



COVID-19 vaccine *Past, Present, Future*

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Disclaimer

- Information about COVID-19 and vaccination changes frequently.
- This presentation was current as of 2/26/2022.
- It only includes information about the vaccines that are currently available in the USA.

For up-to-date information please visit:

www.cdc.gov/vaccines/covid-19

VaccinateLACounty.com



Outline

- Past
 - Impacts of COVID-19 on the health of children
 - Direct (SARS-CoV2)
 - Indirect (pandemic)
- Present
 - Vaccine effectiveness
 - Vaccine safety
 - Myocarditis risk
 - Vaccine demand/disparity
- Future
 - 6 month to 4 yo
 - Pediatrician's crucial role





Past (ish?) COVID-19 impacts on children



7-Day Average Daily COVID-19 Cases and Deaths by Report Date* and Daily Hospital Admissions by Admit Date July 1, 2020 – February 24, 2022





covid19.lacounty.gov 2/24/2022 *Cases and d Pasadena and

*Cases and deaths from the cities of Pasadena and Long Beach are NOT included

Fig 6. United States: Number of Child COVID-19 Cases Added in Past Week*



Week ending in

* Note: 5 states changed their definition of child cases: AL as of 8/13/20, HI as of 8/27/20, RI as of 9/10/20, MO as of 10/1/20, WV as of 8/12/21

On 1/14/22, TX released new data that is NOT included in cumulative case counts or figures but located here and in Appendix 3B of this report (774,083 cumulative child cases as of 1/20/22);

TX previously reported age for only a small proportion of total cases each week (eg, 2-20%); these cumulative cases through 8/26/21 are included (7,754)

Due to available data and changes made to dashboard, AL cumulative cases through 7/29/21

Due to available data and calculations required to obtain MA child cases, weekly estimates fluctuate

On 2/10/22, HI cumulative child cases and total cases through 1/13/22

On 2/10/22 due to available data, DC cumulative child cases through 2/3/22

See detail in Appendix: Data from 49 states, NYC, DC, PR and GU

All data reported by state/local health departments are preliminary and subject to change; Analysis by American Academy of Pediatrics and Children's Hospital Association



https://downloads.aap.org/AAP/PDF/AAP%20and%20CHA%20-%20Children%20and%20COVID-19%20State%20Data%20Report%202.10.22%20FINAL.pdf

Number of child cases added



FIGURE. Weekly COVID-19-associated hospitalization rates* among children and adolescents aged 0–17 years, by age group — COVID-NET, 14 states,[†] July 3, 2021–January 22, 2022



Abbreviation: COVID-NET = Coronavirus Disease 2019–Associated Hospitalization Surveillance Network.

* Number of patients with laboratory-confirmed COVID-19-associated hospitalizations per 100,000 population; rates are subject to change as additional data are reported. [†] COVID-NET sites are in the following 14 states: California, Colorado, Connecticut, Georgia, Iowa, Maryland, Michigan, Minnesota, New Mexico, New York, Ohio, Oregon, Tennessee, and Utah. Starting the week ending December 4, 2021, Maryland data are removed from weekly rate calculations.

Marks KJ, Whitaker M, Anglin O, et al. Hospitalizations of Children and Adolescents with Laboratory-Confirmed COVID-19 — COVID-NET, 14 States, July 2021–January 2022. MMWR Morb Mortal Wkly Rep 2022;71:271–278.

TABLE 1. Demographic and clinical characteristics and outcomes among children and adolescents aged 0–17 years with laboratory-confirmed COVID-19–associated hospitalizations,* by date of admission — COVID-NET, 14 states,[†] July 1–December 31, 2021



	No			
	Total			
Characteristic	Jul 1–Dec 31	Jul 1–Dec 18	Dec 19–31	p-value [§]
Total	2,100 (100.0) [¶]	1,834 (82.3) [¶]	266 (17.7) [¶]	_
Age, yrs, median (IQR)	7 (1–14)	7 (1–14)	3.5 (0.4–13)	<0.001
Age group, yrs				
0-4	920 (44.6)	778 (42.5)	142 (54.2)	0.003
5–11	460 (21.5)	417 (22.5)	43 (16.9)	
12–17	720 (33.9)	639 (34.9)	81 (28.9)	
Sex				
Male	1,081 (51.7)	934 (51.2)	147 (54.2)	0.38
Female	1,019 (48.3)	900 (48.8)	119 (45.8)	
Race and ethnicity**				
Hispanic	463 (21.8)	420 (23.1)	43 (15.7)	<0.001
Black, non-Hispanic	736 (35.8)	619 (33.4)	117 (47.1)	
White, non-Hispanic	670 (31.3)	598 (32.6)	72 (25.5)	
Asian or Pacific Islander, non-Hispanic	82 (3.9)	71 (3.9)	11 (3.7)	
All other races ^{††}	47 (2.3)	41 (2.3)	6 (2.1)	
Unknown race and ethnicity	102 (5.0)	85 (4.8)	17 (5.9)	
Primary reason for admission ^{§§}				
Likely related to COVID-19	1,703 (81.3)	1,489 (81.3)	214 (81.6)	0.19
Obstetrics	63 (2.9)	57 (3.0)	6 (2.2)	
Inpatient surgery	53 (2.6)	43 (2.5)	10 (3.3)	
Psychiatric admission requiring medical care	118 (5.6)	108 (5.9)	10 (4.0)	
Trauma	75 (3.5)	67 (3.7)	8 (2.8)	
Other reason	78 (3.8)	62 (3.3)	16 (6.1)	
Unknown reason	6 (0.3)	6 (0.3)	0 (—)	
COVID-19-related symptoms at admission ^{¶¶}				
Yes	1,832 (87.6)	1,604 (87.7)	228 (86.9)	0.72
No	264 (12.4)	228 (12.3)	36 (13.1)	
Hospitalization outcomes				
Length of hospital stay, days, median (IOR)	3 (1–5)	3 (2–5)	2 (1–5)	0.15
ICU admission***	562 (26.4)	510 (27.8)	52 (20.2)	0.01
Invasive mechanical ventilation***	118 (5.6)	112 (6.3)	6 (2.3)	0.01
In-hospital death	11 (0.5)	11 (0.6)	<u>(</u> _)	0.38
Vaccination status (among patients aged 12–17 vrs)				
Fully vaccinated ^{†††}	71 (9.9)	53 (8.3)	18 (22.2)	<0.001
Unvaccinated	647 (90.1)	584 (91.7)	63 (77.8)	

See table footnotes on the next page.





OTE: MIS-C and COVID-19 data shown below are displayed using different scales to allow for overlay. Please consult the appropriate axis for ach health condition.



Multi-system Inflammatory Syndrome in Children

- Rare but serious complication associated with COVID-19.
- Persistent fever, abdominal pain, vomiting, diarrhea, skin rash, mucocutaneous lesions and in severe cases, hypotension and shock.
- 287 hospitalized
 - 2 deaths



Summary

- Children are just as likely to be infected with SARS-CoV-2 as adults
- 12.5 million children tested positive since onset of pandemic,
 - 4.6 million reported pediatric cases since January 2022
 - 1.9 million in the last 4 weeks
- Children are at risk of severe illness from COVID-19
 - 0.1-1.5% of cases result in hospitalizations
 - One-third to one-half of hospitalizations in children without pre-existing conditions
 - Increased risk in children with special healthcare needs (genetic, neurologic, or metabolic conditions, or with congenital heart disease) or with obesity, diabetes, asthma, chronic lung disease, sickle cell disease, or immunosuppression
 - MIS-C seen in children 5-11 years of age
 - Post-COVID-19 conditions reported in children



Indirect Impacts





COVID-19 Related K-12 School Closures by State, August 2, 2021 – October 22, 2021



of Schools Closed ◎ 0 ◎ 1 - 29 ◎ 30 - 59 ● 60 - 89 ● 90 - 119 ● 120 - 149 ● 150 - 179 ● 180+

Data from the Unplanned School Closure Monitoring Project (DGMQ/CDC), ongoing research that uses systematic daily media searches (methods explained in https://doi.org/10.1371/journal.pone.0248925).



COVID 19 Related K-12 closures



Of the 2,321 nationwide school closures since August because of Covid-19, about 1 percent have been in California — even though the state accounts for 12 percent of the nation's K-12 students,



Learning Lost



December 8, 2020 | Article

Most students are falling behind, but students of color are faring worse.



¹Percent of an "average" year of learning gained by students in 2019–20 school year, where 100% is equivalent to historical matched scores over previous 3 years. Source: Curriculum Associates

McKinsey & Company CALIFORNIA



Falling grades, stalled learning. L.A. students 'need help now,' Times analysis shows

Grades dropped at LAUSD



Students in sixth through 12th grades received more Ds and Fs in 2020-2021 academic year.

Grades fell across all groups

The percentage of LAUSD secondary students eiving As, Bs and Cs fell in Spring 2021.



Percentage of elementary students meeting reading goals

Number of LAUSD elementary school students meeting reading benchmarks fell in 2020-2021 academic year.



https://www.latimes.com/california/story/2020-11-02/failing-grades-surge-poor-la-students-covid-19



School closures, familial illness and loss of normal developmental activities affecting mental health





Downstream effects of social isolation and lack of school connectedness— Mental Health





* Proportion of mental health-related ED visits = number of ED visits for children's mental health/total number of

B. Proportion of mental health-related ED visits per 100,000 pediatric ED visits per week



During March–October 2020, among all emergency department (ED) visits, the proportion of mental health-related visits increased by 24% among U.S. children aged 5–11 years and 31% among adolescents aged 12–17 years, compared with 2019







COVID-19 Vaccines

Present





Check vaccine products before use to ensure proper storage and administration to appropriate ages.

Refer to CDC Product Guide for more information. Details may differ from packaging; EUA fact sheets supersede info on vials and carton.

	6mo-4 years old	5-11 years old		12+ years old		18+ ye	ars old	
	Pfizer (Pediatric)	Pfizer (Pediatric)		Pfizer	Pfizer (Comirnaty)	Janssen (J&J)	Moderna	
	Pending approvals			No longer distributed	Replaced purple cap product	A Contraction of the second seco		
Packaging								
Doses Per Vial	10 doses	10 doses		6 doses	6 doses	5 doses	10 (or 14) doses	
Maximum Full Doses Per Vial	10 doses	10 doses		6 doses	6 doses	5 doses	11 (or 15) doses*	
Carton Size	100 doses	100 doses		1170 (or 450) doses	60 doses	50 doses	100 (or 140) doses	
Carton NDC #	59267-0078-4	59267-1055-4		59267-1000-2 (59267-1000-3)	59267-1025-4	59676-580-15	80777-273-99 (80777-273-98)	
Storage Limits Before Punct	ture: Label vaccine with	expiration and beyond u	ıse	dates (end of time limit	t in each storage unit).			
ULT (-90°C to -60°C)	Until expiration	Until expiration		Until expiration	Until expiration	N/A	N/A	
Thermal Shipper	N/A	N/A		Up to 30 days	N/A	N/A	N/A	
Freezer	Do not freeze	Do not freeze		Up to 14 days (-25°C to -15°C)	Do not freeze	N/A	Until expiration (-50°C to -15°C)	
Refrigerator (2°C to 8°C)	Up to 10 weeks	Up to 10 weeks		Up to 31 days	Up to 10 weeks	Until expiration	Up to 30 days	
Checking Expiration Dates [†]	9 months (count month printed on vial as first month)	9 months (count month printed on vial as first month)		Check <u>EUA fact</u> <u>sheet</u> for extended dates.	9 months (count month printed on vial as first month)	Check product website, QR code, or call 800-565-4008	Check product website or QR code	

* When extracting Moderna booster doses, the maximum number of doses from either vial presentation should not exceed 20 doses.

† Do not dispose of expired vaccine until checking with manufacturers for extended expiration dates.

California COVID-19 Vaccination Program

IMM-1399 (2/8/22)

https://eziz.org/assets/docs/COVID19/IMM-1399.pdf

Vaccine Doses Administered Weekly Among All Eligible Persons

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2/10/2022

7-Day Cumulative Age-Adjusted Hospitalization Rates per 100,000 by Vaccination Status, including Additional/Booster Dose** June 1st, 2021 – January 1st, 2022



*Excludes partially vaccinated (3% of cases)



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1/13/2022

7-Day Cumulative Age-Adjusted Death Rates per 100,000 by Vaccination Status* June 1st – December 25th, 2021



*Excludes partially vaccinated (3% of deaths)



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1/13/2022

COVID-19-associated hospitalization rates among 12–17-year-olds, by vaccination status



https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-01-05/06_COVID_Oliver_2022-01-05.pdf

30-Day Hospitalization Rates by Vaccination Status for Pediatric Age Groups November 1, 2021 - January 15, 2022





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Protection from MIS-C

- A test-negative case-control design that included 102 MIS-C case patients and 181 hospitalized controls 12–18 years of age:
 - Vaccine effectiveness of 2-doses of the Pfizer-BioNTech vaccine against MIS-C was 91% (95% CI = 78%–97%)
 - 97/102 (95%) of hospitalized children with MIS-C were unvaccinated
- -None of the five vaccinated MIS-C patients required respiratory or cardiovascular life support (invasive mechanical ventilation, vasoactive infusions, or ECMO) compared to 38/97 (39%) of unvaccinated MIS-C patients



Zambrano LD,. Effectiveness of BNT162b2 (Pfizer-BioNTech) mRNA Vaccination Against Multisystem Inflammatory Syndrome in Children Among Persons Aged 12–18 Years — United States, July–December 2021. MMWR Morb Mortal Wkly Rep 2022;71:52–58. DOI: <u>http://dx.doi.org/10.15585/mmwr.mm7102e1</u>



Where are the gaps in coverage?





Proportion of LAC Residents Vaccinated by Age Group as of February 13, 2022

	≥1 Dose	Fully Vaccinated	Vaccinated with Additional/Booster Dose
% LAC Residents 65+	99%	90%	62%
% LAC Residents 5-11	34%	26%	<0.0%
% LAC Residents 12-17	84%	76%	20%
% LAC Residents 12+	87%	79%	39%
% LAC Residents 5+	82%	74%	36%
% of 10.3 million LAC residents	78%	70%	34%

3,480,609 LAC residents have received additional/booster doses



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2/17/2022





Geographic Distribution of Outbreaks in TK-12 Schools and Programs January 1, 2022 – February 19, 2022

School Type	# of Outbreaks*					
Elementary	50					
Middle	6					
High School	8					
Youth Sports**	13					
Total	77					

*Outbreaks are based on the date the outbreak investigation was opened. **All but three of the Youth Sports Outbreaks have been in a high school setting.



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2/24/2022

Outbreaks in TK-12 Schools and Programs August 1, 2021 – February 19, 2022^{*}



*Outbreaks are reported by the date the outbreak investigation was opened. Outbreaks may still be open and under investigation ** All but three of the Youth Sports Outbreaks have been in a high-school setting.



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2/24/2022

Vaccination Coverage for LAC Residents Ages 5-11 Years by Race/Ethnicity

Latinx 5-11 Years with 1+ Dose

Black 5-11 Years with 1+ Dose

Asian 5-11 Years with 1+ Dose



Dark Purple and Dark Blue = Higher Vaccination Coverage Yellow and Light Green = Lower Vaccination Coverage



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2/24/2022





5-11 Vaccination Rates

as of February 14, 2022

Statewide Average = **36%**

County	Rate
Bay Area	57%
Greater Sacramento	35%
Southern California	33%
San Joaquin Valley	21%
Northern California	18%





Los Angeles—28% vaccinated





San Francisco—68% fully vaccinated

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Vaccine Equit	ty by Age Vaccine Equity by	R/E				
Age Group	County	V Q1	Q3			
5-11	▼ San Francisco	▼ Q2	Q4			
Fully Vaccina	ted % Over Time					
70%						70.4%
60%					/	56.0%
50%				/		
40%					}	
30%					_ کر	
20%						
10%						
0%						
03/26	04/26 05/26 06/26	07/26 08/26	09/26 10/26	11/26 1	12/26 01/	26 02/26

1+ Dose % Over Time



Age Cohorts as of February 14, 2022 (holiday reporting delay)

Pediatric Vaccination Rates vary by Age

 5-to-11-year-olds took twice as long as 12-to-17-year-olds to reach 25% fully vaccinated rate Adolescent Age Cohorts

Percent Fully Vaccinated by Adolescent Age Groups Based on Number of Days Since Approved Eligibility





Pediatrician's crucial role Future-ish



Parental concern about safety of COVID-19 vaccines in adolescents NIS-CCM – Oct 31, 2021 – Nov 27, 2021, n=877



CDC Preliminary & Unpublished data, National Immunization Survey, October 31, 2021 – November 27, 2021

Larger Shares Of Parents Now Report Their 12-17 Year Old Has Gotten Vaccinated Against COVID-19

Thinking about your child between the ages of 12 and 17, have they received at least one dose of a COVID-19 vaccine, or not? If not, do you think you will get them vaccinated...?

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Child is	s vaccinated	Right away	Wait a	nd see	Only	y if r	equired	Defin	itely	not			
Jan '22	61%							6	%		23%		
Nov '21	49%						13%		30	%			
Oct '21	46%						11%	5%	31%)			
Sept '21	48%						15%			219	6		
July '21	41%				6%	23%	6			9%		20%	
June '21	34%			8%	18%			10%		25%			
May '21	24%		18%		21%			14	%		2	0%	
April '21	30%			26%				15%			22%	6	
NOTE: Among parents or guardians of children between the ages of 12 and 17. April 2021 question wording: "Once there is a COVID-19 vaccine authorized and available for your child's age group, do you think you will?" See topline for full question wording. SOURCE: KFF COVID-19 Vaccine Monitor • Download PNG													

https://www.kff.org/coronavirus-covid-19/poll-finding/kff-covid-19-vaccine-monitor-january-2022-parents-and-kids-update/

Twice The Share Of Parents Of Children Ages 5-11 Now Say Their Child Has Been Vaccinated, Fewer Report Wanting To Wait And See

Thinking about your child between the ages of 5 and 11, have they received at least one dose of a COVID-19 vaccine, or not? If not, do you think you will get them vaccinated...?



NOTE: Among parents or guardians of children between the ages of 5 and 11. Jul.-Oct. 2021 question wording: "Once there is a COVID-19 vaccine authorized and available for your child's age group, do you think you will...?" See topline for full question wording. SOURCE: KFF COVID-19 Vaccine Monitor • Download PNG

KFF COVID-19 Vaccine Monitor

Pediatricians Are The Most Trusted Source Of COVID-19 Vaccine Information For Parents Across Party, Race And Ethnicity

Percent of parents who say they trust each of the following a great deal or a fair amount to provide reliable information about the COVID-19 vaccines for children:

		Race/Ethnicity					
	Total parents	Democrats	Independents	Republicans	Black	Hispanic	White
The CDC	57%	85%	53%	36%	59%	60%	53%
Their child's pediatrician or health care provider	77%	89%	79%	73%	74%	71%	80%
Their local public health department	60%	82%	59%	43%	61%	58%	60%
Their child's school or daycare	45%	65%	41%	34%	44%	43%	45%
Other parents they know	33%	43%	25%	31%	37%	31%	31%

SOURCE: KFF COVID-19 Vaccine Monitor: Winter Update on Parents' Views (November 8-23, 2021) • Download PNG

nttps://www.km.org/coronavirus-covid-19/poil-tinding/km-covid-19-vaccine-monitor-winter-2021-update-on-parents-

views-of-vaccines/#:~:text=As%20previous%20KFF%20research%20has,about%20the%20vaccines%20for%20children.



39



One In Six Parents Say Their Pediatrician Did Not Recommend A COVID-19 Vaccine For Their Child

Did your child's health care provider recommend that your child get vaccinated for COVID-19?

 Pediatrician recommended vaccine
 Pediatrician did not recommend vaccine
 Did not talk to pediatrician

 Children ages 12-17
 27%
 16%
 54%

 Children ages 5-11
 19%
 15%
 63%

 NOTE: Among parents or guardians of children between the ages of 5 and 17. See topline for full question wording.
 KFF COVID-19

 SOURCE: KFF COVID-19 Vaccine Monitor: Winter Update on Parents' Views (November 8-23, 2021) • Download PNG
 Kreater Monitor



To our California pedi

As we reflect on almo and commitment to ch keep your patients an

Studies repeatedly show that a strong recommendation from their pediatrician is the single most important factor in a parent's decision to vaccinate their children. A recent survey suggested that only 1 in 6 parents said that their doctor difficult last month, we recommended the COVID-19 vaccine to them. Further, over 40% of California pediatric clinics are NOT providing COVIDtimes in our careers a 19 vaccines to their patients. The pediatric medical home is the best place for children to receive their immunizations, and this lack of access and recommendation are contributing to our low immunization rates.

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The American Acader best hope for ending t vaccinated against C(

dramatically decrease The California Department of Public Health (CDPH). in partnership with the American Academy of Pediatrics. California. is even lower in California's poorest neighborhoods, where the rate less than 15%. This leaves most of our children vulnerable to severe disease, prolongs the pandemic and continues the disruptions that have had such a negative impact on the lives, health and education of our children.

Studies repeatedly show that a strong recommendation from their pediatrician is the single most important factor in a parent's decision to vaccinate their children. A recent survey suggested that only 1 in 6 parents said that their doctor recommended the COVID-19 vaccine to them. Further, over 40% of California pediatric clinics are NOT providing COVID-19 vaccines to their patients. The pediatric medical home is the best place for children to receive their immunizations, and this lack of access and recommendation are contributing to our low immunization rates.

The California Department of Public Health (CDPH), in partnership with the American Academy of Pediatrics, California, can help more pediatricians offer the COVID-19 vaccine in their office to protect children.

CDPH has the following links to step-by-step instructions for practices seeking to begin vaccinations:

- Steps to Enroll
- Enrollment Kit for Prospective and Enrolling Providers
- Infographic to Post in Office



Myth: Vaccine not safe



8.7 million* COVID-19 vaccinations have been given to children ages 5-11 years old

Health check-ins to v-safe completed for over 42,000 children after vaccination⁺

Side effects were common but mild and brief^{s}



Pain where shot was given

Fatigue





- Mild side effects are a normal sign the body is building protection
 - Few myocarditis cases have been reported



* As of December 19, 2021
 [†] V-safe, a voluntary smartphone vaccine safety monitoring system
 § After the 2nd dose, about 2/3 children had a local reaction such as arm pain; 1/3 had a reaction beyond the injection site

bit.ly/MMWR705152a1

MMWR

- 15 preliminary reports of myocarditis identified during the analytic period
- 11 were verified (by provider interview or medical record review) and met the case definition for myocarditis
 - 7 recovered
 - 4 were recovering at time of the report.

Hause AM, Baggs J, Marquez P, et al. MMWR Morb Mortal Wkly Rep 2021;70:1755–1760. http://dx.doi.org/10.15585/mmwr.mm705152a1external icon



Myocarditis

- Risk highest with second dose in males 12-39 years of age
- Rate peaks at 70.2 cases/million dose for adolescent male with 2nd dose.

Reporting rates of myocarditis (per 1 million doses administered) after Pfizer-BioNTech COVID-19 vaccination, 7-day risk interval*

	Ma	les	Females				
Age group	Dose 1	Dose 1 Dose 2		Dose 2			
5–11 years	0.0	4.3	Not calculated ⁺	2.0			
12–15 years	4.8	45.7	1.0	3.8			
16–17 years (included for reference)	6.1	70.2	0.0	7.6			

- 37,810,998 total doses 1 and 2 of vaccine administered[‡]
- Reporting rates exceed background incidence (peach shaded cells)[§]
 - Males: after dose 1 (ages 12–15 and 16–17 years) and after dose 2 (ages 5–11, 12–15, and 16–17 years)
 - Females: after dose 2 (ages 12–15 and 16–17 years)
 - Reporting rates among males substantially lower among ages 5–11 vs. 12–15 and 16–17 years



* Reports of myocarditis after doses 1 and 2 of Pfizer-BioNTech COVID-19 vaccine during a 7-day risk interval after vaccination (as of Dec 19, 2021); reports verified to meet case definition by healthcare provider interview and/or medical record review. [†] Too few reports of females ages 5–11 years to calculate a stable rate.

⁺ Children ages 5–11 years vaccinated Nov 3–Dec 19, 2021, children and adolescents ages 12–15 years vaccinated May 12–Dec 19, 2021. [§] An estimated 1–10 cases of myocarditis per 100,000 person years occurs among people in the United States, regardless of vaccination status; adjusted for the 7-day risk period, this estimated background is 0.2 to 1.9 per 1 million person 7-day risk period.

https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2022-01-05/02-COVID-Su-508.pdf



Recommendations for the Interval Between the First and Second mRNA COVID-19 Vaccine Doses

- Some people ages 12 through 64 years—and especially males ages 12 through 39 years—may benefit from getting their second mRNA COVID-19 vaccine dose 8 weeks after receiving their first dose
- Providers should continue to recommend the 3-week (Pfizer-BioNTech) or 4-week (Moderna) interval for patients who:
 - Are at higher risk of having an inadequate response to the first mRNA vaccine dose
 - · People who are moderately or severely immunocompromised
 - Are at higher risk for severe COVID-19
 - Adults ages 65 years and older
 - Need rapid protection, such as during high levels of community transmission
 - Children ages 5–11 years



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Myth: Vaccine affects fertility

- 2,126 self-identified female participants aged 21–45 year residing in the United States or Canada during December 2020–September 2021 and followed them through November 2021.
- COVID-19 vaccination was not appreciably associated with fecundability in either partner

FR (95% CI) Variable First dose + 14 days 1.11 (0.97, 1.26) Pfizer vaccine 1.06 (0.92, 1.22) Moderna vaccine 1.11 (0.95, 1.29) Johnson & Johnson vaccine 1.06 (0.78, 1.43) US participants 1.07 (0.93, 1.23) Canadian participants 1.22 (0.89, 1.65) Occupation in health-care industry 1.34 (0.99, 1.80) No occupation in health-care industry 1.04 (0.89, 1.20) December-March 1.14 (0.92, 1.42) April-November 1.03 (0.86, 1.24) <3 Cycles of attempt time at study entry 1.09 (0.93, 1.27) 3-6 Cycles of attempt time at study entry 1.02 (0.81, 1.29) No history of infertility 1.06 (0.93, 1.21) Never tested positive for SARS-CoV-2 1.08 (0.94, 1.23) 0.8 0.9 1.0 07 1.2 1.4 1.6 1.8 Fecundability Ratio

Figure 1. Association between female partner receipt of coronavirus disease 2019 (COVID-19) vaccine by first day of menses and fecundability, stratified by selected variables, Pregnancy Study Online, December 2020–November 2021. The reference group comprises individuals who were unvaccinated as of the first day of menses. Estimates are adjusted for age; educational attainment; household income; current smoker; private health insurance; hours/week of work; rotating shift work; night shift work; body mass index; intercourse frequency; doing something to improve chances of conception; sleep duration; Perceived Stress Scale score; Major Depression Inventory score; having had a Pap smear in past 3 years; history of infertility; parity; irregular menstrual cycles; menstrual cycle length; geographic region of residence; last method of contraception; occupation in health-care industry; race/ethnicity; days since December 14, 2020; and ever tested positive for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The *x*-axis is plotted on the natural log scale. CI, confidence interval.

 Amelia K Wesselink. A Prospective Cohort Study of COVID-19 Vaccination, SARS-CoV-2 Infection, and Fertility, American Journal of Epidemiology, 2022



Myth: Vaccine can cause long term effects

History tells us that severe side effects are extremely rare, and if they do occur, they usually happen within the first two months. Examples:

- Johnson & Johnson COVID-19 vaccine: 4 per million risk of thrombosis with thrombocytopenia syndrome, occurring 2 weeks after vaccine
- Oral Polio Vaccine: 1 in 2.4 million recipients were paralyzed following vaccination when vaccine virus reverted to "wild type: poliovirus. Side effect occurred 7-30 days after vaccination

However, viruses can cause long term effects (SSPE from measles) and COVID-19 has known long term effects (MIS-C, Long Haul COVID)



Myth: It is safer for my child to build immunity by getting infected with COVID-19 than to build immunity by getting the vaccine.

- When children get COVID-19, they may be sick for several days and miss school and other opportunities for learning and play with others.
- Children who are not vaccinated and get COVID-19 may also be at risk for prolonged post-COVID-19 conditions, hospitalization
- Getting children 5 years and older vaccinated can help protect them from getting COVID-19, as well as keep them in school and group activities by helping stop the spread of COVID-19 in their community.



Three In Ten Parents Say They'll Get Their Child Under The Age Of Five Vaccinated ASAP When A COVID-19 Vaccine Is Authorized For Their Age Group

Thinking about your child under the age of 5, once there is a COVID-19 vaccine authorized and available for your child's age group, do you think you will...?

Get them vaccinated right away 🗾 Wait and see 📕 Only if required 📕 Definitely not								
Jan '22	31%	29%	12%	6 2	26%			
Sept '21	23%	33%	7%	35%				
July '21	20%	40%	10%	% 30%	/o			
NOTE: Among parents or guardians of children under the age of 5. See topline for full question wording. KFF COVID-19 SOURCE: KFF COVID-19 Vaccine Monitor • Download PNG Vaccine Monitor								

Increase vaccine supply with trusted sources

- We need pediatricians to become vaccine providers
 - AAP
 - LA Pediatrics Society
 - Vaccine for Children's Program
- School-Based vaccine clinics
 - ECE located clinics
 - Parent Ambassador/Student Ambassador
 Programs
- Faith-based clinics/Community Based clinics
- Pharmacies





Community Based and Faith Based Organizations

WIC Programs Breastfeed LA Eastmont Community Center Spiritt Family Centers La Puente Mutual Aid New Economics for Women MAOF East LA Women's Center LA Best Babies Network

AADAP Advocate for Peace and Urban Unity Alma Family Services Antelope Valley Partners for Health Black Arts, Inc. Brotherly Love Center for Living and Learning Churches in Action C U P of Empowerment Coalition

DB Foundation** Healthy Kids Happy Faces Journey to a New Start, Inc **Kidney Quest Foundation** MEND North Star Alliances ** **Reclaiming Americas Communities** through Empowerment (RACE)* The Salvadoran American Leadership and Educational Fund (SALEF) St. Mark AME Church Sunnyside Church Heart and Soul Center Valley Care Community Consortium Whittier First Day



Effectiveness of Maternal Vaccination with mRNA COVID-19 Vaccine During Pregnancy Against COVID-19–Associated Hospitalization in Infants Aged <6 Months — 17 States, July 2021–January 2022

Early Release / February 15, 2022 / 71

TABLE 3. Effectiveness* of maternal 2-dose primary mRNA COVID-19 vaccination against COVID-19associated hospitalization in infants aged <6 months, by timing of maternal vaccination during pregnancy[†] — 20 pediatric hospitals, 17 states,[§] July 2021–January 2022

	No. vaccinated	¶/Total (%)	
Timing of maternal vaccination during pregnancy [†]	Case-infants	Control-infants	Vaccine effectiveness,* % (95% Cl)
Any time	28/176 (15.9)	65/203 (32.C)	61 (31 to 78)
Early (first 20 weeks)	17/165 (10.3)	26/164 (15. <mark>9</mark>)	32 (-43 to 68)
Late (21 weeks' gestation through 14 days before delivery)	9/157 (5.7)	38/176 (21.6)	80 (55 to 91)



COVID-19 vaccination* among pregnant people is associated with



about 60% reduced risk of COVID-19 hospitalization in babies younger than 6 months old

People who are pregnant, may become pregnant, or are breastfeeding should get vaccinated against COVID-19

bit.ly/MMWR7107e3 damp life 1 and the life of the life

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* Vaccine effectiveness estimates were based on odds of antecedent maternal vaccination during pregnancy in case-infants versus control-infants, adjusted for U.S. Census region, admission date (biweekly intervals), continuous age, sex, and race/ethnicity (non-Hispanic White, non-Hispanic Black, non-Hispanic other, Hispanic of any race, or unknown).

[†] Timing of vaccination is based on date of receipt of the second dose of a 2-dose primary mRNA COVID-19 vaccination series during pregnancy. Gestational age was missing for seven of 90 (7.8%) infants born to vaccinated mothers with known timing of the second dose, and for these infants classification of vaccination timing was based on gestational age of 40 weeks.

[§] Infants were enrolled from 20 pediatric hospitals in 17 states. *Northeast*: Boston Children's Hospital (Massachusetts), Cooperman Barnabas Medical Center (New Jersey), and Children's Hospital of Philadelphia (Pennsylvania); *Midwest:* Akron Children's Hospital (Ohio), Nationwide (Ohio), Children's Mercy Kansas City (Missouri), Mayo Clinic (Minnesota), Riley Children's (Indiana), Lurie Children's Hospital (Illinois), Minnesota Masonic (Minnesota), and Children's Hospital of Michigan (Michigan); *South:* Arkansas Children's Hospital (Arkansas), University of North Carolina at Chapel Hill Children's Hospital (North Carolina), Medical University of South Carolina Children's Health (South Carolina), Texas Children's Hospital (Texas), Children's Hospital of New Orleans (Louisiana), and Children's Healthcare of Atlanta, Emory (Georgia); *West:* Children's Hospital Colorado (Colorado), Children's Hospital Los Angeles (California), and University of California San Diego-Rady Children's Hospital (California).

¶ COVID-19 vaccination status included the following two categories: 1) unvaccinated (mothers who did not receive COVID-19 vaccine doses before their infant's hospitalization) or 2) vaccinated (mothers who completed their 2-dose primary mRNA COVID-19 vaccination series during pregnancy and ≥14 days before delivery).



Summary Talking points

Safety of children is priority.

In-person learning is important and vaccinations keep children in school.

If eligible, not being vaccinated means more quarantine/isolation/testing requirements which can cause significant disruptions to school life/activities for both the parents and kids.

Vaccination makes extra-curricular activities safer.

There are years of research on other vaccines that show that side effects usually happen within 6-8 weeks of getting a vaccine. Over 200 million people have been vaccinated in the United States with no long-term side effects.

Children are not immune to COVID-19 and could get very sick and end up hospitalized if they catch the virus. Over 100,000 kids under 12 in LA County have gotten COVID-19. If your child is eligible for the vaccine, vaccinations are the best way to protect them.



Parent Ambassador Program



We know parents have questions about COVID-19 and the COVID-19 vaccines. Is the vaccine safe for my teenager? What about for my young child? Are my children protected from COVID-19 at school?

Student Ambassador Program



The Student Ambassador program empowers students to take an active role in helping stop the spread of COVID-19 in their community. The program is open to all LA County high school and middle school students





https://vaccinatela.info/

- Videos discussing the "Why" individuals got vaccinated
- Focus Groups with Spanish and English Speaking Parents identifying Barriers and Motivators for vaccination
- Additional information resources

Conclusion

- Parents want to learn more in the form of clear, consistent information from a reliable and trustworthy source
- Doctors/pediatricians are trusted source of information
- Pushing vaccination plus booster during a covid surge puts effectiveness in question
- Too much information and mixed messages causes overwhelm
- Mandates are effective at increasing vaccination rates
- Fear works as both a barrier and a motivating factor

Short Films

Follow a tight-knit Latino family in East LA and an African American family in South LA celebrating their grandmother's birthday. Except some family members are hesitant about getting their shot. Teresa is worried about side effects and her fertility, but her sister shows her what's true and what's just a rumor. Melanie's family wants to travel but doesn't want to get their shot. An argument at the dinner table leads to an honest discussion about the Tuskegee experiment, safety, and the vaccine.

Both videos feature the work of young Latino and African American filmmakers and actors, and is a production of USC, VaccinateLA and StayConnectedLA.







Children's Hospital



Children's Hospital Los Angeles Partners with Los Angeles County Department of Public Health to Launch Innovation Challenge Aimed at Getting Children and Teens to "VaxUp"

The VaxUp Challenge, led by CHLA's Innovation Studio, calls for creative solutions that will help increase COVID-19 vaccination rates among young people in LA County

VaxUp Challenge



The Innovation Studio at Children's Hospital Los Angeles is partnering with the Los Angeles County Department of Public Health on the VaxUp Challenge: a three-phase innovation challenge to generate, test and scale creative solutions that will increase COVID-19 vaccination rates among children and teens in L.A. County, particularly in communities disproportionately impacted by COVID-19.

We are looking for bold, creative ideas that can address the barriers and challenges to vaccinating young people in L.A. County. If you are a nonprofit or for-profit organization who can step up to this challenge, we hope you'll join us for the VaxUp Challenge



COVID-19 Vaccine Campaign Toolkit

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Reassure parents and caregivers about the COVID-19 vaccine for children, teens and young adults.

Share these HealthyChildren.org articles to help families understand the science behind the vaccine so they can make informed decisions about protecting their children with the COVID-19 vaccine. Share videos and messages on your own social networks using <u>these prepared posts</u>. Check back often as more tools will be added to the toolkit!

Join us by using #ThisIsOurShot on all social posts.

https://www.aap.org/en/news-room/campaigns-andtoolkits/covid-19-vaccine-toolkit/



LA County Department of Public Health American Academy of Pediatrics





COVID-19 VACCINE FOR CHILDREN & ADOLESCENTS



Join us for:







Questions

