Risk Factors for Severe Illness from COVID-19
Updated September 1, 2020

Risk Factors and COVID-19

People who are over the age of 65 and people of any age who have certain underlying health conditions are at higher risk for severe illness from COVID-19. These conditions include chronic lung disease, cardiovascular disease, severe obesity, diabetes, kidney disease, liver disease, and immunosuppressive conditions, including cancer treatment, smoking, and other immune disorders.

These underlying health conditions identified by the Centers for Disease Control and Prevention (CDC) were cross referenced with NC Department of Health and Human Services (NCDHHS) data sources to identify the percent of North Carolinians with higher risk for serious illness. There are limitations to this analysis. The NCDHHS data sources do not contain every underlying health condition identified by the CDC, and the definitions of the specific health condition may not align exactly.

Read more about the CDC’s guidance on persons at risk for severe illness from COVID-19

What percent of North Carolinians are at higher risk for a severe illness from COVID-19?

An estimated 51.1% of adults in North Carolina are at higher risk for severe illness from COVID-19 based on being 65 or older, having at least one of the underlying health conditions, or both. These data are from the NC State Center for Health Statistics Behavioral Risk Factors Surveillance System (BRFSS) for 2018, which is the most recently available year of data.

What percent of people in North Carolina had one of these underlying health conditions?

An estimated 42% of people in North Carolina has one of the underlying health conditions included in the CDC’s guidance on people at high risk for a severe illness from COVID-19. Fifty-two percent of people in North Carolina who died in 2018, the most recent complete year with data available, had one of these underlying health conditions.

These underlying health conditions include chronic lung disease, cardiovascular disease, severe obesity, diabetes, kidney disease, liver disease, and immunosuppressive conditions, including cancer treatment, smoking, and other immune disorders.
Data on underlying health conditions in North Carolina’s population are from the NC State Center for Health Statistics BRFSS for 2018, which is the most recently available year of data. Data on underlying health conditions in North Carolina deaths are from the NC State Center for Health Statistics Vital Statistics.

**Underlying health conditions in North Carolinians by age — 2018**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>At least one</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–24</td>
<td>73%</td>
<td>27%</td>
</tr>
<tr>
<td>25–49</td>
<td>65%</td>
<td>36%</td>
</tr>
<tr>
<td>50–64</td>
<td>51%</td>
<td>49%</td>
</tr>
<tr>
<td>65+</td>
<td>45%</td>
<td>56%</td>
</tr>
<tr>
<td>Overall</td>
<td>58%</td>
<td>42%</td>
</tr>
</tbody>
</table>

**Underlying health conditions in North Carolinians by race/ethnicity**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>At least one</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>42%</td>
<td>57%</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>Other</td>
<td>32%</td>
<td>68%</td>
</tr>
</tbody>
</table>
What percent of COVID-19 cases and deaths also have an underlying health condition?

The following portion of this report will be updated weekly on Tuesdays by 4 p.m. Last updated September 1, 2020.

These graphs show the percent of COVID-19 cases and deaths with at least one underlying health condition. Percentage of COVID-19 cases and deaths in persons over 65 is updated daily on the NCDHHS COVID-19 Case Count dashboard.

Data about underlying health conditions in COVID-19 cases are obtained through case investigations, which take time. Local Health Departments contact each person that has tested positive for COVID-19 to gather this data. Information about the presence or absence of specific health conditions will become more complete as case investigations are completed and information is entered into the North Carolina Electronic Disease Surveillance System (NC EDSS), but this information will not be available for all cases. Therefore, data are not yet available for every case or death.
This includes total North Carolina laboratory-confirmed cases, from date of first confirmed case on March 2, 2020.

80% of deaths are among people 65 or older. Deaths reflect deaths in persons with laboratory-confirmed COVID-19 reported by local health departments to the NCDHHS.
CVD is cardiovascular disease. “Other” includes metabolic disorders and immunosuppressive conditions.

Percent of laboratory-confirmed COVID-19 cases with specific high-risk underlying conditions — September 1, 2020

- **CVD**: 56% (Yes), 9% (No), 4% (Missing)
- **Diabetes**: 56% (Yes), 7% (No), 4% (Missing)
- **Chronic Lung Disease**: 57% (Yes), 6% (No), 3% (Missing)
- **Kidney Disease**: 58% (Yes), 2% (No), 4% (Missing)
- **Other**: 58% (Yes), 4% (No), 2% (Missing)

Percent of laboratory-confirmed COVID-19 deaths with specific high-risk underlying health conditions — September 1, 2020

- **CVD**: 48% (Yes), 16% (No), 5% (Missing)
- **Diabetes**: 38% (Yes), 27% (No), 5% (Missing)
- **Chronic Lung Disease**: 44% (Yes), 30% (No), 3% (Missing)
- **Kidney Disease**: 46% (Yes), 34% (No), 3% (Missing)
- **Other**: 49% (Yes), 35% (No), 1% (Missing)

CVD is cardiovascular disease. “Other” includes metabolic disorders and immunosuppressive conditions.