STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

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Acting Commissioner

Ned Lamont
Governor

Susan Bysiewicz
Lt. Governor

September 16, 2021

The Honorable Rob Sampson
Legislative Office Building
300 Capitol Avenue
Hartford, CT 06106
Room: 3602

RE: COVID-19 Reporting, Policies and Mandates

Dear Senator Sampson,

Thank you for your correspondence dated August 31, 2021. The Connecticut Department of Public Health (DPH) appreciates your ongoing interest in the COVID-19 Public Health Emergency, COVID-19 data reporting, masking and vaccinations. Below are responses to your questions.

It is of note that the United States Food and Drug Administration (FDA) and United States Centers for Disease Control and Prevention (CDC) have conducted rigorous evaluation processes for all of the currently available COVID-19 vaccines. While no vaccine, medical procedure or medication is wholly without risk, the scientific and medical communities have concluded that the benefits of vaccination outweigh any risks to the vaccine. All three vaccines available against the SARS CoV-2 virus in the United States have proven to be highly effective in reducing disease severity and likelihood of death.

Please let us know if you have additional questions.

Thank you.

Sincerely,

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I. Public Health Emergency

1) Much has happened in the last 540 days. COVID-19 was a complete unknown when the Governor first declared us to be in a public health emergency on March 10, 2020 and we were asked both nationally and on a state level to cooperate in an effort to "flatten the curve." Authorities began by asking the free citizens across our nation to stay home and stay safe to prevent overwhelming hospitals. Within a few weeks, Governor Lamont declared a public health emergency and began issuing executive orders for lockdowns and mandates. To my knowledge, Connecticut's hospitals have never been overwhelmed with COVID-19 patients. Do you contend that the State of Connecticut remains in public health and civil preparedness emergency throughout the State due to the coronavirus disease 2019 (COVID-19) outbreak caused by the SARS CoV-2 virus in the United States and Connecticut?
Yes.

i) What criteria was used to establish the initial determination that we are in a public health and/or civil preparedness emergency?
The criteria set forth in Conn. Gen. Stat. § 19a-131 and § 28-9 were the basis for the Governor's declarations on March 10, 2021. The filed declaration sets forth the grounds for the declaration. See 20200310-declaration-of-civil-preparedness-and-public-health-emergency.pdf (ct.gov).

ii) How has this criteria changed over the previous 540 days?
The criteria for the declarations are defined by the statutes. Each of the subsequent declarations are available on this website: Emergency Orders issued by the Governor and State Agencies (ct.gov).

iii) Upon what data do you rely to conclude that such emergency still exists?
The determination that an emergency exists rests with the Governor, but public health data clearly supports his determination that the need for emergency action to protect the public health and welfare exists in Connecticut.

The risk of being infected, hospitalized or dying from COVID-19 has changed over time. In June 2021, the amount of virus spreading was low which resulted in low rates of COVID-19 for both vaccinated and unvaccinated people. Since then, COVID-19 case rates have increased significantly. COVID-19 case rates, hospitalization rates and death rates have increased the most among unvaccinated people.

Data collected by CDC and DPH demonstrates that the Delta variant of COVID-19 is highly contagious and spreads more easily and quickly than other COVID-19 variants. The number of COVID-19 cases associated with the Delta variant and the overall rate of infection and hospitalization have increased significantly in Connecticut, such that the CDC considers transmission to be substantial or high in all Connecticut counties.

iv) Is the DPH advising Governor Lamont when an emergency exists or providing documentation that certain criteria has been met?
DPH provides daily data on confirmed and probable COVID-19 cases, daily test positivity rate and number of patients hospitalized with COVID-19. A detailed report of data is issued weekly

on Thursdays. It includes hospital census, the number of COVID-19 associated deaths by age, ethnicity, sex, county, COVID-19 variant surveillance, data on molecular and antigen testing, COVID-19 vaccination rate data by age, ethnicity, sex, county and municipality, case and death data on nursing home residents and staff as well as day care attendees and staff. Probable means that the patient is experiencing symptoms of COVID-19, or has had significant exposure to the virus, but a test has not yet confirmed the diagnosis.

2) Reviewing the Connecticut COVID-19 Tracker website and reporting, it appears that as of today there are 378 individuals currently hospitalized with COVID-19 across CT:

i) Does that approach emergency levels?
The determination of whether a public health emergency exists depends on the totality of the public health environment. For example, as COVID-19 cases surge in a community, there is a delay in the increase of hospitalizations.

The success of emergency measures in reducing transmission does not mean the emergency is over. As demonstrated in several states and other countries, the premature removal of public health measures has resulted in surges of COVID-19 cases.

ii) How does that compare historically with hospitalizations from other causes, eg. Influenza?
All-cause hospitalization varies from year to year. COVID-19 hospitalizations are in addition to the usual emergency, non-emergency and seasonal hospital trends.

3) The portal no longer indicates COVID-19 Associated Deaths on a daily basis, why?
Reporting of data went from daily to weekly in June of 2021. Due to the relatively low number of deaths per day, and the need to confirm cause of death prior to publication, the Office of the Chief Medical Examiner (OCME) felt a weekly report was more accurate. Further inquiry can be directed to the OCME.

i) Last Thursday's weekly total was 22 (deaths), can you provide the age and co-morbidity breakdown for these individuals?
The age breakdown of all COVID-19 related deaths is in the weekly extended report: COVID-19 Update September 09, 2021 (ct.gov). DPH does not have co-morbidity data.

ii) Acknowledging the tragedy of all deaths, is this figure out of the ordinary for the population affected?
All COVID-19 deaths are of significance and indicate on-going community transmission and threats to public health.

(1) Can you show a comparison with previous years, also vs. influenza, for death totals in Connecticut based on population?
Annual flu summaries can be found here: Influenza Annual Summaries (ct.gov). Since the 2015-2016 flu season, Connecticut saw anywhere from 37 to 184 influenza-associated deaths each season.

Connecticut has seen over 8,000 COVID-associated deaths since the COVID-19 pandemic started less than 2 years ago.

(a) I would like to see if we are really experiencing any spike in deaths at all vs pre-COVID-19 years, and how this rate of fatalities compares with historic flu seasons.
Life expectancy in the United States decreased in 2020, primarily due to COVID-19. Please review this information:
The 2020 Decline in Life Expectancy (cdc.gov); and
Effect of the covid-19 pandemic in 2020 on life expectancy across populations in the USA and other high income countries: simulations of provisional mortality data | The BMJ.

4) Notably, when looking at New England states, only CT and RI have continued their emergency declarations and government mandates in recent months.

i) How do we compare with other New England states in the criteria used to determine emergency status?
A comparative analysis of the different states' emergency laws would be a task undertaken by legal experts, however, below are links to the different New England state statues that may be of assistance.

Massachusetts: Emergency Preparedness laws and regulations | Mass.gov

Maine: Title 22, §802: Authority of department (mainelegislature.org);
Title 37-B, Chapter 13: MAINE EMERGENCY MANAGEMENT AGENCY (mainelegislature.org)

Vermont: Vermont Laws

Rhode Island: Chapter 30-15 - Index of Sections (state.ri.us)

New Hampshire: New Hampshire Revised Statutes Section 4:45 (2019) - State of Emergency Declaration; Powers. :: 2019 New Hampshire Revised Statutes :: US Codes and Statutes :: US Law :: Justia

Case rate is high in all states: CDC COVID Data Tracker

ii) Are our neighboring states experiencing the same emergency criteria?
Our neighboring states are experiencing similar public health conditions arising from the COVID-19 pandemic as Connecticut.

II. COVID Reporting

1) Can you please provide details for those "Patients Currently Hospitalized with COVID-19":

i) ages

This week's extended report includes hospitalization rates, not numbers, by age group: COVID-19 Update September 09, 2021 (ct.gov).

ii) comorbidity;
DPH does not have these data. Please contact the Connecticut Hospital Association for a breakdown of hospital data by comorbidity.

iii) is COVID the reason for the hospitalization or are they in the hospital for an underlying condition and they have tested positive for COVID?
People who test positive for COVID-19 and are hospitalized are included in reported data, regardless of the reason for hospitalization.

iv) does hospitalized mean that the patient is in the ICU or COVID ward?
It means that the patient has been admitted to the hospital.

(1) If not, does it apply to all patients in the hospital who have tested positive for COVID?
It applies to all patients in the hospital who have tested positive for COVID-19.

v) How does the hospitalization rate compare to the total number of beds available in the state?
DPH receives daily reports from the Connecticut Hospital Association on the total number of patients hospitalized and the total number of beds (census). The numbers fluctuate from one day to the next. Please follow these link for the numbers, rates and visualization aids:
Hospital Utilization | HHS Protect Public Data Hub; and
Reported State Hospital Capacity and COVID19 Patient Impact | Reported State Hospital Capacity and COVID19 Patient Impact | HHS Protect Public Data Hub.

Hospital census data is also in the weekly detailed report: COVID-19 Update September 09, 2021 (ct.gov).

(1) Can you please provide a breakdown by each hospital in the state?
DPH does not have these data. Please contact the Connecticut Hospital Association for a breakdown of hospitalization rate by each hospital in the state.

2) Can you please provide details for "COVID-19 Associated Deaths":

i) Did the deceased have a co-morbidity?
DPH does not have these data. Please contact the Office of the Chief Medical Examiner.

ii) Age breakdown of the total deaths in CT;
Please view the most recent data here: COVID-19 Daily Report | Connecticut Data.

iii) Co-morbidity breakdown of the total deaths in CT;
DPH does not have these data. Please contact the Office of the Chief Medical Examiner.

iv) The number of deaths that occurred in a nursing home / assisted living facility;
Please view the most recent data here: COVID-19 Update September 09, 2021 (ct.gov).

v) Details of the deaths of the five individuals under 18:
Any specific information that DPH has regarding these individuals are confidential pursuant to Conn. Gen. Stat. § 19a-25 and the regulations promulgated thereunder.

(a) were they otherwise healthy or were there contributing factors to their deaths?
Any specific information that DPH has regarding these individuals are confidential pursuant to Conn. Gen. Stat § 19a-25 and the regulations promulgated thereunder.

vi) Details of the deaths of the individuals ages 19-39:
Any specific information that DPH has regarding these individuals are confidential pursuant to Conn. Gen. Stat. § 19a-25 and the regulations promulgated thereunder.

(a) were they otherwise healthy or were there contributing factors to their deaths?
Any specific information that DPH has regarding these individuals are confidential pursuant to Conn. Gen. Stat. § 19a-25 and the regulations promulgated thereunder.

3) Can you please provide details relating to "COVID-19 Tests Reported (molecular and antigen)":

i) Who are the manufacturers of the tests being used in CT?
DPH receives reports for any Emergency Use Authorization (EUA) molecular or antigen tests. FDA has a list of current EUA tests: In Vitro Diagnostics EUAs - Molecular Diagnostic Tests for SARS-CoV-2 | FDA.

ii) Please provide the details on the error rate / accuracy for each of the tests being administered in CT
Please refer to data published by FDA.

iii) What is the threshold for testing positive?
Each test has its own threshold. DPH does not determine this.

iv) Do the tests identify the delta variant?
No.

v) If not, how are numbers of each variant known if not tested?
Variants of the SARS Co-V 2 virus are determined separately on positive samples using Whole Genomic Sequencing. Information on the prevalence of each variant can be found in the weekly detailed report: COVID-19 Update September 09, 2021 (ct.gov).

4) According to the Connecticut COVID-19 Tracker website and reporting, the total number of deaths for individuals under 60 years old is 695 and the total number of confirmed cases for individuals under 60 is 298,092 since the beginning of the pandemic. Can you confirm that these numbers are correct?

Please view the most recent data here: COVID-19 Daily Report | Connecticut Data. Total number of deaths of individuals under age 60 is 710 and total number of cases of individuals under age 60 is 305,012. COVID-19 has disproportionately impacted older adults (individuals over age 60). However, individuals over age 60 are vaccinated at a much higher rate than other age cohorts, so we are now seeing the COVID-19 caseload and deaths trend younger.

5) I find some of the data confusing on the Connecticut COVID-19 Tracker website and reporting page. For instance, under the summary you are reporting why are you reporting the Total COVID-19 Cases as the total positive PCR tests when an individual may have been tested multiple times, thereby inflating the actual number of cases?
Cases are reported by whether they meet the current Council of State and Territorial Epidemiologists case definition. Cases are not counted more than once if they test positive multiple times.

6) Has DPH changed the threshold number of cases per 1,000 associated with the red, orange, yellow and gray on the legend in the average daily rate of new cases of COVID-19 by town map?
The threshold is per 100,000. No, DPH has not changed it.

7) Reviewing the Connecticut COVID-19 Tracker website and reporting, what is a probable COVID-19 Case in the reporting (the published data shows confirmed and probable cases)?
The Council of State and Territorial Epidemiologists sets the case definitions for nationally notifiable diseases; this includes definitions for confirmed and probable COVID-19 cases. Probable means that the patient is experiencing symptoms of COVID-19, or has had significant exposure to the virus, but a test has not yet confirmed the diagnosis.

8) Reviewing the Connecticut COVID-19 Tracker website and reporting, it appears that 10,410,984 COVID-19 Tests have been administered in Connecticut:

i) Can you please indicate how many of these tests were repeated on an individual, and how many times?
DPH does not keep this data.

9) Can you please provide the total number of individuals who tested positive for COVID by age group (not the total number of tests administered because this may represent multiple tests on the same person)?
Cases are not counted more than once if they test positive multiple times. Please view the most recent data here: Connecticut COVID-19 Data Tracker.

III. Masks

SARS-CoV-2 infection is transmitted predominately by inhalation of respiratory droplets generated when people cough, sneeze, sing, talk, or breathe. CDC recommends community use of masks, specifically non-valved multi-layer cloth masks, to prevent transmission of SARS-CoV-2. Masks are primarily intended to reduce the emission of virus-laden droplets ("source control"), which is especially relevant for asymptomatic or presymptomatic infected wearers who feel well and may be unaware of their infectiousness to others, and who are estimated to account for more

than 50% of transmissions. Masks also help reduce inhalation of these droplets by the wearer ("filtration for wearer protection"). The community benefit of masking for SARS-CoV-2 control is due to the combination of these effects; individual prevention benefit increases with increasing numbers of people using masks consistently and correctly.

Cloth masks, surgical masks, and other masks that are typically used for droplet source control and not classified as respirators do not create an airtight seal across the face. These source control masks easily allow both exhaled carbon dioxide and inhaled oxygen molecules to pass through and around mask material but do not allow similar penetration of viruses or the respiratory droplets that carry them. This is because a single coronavirus is approximately 300 times larger than a carbon dioxide molecule, and the respiratory droplets that carry the virus when COVID-19 is spread from one person to another are several times larger than the virus itself. As such, a properly designed and properly worn source control mask can be very effective at preventing direct transmission of COVID-19 between two individuals when both are masked.

Operational and safety rules for schools and child care settings remain necessary to ensure the safety of children in those settings, all of whom remain ineligible for vaccination if they are younger than 12 years old.

1) What is the fatality rate of school age children 5-18 from COVID-19?
The number of deaths by age group and the rates by age group can be found in the weekly detailed report: COVID-19 Update September 09, 2021 (ct.gov).
Data can also be found here: https://data.ct.gov/Health-and-Human-Services/COVID-19-DPH-Reports-Library/bqve-e8um.

a) What are the total number of fatalities for school age children in Connecticut from all causes?
i) From COVID-19 alone (with no co-morbidities)
The Connecticut Registration Reports provide the official vital statistics for Connecticut. Annual counts and rates for the top 5 causes of death for selected age groups (but not for school age specifically) are provided in Tables 27 and 28. The most current, published data available are for 2019 deaths. The Provisional 2020 Registration Report, which would contain COVID-19 as a cause of death category, will not be published until summer of 2022 due to delays in availability of the 2020 population estimates necessary for reporting mortality rates.

In the meantime, we can provide the basic counts and provisional rates noted below.

- For 2019, 90 school age (5-18 years) children died. The age-specific rate for 2019 is 15.1 deaths per 100,000.
- For 2020, 98 school age (5-18 years) children died of which 1 died from COVID-19. The provisional age-specific rate for 2020 is 16.6 deaths per 100,000.
- For 2021, 59 school age (5-18 years) children died of which 2 died from COVID -19. The provisional age-specific rate for 2021 (Jan-Aug) is 16.0 deaths per 100,000.

COVID-19 specific data are available in the weekly detailed report: COVID-19 Update September 09, 2021 (ct.gov).

b) If this information is available nationally and known, please provide this also.

2) Has the State of Connecticut issued guidance for school children regarding masks including:
Fall 2021 PreK-12 Public and Private School Guidance can be found here: Updated Guidance for the Use of Mitigation Strategies in Connecticut's PreK-12 Schools.

3) how to properly wear a mask;
Masks must cover your nose and mouth, be secured under your chin and fit snugly against the sides of your face. Please follow this link for CDC instructions on donning and doffing a mask: How to Wear and Take Off Your Mask (cdc.gov).

4) how often the mask should be changed;
Reusable masks should be washed whenever they become visibly soiled, or daily if possible. Disposable face masks should not be reused, and should be thrown away after being worn once. Always and wash your hands after handling or touching a used mask. Please follow this link for CDC instruction on when to change your mask: Your Guide to Masks | CDC.

5) how to properly dispose of used masks;
Please follow this link for CDC instruction on mask storage and disposal: Your Guide to Masks | CDC.

6) how to properly clean masks (if they are reusable);
Please follow this link for CDC instruction on how to clean cloth masks: Your Guide to Masks | CDC.

7) what types of masks are acceptable?
CDC recommends, and DPH agrees, that a multi-layer cloth mask may be the best choice in most cases for students and staff who need to have a comfortable and appropriate face covering for source control purposes in schools. Disposable surgical masks, cloth masks and neck gaiters that have at least double layering are acceptable. Masks with exhalation valves should not be used for source control.

8) Who is responsible for purchasing the masks?
The individual or individual's family.

i) Does the state provide any masks free of charge? If so, to whom and how many?
During the first year of the COVID-19 pandemic, when supply was limited, masks were provided to many different industries (health care settings such as hospitals, nursing homes, home health agencies; local health departments; small business; etc) using federal funding. Now that N-95 respirator and surgical mask supply chain is running again, these industries are capable of purchasing masks using their own resources.

9) How are the masks that are required in the orders and guidance issued by the State of Connecticut rated to prevent the spread of covid?
Although some surgical-style masks are rated for their resistance to blood or other fluids at different pressures (e.g., venous vs. arterial pressure), there is currently no standardized rating system for a mask's utility for source control. Any of the types of source control masks indicated

in the State's guidance should be considered equally well-protective in the prevention of COVID-19 transmission.

i) Please provide the details of the studies performed to determine which masks prevent the spread of COVID?
Please review the information found in these links, which are examples of the studies conducted on masking and prevention of COVID-19 transmission:
Science Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2 | CDC; and Science Brief: Transmission of SARS-CoV-2 in K-12 Schools and Early Care and Education Programs - Updated | CDC.

10) Provide data on the efficacy of the mask policies, including preventing illness and transmission
To reduce the spread of COVID-19, CDC and DPH recommend implementation of community mitigation strategies to slow transmission of COVID-19, including under certain circumstances maintaining a safe distance from others and wearing masks or face coverings. CDC has highlighted a number of "real world" human studies of masking and SARS-CoV-2 transmission that show the effectiveness of community masking as a preventative measure against the spread of COVID-19.

i) Please include which masks and under what circumstances are effective
Masks should be worn regardless of vaccination status in certain settings where the risk of COVID-19 transmission is higher or where the population within such settings faces a greater risk of severe health effects from COVID-19. The rules for wearing masks in such settings can be found here: 20210520-DPH-Order-Regarding-Universal-Masking.pdf (ct.gov).

ii) i.e. wearing surgical masks for 5th graders is conclusive that it prevents XX deaths
Please refer to CDC's reference to human studies of masking and SARS-CoV-2 transmission for more information.

11) Please provide all data on transmission rates with and without masks, based on evidence (studies, peer reviewed articles, etc) and which masks are effective and to what degree.
Please refer to CDC's reference to human studies of masking and SARS-CoV-2 transmission for more information.

12) Is the department aware of individuals contracting facial Infections resulting from mask wearing?
i) If so, how many cases? What guidance or warnings have been issued relating to these facial infections?
No.

13) Some public officials have been using masks on a shared microphone at speaking engagements, does DPH have any evidence that this reduces the spread of COVID?
Proper masking procedures include the wearing of a multi-layer cloth mask or other source control mask that completely covers the nose and mouth and is worn directly on the face without noticeable gaps.

IV. Vaccines

1) Please explain the basis and authority for the State of Connecticut to mandate a COVID vaccine for state employees.

In accord with the authority under Conn. Gen. Stat. § 19a-131 and § 28-9 of the Connecticut General Statutes as well as Special Acts 21-2, 21-4, and 21-5 of the General Assembly, the Governor issued Executive Order 13D. The Order sets forth the basis for the requirements imposed under the Order. [1]

In addition, it is clear that vaccination is the most effective means of preventing infection, hospitalization, and death from COVID-19 and of limiting transmission and outbreaks of the disease, and is therefore a critical tool to respond to and slow the ongoing pandemic.

COVID-19 vaccines are safe and effective, were evaluated in clinical trials involving tens of thousands of participants and met the FDA's rigorous scientific standards for safety, effectiveness, and manufacturing quality needed to support emergency use authorization.

State hospital employees work in settings where the risk of COVID-19 infection is higher because of the concentration of large numbers of people and the presence of people with underlying conditions or compromised immune systems. The significant percentage of unvaccinated staff in congregate settings, hospital settings, schools, and childcare facilities increases the risk of COVID-19 transmission and places this vulnerable population at increased risk of severe symptoms, hospitalization, and death. Such risks are heightened greatly for children who may not be able to receive the vaccine because of their age; for patients in hospital settings who, for medical reasons, are unable to receive a vaccination but do not have the option of avoiding such settings, and for people whose medical conditions reduce their immune response.

Increasing the percentage of vaccinated persons, particularly those in hospital settings, congregate settings, school workers, and individuals in child care settings will better protect co-workers, residents, students, and patients and reduce the likelihood of spread of the infection as well as restrictions on visitation and in-person learning.

It is the duty of every employer to protect the health and safety of employees by establishing and maintaining a healthy and safe work environment and by requiring all employees to comply with health and safety measures.

i) What documentation is required for a medical or religious exemption?

This guidance is forthcoming. The vaccination policy in Executive Order 13D does not take effect until September 27, 2021.

ii) Who reviews the exemption forms?

This guidance is forthcoming. The vaccination policy in Executive Order 13D does not take effect until September 27, 2021.

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1 It is important to note that Executive Order 13D does not mandate that a state employee be vaccinated. It does set forth consequences regarding employment for that employee who chooses not to be vaccinated or provide a basis for an exemption.

2) How does a vaccine mandate coincide with the employee's right to medical privacy?
In general, the HIPAA Rules do not apply to employers or employment records. HIPAA only applies to HIPAA covered entities – health care providers, health plans, and health care clearinghouses – and, to some extent, to their business associates. If an employer asks an employee to provide proof that they have been vaccinated, that is not a HIPAA violation, and employees may decide whether to provide that information to their employer.

i) How are you overcoming this privacy concern?
Employees may decide whether to provide that information to their employer. An employee may choose not to supply their vaccination status or disclose a basis for a medical exemption which results in the restrictions on their employment.

3) Do you claim that the vaccine mandate is ordered pursuant to a federal emergency use authorization?
The vaccine mandate is not based on nor does it violate the federal EUA. You may wish to review this opinion memo from the U.S. Department of Justice.

4) Provide data of efficacy of a COVID vaccine, including preventing illness and transmission.
The available vaccines against the SARS CoV-2 virus have proven to be effective in reducing disease severity and likelihood of death. Below are links to data that supports this statement:
COVID-19 Vaccine Effectiveness | CDC;
COVID-19 Vaccine Effectiveness and Safety | MMWR (cdc.gov).

i) Please include which vaccine and under what circumstances each is effective.
Each of the COVID-19 vaccines authorized for emergency use or fully approved by FDA are effective.

ii) Noting that younger people have unbelievably low fatality rates for COVID-19 (well below .1%), please provide information of the risk vs benefit to each population by age 20-29, 30-39, and so on.
Individuals in these age cohorts are vaccinated at a lower rate than older individuals. As a result, we are now seeing the COVID-19 caseload and deaths trend younger.

V. Forgotten Population

1) Communications regarding COVID-19 prevention and mitigation efforts are concentrated on Vaccinated vs UnVaccinated populations. It is noteworthy that those who have already been infected and recovered are often omitted. Individuals who have been infected and recovered also fall into one of two categories - vaccinated or unvaccinated.

I) Can you provide data reflecting the estimated number of recovered individuals who would have some level of natural immunity?
DPH does not have these data.

a. High positivity rates must mean many people have been infected and recovered. What is total of this population?
DPH does not have these data because we don't have the total number of infected cases. Some people recover without being tested.

Asymptomatic cases may not ever be identified. It is possible to transmit COVID-19 even before a person shows symptoms and through aerosol transmission; and transmission or "shedding" of the coronavirus that causes COVID-19 may be most virulent before a person shows any symptoms. CDC has recommended that people with mild symptoms consistent with COVID-19 be assumed to be infected with the disease.

It is important to note that not all people who have tested positive fully recover. COVID-19 symptoms can last weeks or months for some people. These patients, known as "long haulers", have in theory recovered from the worst impacts of COVID-19 and have tested negative. However, they still have symptoms or other long term effects. There seems to be no consistent reason for this to happen.

b. Many people have been infected and recovered without even knowing. Is there an estimate of this population?
Serology, or antibody, testing checks a sample of a person's blood to look for antibodies against SARS-CoV-2, the virus that causes COVID-19. Antibodies usually become detectable in the blood 1-3 weeks after a person is infected.

The percentage of individuals in a population who have antibodies to an infectious agent is called seroprevalence. A seroprevalence survey uses antibody tests to estimate the percentage of people in a population who have antibodies. It can tell us how many people in a specific population may have been previously infected.

CDC has conducted a Nationwide Commercial Laboratory Seroprevalence Survey on antibodies against SARS-CoV-2. The survey provides information on all states, which can be found here: CDC COVID Data Tracker - Seroprevalence Survey. Please click on Connecticut to see our state's data.

II) Please provide evidence to suggest that those with natural immunity receive a benefit from one of the COVID-19 vaccine products.
Please review the information found in this study: Reduced Risk of Reinfection with SARS-CoV-2 After COVID-19 Vaccination — Kentucky, May–June 2021 | MMWR (cdc.gov).

III) Please provide evidence that those with natural immunity are not subject to harm or a reduction of their future natural immunity against COVID-19 or other viruses as a result of each of the COVID-19 vaccine products.
Please review the information found in this article: COVID-19 Vaccines: Myth Versus Fact | Johns Hopkins Medicine.