



COVID-19 Update





Disclaimer

Information about COVID-19 and SARS-CoV-2, the virus that causes the illness is evolving daily Recommendations change frequently What you hear today may be outdated soon Trusted sources of up-to-date information

- NJ Department of Health <u>www.nj.gov/health/</u>
- Centers for Disease Control and Prevention <u>www.cdc.gov</u>
- American Academy of Pediatrics <u>www.aap.org</u> and <u>www.healthychildren.org</u>



COVID-19

Disease caused by SARS-CoV-2

Spread primarily by droplets (spit particles)

Most droplets fall to the ground within 3 to 6 feet



https://www.cdc.gov/coronavirus/2019cov/transmission/index.html



Transmission

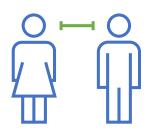




How to help prevent the spread



Wear a mask that covers your nose and mouth



Stay at least 6 feet (about 2 arms lengths) from others



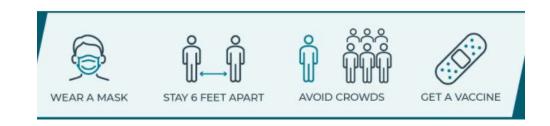
Avoid crowds and sick people



Wash your hands often



Get vaccinated





Global Incidence

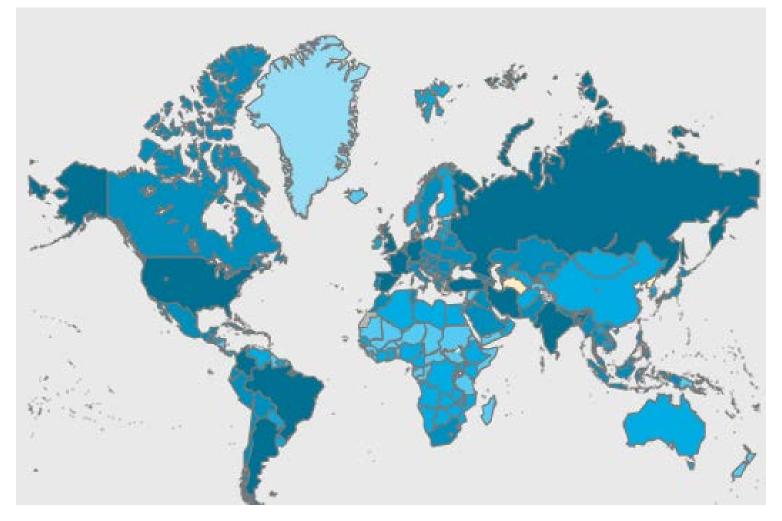
As of 11/15/21

82,479

new cases in last 24hrs

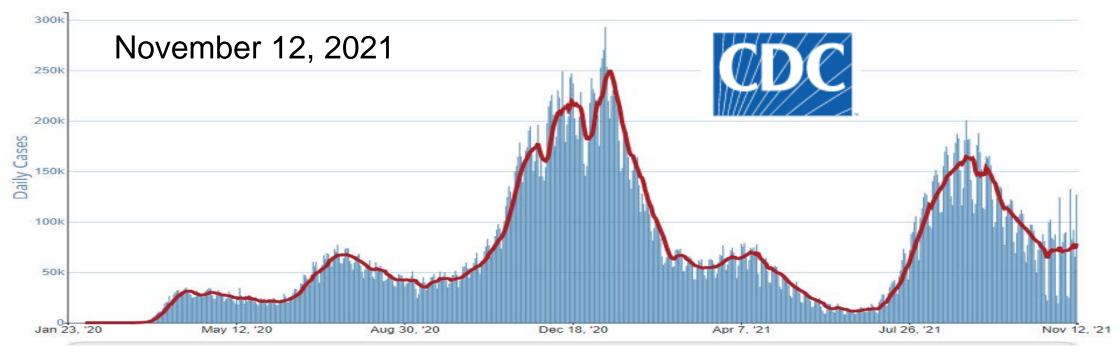
252,902,685 cumulative cases

5,094,826 cumulative deaths

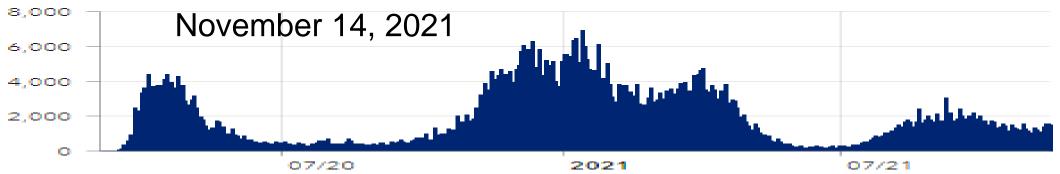


https://covid19.who.int/

COVID-19 Cases in the US and in NJ



https://covid.cdc.gov/covid-data-tracker/#trends_dailycases



https://www.nj.gov/health/cd/topics/covid2019_dashboard.shtml

Preliminary, pre-decisional, and deliberative. Based on input provided by State agency leaders and staff, to date, and subject to change. Content is descriptive only and is not meant to constitute legal, clinical, or policy advice.



COVID-19 Basics

- Disease varies from no symptoms to mild cold to pneumonia to multiorgan involvement and death – to date 759,552 deaths in US; 25,274 in NJ
- Disease in children usually either no or mild symptoms, but not always, 911 deaths in US, 8 in NJ
 - Multisystem inflammatory syndrome Children (MIS-C) is a rare post-infectious complication – as of November 1 -5,526 cases, 48 deaths reported to CDC; as of November 15, - 141 cases, 0 deaths reported in New Jersey





COVID-19 and Children

- Over 140,000 children lost a parent, grandparent or caregiver to COVID-19
 - 1 of every 753 White children
 - 1 of every 612 Asian children
 - 1 of every 412 Hispanic children
 - 1 of every 310 Black children
 - 1 of every 168 American Indian/Alaska Native children
- Most children missed a year of in person school
- All missed a multitude of celebrations and events



Post-COVID Conditions

Long COVID, long-haul COVID, post-acute COVID

Breathing difficulty	Tired or fatigued	Worse after activity
"Brain fog"	Cough	Pain: chest or stomach
Headache	Palpitations	Joint or muscle pain
Pins-and-needles feeling	Diarrhea	Sleep problems
Fever	Dizzy on standing	Rash
Mood changes	Smell/taste changes	Menstrual changes

Incidence: 5 to 80%

https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects.html





covid19.nj.gov/vaccine

COVID-19 vaccines are









FREE for all





You can get a vaccine if you are uninsured, and / or undocumented

COVID-19 Vaccines



- Messenger RNA (mRNA) vaccines
 - Pfizer EUA 12/11/20 for ages 16 years and older; EUA 5/10/21for ages 12 to 17; Licensed 8/23/21 for ages 16 and older (Comirnaty); third dose EUA 8/12; booster EUA 9/22; ages 5 to 11 EUA 10/29/21
 - Moderna EUA 12/18/20 for ages 18 years and older; third dose 8/12; booster EUA 10/20/21
- Adenovirus vector
 - J&J Janssen EUA 2/27/21 for ages 18 years and older; booster EUA 10/20/21

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/how-they-work.html



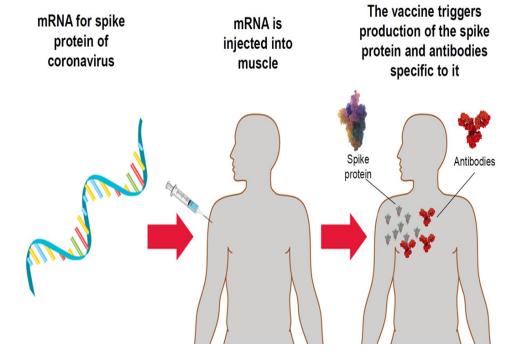


About mRNA COVID-19 Vaccines

- Messenger RNA codes for the spike protein of the virus
- Carrier is a lipid nanoparticle
- Lipid allows the mRNA to enter cells
- Code is read and spike protein produced
- Immune system responds with antibodies and cell mediated immunity
- Two dose series, 3 doses if immune compromised, booster after 6 months for older adults and those with risks

Vaccine Without The Virus: Messenger RNA (mRNA) Approach

NIH Vaccine Research Center and Moderna went from sequence to Phase I in 63 days

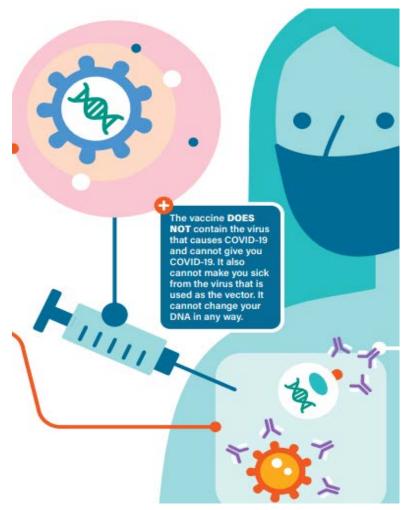


https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mRNA.html



J&J Janssen COVID-19 Vaccine

- Code for the spike protein inserted into an altered human adenovirus (Ad26.COV2.S)
- Replication incompetent virus
- Adenovirus enters cells and releases code for the spike protein
- Immune systems responds to the spike protein
- Given as a single dose, booster after 2 months for all





Side Effects of mRNA COVID-19 Vaccines

- Most common complaint was pain at the shot site
 - Other common symptoms included fatigue, fever, and headache
 - These are common side effects after getting vaccinated
- Side effects less common in people over 50 years of age
- Side effects more common after the second dose
- Serious side effects occur but are rare
 - Anaphylaxis (severe allergic reaction)
 - Myocarditis and pericarditis







Side Effects of the Adenovirus Vector COVID-19 vaccines

- Most common complaint was pain at the injection site
 - Other common symptoms included fatigue, fever, and headache
 - These are common side effects after getting vaccinated
- Side effects less common in people over 60 years of age
- Single dose
- Serious side effects are rare but occur
 - Thrombocytopenia and thrombosis
 - Guillain-Barré Syndrome







Fertility

- No evidence of any effect of these COVID-19 vaccines on either male or female fertility
- No biologic reason to expect it
- No clinical evidence
- ACOG recommends vaccine for all eligible people who may consider future pregnancy, as well as all pregnant and breastfeeding women

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html https://www.acog.org/clinical/clinical-guidance/practice-advisory/articles/2020/12/covid-19-vaccination-considerations-for-obstetric-gynecologic-care



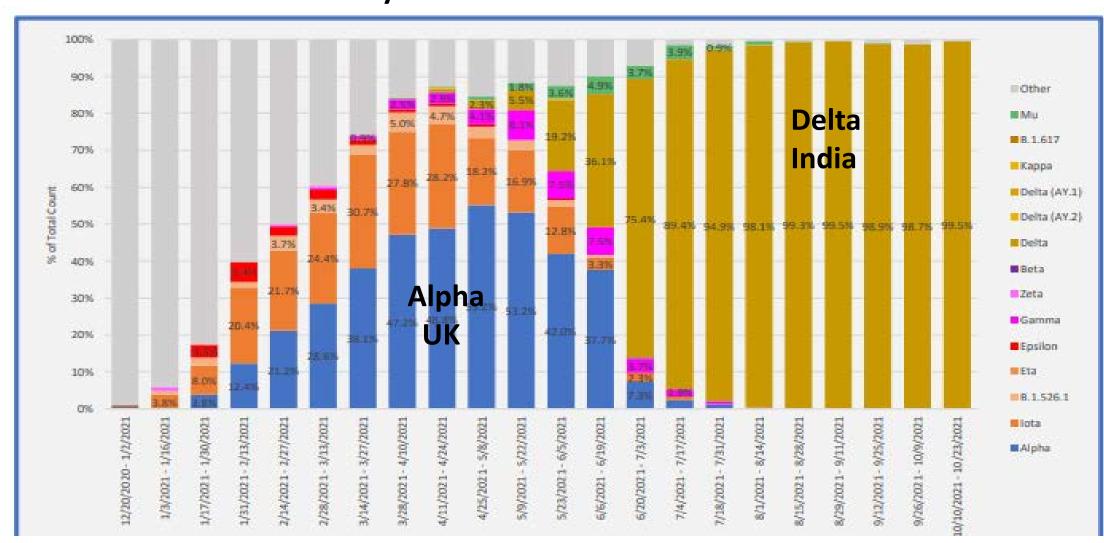
COVID-19 Variants

- Arise as viruses multiply
- Variants of interest changes in binding protein, therapy, possible increased illness and transmission
 - Many: arising in US and globally
- Variants of concern increased transmission and illness, decreased susceptibility to antibodies and therapy
 - B1.1.7 alpha UK; B1.351 beta So Africa; B1.617.2 delta India; P1 gamma Japan/Brazil
- Variants of high consequence reduced susceptibility to preventive measures and countermeasures
 - None yet



COVID-19 Variants

New Jersey – December 2020 to October 2021





COVID-19 Vaccines

- Children ages 5 to 17 Primary Series
 - Pfizer only, 2 doses, 3 weeks apart, lower dose for ages 5-11
- Adult Primary Series
 - Pfizer, 2 doses, 3 weeks apart
 - Moderna, 2 doses, 4 weeks apart
 - J&J, 1 dose
- Third dose for immunocompromised
 - Pfizer or Moderna, same dose as primary series
- Boosters: mixing and matching allowed for all
 - Pfizer, 6 months after second dose, most people, same dose
 - Moderna, 6 months after second dose, most people, half dose
 - J&J, 2 months, all people

Guide to Vaccine Eligibility (last updated: 11/03/2021)



			When can I receive this dose?	What brands are available?	What are the eligibility requirements?
	Individuals	1st Dose	Anytime	Pfizer	Ages 5-11
	5-11	2nd Dose	3 weeks (21 days) after 1 st dose	Pfizer	Ages 5-11
	Individuals 12-17	1st Dose	Any time	Pfizer	Ages 12-17
		2nd Dose	3 weeks (21 days) after 1st dose	Pfizer	Ages 12-17
	Individuals	1st Dose	Any time	Pfizer	All Adults
	18+			Moderna	All Adults
				1&1	All Adults
		2nd dose	3 weeks (21 days) after 1st dose	Pfizer	All Adults
			4 weeks (28 days) after 1st dose	Moderna	All Adults
		3 rd dose	4 weeks (28 days) after second dose	Pfizer	Adults who are moderately to severely
				Moderna	immunocompromised*
		Booster	6 months after second dose	Pfizer (can get any booster)	Ages 65 and older
					Ages 18 and older who have underlying medical
				Moderna (can get any booster)	<u>conditions</u> **, who work or live in <u>high-risk</u> <u>settings</u> ***, or who live in <u>long term care</u> ****
			2 months after first dose	J&J (can get any booster)	All Adults
	'				All booster doses are interchangeable

 $[\]hbox{* Immuno compromised = An individual with a weakened immune system due to certain health conditions.}$

Ready to get vaccinated?

Visit <u>COVID19.nj.gov/vaccine</u> Additional questions?

The NJ COVID-19 Vaccine Call Center is available at: 855-568-0545

Note: Immunocompromised persons may receive a booster dose 6 months after their additional doses (third doses) of an mRNA vaccine.

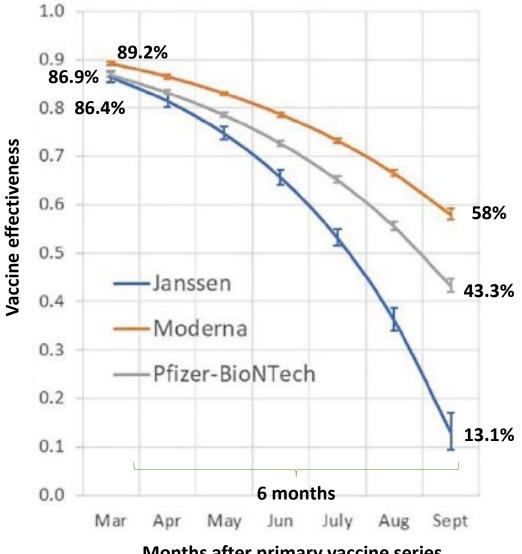
^{**} Underlying medical conditions = For example, cancer, diabetes, hypertension and other conditions that increase risk for severe COVID-19 illness.

^{***} High-risk settings = For example, healthcare workers, teachers, and others whose job puts them at risk of COVID-19 exposure.

^{****}Long term care = For example, individuals living in residential care, assisted living, nursing homes etc. that increase risk for COVID-19 exposure SOURCE: CDC, FDA



US Study: Vaccine effectiveness (primary series) against infection reduced for each vaccine brand^{1,2}



Months after primary vaccine series

https://www.science.org/doi/epdf/10.1126/science.abm0620

^{2.} Note that this assumes the primary series was completed by the end of February. VE was measured in March and end of September



Protect Yourself and your families for the Holidays: Get a booster dose!





NJ COVID Vaccine Call Center

You can make an appointment for the COVID-19 vaccine, get help with the scheduling system, check registration status, and ask vaccine questions by phone

Hola 안녕하세요 양명하세요 80njour OI

Interpreters are available

Call 855-568-0545





covid19.nj.gov/vaccine

Everyone 12 or older who lives, works, or studies in New Jersey is now eligible for the COVID-19 vaccine.

COVID-19 vaccines are safe and highly effective at preventing you from getting sick. They are one of the most important tools to ending the COVID-19 pandemic and getting back to what you love.

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How to get vaccinated

Find a vaccine appointment

Use the NJ Vaccine Appointment Finder to find vaccination locations near you with available appointments.

NJ Vaccine Appointment Finder

Visit a megasite for walk-in appointments

All six vaccine megasites are open for walk-in vaccinations, typically during the following times:

NLD-leath nent of Health

Vaccination Rates in New Jersey

Vaccine Doses Administered in NJ

13,038,153

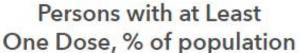
+

493,126

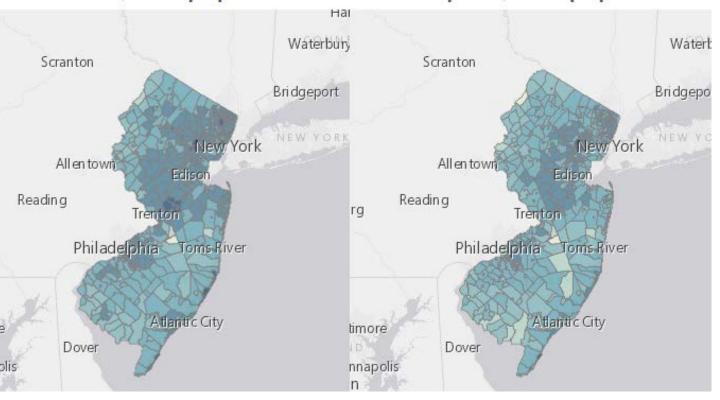
Doses administered out of state and by federal programs

13,531,279

Total doses administered

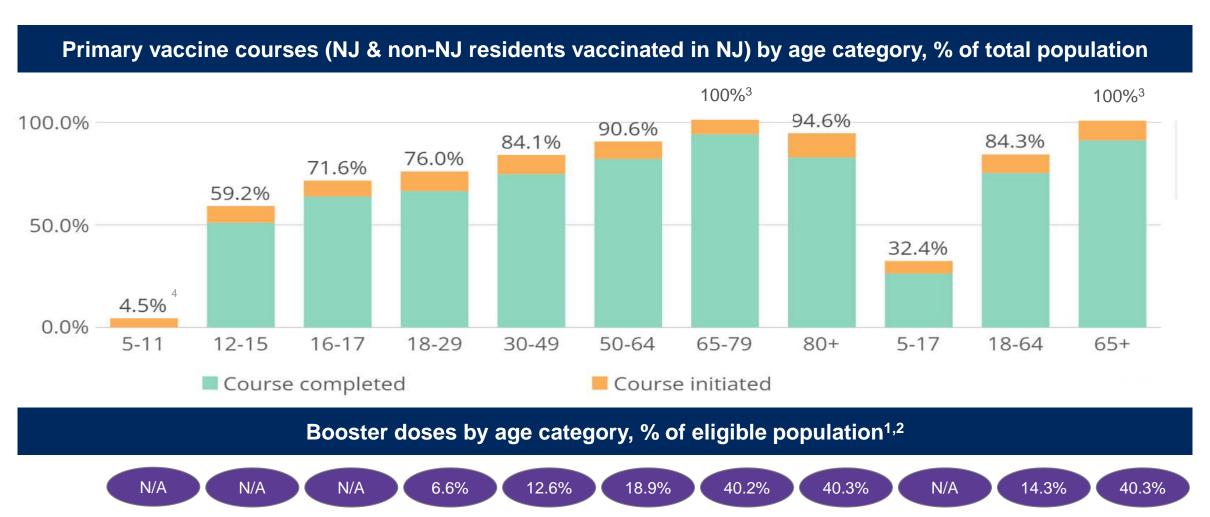


Persons with Vaccine Courses Complete, % of population





Daily report on vaccination (as 11/14/2021)



^{1.} Pfizer and Moderna booster dose includes 3rd/ additional doses administered to immunocompromised population 2. Eligible population represents value two weekdays prior (e.g., if Monday, represents the previous Thursday). The data may increase as more sites report 3. Value over 100% due to numerator including NJ and non-NJ residents while eligible population includes NJ residents only 4. 5-11 category comprises all recipients tagged in NJISS as Pfizer Pediatric formulation doses Note: Includes all individuals who were vaccinated within New Jersey (those who live work or study within New Jersey). Excludes vaccines administered through select federal programs (e.g., Bureau of Prisons, Veterans Health, Indian Health Service, and Department of Defense) as well as NJ residents vaccinated in other states

Source: NJIIS. Vtrcks





Natural Versus Vaccine Immunity

- More unknowns than known
- Natural immunity seems solid for several months
- Vaccine immunity seems solid as well
 - Trials with all 3 vaccines show protection at least 6 months, longer for many, waning for some
 - Immunity against the known variants is solid
- Both natural and vaccine immunity vary by age and other factors
- Vaccine will boost natural immunity



Safety at School

- Masks for everyone while inside
- Maintain 3 foot distance
- Vaccines for all eligible people
- Cohort younger children
- Contact tracing
- Isolation for infected people
- Quarantine for unvaccinated close contacts





https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html
https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/discontinuous policy advice.



Help us spread the word!

The COVID-19 vaccine is safe, effective, and free for all





@NJDeptofHealth

#VaccinesWork

#LetsGetNJVaccinated







Thank you