health Equity





Community Research and Organizing Team



Mission: Advance health equity and social justice by engaging community residents and patients as partners in addressing social determinants of health and underlying inequities.







COVID-19 Vaccination and Community Recovery Campaign



Aims:

- (1) To reduce vaccine disparities in predominantly Latinx communities in Southeast Los Angeles and Central Orange County
- (2) To holistically engage community members and community stakeholders as partners in COVID-19 response, mitigation and recovery efforts

Program Team

Community
Advisory Board

Community-Led

- Rosa Vazquez
- 6 Leads
- 32 CHW Fellows

- 25 Community
- Community Surveys

leaders

Street Vendor Ambassadors

Collective Implementation

- Inclusive Action
- 50 Street Vendors

Partners

• 82 Small Businesses

- 65 Schools
- 43 CBOs

Reach Community:

Grassroot Outreach Campaigns

Respond to & Learn From Community:

Service Referrals Barrier Reduction

Community Workforce
Development:
CHWs

Mobilize Community:

Community Advisory Board Street Vendors Youth Ambassadors

Vaccination Connection:

Pop-Up Clinics Vax Appointments Hotline



Community-Centered Approach

PHASE 5: PARTICIPATORY EVAL & DISSEMINATION



- Community Evaluation Sessions
- Dissemination Campaigns
- Collective data-driven decision making processes

PHASE 4: COMMUNITY-LED ITERATION



- Analyze & Disseminate Vaccine
 Outreach & Education Outcomes
- · Iteration Action Plans
- Data Infrastructure review

PHASE I: LANDSCAPE ANALYSIS AND STRATEGY DEVELOPMENT



- Community COVID assessment & asset mapping
- Continuous Pulse Checks
- Strategy & Pilot development based on those learnings

PHASE 2: CO-DEVELOPMENT OF INTERVENTIONS





- CAB+ Fellows
- Planning Sessions

PHASE 3: COMMUNITY-ENGAGED IMPLEMENTATION

- Recruitment and training of partners
- · Weekly or Monthly Calls to Action
- Co-implementation of community awareness
 & mobilization campaigns
- Reporting and Data Collection Processes



Impact Outcomes

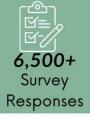
Community Outreach Outcomes

252,835 TOTAL **REACH**















Service Delivery Outcomes











Community Engagement and Activation



Volunteers















Enhancing Confidence



1) Information Identifying and building from information delive systems systems already in

2) Integrated

from information delivery systems already in community

Strategies



Vaccines +
Service
Delivery
Infrastructure
at a federally
qualified
health center
(FQHC)

Partnering with and Mobilizing existing trusted community messengers and partners



3) Model for Authentic Community Engagement in Crisis Response Creating structures for direct community participation in messaging, material and strategy development

Activities

Outreach

- 1. Door-to-door canvassing
- 2. Presence at Community events
- 3. School, Grocery Store- based tabling
- 4. Townhalls
- 5. Social Media Campaigns
- 6. Outbound phone banks, Peer-to-peer texting & In-bound call center
- 7. Partner flyering program

Direct Services

- 1. Vaccine appointment scheduling
- 2. Transportation coordination for vaccine appointments
- 3. Referrals & linkages to economic relief programs
- 4. Rapid COVID-19 test kit distribution
- 5. Safety kit distribution (masks, hand sanitizer)

Community Organizing

- 1. Continuous community-led COVID assessment & asset mapping
- 2. Partnership engagement & coalition building
- 3. Small Business Flyering and Outreach Campaign
- 4. Community & Youth Ambassadors Programs
- 5. Community Platica Curriculums
- 6. Street Vendor Outreach Ambassador
 Program
- 7. Community Workforce Development
- 8. Digital community partners activation program

Root Causes Addressed

o—o Lack of
Responsive
Information
Delivery Systems

Low-Levels of trust between community and institutions

Exclusion of impacted communities in planning, implementation and evaluation of interventions



Case Study: Mobilizing Street Entrepreneurs for COVID-19



Program Overview:

(1)Engage and mobilize 50 Street Entrepreneurs from across LA county around COVID-19 vaccine outreach

(2) Partner with Street Entrepreneurs to more effectively deliver vaccine and COVID information to priority communities

Street Entrepreneurs as *trusted* community messengers:

- Extensive community networks
- Outreach and community relationship building experience
- Lived expertise in navigating systemic issues and disproportionately impacted by the pandemic



Street Vending Entrepreneur Vaccine Ambassador Program

1

2

3



Co-planning meetings and debrief sessions

Street
entrepreneurs and
our team engaged
in co-planning and
debrief sessions
every month.



Community Action Plan

Street
entrepreneurs
planned their
activities and set
their own goals for
vaccine outreach
and education.



Outreach strategies and materials

Street
entrepreneurs
engaged in
outreach beyond
their workplaces,
recruited other
street
entrepreneurs and
created vaccine
goodie bags.











Outreach and Distribution Outcomes

Outreach

- Reached over 165,000 community members
- Distribute between 8,000 and 10,000 flyers a month
- · Co-created over 11 outreach materials

Service Connection

- Distributed over 3,000 COVID Safety kits
- Informed the creation of a food pantry and accessible covid testing site database that informed flyers
- Connected 2,000+ community members to our campaign
- COVID vaccination among undocumented communities & food pantry and rental assistance awareness campaign

Community Empowerment

- Activated 6 other street vendors as community messengers
- Distributed more than 50 flyer packets for distribution at other vendor locations and small businesses

Co-development

Co-developed 3 vaccine outreach campaigns that leverage service connection as a central strategy:

- (1)COVID-testing reached 60,000+
- (2)Food pantry and rental assistance awareness campaign: 30,000 +
- (3)COVID Vaccine Updates (continuous campaign): 75,000+

Other Outcomes

- Supported 3 external different community resource and vaccine events
- Attended 5 different (externally held) COVID vaccine and recovery community listening sessions to advocate for changes in policies around vaccines and COVID





Strategies for Success

Best Practices

Outreach

- Meet community where they truly are
- Engage local and trusted community messengers
- Break down physical barriers to vaccines
- Create long-term relationships with community by building infrastructure for continuous engagement

Centering Community Voices and Needs

- Provide and connect community to basic social services
- · Empathy-first messaging
- Compensate community members for any and all labor
- Community and Youth Ambassador Programs or Advisory Boards

Co-learn, Unlearn, Relearn

- Engage with community as partners
- Be intentional about power dynamics in how you plan events and curriculum(s)
- Acknowledge that Community is the experts in their own experience and create spaces where they are able to share that expertise

Create structures for community engagement and empowerment

- What are your community feedback loops?
- How are you activating community and not just informing or persuading them
- Develop messages that respond to community priorities



If you have questions on our Community-Centered Approaches for COVID-19 Response, Vaccination and Mitigation, feel free to contact: Rosa Vazquez, rovazquez@altamed.org.



Best Practices for Adult Immunizations

ICLAC Fall Vaccine Forum September 19, 2023
Prepared by: Stacy DeCario RN, BSN. Director of Vaccines and Ivelys Vega MS, RN. Nurse Informatics Specialist





AltaMed Health Services Vaccine Programs

 14 clinics are participating in the Vaccines for Adults (VFA) program



 23 clinics participate in the Vaccines for Children (VFC) program

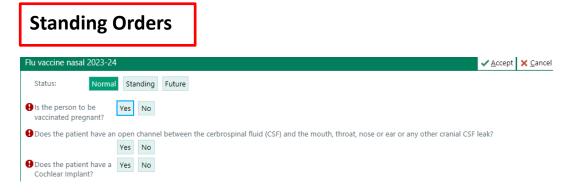
The keys to the success of our vaccine programs include:

Communication + Education + Availability



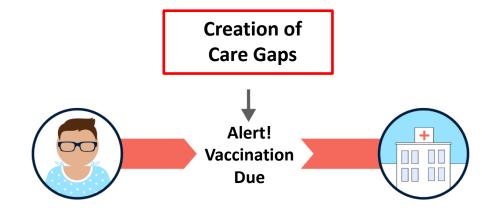
Care Gaps and Standing Orders

Epic electronic charting system which allows for:



Benefits of standing orders:

- A patient can receive a vaccine without seeing a physician.
- We are able to add guidance directly onto the order which can be helpful for new vaccines, such as the nasal flu vaccine.



Benefits of care gaps

- Care teams are alerted when a patient is due or overdue for vaccines.
- It is easier to schedule appointments, which leads to increased access to vaccines.



Vaccine Care Gaps

Why are they useful?

- Advisory Committee on Immunization Practices (ACIP)
 recommendations can change annually or more frequently.
- New vaccines are regularly approved.
- The need to standardize when implementing standing orders for nursing staff.

Patient information can be complex – limited time in the clinic:

- California Immunization Registry (CAIR) vs Electronic Medical Record (EMR) recommendations can vary.
- Nuances as to who is considered an at-risk population.
- Different schedules based on routine vs catch up vs at risk populations.





Pneumococcal Vaccine Background

October 20,2021

 ACIP released updates to pneumococcal vaccine recommendations for <u>high risk</u> and <u>senior patients</u> to align with newly released vaccines (PCV-15 and PCV-20)

February 9, 2022

AltaMed releases

"Pneumococcal Vaccine Care Gap"

*Prior to this, providers ordered based on their understanding of ACIP recommendations.

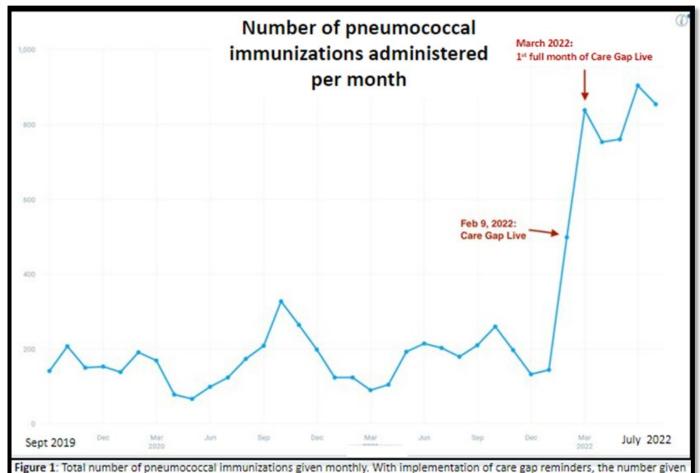
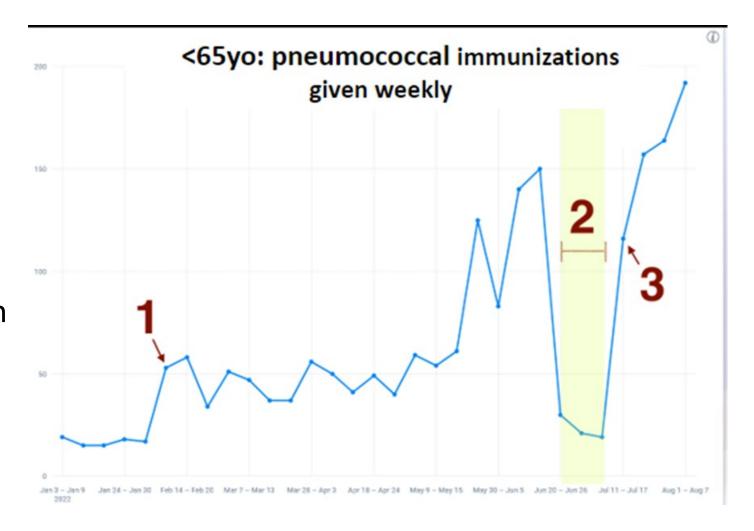


Figure 1: Total number of pneumococcal immunizations given monthly. With implementation of care gap reminders, the number given increased immediately.



What If We Turn Off Care Gap?

- 1. Care Gap Go-Live
- <65 year-old high riskCare Gap turned off
- 3. Care Gap turned on again





Communication in Preferred Language

- Our back-office team ensures patients receive vaccine education in their primary language.
 - We use AMN Healthcare Stratus devices for Video Remote Interpreting during visits.
 - Vaccine Information Statements (VIS) are available in multiple languages.
- Staff is trained to review the patient's immunization history, including CAIR, to verify the information is current and accurate before administering any vaccines.
- After Visit Summaries (AVSs) are automatically translated to Spanish if it's the preferred language and/or printed with large text to accommodate vision needs.

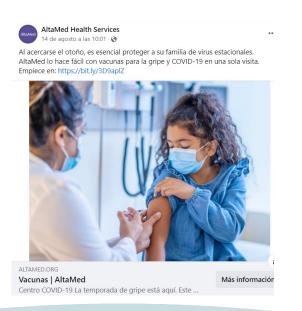






Communications Strategies to Promote Vaccine Information to Patients

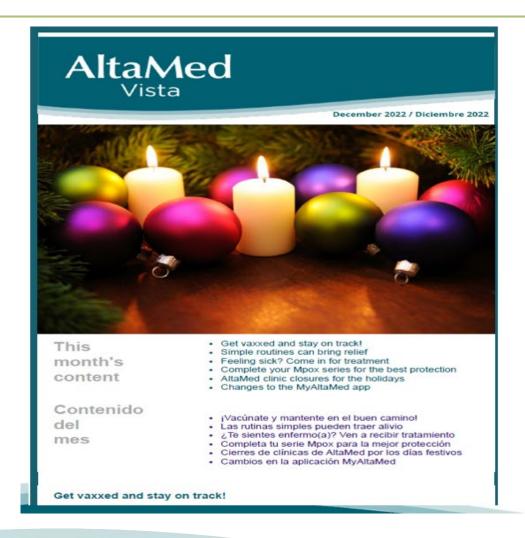
- Monthly patient e-newsletter.
- IVR messages on the patient service center line.
- Signage at clinics and screen savers on exam room laptops and TV screens.
- Regular social media posts and geo-targeted campaigns





- Dedicated COVID-19 vaccines page on our website
- Blog articles on Health and Wellness page on our website
- Targeted text message and mailing campaigns

Communications Strategies - Continued



7 PM



Constant Contact

We want you and your loved ones to end the holiday season happy and healthy. Consider finishing or updating your COVID-19 vaccines and get your flu shot. If you and your guests do the same, you can gather around the table with a little less worry about spreading illness.

There are many ways for you to get a vaccine – you can schedule an appointment at one of our AltaMed locations or attend one of our <u>vaccine events</u>.

Learn more about ways to stay health over the holidays.

¡Vacúnate y mantente en el buen camino!

Queremos que tú y tus seres queridos terminen la temporada navideña felices y saludables. Considera terminar o actualizar tus vacunas contra el COVID-19 y vacúnate contra la influenza. Si tú y tus invitados hacen lo mismo, pueden reunirse alrededor de la mesa con un poco menos de preocupación de propagar enfermedades.



Hay muchas maneras de vacunarte – puedes programar una cita en uno de nuestros sitios de AltaMed o asistir a uno de nuestros <u>eventos de vacunas</u>.

Obtén más información sobre las formas de <u>mantenerte saludable durante los días</u> festivos.

Maintaining Vaccine Efforts Moving Forward

Benefits of HRSA funding

- Increased COVID Vaccinator staffing across the clinics and allowed for more patients to be seen daily.
- Provided AltaMed the opportunity to have 2 Regional COVID Centers that provided the community additional access to COVID-19/Flu/RSV (infants) testing as well as vaccinations for COVID-19 and Flu.



The challenge 2023-2024 without HRSA

 Must create the same access to vaccines for patients without HRSA funding and decreased staffing.





Maintaining Vaccine Efforts Without HRSA Funding

- Our patient distribution plan for Flu and COVID-19 vaccines includes administration during:
 - Provider appointments
 - Nurse visits
 - Scheduling walk-ins in the first available timeslot





- To fill the gap left by the absence of the regional centers we are collaborating with the Mobile Unit team and the Community Affairs team:
 - Each team is working to provide 2 vaccine events on weekends through the end of the year starting in September.
 - Vaccine events will be held at or near an AltaMed clinic.
 - These events provide additional opportunities for AltaMed patients and non-patients to access vaccines outside of regular business hours.



Thank you to all who contributed to this presentation:

- > Dr. Jeffery Arroyo
- Dr. Sherrill Brown
- Ivelys Vega
- Rosa Vazquez
- Andrea Ceja
- Mayra Ceballos
- > Tiffany Chiu
- Alma Arenas





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USCMann

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Dr. Richard Dang, is Vice Chair of the Immunization Coalition of Los Angeles County (ICLAC) and Immediate Past President of the California Pharmacists Association (CPhA). He is also an Assistant Professor of Clinical Pharmacy and Program Director of the Community-Based Pharmacy Residency Program at the University of Southern California (USC) School of Pharmacy.

California's first advanced practice pharmacist, he is a residency trained board-certified ambulatory care pharmacist, with expertise in immunizations, travel health, community-based pharmacy practice and health programs. During the COVID-19 pandemic, Dr. Dang led the City of Los Angeles COVID-19 Vaccination Program and continues to support underserved community vaccination projects. He has been featured in numerous media outlets (including the Los Angeles Times, the New York Times, KNX News, ABC, CBS, NBC, the Los Angeles Business Journal, and BuzzFeed News) as a vaccination expert and for his work in community immunization and education efforts.



Keri Hurley-Kim, PharmD, MPH, BCACP, APh Chair, ICLAC

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www.immunizelac.org



Saban Community Clinic Los Angeles: Affordable Medical Care CA



UCI School of Pharmacy & Pharmaceutical Sciences

Health Sciences Associate Clinical Professor Department of Clinical Pharmacy Practice Dr. Hurley-Kim is Chair of the Immunization Coalition of Los Angeles. Previously, she served two years as Interim Chair after being an active member for several years. Her clinical practice is working with underserved and marginalized communities in primary care/family medicine at Saban Community Clinic, a Federally Qualified Health Center (FQHC) in urban Los Angeles. Developing and strengthening ambulatory care pharmacy services at Saban clinic allows a team-based approach where pharmacists work closely with physicians and other providers to improve chronic disease outcomes and expand access to preventative care including vaccines.

She also serves as Health Sciences Assistant Clinical Professor Department of Clinical Pharmacy Practice at University of California School of Pharmacy and Pharmaceutical Services. Dr. Hurley-Kim's scholarship is primarily related to assessing vaccine equity issues and improving vaccine access and other essential health services for vulnerable populations.

Immunization Coalition of Los Angeles County Fall Vaccine Forum 9/19/2023

Prescription for Success: Flu+2 Clinical and Equity Vaccine Update

Richard Dang, PharmD

Vice Chair, ICLAC

Immediate Past President, California Pharmacists Association

Assistant Professor of Clinical Pharmacy

USC Mann School of Pharmacy and Pharmaceutical Sciences

Keri Hurley-Kim, PharmD, MPH
Chair, ICLAC
Associate Clinical Professor
UCI School of Pharmacy and Pharmaceutical Sciences
Saban Community Clinic



Disclosures

- Richard Dang is a member of the CDC ACIP COVID-19 Workgroup as an APhA Liaison
 - I will only be presenting the current recommendations and information from the CDC ACIP that is from publicly available and/or approved. Discissions and proceedings of the workgroup are otherwise confidential and will not be presented.
- Keri Hurley-Kim has served on advisory boards for Valneva

Objectives

- Review recent national epidemiology for COVID-19, influenza, and RSV
- 2. Describe the clinical evidence behind recent changes to CDC ACIP recommendations for COVID-10, influenza, and RSV
- 3. Utilize updated ACIP recommendations to immunize patients against COVID-19, influenza, and RSV
- 4. Discuss health and vaccine equity issues related to COVID-19, influenza, and RSV

Outline

Current recommendations and updates for:

- Part 1: Richard Dang
 - COVID-19 Vaccines
 - Influenza Vaccines
- Part 2: Keri-Hurley Kim
 - RSV Vaccines



COVID-19, Flu and RSV

FDA Resources for the Fall Respiratory Illness Season



You may be eligible for three vaccinations this fall – flu, COVID-19, and RSV (respiratory syncytial virus) – and wondering if you should get all three shots.

This is your guide to FDA-authorized and approved vaccines, tests and treatments for all three illnesses. Talk to a health care professional about what works best for you.

<u>Vaccines</u> | <u>Tests</u> | <u>Treatments</u>



COVID-19

Richard Dang

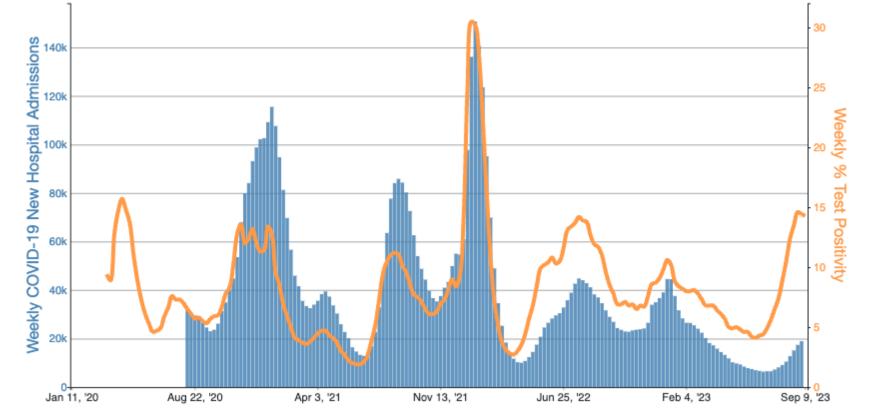


United States

Total Hospitalizations
6,308,630
+8.7% in most recent week
At a Glance
Trend in Hospital Admissions
Trend in Hospital Admissions
Total Deaths
1,141,782
+4.5% in most recent week
Trend in % COVID-19 Deaths
Trend in % COVID-19 Deaths
Trend in % COVID-19 Deaths
1,341,782

Doses Distributed
153,471,660

COVID-19 New Hospital Admissions and COVID-19 Nucleic Acid Amplification Test (NAAT) Percent Positivity, by Week, in The United States, Reported to CDC



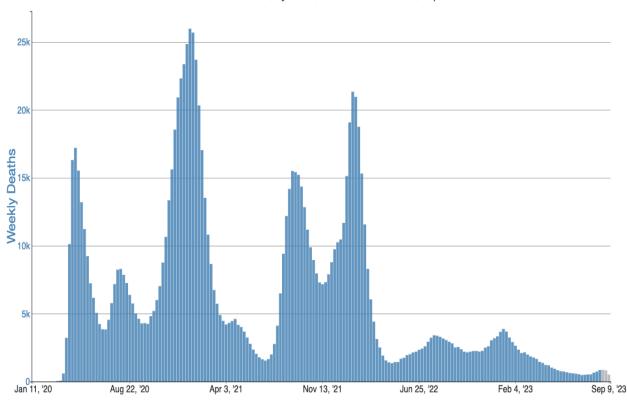
COVID-19 Test Positivity and Hospitalizations

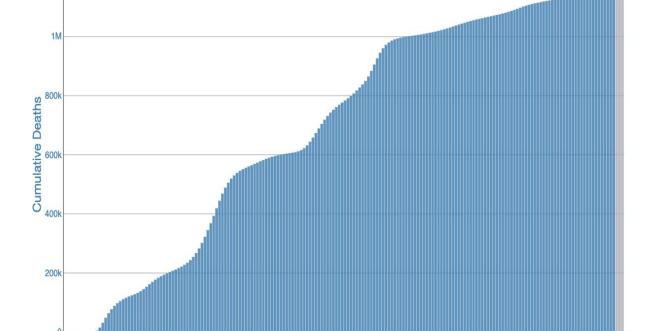
> Centers for Disease Control and Prevention. COVID Data Tracker. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2023, September 17. https://covid.cdc.gov/covid-data-tracker



COVID-19 Deaths

Provisional COVID-19 Deaths, by Week, in The United States, Reported to CDC





Cumulative Provisional COVID-19 Deaths, by Week, in The United States, Reported to CDC

Centers for Disease Control and Prevention. COVID Data Tracker. Atlanta, GA: U.S. Department of Health and Human Services, CDC: 2023, September 17. https://covid.cdc.gov/covid-data-tracker

Centers for Disease Control and Prevention, COVID Data Tracker, Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2023, September 17, https://covid.cdc.gov/covid-data-tracker

Nov 13, '21

Apr 3, '21

Jan 11, '20

Aug 22, '20



Feb 4, '23

Jun 25, '22

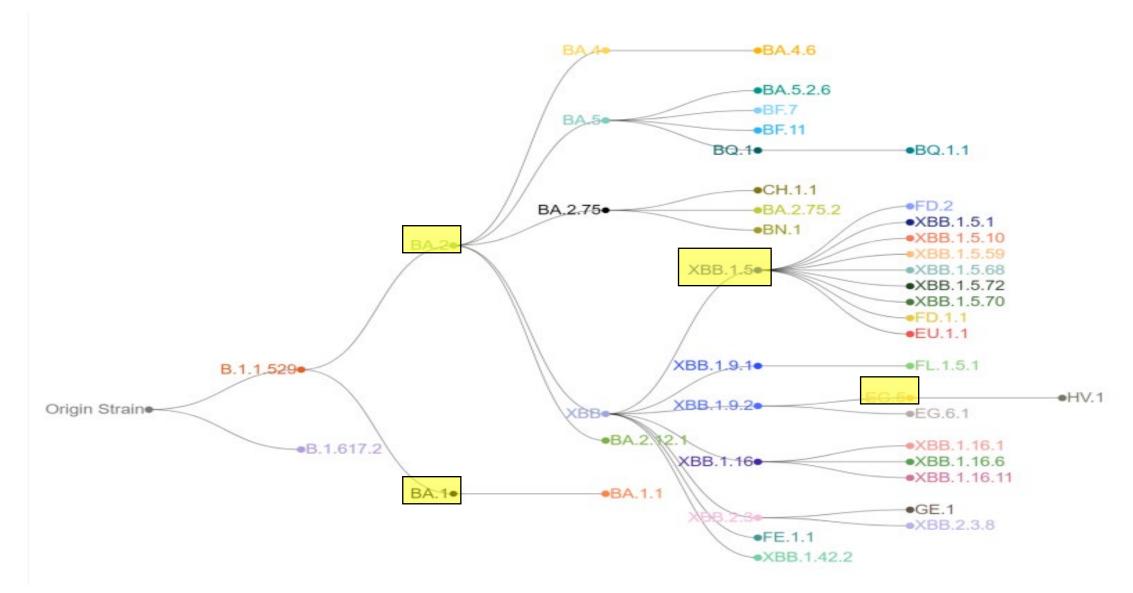
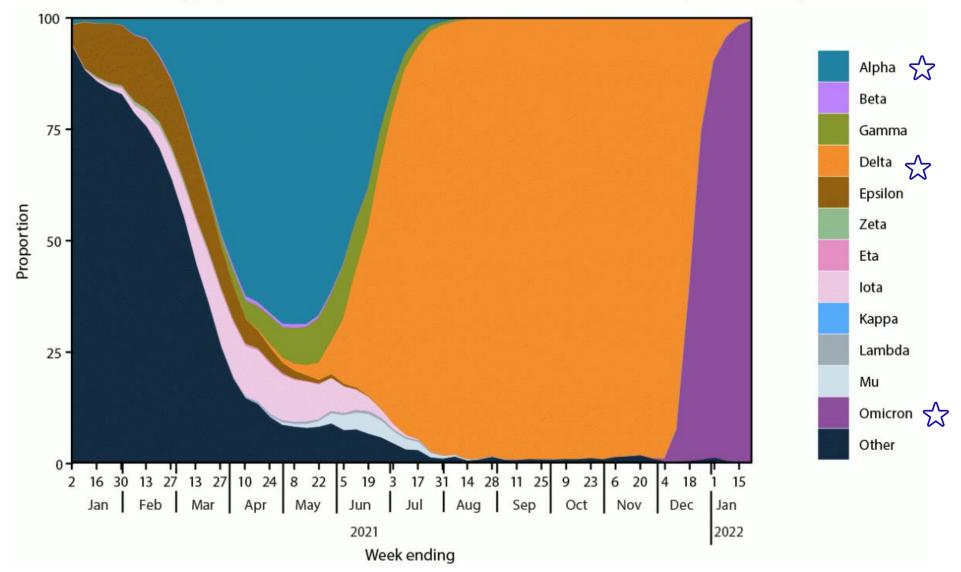


FIGURE 1. National weekly proportion estimates* of SARS-CoV-2 variants† — United States, January 2, 2021–January 22, 2022

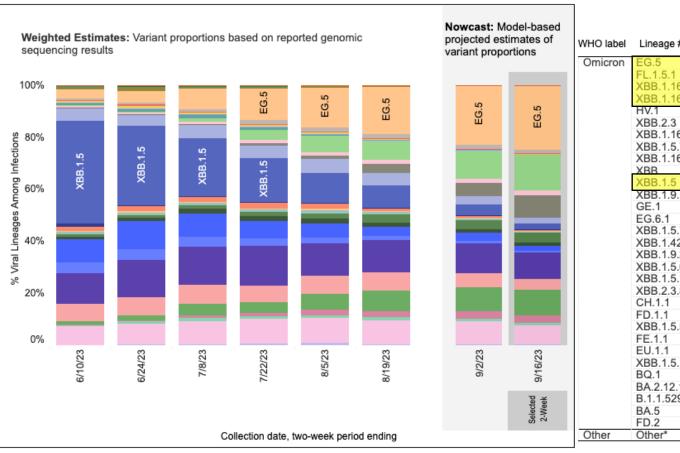


Weighted and Nowcast Estimates in United States for 2-Week Periods in 5/28/2023 – 9/16/2023

Nowcast Estimates in United States for 9/3/2023 – 9/16/2023

Ð

Hover over (or tap in mobile) any lineage of interest to see the amount of uncertainty in that lineage's estimate.



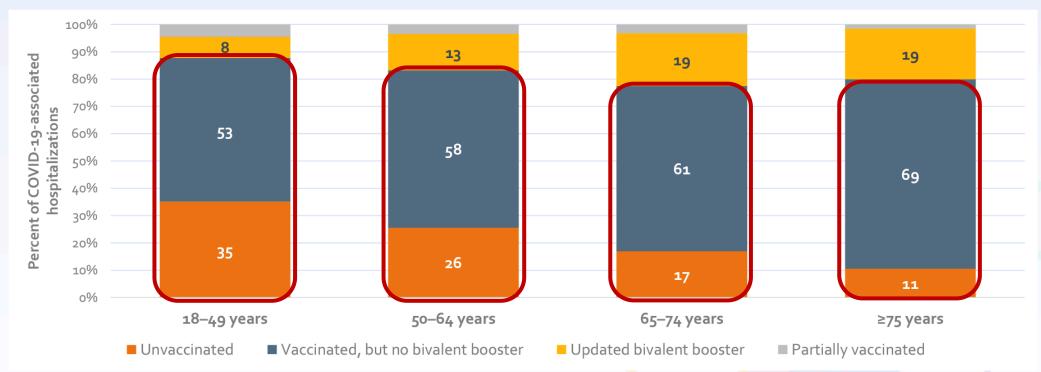
USA							
WHO label	Lineage #	%Total	95%PI				
Omicron	EG.5	24.5%	22.5-26.6%				
	FL.1.5.1	13.7%	9.8-18.7%				
	XBB.1.16	10.2%	8.6-11.9%				
	XBB.1.16.6	9.9%	8.4-11.7%				
	HV.1	8.4%	6.6-10.5%				
	XBB.2.3	7.2%	6.2-8.5%				
	XBB.1.16.1	4.1%	3.4-4.9%				
	XBB.1.5.70	3.8%	2.9-4.9%				
	XBB.1.16.11	3.0%	2.3-3.8%				
	XBB	2.5%	2.1-2.9%				
	XBB.1.5	2.2%	1.9-2.6%				
	XBB.1.9.1	1.9%	1.6-2.2%				
	GE.1	1.7%	1.3-2.3%				
	EG.6.1	1.5%	1.0-2.1%				
	XBB.1.5.72	1.2%	0.9-1.6%				
	XBB.1.42.2	0.9%	0.5-1.7%				
	XBB.1.9.2	0.7%	0.6-0.9%				
	XBB.1.5.68	0.6%	0.4-0.9%				
	XBB.1.5.10	0.6%	0.4-0.7%				
	XBB.2.3.8	0.4%	0.2-0.6%				
	CH.1.1	0.3%	0.2-0.4%				
	FD.1.1	0.3%	0.2-0.4%				
	XBB.1.5.59	0.2%	0.1-0.4%				
	FE.1.1	0.2%	0.1-0.3%				
	EU.1.1	0.0%	0.0-0.1%				
	XBB.1.5.1	0.0%	0.0-0.0%				
	BQ.1	0.0%	0.0-0.1%				
	BA.2.12.1	0.0%	0.0-0.0%				
	B.1.1.529	0.0%	0.0-0.0%				
	BA.5	0.0%	0.0-0.0%				
	FD.2	0.0%	0.0-0.0%				
Other	Other*	0.1%	0.0-0.1%				

^{*} Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one 2-week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all 2-week periods displayed.

BA.1, BA.3 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. Except BA.2.12.1, BA.2.75, XBB and their sublineages, BA.2 sublineages are aggregated with BA.2. Except BA.4.6, sublineages of BA.4 are aggregated to BA.5. Except BA.4.6, sublineages of BA.4 are aggregated to BA.5. Except BA.1.1, sublineages shown and their sublineages, sublineages of BA.5 are aggregated to BA.5. Except BA.1.5.1, XBB.1.5.1, XBB.1.



Vaccination Status by Age Group among Non-Pregnant Adults Ages ≥18 Years Hospitalized for COVID-19 — COVID-NET, January–June 2023



Data are limited to hospitalizations where COVID-19 is a likely primary reason for admission. **Unvaccinated**: No recorded doses of COVID-19 vaccine. **Vaccinated, but no bivalent booster**: Completed a primary series with or without ≥1 booster dose but did not receive an updated bivalent booster dose. **Updated bivalent booster**: Received updated bivalent booster dose. **Partially vaccinated**: Received at least one dose of COVID-19 but was not considered fully vaccinated at the time of a positive SARS-CoV-2 test. Persons with unknown vaccination status are excluded.



VE/Benefits

- Accumulating evidence that COVID-19 vaccination reduces Post-COVID Conditions among both children and adults
- Emergency department and urgent care visits:
 - 60% effectiveness among kids and adults, wanes over time
- Hospitalizations:
 - 65% effectiveness, wanes over time

VISION: Absolute VE of original monovalent and bivalent booster doses against hospitalization and critical illness among immunocompetent adults aged ≥18 years – September 2022 – August 2023

nRNA Dosage Pattern	Total tests	SARS-CoV-2- test-positive, N (%)	Median interval since last dose, days (IQR)	Adjusted VE (95% CI)	
łospitalization					
Unvaccinated (ref)	25,104	2,491 (10)		Ref	
Original monovalent doses only	56,800	5,345 (9)	420 (306-563)	22 (17-26)	H O H
Bivalent booster, 7-59 days earlier	5,815	373 (6)	34 (21-47)	65 (61-69)	H O H
Bivalent booster, 60-119 days earlier	6,500	577 (9)	87 (73-103)	48 (42-53)	H€H
Bivalent booster, 120-179 days earlier	5,557	474 (9)	149 (134-164)	22 (13-30)	H-0-1
Critical illness					
Unvaccinated (ref)	23,140	527 (2)		Ref	
Original monovalent doses only	52,352	897 (2)	422 (306-564)	32 (23-40)	
Bivalent booster, 7-59 days earlier	5,504	62 (1)	34 (21-47)	69 (59-77)	
Bivalent booster, 60-119 days earlier	6,023	100 (2)	87 (73-103)	50 (36-60)	
Bivalent booster, 120-179 days earlier	5,144	61 (1)	149 (134-164)	46 (28-60)	——

Vaccine Composition: Previous

December 11, 2020

Monovalent (Original)

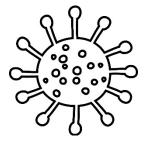
Pfizer, Moderna, J&J, Novavax



August 31, 2022

Bivalent ("Boosters")

Pfizer, Moderna



Original strain



Omicron variant BA.4 and BA.5 lineages



Highlights of Recent Changes

- Original, monovalent vaccines from Pfizer and Moderna no longer authorized by FDA on April 18, 2023
- FDA limits use of J&J vaccine on May 5, 2022; no longer available as of May 12, 2022; no longer authorized on June 1, 2023
- Previously available (prior to 9/11/23): bivalent vaccines from Pfizer, Moderna and monovalent vaccine from Novavax
 - Bivalent vaccines no longer authorized by FDA on September 11, 2023
- FDA VRBPAC recommended new vaccine composition for 2023-2024 formulation on June 15, 2023
- FDA approved/authorized 2023-2024 formulations of Pfizer and Moderna monovalent vaccines on September 11, 2023
- CDC recommends the 2023-2034 formulations on September 12, 2023

NEW FDA Approvals: 09/11/2023



- Approval of Comirnaty (COVID-19 Vaccine, mRNA) to include the 2023-2024 formula for individuals 12 years of age and older
- Approval of Spikevax (COVID-19 Vaccine, mRNA) to include the 2023-2024 formula for individuals 18 years of age and older
- Authorization of Moderna COVID-19 Vaccine for emergency use in individuals 6 months through 11 years of age to include the 2023-2024 formula
- Authorization of Pfizer-BioNTech COVID-19 Vaccine for emergency use in individuals 6 months through 11 years of age to include the 2023-2024 formula
- Bivalent Moderna and Pfizer-BioNTech COVID-19 vaccines are <u>no</u> <u>longer authorized</u> for use

Vaccine Composition: Now

December 11, 2020

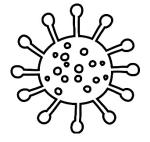
Monovalent (Original)

Pfizer, Moderna, J&J, Novavax

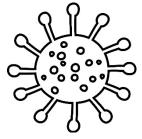
August 31, 2022

Bivalent ("Boosters")

Pfizer, Moderna



Original strain



Original strain



Omicron variant BA.4 and BA.5 lineages

September 11, 2023

Monovalent

(2023-2024 Formulation)

(NEW & UPDATED)

Pfizer, Moderna
*Novavax not yet approved/authorized



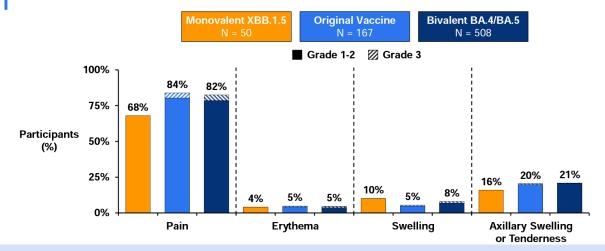
Omicron variant XBB.1.5 lineage



Safety of Moderna COVID-19 Vaccine

Safety profile of XBB.1.5 vaccine consistent with previously authorized vaccines

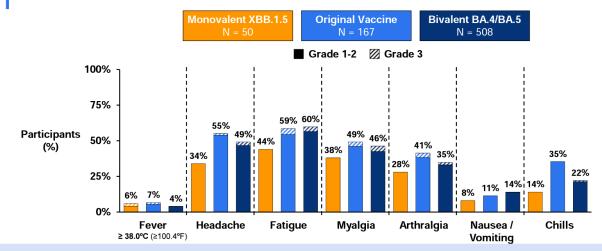
Local Reactions Following Booster Doses in Adults Study 205J and Study 205H, Solicited Safety Set



Local reactions similar or lower than previously authorized Moderna COVID-19 vaccines

Within 7 days of injection; No Grade 4 events reported Chalkias et al., medRxiv. 2022. Chu et al., Nat Med 28:1041, 2022

Systemic Reactions Following Booster Doses in Adults Study 205J and Study 205H, Solicited Safety Set



Systemic reactions similar or lower than previously authorized Moderna COVID-19 vaccines

Within 7 days of injection; No Grade 4 events reported Chalkias et al., medRxiv, 2022, Chu et al, Nat Med 28:1041, 2022

Immunogenicity of COVID-19 Vaccine

- Moderna
 - Robust neutralizing antibody titers against XBB.1.5, XBB.1.16, EG.5.1, FL.1.5.1, and BA.2.86 measured in sera from recipients of XBB.1.5 vaccine
- Pfizer
 - Monovalent XBB.1.5 BNT162b2 is equally immunogenic against XBB.1.5, EG.5.1 and BA.2.86, in a COVID-19 vaccine-experienced preclinical study

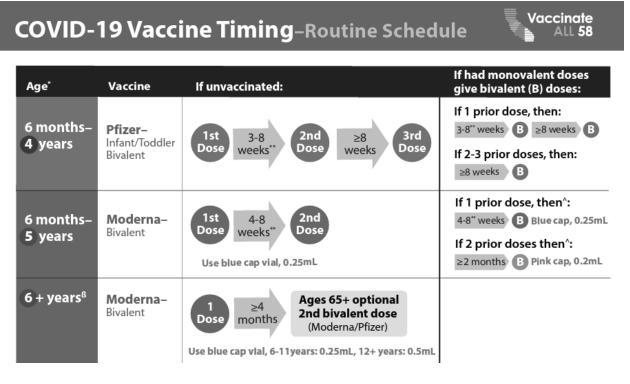
Summary

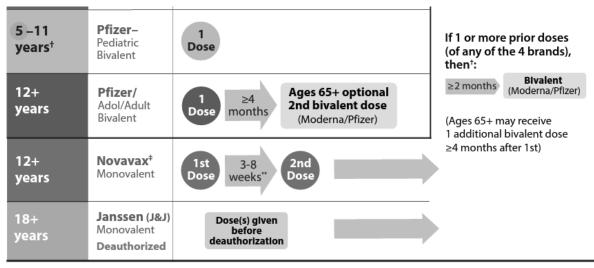
Benefits and Harms

- Monovalent XBB containing COVID-19 vaccines increase the immune response against the currently circulating variants
- Last year's updated vaccine was **effective** at preventing medically attended COVID-19, hospitalization due to COVID-19, and death due to COVID-19
- Accumulating evidence that COVID-19 vaccination reduces Post-COVID Conditions among both children and adults
- COVID-19 vaccines have a high degree of safety
 - Rare events of myocarditis and anaphylaxis have been seen in post-authorization studies
 - Unlikely that updating the formulation would increase adverse event rates
- Benefits are anticipated in all age groups; benefits of COVID-19 vaccines vary by age and incidence of COVID-19 hospitalizations
- Benefits outweigh risks in age groups for which risk of myocarditis is highest
- Modeling projects more hospitalizations and deaths averted when updated doses are universally recommended compared to no recommendation or recommended only for persons ≥65 years



** NO LONGER RELEVANT **





- * See CDC recommendations for children transitioning from a younger to older age group
- ** An 8-week interval may be preferable for some people, especially for males 12-39 years.
- ß Please note the Moderna bivalent dosages differ for ages 6-11 (0.25 mL, 25 mcg) and 12+ (0.5 mL, 50 mcg) years.
- ^ Children 5 years of age who had 1 or more doses of Moderna monovalent vaccine may receive Moderna or Pfizer bivalent vaccine.
- † Children 5 years of age who had 1 or more doses of Pfizer monovalent vaccine are only eligible to receive Pfizer bivalent vaccine.
- ‡ People 18+ years who have not received any booster doses and are unable or unwilling to receive a bivalent booster, may receive the monovalent Novavax booster as a single booster dose at least 6 months after their primary series.

View Interim Clinical Considerations for Use of COVID-19 Vaccines for details. Schedule is subject to change.

California COVID-19 Vaccination Program

IMM-1396 (6/9/23) Page 1 of 3

Recommendations for immunocompromised individuals is not shown on this slide



NEW ACIP Recommendations



- This recommendation has been adopted by the CDC Director by majority vote on September 12, 2023 and is now official.
- "Interim Clinical Considerations for Use of COVID-19 Vaccines in the United States" webpage updated on September 15, 2023.
- Recommendation: Everyone aged 6 months and older is recommended to receive an updated dose with the 2023-2024 formulation of the COVID-19 (monovalent, XBB-containing) vaccine.

Proposed 2023 – 2024 mRNA COVID-19 vaccine recommendations:

- Everyone ages 5 years and older is recommended to receive 1 dose of a 2023–2024
 mRNA COVID-19 vaccine
- Children ages 6 months—4 years should complete a multi-dose initial series (2 doses of Moderna or 3 doses of Pfizer-BioNTech mRNA COVID-19 vaccine) with at least one dose of the 2023—2024 COVID-19 vaccine¹
- People who are moderately or severely immunocompromised should complete a 3dose initial series with at least one dose of the 2023–2024 COVID-19 vaccine and may receive 1 or more additional 2023–2024 COVID-19 vaccine doses²
- Bivalent mRNA COVID-19 vaccines are no longer recommended in the United States

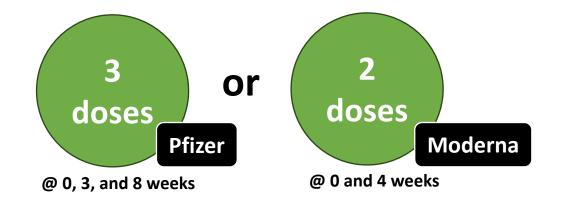
- 1. Children ages 6 months 4 years that previously received a single dose of Pfizer-BioNTech vaccine should receive 2 doses of Pfizer-BioNtech vaccine.
- 2. Additional details in the interim clinical considerations



COVID19 Vaccine 2023-2024 Formulation **NOT Immunocompromised**

6 months to 4 years

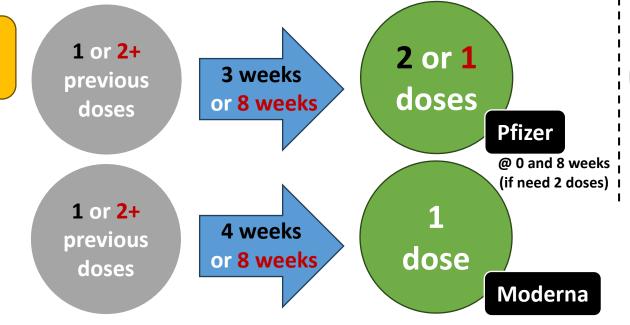
Unvaccinated



5 years and older

dose **Pfizer** or Moderna

Previously vaccinated



Previous 2 months dose dose **Pfizer** or Moderna

> * All doses should be homologous (i.e., from the same manufacturer) ** Additional doses may be needed for immunocompromised individuals. Updated 9/11/2023 - created by Richard Dang, PharmD



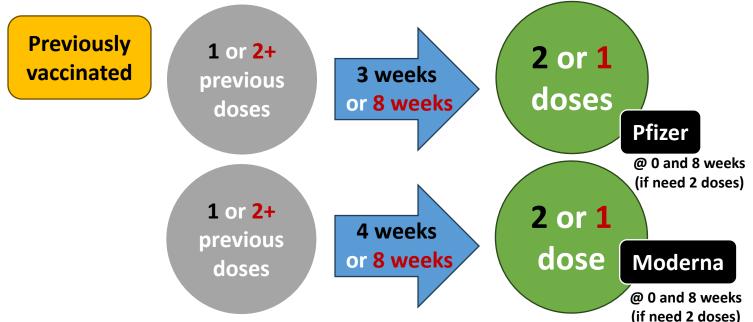


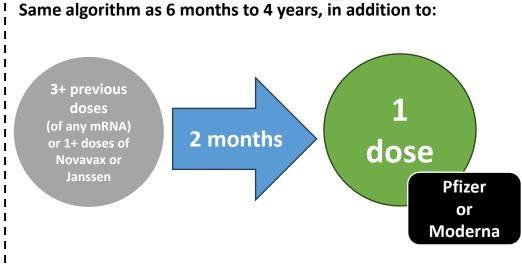
COVID19 Vaccine 2023-2024 Formulation ARE Immunocompromised 6 months to 4 years

5 years and older

Unvaccinated







Immunization Coalition of Los Angeles County ANNIVERSARY

Proposed 2023 – 2024 COVID-19 Vaccine Up to Date Definition

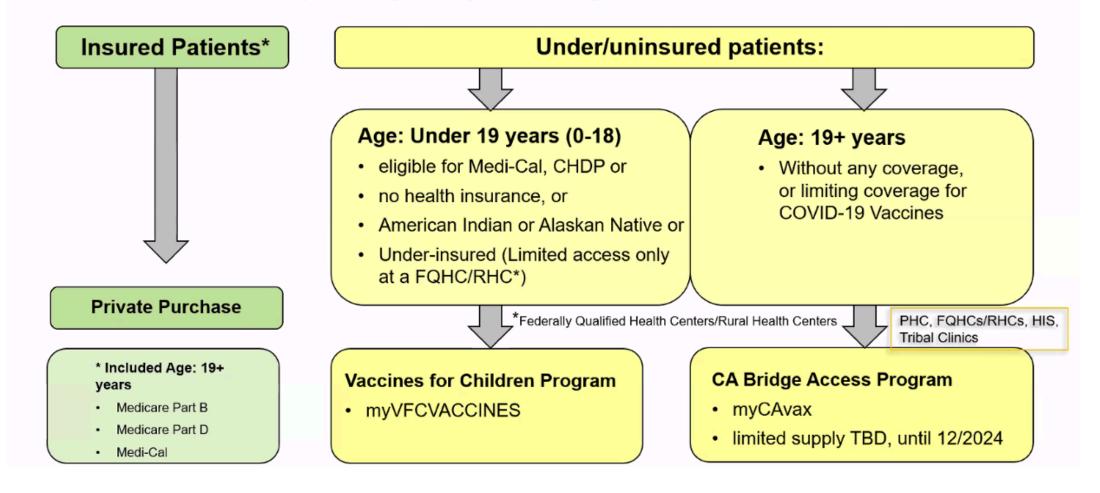
- Everyone aged <u>5 years and older</u> are recommended get one 2023–2024 COVID-19 vaccine to be up to date.
- Children aged 6 months—4 years and people who are moderately or severely immunocompromised need multiple doses, including at least one 2023—2024 COVID-19 vaccine dose to be up to date.
- People who are moderately to severely immunocompromised may get additional doses of the 2023–2024 COVID-19 vaccine.



Additional Clinical Considerations

- Simultaneous administration of COVID-19 and other vaccines
 - Routine administration of all age-appropriate doses of vaccines simultaneously is recommended if there are no contraindications
 - Providers may simultaneously administer COVID-19, influenza, and respiratory syncytial virus (RSV) vaccines to eligible patients
- Vaccination after recent COVID19 infection
 - People with known current SARS-CoV-2 infection should defer any COVID-19 vaccination at least until recovery from the acute illness
 - People who recently had SARS-CoV-2 infection <u>may</u> consider delaying a COVID-19 vaccine dose by 3 months from symptom onset or positive test (if infection was asymptomatic)

Post Sunset of the Federal COVID-19 Vaccination Program: Vaccine ordering will follow more traditional pathways for purchasing vaccines



IMM-1467 (8/22/23)

Where Will Vaccines Be Available Through the Bridge Access Program?



Local Healthcare Providers

Existing partnerships with state and local health departments (S/LHDs) will facilitate distribution of COVID-19 vaccines through providers in networks

CDC will manage purchase and distribution of COVID-19 vaccines and provide oversight and technical assistance. State immunization programs will design distribution of vaccines.



Local Health Centers

Health Centers* will partner with state immunization programs to ensure access to COVID-19 vaccines for uninsured adults

HRSA will provide funding to participating HRSA-supported health centers to support services that will help ensure equitable access. State immunization programs will design distribution of vaccines.



Pharmacies

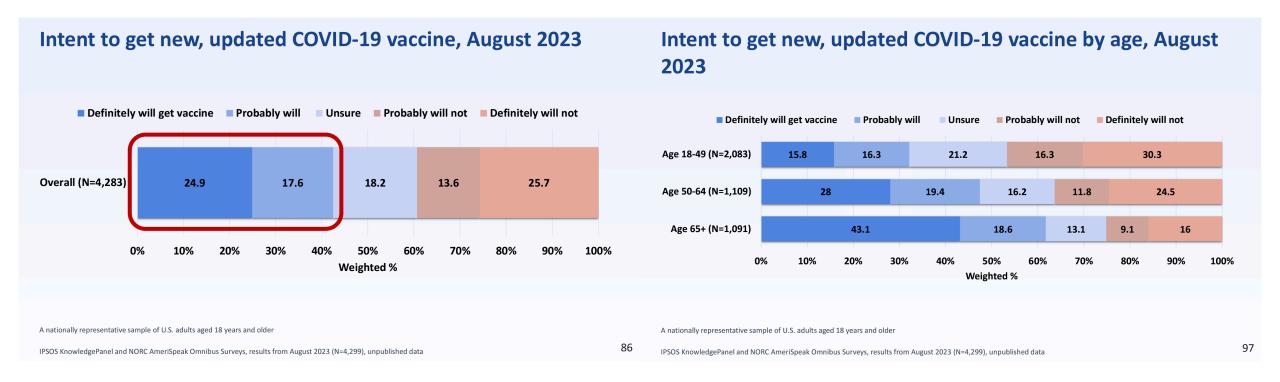
Pharmacies will ensure access to nocost COVID-19 vaccines using their extensive footprints and community partnerships

Vaccines will be donated by manufacturers to pharmacies, and administration costs will be covered by CDC.

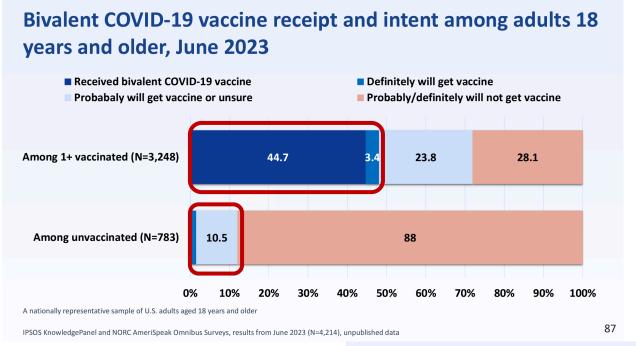
*HRSA-funded health centers and Health Center Program look-alike organizations



Intention to Receive Vaccine







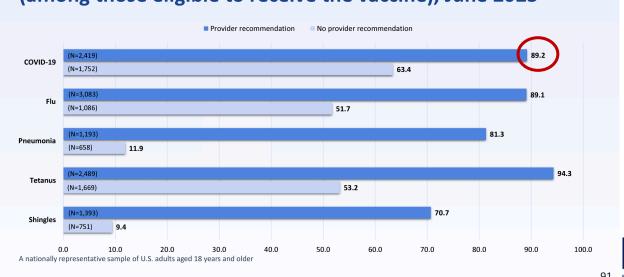
Top concerns or issues regarding bivalent COVID-19 vaccine, **June 2023**

	Received 1+ doses of COVID-19 vaccine but not the bivalent vaccine	Unvaccinated with any COVID-19 vaccine
Definitely will	• Too busy or kept forgetting (36.3%)	Omitted (N<30)
Probably will or unsure	 Had enough vaccines (27%) Too busy or kept forgetting (22.2%) No provider recommendation (19.8%) Unknown serious side effects (12.8%) 	Unknown serious side effects (37.1%)
Probably or definitely will NOT	 Unknown serious side effects (43.1%) Had enough vaccines (42.4%) Not enough studies (33.8%) Do not trust gov't/pharma (30%) Effectiveness (29.8%) Heart-related issues (28.6%) 	 Unknown serious side effects (56.5%) Do not trust gov't/pharma (50.5%) Not enough studies (47.1%) Heart-related issues (39.6%) Effectiveness (36.1%)

A nationally representative sample of U.S. adults aged 18 years and older

IPSOS KnowledgePanel and NORC AmeriSpeak Omnibus Surveys, results from June 2023 (N=4,214), unpublished data

Vaccine receipt by healthcare provider recommendation (among those eligible to receive the vaccine), June 2023



Adapted from public presentation, "Evidence to Recommendations" by Dr. M Wallace, at the CDC ACIP Meeting on September 12, 2023.

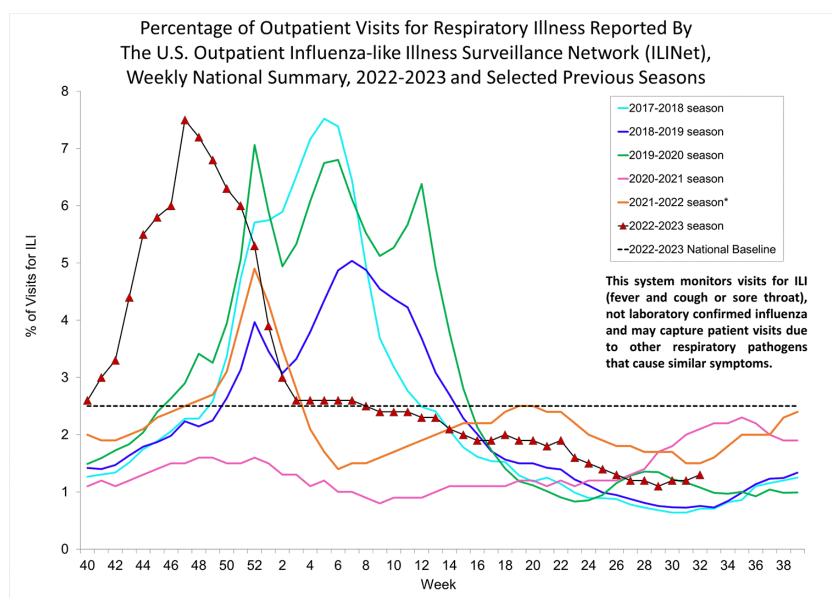


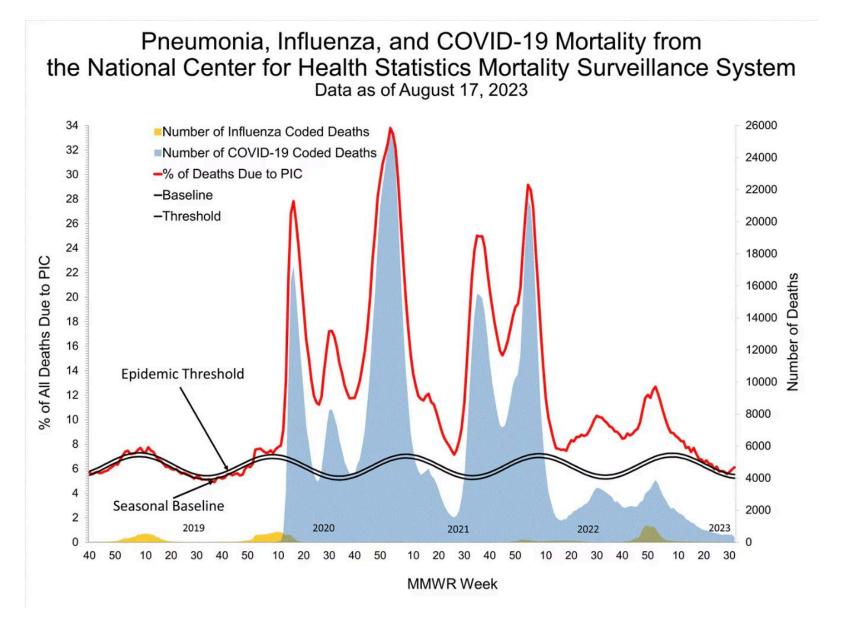


Influenza

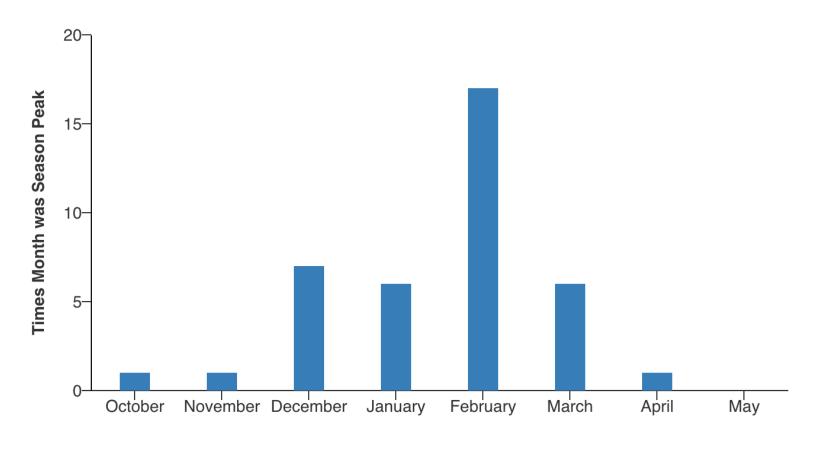
Richard Dang





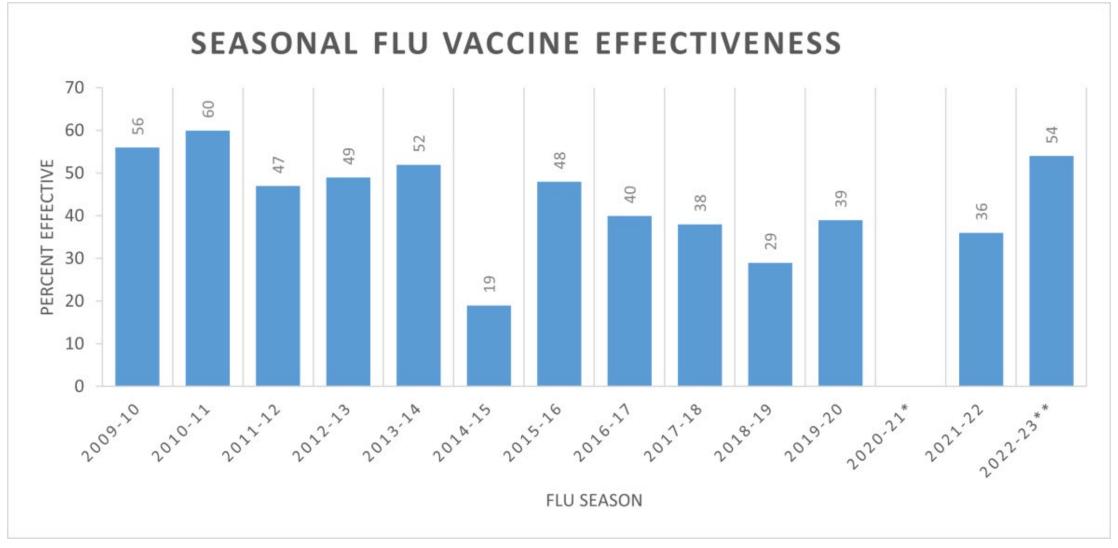


Flu activity peak months in the U.S. from the 1982-1983 through 2021-2022 flu seasons*



^{*} There was no discernible peak in activity during the 2020-2021 season due to the uncharacteristically low level of influenza virus circulation that season.





 ~173 million doses of influenza vaccine distributed in 2022-2023 and no new vaccine safety signals were identified (VAERS/VSD)



2023-2024 Recommendations

- Published August 25, 2023
- Grohskopf LA, Blanton LH, Ferdinands JM, Chung JR, Broder KR, Talbot HK. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices United States, 2023–24 Influenza Season. MMWR Recomm Rep 2023;72(No. RR-2):1–25. DOI: http://dx.doi.org/10.15585/mmwr.rr7202a1

Summary of Changes

- Primary changes and updates to the recommendations described in this report include:
 - 1) the composition of 2023–24 U.S. seasonal influenza vaccines
 - 2) updated recommendations regarding influenza vaccination of persons with egg allergy



Vaccine Composition

2022-2023	2023-2024
A/Victoria/2570/2019 (H1N1)pdm09-like virus(egg-based vaccines) -or- A/Wisconsin/588/2019 (H1N1)pdm09-like virus(cell and recombinant vaccines)	A/Victoria/4897/2022 (H1N1)pdm09-like virus(egg-based vaccines) -or- A/Wisconsin/67/2022 (H1N1)pdm09-like virus(cell and recombinant vaccines)
A/Darwin/9/2021 (H3N2)-like virus(egg-based vaccines) -or- A/Darwin/6/2021 (H3N2)-like virus(cell and recombinant vaccines)	A/Darwin/9/2021 (H3N2)-like virus (egg-based vaccines) -or- A/Darwin/6/2021 (H3N2)-like virus(cell and recombinant vaccines)
B/Austria/1359417/2021-like virus (B/Victoria lineage)	B/Austria/1359417/2021-like virus (B/Victoria lineage)
B/Phuket/3073/2013-like virus (B/Yamagata lineage)v	B/Phuket/3073/2013-like virus (B/Yamagata lineage)

Egg Allergy Recommendations

- All persons aged ≥6 months with egg allergy should receive influenza vaccine
- <u>Any</u> influenza vaccine (egg based or nonegg based) that is otherwise appropriate for the recipient's age and health status can be used
- <u>No longer</u> recommended that persons who have had an allergic reaction to egg involving symptoms other than urticaria should be vaccinated in an inpatient or outpatient medical setting supervised by a health care provider who is able to recognize and manage severe allergic reactions if an egg-based vaccine is used
- Egg allergy alone <u>necessitates no additional safety measures</u> for influenza vaccination beyond those recommended for any recipient of any vaccine, regardless of severity of previous reaction to egg. All vaccines should be administered in settings in which personnel and equipment needed for rapid recognition and treatment of acute hypersensitivity reactions are available.

Vaccine Products

Туре	Name	Route
IIV4 (SD, egg-based)	Aluria Quadrivalent (Sequirus)	IM
	Fluarix Quadrivalent (GSK)	IM
	FluLaval Quadrivalent (GSK)	IM
	Fuzone Quadrivalent (Sanofi Pasteur)	IM
ccIIV4 (SD, cell culture-based)	Flucelvax Quadrivalent (Seqirus)	IM
HD-IIV4 (high dose, egg-based)	Fluzone High-Dose Quadrivalent (Sanofi Pasteur)	IM
allV (SD, egg-based, MF59 adjuvant)	Fluad Quadrivalent (Seqirus)	IM
RIV4 (recombinant)	Flublok Quadrivalent (Sanofi Pasteur)	IM
LAIV4 (live, egg-based)	FluMist Quadrivalent (Astrazeneca)	NAS

^{*} Approved age indications varies



Recommendations

- Routine annual vaccination with any age-appropriate seasonal influenza vaccine of all persons aged ≥6 months who do not have contraindications
 - Certain children aged 6 months through 8 years require 2 doses
 - Adults aged ≥65 years should preferentially receive any one of the following higher dose or adjuvanted influenza vaccines:
 - o quadrivalent high-dose inactivated influenza vaccine (HD-IIV4),
 - o quadrivalent recombinant influenza vaccine (RIV4), or
 - o quadrivalent adjuvanted inactivated influenza vaccine (aIIV4)

High Risk Groups

- All children aged 6 through 59 months
- All persons aged ≥50 years
- Adults and children who have chronic pulmonary (including asthma), cardiovascular (excluding isolated hypertension), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus)
- Persons who are immunocompromised due to any cause (including but not limited to immunosuppression caused by medications or HIV infection)
- Persons who are or will be pregnant during the influenza season

- Children and adolescents (aged 6 months through 18 years) who are receiving aspirin- or salicylatecontaining medications and who might be at risk for experiencing Reye syndrome after influenza virus infection
- Residents of nursing homes and other long-term care facilities
- American Indian or Alaska Native persons
- Persons who are extremely obese (body mass index ≥40 for adults)

Timing of Vaccination

- Onset, peak, and decline of influenza activity varies the ideal time to start vaccinating cannot be predicted each season
- For most persons who need only 1 dose of influenza vaccine for the season, vaccination should ideally be offered during
 September or October
 - Certain populations may benefit from starting earlier
- Vaccination should continue after October and throughout the influenza season as long as influenza viruses are circulating and unexpired vaccine is available

Respiratory Syncytial Virus

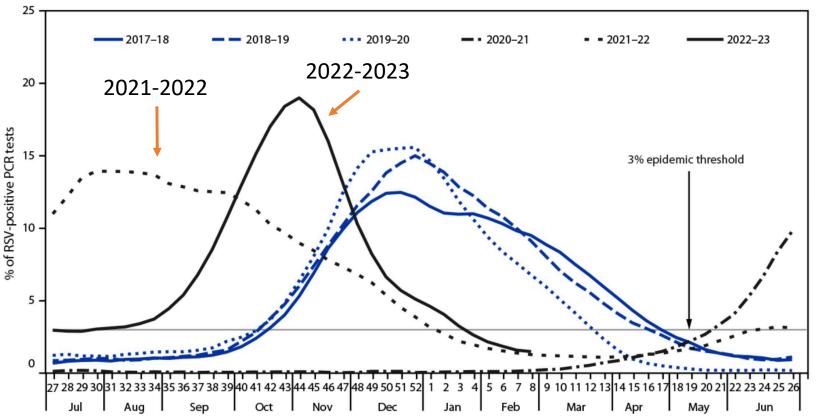
Keri Hurley-Kim



RSV epidemiology

FIGURE 1. Percentage* of polymerase chain reaction test results positive for respiratory syncytial virus, by epidemiologic week — National Respiratory and Enteric Virus Surveillance System, United States, July 2017–February 2023





- RSV epidemiology seems to be returning to pre-pandemic seasonal trends
- RSV incidence remains low as of late Aug 2023
- Groups most at risk for hospitalization and mortality are children <5 years and adults ≥65 years



RSV epidemiology: health disparities

Sangare, et al. 2006. Hospitalization for respiratory syncytial virus among California infants: Disparities related to race, insurance, and geography

	MediCal RSV infant			Non-MediCal RSV		
Race/ethnicity	hospitalization rate	Lower 95% CI	Upper 95% CI	infant hospitalization rate	Lower 95% CI	Upper 95% CI
Non-Hispanic white	34.9*	34.0	35.8	11.9	11.7	12.2
African- American	27.9*	26.7	29.0	12.1	11.3	12.8
American Indian/Alaska Native	12.2**	9.5	15.4	8.0	5.9	10.7
Asian/Pacific Islander	12.5*	11.7	13.4	5.6	5.3	5.9
Hispanic	21.8*	21.5	22.2	13.7	13.4	14.1
Total	24.3*	24.0	24.5	12.0	11.8	12.1

"Infants enrolled in MediCal...had a relative risk of 2.03 (95% CI, 1.99 to 2.06) compared with non-MediCal payers..."

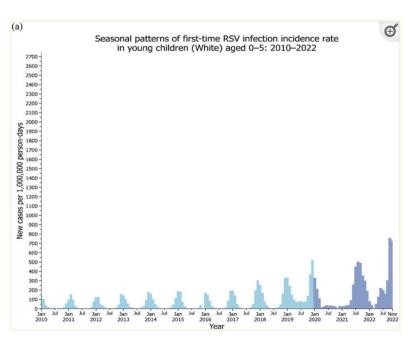


J Pediatr. 2006. 149(3):373-77

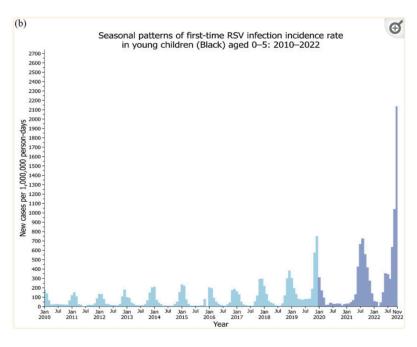
RSV epidemiology: health disparities

Wang, et al. 2022. Disruption in seasonality, patient characteristics and disparities of respiratory syncytial virus infection among young children in the US during and before the COVID-19 pandemic: 2010-2022

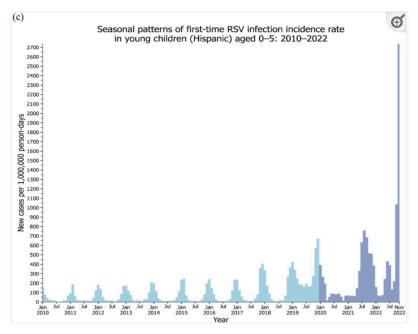
Age 0-5, white



Age 0-5, Black



Age 0-5, Hispanic



RSV epidemiology: health disparities

Atwell, et al. 2023. RSV Among American Indian and Alaska Native Children: 2019 to 2020.

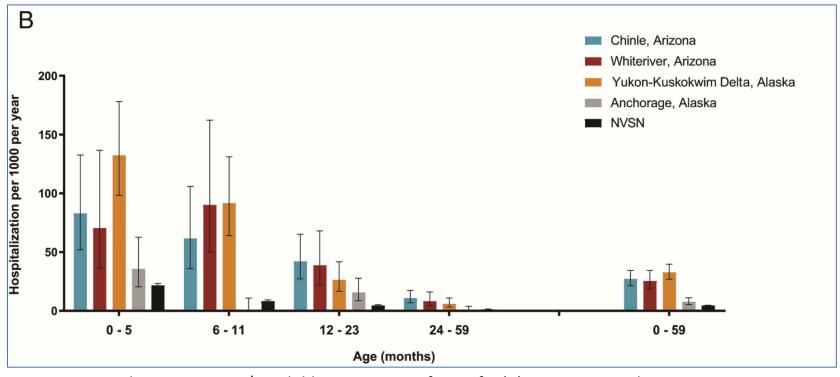


FIGURE 1: Incidence among AI/AN children < 5 years of age of ...(B) RSV-associated ARI hospitalization, November 2019 to May 2020. NVSN for comparison.

Overall hospitalization rates found to be 1.7-7.1 times higher than national NVSN data



RSV immunization products

RSVPreF3 (Arexvy, GSK)

Adjuvanted recombinant prefusion F protein vaccine

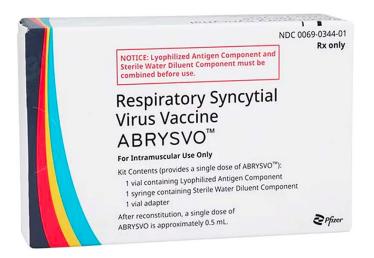
Requires reconstitution



RSVPreF (Abrysvo, Pfizer)

Recombinant bivalent prefusion F protein vaccine

Requires reconstitution (kit)



RSV immunization products

Nirsevimab (Beyfortus, Sanofi/AZ)

Long-acting monoclonal antibody

Prefilled syringes



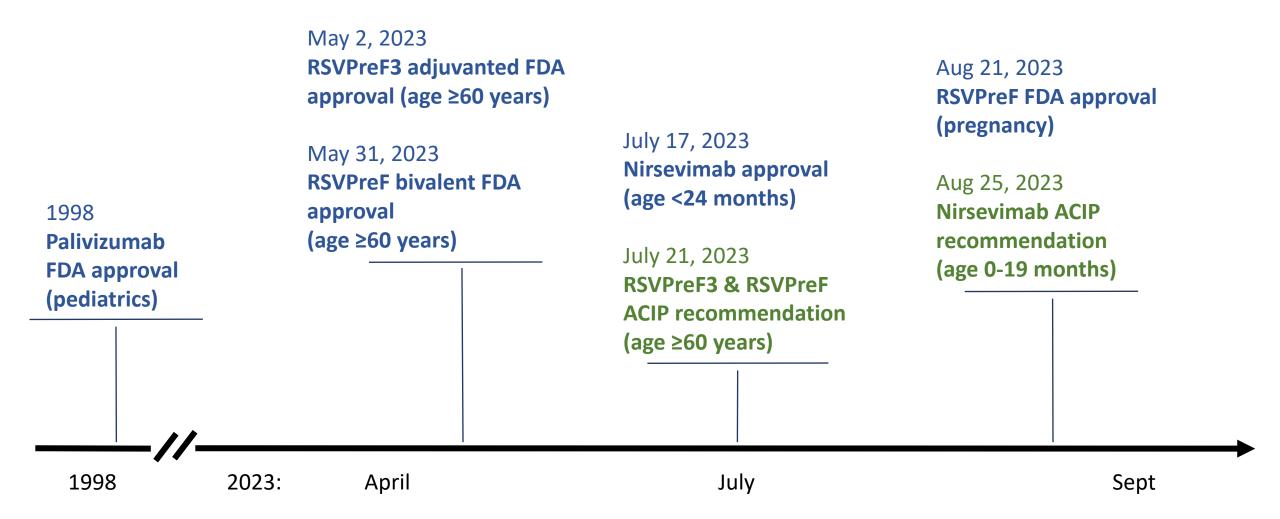
Palivizumab (Synagis, Sobi)

Monoclonal antibody

Single dose vial, no reconstitution



RSV immunization timeline



RSV immunization in older adults

Comparison of Phase 3 clinical trials of RSV vaccines in older adults		
	RSVPreF3 adjuvanted (GSK)	RSVPreF bivalent (Pfizer)
Study design	International double-blind 1:1 randomized placebo-controlled trial (ongoing)	Multicenter double-blind 1:1 randomized placebo-controlled trial (ongoing)
Study population	Adults ≥60 years old in 17 countries representing both global hemispheres	Adults ≥60 years old in 7 countries representing both global hemispheres
No. of participants	12,467 vaccine group + 12,499 placebo group	17,215 vaccine group + 17,069 placebo group
Primary objective(s)	RSV-related lower respiratory tract disease	RSV-associated lower respiratory tract illness with ≥2 symptoms and with ≥3 symptoms
Vaccine efficacy	82.6% (season 1 following vaccination) 56.1% (season 2 – interim analysis)	88.9% (season 1 following vaccination) 78.6% (season 2 – interim analysis)
Safety	No significant difference in serious adverse events compared to placebo group except severe reactogenicity events	No significant difference in serious adverse events compared to placebo group except severe reactogenicity events



RSV immunization in older adults

- ACIP conclusion: both RSV vaccines demonstrated moderate-to-high efficacy in preventing RSV-associated LRTD in adults ≥60 years old
- Recommendation: Persons age ≥60 years may receive a single dose of either RSV vaccine, using shared clinical decision making
 - Vaccination prior to the onset of RSV season is optimal when possible
 - Co-administration with other vaccines is acceptable, though evidence is limited
- Open questions:
 - Population-level impacts of vaccination
 - Duration of protection and value of revaccination
 - Cost-effectiveness
 - Risk of inflammatory neurologic events



RSV immunization in infants and young children

Pooled analysis of single-dose nirsevimab for prevention of RSV in infants		
Study design	Phase 2b international double-blind 2:1 randomized placebo-controlled trial	Phase 3 international double-blind 2:1 randomized placebo-controlled trial
Study population	Healthy preterm infants born at gestational age 29 weeks 0 days – 34 weeks 6 days and age 1 year or younger and entering first full RSV season in 23 countries representing both global hemispheres	Healthy term and late-preterm infants and age 1 year or younger and entering first full RSV season in 31 countries representing both global hemispheres
No. of participants	2,579 nirsevimab group + 1,293 placebo group	
Endpoints	Medically attended RSV-associated lower respiratory tract infection (LRTI) and hospitalization through 150 days after nirsevimab or placebo dose	
Efficacy	79.0% [95% CI 68.5-86.1%] for medically attended RSV-associated LRTI 80.6% [95% CI 62.3-90.1%] for prevention of hospitalization	
Safety	No significant difference in serious adverse events compared to placebo group	

MMWR Morb Mortal Wkly Rep 2023;72:920-925.

N Engl J Med 2020; 383:415-425.

N Engl J Med 2023; 388:1533-1534.

N Engl J Med 2022; 386:837-846



RSV immunization in high-risk infants and children

- Efficacy estimates of nirsevimab in high-risk children is based on pharmacokinetic extrapolation from a small randomized trial
- Safety was comparable to palivizumab
- Nirsevimab is more cost effective than palivizumab

BOX. Infants and children aged 8–19 months with increased risk for severe disease who are recommended to receive nirsevimab when entering their second respiratory syncytial virus season



- Children with chronic lung disease of prematurity who required medical support (chronic corticosteroid therapy, diuretic therapy, or supplemental oxygen) any time during the 6-month period before the start of the second RSV season
- Children with severe immunocompromise
- Children with cystic fibrosis who have either 1) manifestations of severe lung disease (previous hospitalization for pulmonary exacerbation in the first year of life or abnormalities on chest imaging that persist when stable), or 2) weight-for-length <10th percentile
- American Indian or Alaska Native children

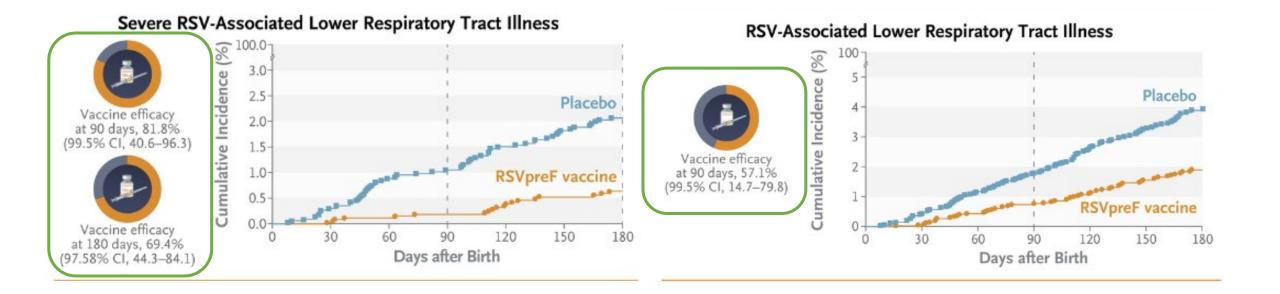


RSV immunization in infants and young children

- ACIP conclusion: nirsevimab can prevent severe RSV disease among infants and children aged <20 months
- Recommendation 1: All infants aged <8 months born during or entering their first RSV season should receive 1 dose of nirsevimab
 - 50mg if <5kg, 100mg if ≥5kg
- Recommendation 2: Infants and children age 8-19 months who are at increased risk for severe RSV diseases and entering their second RSV season should receive 1 dose
 - Administered as two 100mg injections at different sites
- Providers should administer nirsevimab shortly before RSV season begins or within 1 week of birth for those born during RSV season
- Co-administration with other vaccines is a best practice
- Open questions:
 - Clinical efficacy in high-risk infants and children



RSV immunization in pregnancy



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QUESTIONS?

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RN, LVNs Continuing Education Units Evaluation Required



QR Code

If you are requesting the 2 CEUs for this seminar, please click below to access the post-test evaluation: https://forms.office.com/g/DUED6KhR31
The deadline to complete the evaluation will be Tuesday, September 26 at 5 pm PST

A certificate of completion will be sent out after the evaluation

is received.





Thank You





A notification link to presentations will be available within 24-48 hours





Website for General Information: <u>Department of Public Health (lacounty.gov)</u>

General Vaccines: LAc Dept of Public Health VPDC - Vaccine Preventable Diseases (lacounty.gov)

COVID-19 Vaccine: <u>vaccinateLAcounty.com_or http://publichealth.lacounty.gov/vaccines/</u>

Updated COVID-19	Links to English (Downloadable)
Communications	Spanish available 9/19/23, other languages coming soon
Vaccine Facts.pdf	http://publichealth.lacounty.gov/media/Coronavirus/docs/vaccine/VaccineFacts.pdf
Vaccine Facts Parents.pdf	http://publichealth.lacounty.gov/media/Coronavirus/docs/vaccine/VaccineFacts_Parents.pdf
Vaccine Facts Teens.pdf	http://publichealth.lacounty.gov/media/Coronavirus/docs/vaccine/VaccineFacts_Teens.pdf
Vaccine Facts Pregnancy.pdf	http://publichealth.lacounty.gov/media/Coronavirus/docs/vaccine/VaccineFactsPregnancy.pdf
Homebound Vaccines.pdf	http://publichealth.lacounty.gov/acd/ncorona2019/docs/vaccine/HomeboundVaccines.pdf
After Vaccination Summary.pdf	http://publichealth.lacounty.gov/acd/ncorona2019/docs/vaccine/AfterVaccinationSummary.pdf



Latinx Heritage Month- Unidos: Inclusivity for a Stronger Nation

Observed annually from September 15 to October 15, it is a time to recognize and celebrate the culture, contributions, and heritage of Latinx Americans. This year's theme, "Driving Prosperity, Power, and Progress in America," showcasing how big of an impact Hispanics in America have had in driving our economy forward and continue to do so. Resources:

A conversation with **Julissa Soto** about the importance of community and advocacy:

https://bio.news/diversity-equity-inclusion/hispanic-heritage-month-julissa-soto-health-equity-vaccines-community/

Montgomery County Immunization Coalition (MCIC) National Hispanic Heritage Month focus on bringing attention to the importance of staying up to date on all recommended vaccines with bilingual social media images

Direct Links to Social Media Images: English1, English2, Spanish1, Spanish2, Spanish2</

Toolkit with social media images and sample text on our webpage. Please feel free to use and share!

For more Latinx Heritage Month information a and great events virtually and in person in LA County, please see below:

LA County calendar and cultural guide for Latinx Heritage Month:

- https://lacountylibrary.org/hispanic-heritage-month-2022/
- https://www.lapl.org/latinx
- https://www.hispanicheritagemonth.gov/
- •https://www.discoverlosangeles.com/things-to-do/celebrate-latino-heritage-month-in-la
- https://www.pbs.org/articles/celebrate-hispanic-heritage-

month#:~:text=Hispanic%20Heritage%20Month%20runs%20from,U.S.%20population%20of%20331.4%20million







Updated Flu, COVID-19, RSV Job Aids

- Pediatric/Adult Influenza Vaccine Guide (IMM-859)
- •VFC Flu Usage Log (IMM-1053)
- •Block Timing Schedule (IMM-395) | Spanish

Provider Resources

- •COVID-19 Clinical Talking Points for Providers (IMM-1431)
- VFC Flu Vaccine Page (EZIZ)

Promotional Materials

- •Who needs a flu vaccine? poster (IMM-782)
- •Flu & Respiratory Disease Materials (EZIZ)

Vaccine Communication Toolkits

- Don't Wait Vaccinate toolkit
- Fight Flu. Get Vaccinated Toolkit (CDPH)
- Don't Wait Vaccinate Flu Toolkit (CIC)







https://publichealthcollaborative.org/
Fall and Winter 2023 Immunization Messaging



- CDC ACIP Meeting: Maternal RSV Vaccine
 - Friday September 22nd, 2023, 7AM PST, webcast link to join can be found here.
 - Agenda not yet posted
- COVID-19 Crucial Conversations: Talking with Patients about the Updated COVID-19 Vaccine
 - Wednesday September 27th, 2023, 12PM-1PM, PST, registration link can be found here.



- CDC Clinical Guidance for Use of Products to Prevent RSV Disease in Infants
 - Wednesday September 27th, 2023, webinar information can be found <u>here.</u>
- Current Issues in Immunizations Webinar: CDC clinical guidance for Use of Products to Prevent RSV Disease in Infants
 - Wednesday September 27th, 2023, webinar information can be found <u>here.</u>
- Addressing vaccine anxiety resources can be found <u>here.</u>
- CDC COVID-19 Vaccination Requirements and Support can be found here.



Bridge Access Program

(BAP) for COVID-19 Vaccines and Treatments. BAP is a temporary measure created to prevent loss of access to free COVID-19 vaccines and treatment for uninsured and underinsured aged 19 years and older. The program will begin September 2023 and will end on 12/31/2024



- 1. <u>Catch Up on Routine Vaccination</u>: This chart helps parents and caregivers track which routine vaccinations the CDC recommends for school-age children.
- 2. <u>Vaccine Attendance Retention Plan</u>: This is a guide that will help districts and schools establish a Vaccine Attendance Retention Plan using a continuum of support model to prevent absenteeism due to missed vaccinations.
- 3. <u>Fact Sheet COVID-19 for Children under age 5</u>: COVID-19 fact sheet for children to provide parent/families with information about the safety of COVID-19 vaccines.
- 4. <u>Vaccine FAQ for Families</u>: Frequently Asked Questions about Vaccines to keep families informed about required and recommended vaccines for children & teens.
- 5. <u>Healthier Generation Vaccine Resource Hub</u>: Vaccination Resources for schools & families to help protect students from preventable diseases.