COVID-19 Response in Boone County

Ashley Millham, MD
Medical Director, Columbia/Boone County Dept of Public Health and Human Services

Christian Rojas, MD
Interim Director, Division of Infectious Diseases; MU Healthcare and MU SOM
Next event, Sat 3/28/20 at 8 am:
MSMA Conference Call with Randall Williams, MD;
Director of Missouri Department of Health

For more information, e-mail bcms@socket.net or goto:

https://health.mo.gov/
Case fatality rates: COVID-19 vs. US Seasonal Flu

Case fatality rate (CFR) is specific to a location and time. It is calculated by dividing the total number of deaths from a disease by the number of confirmed cases.

**Seasonal Flu**
Case fatality rates for the influenza season 2018-19 in the USA.

Symptomatic cases are calculated based on models which aim to account for under-reporting – figures based on medical visits are therefore also shown in square brackets, which may be a closer comparison to COVID-19 case fatality rates.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>CFR (0-2%)</th>
<th>CFR (0.007-0.2%)</th>
<th>CFR (0.003-0.06%)</th>
<th>CFR (0.014-0.06%)</th>
<th>CFR (All ages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ages</td>
<td>0.1%</td>
<td>0.004%</td>
<td>0.02%</td>
<td>0.06%</td>
<td>1.4% (medical visits)</td>
</tr>
</tbody>
</table>

**COVID-19**
Case fatality rates for the COVID-19 outbreak in China, for the period up to February 11, 2020.

- 0.1% (0-19 years)
- 0.3% (19-49 years)
- 1.3% (50-64 years)
- 6% (65+ years)

US influenza data is sourced from the US Centers for Disease Control and Prevention (CDC).

Licensed under CC-BY by the authors Hannah Ritchie and Max Roser.

https://ourworldindata.org/coronavirus
CoVID-19: Case Fatality Rates

- China (3.5%)
- China, excluding Hubei Province (0.8%)
- 82 countries, territories, and areas (4.2%)
- Cruise ship (0.6%)

- Broad range of 0.25%–3.0%

Coronavirus: early-stage case fatality rates by age-group in China

Case fatality rate (CFR) is calculated by dividing the total number of deaths from a disease by the number of confirmed cases. Data is based on early-stage analysis of the COVID-19 outbreak in China in the period up to February 11, 2020.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>CFR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9 years</td>
<td>0%</td>
</tr>
<tr>
<td>10-19 years</td>
<td>0.2%</td>
</tr>
<tr>
<td>20-29 years</td>
<td>0.2%</td>
</tr>
<tr>
<td>30-39 years</td>
<td>0.2%</td>
</tr>
<tr>
<td>40-49 years</td>
<td>0.4%</td>
</tr>
<tr>
<td>50-59 years</td>
<td>1.3%</td>
</tr>
<tr>
<td>60-69 years</td>
<td>3.6%</td>
</tr>
<tr>
<td>70-79 years</td>
<td>8%</td>
</tr>
<tr>
<td>80+ years</td>
<td>14.8%</td>
</tr>
</tbody>
</table>

Children that are infected with the virus appear to be at lower risk of dying.

Older populations are most at risk. 14.8% of people aged 80 or older who were diagnosed died.


OurWorldInData.org – Research and data to make progress against the world’s largest problems. Licensed under CC-BY by the authors.
Integrated surveillance of COVID-19 in Italy

13,882 cases of COVID-19
1,116 health-care workers
803 associated deaths

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Deaths In (%)</th>
<th>CFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>0 (0%)</td>
<td>0%</td>
</tr>
<tr>
<td>10-19</td>
<td>0 (0%)</td>
<td>0%</td>
</tr>
<tr>
<td>20-29</td>
<td>0 (0%)</td>
<td>0%</td>
</tr>
<tr>
<td>30-39</td>
<td>1 (0.1%)</td>
<td>0.1%</td>
</tr>
<tr>
<td>40-49</td>
<td>1 (0.1%)</td>
<td>0.1%</td>
</tr>
<tr>
<td>50-59</td>
<td>14 (1.7%)</td>
<td>0.6%</td>
</tr>
<tr>
<td>60-69</td>
<td>65 (8.1%)</td>
<td>2.7%</td>
</tr>
<tr>
<td>70-79</td>
<td>274 (34.2%)</td>
<td>9.6%</td>
</tr>
<tr>
<td>80-89</td>
<td>355 (44.3%)</td>
<td>16.6%</td>
</tr>
<tr>
<td>&gt;90</td>
<td>75 (9.3%)</td>
<td>19%</td>
</tr>
<tr>
<td>Not reported</td>
<td>18 (2.2%)</td>
<td>3.2%</td>
</tr>
<tr>
<td>Total</td>
<td>803 (100%)</td>
<td>5.8%</td>
</tr>
</tbody>
</table>
Integrated surveillance of COVID-19 in Italy

13,882 cases of COVID-19
1,116 health-care workers
803 associated deaths

Median age 64 years

- 39.6% Female
- 60.4% Male

Age distribution:
- 37.5% 0-18
- 22.8% 19-50
- 12% 51-70
- 1.2% >70
Deaths from Covid-19 as of 3-23-20 10:00 AM

https://ourworldindata.org/coronavirus
From Tue 3/10/20 webinar, Medical Society of Virginia:

Epidemic Curve of COVID-19 Cases in China

Epidemic curve of COVID-19 cases reported in China by date of onset of illness, as of 20 February 2020
• From Tue 3/10/20 webinar, Medical Society of Virginia:

Epidemic Curve of COVID-19 Cases Outside of China by Date and WHO Region

As of March 9, 2020
1918 Flu Pandemic: Effect of delaying preventative measures

Philadelphia and St Louis
## Summary of COVID Cases and Monitoring

<table>
<thead>
<tr>
<th># of Positive COVID Cases in MO</th>
<th># of Positive COVID Cases in Boone</th>
<th># of travelers being monitored:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current: 179</td>
<td>Current: 19</td>
<td>Current: 3</td>
</tr>
<tr>
<td>Recovered: 1</td>
<td>Recovered: 0</td>
<td></td>
</tr>
<tr>
<td>Deaths: 3</td>
<td>Deaths: 1</td>
<td></td>
</tr>
<tr>
<td>Total: 183</td>
<td>Total: 20</td>
<td></td>
</tr>
</tbody>
</table>
Next event, Sat 3/28/20 at 8 am:
MSMA Conference Call with Randall Williams, MD;
Director of Missouri Department of Health

For more information, e-mail bcms@socket.net or goto:

https://health.mo.gov/
March 23, 2020

Governor Michael L. Parson
Capitol Building, Room 216
Jefferson City, MO 65101

Governor Parson:

On behalf of the physicians and surgeons practicing in Missouri, the Missouri State Medical Association requests the enactment of a “shelter-in-place” requirement by executive order.

We appreciate the previous actions you have taken regarding this crisis, and understand the interwoven policy issues at play during this critical time. However, we now believe that a statewide “shelter-in-place” order is the only way to curb the exponential spread of COVID-19 in Missouri.
If things progress as is, COVID-19 patients will deplete the state’s available hospital beds, ventilators, and precious personal protection equipment. Any additional time without a “shelter-in-place” requirement wastes crucial healthcare resources, including manpower.

As physicians, we understand our role as the first line of defense against this virus. We accept the likelihood that a number of physicians will contract COVID-19 while treating the citizens of Missouri. Despite that known fact, we are prepared to carry out our responsibilities for as long as needed.

We ask for your assistance as we begin this difficult journey.

Regards,

James A. DiRenna, DO, FAAFP
President
1918 Flu Pandemic: Effect of delaying preventative measures

Philadelphia and St Louis

Next event, Sat 3/28/20 at 8 am:
MSMA Conference Call with Randall Williams, MD;
Director of Missouri Department of Health

For more information, e-mail bcms@socket.net or goto:
https://health.mo.gov/