COVID and Child Health Updates

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**Please note: This information was produced by the Montana Chapter of the American Academy of Pediatrics**
COVID-19 update: Good news and bad news

• We are seeing a rising number of infections due to the Omicron variant
• We have many tools to prevent infection
• Therapeutics are coming, but are not yet widely available
Cumulative Cases: 212,078
2,177 New Cases

Total Deaths: 2,945
Total Tests: 2,379,729
Recovered: 197,685
Active: 11,448
Active Hospitalizations: 195
Total Hospitalizations: 10,632

Updates are made between 10:00 and 11:30 a.m. on weekdays. Information is reported based on the previous day. It is highly likely that the information on this dashboard and map will change based on further public health investigations. For information on demographics and nonresident cases, click here. For assistance, please call the Montana Joint Information Center 1-888-333-0461. Source Data: Montana Department of Health & Human Services, Montana State Library. Date and time of last update: 9/14/2022, 5:25 AM.

Additional cases and dashboard information.
Montana COVID-19 cases

- Omicron is much more contagious than previous variants
- We have the tools we need to prevent infection
- Therapeutics are coming, but are not widely available
U.S. COVID-19 cases

Daily Trends in Number of COVID-19 Cases in The United States Reported to CDC
Omicron variant: Key Points

- **More transmissible**
- Vaccination less protective against getting infected, but continues to protect against hospitalization
  - New York data: Unvaccinated 13 times more likely to be hospitalized
  - **Booster dose** provides important increase in protection
- Hospitalization risk appears **lower** for individuals, but case numbers are so high that we are setting records

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Switzerland: COVID-19 weekly death rate by vaccination status, All ages, Jan 1, 2022

Death rates are calculated as the number of deaths in each group, divided by the total number of people in this group. This is given per 100,000 people.

- Unvaccinated: 13.06
- Fully vaccinated, no booster: 1.44
- Fully vaccinated + booster dose: 0.27

Source: Federal Office of Public Health

Note: Data coverage includes both Switzerland and Liechtenstein. Unvaccinated people have not received any dose. Partially-vaccinated people are excluded. Fully-vaccinated people have received all doses prescribed by the initial vaccination protocol. The mortality rate for the ‘All ages’ group is age-standardized to account for the different vaccination rates of older and younger people.
Prevalent Hospitalizations of Patients with Confirmed COVID-19, United States
August 01, 2020 – January 15, 2022

133,187
Current 7-Day Average
Jan 09, 2022 – Jan 15, 2022

115,721
Prior 7-Day Average
Jan 02, 2022 – Jan 08, 2022

136,575
Peak 7-Day Average
Jan 08, 2022 – Jan 14, 2022

+15.1%
Percent change from prior 7-day avg. of Jan 02, 2022 – Jan 08, 2022

-2.5%
Percent change from peak 7-day avg. of Jan 07, 2022 – Jan 13, 2022

Based on reporting from all hospitals (N=5,264). Due to potential reporting delays, data reported in the most recent 7 days (as represented by the shaded bar) should be interpreted with caution.

Small shifts in historic data may occur due to changes in the CMS Provider of Services file, which is used to identify the cohort of included hospitals. Data since December 1, 2020 have had error correction methodology applied. Data prior to this date may have anomalies that are still being resolved.

Last Updated: Jan 17, 2022
COVID in children

Most often, mild symptoms and can have no symptoms at all
However, 1127 children have died of COVID since the start of the pandemic (CDC, Jan 15 2022)

Serious complications:
- Pneumonia, fever, dehydration: Typical illness with acute infection
- Myocarditis: Heart inflammation with acute infection
- Blood clots: Causing heart attacks, strokes
- MIS-C: Multisystem inflammatory response to coronavirus affecting many different organs, which usually happens within 4 weeks of initial COVID illness (even if mild/asymptomatic)
- Long COVID: Less common in children than in adults, but still in the 4-12% range
The Coronavirus Disease 2019 (COVID-19)-Associated Hospitalization Surveillance Network (COVID-NET) hospitalization data are preliminary and subject to change as more data become available. In particular, case counts and rates for recent hospital admissions are subject to lag. Lag for COVID-NET case identification and reporting might increase around holidays or during periods of increased hospital utilization. As data are received each week, prior case counts and rates are updated accordingly.
Montana vaccination rates

Source: MT DPHHS (https://dphhs.mt.gov/publichealth/cdepi/diseases/CoronavirusMT/demographics)
Vaccination in children

- With ongoing virus spread, vaccination **clearly beneficial** for the health of individual children
  - Reduces the risk of becoming sick, greatly reduces the risk of hospitalization (94-98% effective per Randolph NEJM, also Frenck NEJM)
  - Reduces the risk of MIS-C (Randolph MMRW)
  - Reduces the risk of myocarditis (Boehmer MMRW)
  - MAY reduce the risk of long COVID (Preprint studies: Kuodi et al)

- Vaccinating children also beneficial to family & community transmission
  - > 170,000 children have lost a caregiver to COVID
Your Best Shot to Protect
Your Kids, Family and Community
Prevention: Protective layers in schools

Very important:
- Vaccination
- Face masks (N95 or KN95 > surgical > cloth)
- Ventilation (outdoors, opening windows, upgraded systems)
- Staying home when sick

Helpful: Handwashing, cohorting, surveillance testing, testing with symptoms, contact tracing, distancing

Less helpful: Surface cleaning, plastic dividers
Face masks

- During the delta wave, schools with **mask requirements** had 3-3.5 times fewer cases than schools with **mask recommendations** (Gallatin County data, CDC data from AZ).

- Local mask requirements also affected school cases, approximately double when no requirement (Budzyn MMRW).

<table>
<thead>
<tr>
<th></th>
<th>Case Count</th>
<th>School Population</th>
<th>Cases per 1000 Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mask</td>
<td>38</td>
<td>6520</td>
<td>5.8</td>
</tr>
<tr>
<td>No Mask</td>
<td>98</td>
<td>5264</td>
<td>17.9*</td>
</tr>
</tbody>
</table>

*4 cases removed because enrollment data not available

Source: Gallatin County Health Department
Isolation & Quarantine

Note:
ISOLATION = Tested or presumed COVID positive
QUARANTINE = Asymptomatic close contact of COVID case

- **Isolation** recently shortened to 5 days (if symptoms improved), followed by 5 days of strict mask wearing

- **Quarantine (if NO symptoms)**
  - If fully vaccinated + boosted if eligible: No quarantine, per CDC
  - If not fully vaccinated / boosted: 5 day quarantine, test on day 5, followed by masking for 5 days
  - Student contacts: If both properly masked still not required to quarantine
Infected Student

**Close Contact Student**
*Either student NOT properly wearing a mask*

- **Not Up to Date Close Contact**
  - Quarantine for 5 days if remains asymptomatic; recommend testing at 5 days after last exposure. STRICT mask use at home and in public for entire 10 days since last exposure.

- **Up to Date Close Contact**
  - No quarantine unless otherwise recommended; recommend testing at 5 days after last exposure. STRICT mask use at home and in public for entire 10 days since last exposure.

**Exception To:**
*Close Contact Student*
*Both students PROPERLY WEARING MASKS more than 3 feet apart, regardless of vaccination status*

- **Not Up to Date Close Contact**
  - Quarantine for 5 days if remains asymptomatic; recommend testing at 5 days after last exposure. STRICT mask use at home and in public for entire 10 days since last exposure.

- **Up to Date Close Contact**
  - No quarantine unless otherwise recommended; recommend testing at 5 days after last exposure. STRICT mask use at home and in public for entire 10 days since last exposure.

**Close Contact Adult**
*Regardless of wearing mask*

- **Not Up to Date Close Contact**
  - No quarantine unless otherwise recommended; recommend testing at 5 days after last exposure. STRICT mask use at home and in public for entire 10 days since last exposure.

- **Up to Date Close Contact**
  - No quarantine unless otherwise recommended; recommend testing at 5 days after last exposure. STRICT mask use at home and in public for entire 10 days since last exposure.

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*If quarantine is not feasible, close contact must PROPERLY WEAR MASK for 10 days after last exposure.*
Therapeutics

- Many of our previously used monoclonal antibodies (> 12 year olds) do not have activity against omicron, only sotrovimab likely effective

- New oral medications (paxlovid for > 12 years, molnupiravir for > 18 years), but supply so far is VERY restrictive and there are strict criteria

All therapies require early testing for diagnosis of COVID-19

- Oral medications must be started within 5 days of symptoms
Questions?