



COVID-19 - Update

Werner Bischoff, MD PhD Medical Director Infection Prevention and Health System Epidemiology Wake Forest Baptist Health

Update – Global and U.S.

- As of 09/15/2021 (5:37 am)
 - 225,879,178 confirmed cases
 - 4,650,798 deaths
 - Countries affected: 192
 - US: 41,365,255 confirmed cases
 - US: 663,936 deaths



<u>https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6</u>

<u>https://www.bbc.com/news/world-51235105</u>





Daily Admissions of Patients with Confirmed COVID-19 — 7-Day Moving Average

https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions

Share of I.C.U. beds occupied in each hospital



Source: U.S. Department of Health and Human Services data. Notes: Some patient counts are not available because H.H.S. obscures weekly totals lower than four. Data is as of the week ending Sept. 9. Hospital locations are adjusted so that all hospitals are shown without overlapping.



As of 09/14/2021, 12:00 pm: Hospitalized: 3,690; Deaths: 15,305 https://covid19.ncdhhs.gov/dashboard/cases



Variants and Vaccines

The Virus - Mutations

- Lineages can
 - alter transmission dynamic (higher transmission rates)
 - increase severity of illness
 - make vaccines less effective
- Changes to the spike protein
- Several new lineages detected:
 - Delta Variant
 - B.1.617 (India)
 - B.1.1.7 (Britain)
 - B.1.351 (South Africa first sample identified on 02/11 in NC)
 - P1 (Brazil)
 - CAL.20C (California)
 - B.1.526 (NYC)
 - E484K mutation in Portland, Oregon
- Current vaccines create a polyclonal response, generating numerous antibodies that hone in on different parts of the virus <u>https://www.nytimes.com/interactive/2021/health/coronavirus-variant-tracker.html?searchResultPosition=1</u>



COVID-19 Variants Detected in North Carolina



Source: NC DHHS COVID-19 and Influenza Surveillance Summary September 3, 2021

Vaccine Distribution



Source: Centers for Disease Control and Prevention | Note: Line shows a seven-day average. Data not updated on some weekends and holidays. Includes the Johnson & Johnson vaccine as of March 5.

The current pace of vaccination has slowed significantly since this spring. No vaccine has been authorized for children under 12.

Based on the seven-day average of people receiving a first or single dose each day.



Sources: Centers for Disease Control and Prevention; Andrew Beveridge, SocialExplorer | Note: Total population includes states, territories and three countries with <u>special agreements</u> with the United States: Palau, Micronesia and the Marshall Islands.

Percent of people					
Name	Given at least ▼ one shot	Fully vaccinated	Doses delivered	Shots given	Doses used
U.S. total*	63%	54%	456,755,755	380,831,725	83 %
North Carolina	58%	48%	13,789,810	10,856,150	79%

https://www.nytimes.com/interactive/2020/us/covid-19-vaccine-doses.html

Vaccination Impact – 09/15/2021



Vaccination Status of Expired Patents

Patients expired within 30 days of COVID19 infection status indicated in Epic.



Delta Variant Details

- Delta variant is highly contagious, more than 2x as contagious as previous variants.
- Infected individuals carry more virus.



- The variant may cause more severe illness (higher risk of hospitalization and ICU admission).
- Early UK data suggests a 1.5 increased risk of reinfection with delta when > 6 months out from initial infection. Need for more data.
- The greatest risk of transmission is among unvaccinated people.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attac hment_data/file/1001354/Variants_of_Concern_VOC_Technical_Briefing_17.pdf https://www.medrxiv.org/content/10.1101/2021.07.19.21260808v1.full.pdf https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_ data/file/1001354/Variants_of_Concern_VOC_Technical_Briefing_17.pdf https://www.medrxiv.org/content/10.1101/2021.07.19.21260808v1.full.pdf

Delta Variant Details

- The COVID-19 vaccines approved or authorized in the United States are highly effective at preventing severe disease and death, including against the Delta variant.
- The Centers for Disease Control and Prevention (CDC) Data Estimates based on current case counts and number vaccinated:
 - 21 Infections/100,000 Vaccinated
 - 179 Infections/100,000 Unvaccinated
- Fully vaccinated people with Delta variant breakthrough infections can spread the virus to others. However, vaccinated people appear to spread the virus for a shorter time.
- Everyone who is able, including fully vaccinated people, should wear masks.

Booster Doses – High Risk Population

- Receiving active cancer treatment for tumors or cancers of the blood
- Received an organ transplant and are taking medicine to suppress the immune system
- Received a stem cell transplant within the last 2 years or are taking medicine to suppress the immune system
- Moderate or severe primary immunodeficiency (such as DiGeorge syndrome, Wiskott-Aldrich syndrome)
- Advanced or untreated HIV infection
- Active treatment with high-dose corticosteroids or other drugs that may suppress your immune response

Preparing for Respiratory Viral Season

- Get vaccinated for both COVID-19 and Flu!
- OK to get COVID-19 and other vaccines at the same time in different sites.
- Mask where appropriate.
- Stay home when sick.
- Test promptly.



Questions?