COVID-19 and K-12 Schools

Departments of Health & Senior Services and Elementary & Secondary Education

December 1, 2020
COVID-19 in Missouri—data takeaways 11/30

• Missouri’s new case rate has dropped over the past two weeks, in part due to fewer tests done around the Thanksgiving holiday

• Still, the new case rate remains at critically high levels and could easily continue rising without spread-limiting behaviors
  • Transmission (measured by $R_e$) remains critically high (>1.2 in several regions)
  • Hospitals remain stretched as they care for high numbers of COVID-19 patients

• We are watching the data carefully over the next two weeks to understand the true trends and the effects of holiday travel and gatherings
### Public executive dashboard – 11/30

**Cases**
- New Cases in the Past 7 Days: 18,924
- Average of 2,703 per day
- 308 cases per 100K residents

**Deaths**
- New Deaths in the Past 7 Days: 53
- Average of 8 per day
- 0.9 deaths per 100K residents

**Tests**
- New Tests in the Past 7 Days: 100,677
- Average of 14,382 per day
- 1,640 tests per 100K residents

**Positivity Rate**
- Positivity Rate over the Past 7 Days (CDC method): 20.0%

**Hospitalizations**
- COVID-19 Patients in the Hospital: 2,498 (as of 11/27/2020)
- 636 in the ICU
- 339 on ventilators

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Data available at ShowMeStrong.mo.gov
Missouri’s new case rate has dipped but remains high

New cases per day since March (line represents 7-day average)

On 8/6, this metric was 999
On 10/6, this metric was 1,526
Average of 2,703 new cases per day on 11/27

Source: Data are from DHSS
Tests have also declined in the past week due to the holiday.

New PCR tests per day since March (line represents 7-day average)

Average of 14,300 new PCR tests per day on 11/27

Average of 21,500 new PCR tests per day on 11/20

-33%

Source: Data are from DHSS
Positivity rate is down slightly from its 25% peak this month

7-day PCR positivity rate (CDC method) over time

Source: Data are from DHSS
Case rates in many counties are down but still high

7-day new cases per 100k (11/21 through 11/27)

Top 20 counties by new case rate per 100k

- MADISON 1 653.5
- HOWARD 2 569.9
- PUTNAM 3 532.4
- COLE 4 482.1
- GENTRY 5 471.8
- PIKE 6 442.6
- MISSISSIPPI 7 432.5
- BUCHANAN 8 425.8
- PHELPS 9 424.0
- JEFFERSON 10 422.1
- CAPE GIRARDEAU 11 418.4
- ST FRANCOIS 12 416.6
- NODAways 13 416.4
- STE GENEVIEVE 14 413.5
- MACON 15 410.1
- MONROE 16 404.9
- RALLS 17 397.7
- MARION 18 396.1
- CALDWELL 19 388.0
- CALLAWAY 20 386.7

Source: Data are from DHSS
Missouri is currently #23 in new cases per capita

New cases per 100k by report date in the past 7 days (Nov 23 – Nov 30)

**Top 30 states**

<table>
<thead>
<tr>
<th>State</th>
<th>Cases per 100k</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dakota</td>
<td>775</td>
</tr>
<tr>
<td>North Dakota</td>
<td>771</td>
</tr>
<tr>
<td>Minnesota</td>
<td>763</td>
</tr>
<tr>
<td>Wyoming</td>
<td>748</td>
</tr>
<tr>
<td>New Mexico</td>
<td>645</td>
</tr>
<tr>
<td>Nebraska</td>
<td>643</td>
</tr>
<tr>
<td>Kansas</td>
<td>635</td>
</tr>
<tr>
<td>Montana</td>
<td>576</td>
</tr>
<tr>
<td>Alaska</td>
<td>573</td>
</tr>
<tr>
<td>Indiana</td>
<td>567</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>564</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>563</td>
</tr>
<tr>
<td>Iowa</td>
<td>553</td>
</tr>
<tr>
<td>Nevada</td>
<td>548</td>
</tr>
<tr>
<td>Ohio</td>
<td>539</td>
</tr>
<tr>
<td>Colorado</td>
<td>530</td>
</tr>
<tr>
<td>Utah</td>
<td>526</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>504</td>
</tr>
<tr>
<td>Idaho</td>
<td>503</td>
</tr>
<tr>
<td>Illinois</td>
<td>501</td>
</tr>
<tr>
<td>Michigan</td>
<td>492</td>
</tr>
<tr>
<td>Kentucky</td>
<td>421</td>
</tr>
<tr>
<td>Delaware</td>
<td>398</td>
</tr>
<tr>
<td>Tennessee</td>
<td>385</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>372</td>
</tr>
<tr>
<td>Arkansas</td>
<td>368</td>
</tr>
<tr>
<td>Arizona</td>
<td>368</td>
</tr>
<tr>
<td>West Virginia</td>
<td>361</td>
</tr>
<tr>
<td>New Jersey</td>
<td>316</td>
</tr>
</tbody>
</table>

- All of Missouri’s neighbors are also in the top 30
- The Midwest and Mountain West have sustained high new case rates for several weeks

Source: Nationwide data are from CDC as of 11/30/2020 at 12:18pm CT; red / yellow / green thresholds are from the White House Coronavirus Task Force
Hospitalizations are down slightly from their recent peak.

Statewide suspected and confirmed COVID-19 hospitalizations, data through from Aug 1 through Nov 27

- 2,851 Missouri hospitalizations on 11/18 (peak)
- 2,498 Missouri hospitalizations on 11/27

Source: Data are from HHS via TeleTracking

Data available at ShowMeStrong.mo.gov
SARS-CoV-2, Children, and Schools

Rachel C. Orscheln, MD
Associate Professor of Pediatrics
Division of Pediatric Infectious Diseases
Washington University
Missouri COVID-19 Cases by Age

Community Transmission with School Reopening

- No change in community transmission associated with school reopening
COVID-19 and Schools

- Less than 1% of close contacts develop infection
COVID-19 and Schools

• Study by St. Louis area pediatricians (WUPAARC) suggests children in school are at lower risk for infection than those in the community

Mitigation Strategies in Schools are Effective

Low risk symptoms
- Fever (≥100.4°F)
- Sore throat
- Congestion/runny nose
- Headache
- Nausea/vomiting/diarrhea
- Body aches

High risk symptoms
- Cough
- Difficulty breathing
- Loss of taste/smell

Exposure to COVID-19 positive person?
- Close contact: less than 6 feet, more than 15 min

NO
- ≥1 low risk symptom
  - Return to school 24 hr after symptom resolution
- >2 low risk symptoms OR 1 high risk symptom
  - Evaluation by Healthcare Provider

YES
- Stay home

1. Low risk symptom
   - Healthcare provider confirms alternative diagnosis for symptoms. A healthcare provider’s note must be on file.
   - Return to school after 24 hours without fever and symptoms improving

2. Negative SARS-CoV-2 PCR test
   - Return to school after 24 hours without fever and symptoms improving

3. Positive SARS-CoV-2 PCR test
   - Return to school only after 10 days since symptoms onset, 24 hours without fever, and approval of local health department; quarantine contacts
   - Return to school after 14 days from last contact unless symptoms develop. If symptoms develop, perform SARS-CoV-2 PCR test

3-6 feet
Respiratory Droplet Travel

Visualizing the effectiveness of face masks in obstructing respiratory jets, DOI:10.1063/5.0016018
Cloth Face Mask and N95 Respirators

Visualizing the effectiveness of face masks in obstructing respiratory jets, DOI:10.1063/5.0016018
Community Based Face Masks

<table>
<thead>
<tr>
<th>Mask type</th>
<th>Material</th>
<th>Threads per inch</th>
<th>Average jet distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncovered</td>
<td>—</td>
<td>—</td>
<td>~8 feet</td>
</tr>
<tr>
<td>Bandana</td>
<td>Elastic T-shirt material</td>
<td>85</td>
<td>~3 feet 7 inches</td>
</tr>
<tr>
<td>Folded handkerchief</td>
<td>Cotton</td>
<td>55</td>
<td>1 foot 3 inches</td>
</tr>
<tr>
<td>Stitched mask</td>
<td>Quilting cotton</td>
<td>70</td>
<td>2.5 inches</td>
</tr>
<tr>
<td>Commercial maska</td>
<td>Unknown</td>
<td>Randomly assorted fibers</td>
<td>8 inches</td>
</tr>
</tbody>
</table>

*a CVS Cone Face Mask

Visualizing the effectiveness of face masks in obstructing respiratory jets, DOI:10.1063/5.0016018
## Mask Wearing Reminders (from CDC)

### DO choose masks that
- **Have two or more layers of washable, breathable fabric**
- **Completely cover your nose and mouth**
- **Fit snugly against the sides of your face and don’t have gaps**

### DO NOT choose masks that
- **Are made of fabric that makes it hard to breathe, for example, vinyl**
- **Have exhalation valves or vents, which allow virus particles to escape**
- **Are intended for healthcare workers, including N95 respirators or surgical masks**

### Caution: Gaiters & Face Shields
- **Evaluation is on-going but effectiveness is unknown at this time**
Current Instructional Models in Missouri

- Distanced: 289,213
- Onsite w/ Distanced Option: 266,917
- Blend Onsite/Distanced: 252,414
- Onsite: 70,083
- Closed: 0

Total K-12 Enrollment: 878,627

Instructional Model for Independent Schools
(n=38)

- Onsite: 32
- Hybrid: 5
- Distanced: 1
Missouri CDC Collaboration

- Prospective Data Collection in Schools

- Prospective Observational Study of Mitigation Strategies in Schools
• Some LPHAs making changes to approach/model
• Requirement for LPHA to begin school-aged positive case investigation within 24 hours removed from order
  ❑ Schools may continue to exclude close contacts from the school setting
  ❑ May recommend self-quarantine outside of school, but schools are not able/required to enforce that
Data shows limited transmission in schools with mask mandates & other mitigation strategies, so an exception was made for in-person learning only

- Ongoing questions:
  - Contact tracing protocol for schools
  - Self-quarantine outside of school
  - Sports & activities

Email questions live to Communications@dese.mo.gov
• “Why Three Feet of Social Distancing Should be Enough in Schools” (Washington Post)
• “Schoolchildren Seem Unlikely to Fuel Coronavirus Surges, Scientists Say” (New York Times)
• “We’ve Figured Out It’s Safe to Have Schools Open. Keep Them That Way.” (Washington Post)
• CDC will **likely** change guidance soon on when **asymptomatic** close contacts can be released from quarantine. This has been 14 days, but now may be:
  - 7 days with a negative test taken on day 5, 6 or 7
  - 10 days without a test
• Rationale for making this change
• Novel virus will continue to lead to rapidly changing guidance and protocols as we learn more

Email questions live to Communications@dese.mo.gov
• Application window open again (11/23 – 12/2)
• Evaluating test usage before sending second shipment to existing participants
• Reminders:
  ❑ Training verification for all test administrators
  ❑ Electronic lab reporting within 24 hours
  ❑ Waste disposal

Email questions live to Communications@dese.mo.gov
COVID-19 Vaccine Update

- Educators are among second tier of “essential workforce” to receive vaccine (along with first responders, child care workers, etc.)
  - Healthcare professionals in first tier of priority
  - Availability details at COVIDVaccine.mo.gov
- News from manufacturers
- Projected timeline for availability

Email questions live to Communications@dese.mo.gov
DESE Reminders

- #Reach4MO Social Emotional Learning Initiative
- ESSER & GEER Revised Allocations

Recognizing needs
Educating schools and communities
Adapting to a “new normal”
Connecting to resources
Helping build SEL capacity

Email questions live to Communications@dese.mo.gov
• Mark your calendar for our next webinar:
  - Wednesday, January 6 – 1:00-2:30 p.m.
• Will share remaining 2021 monthly webinar dates soon (Feb., March, April & May)

Email questions live to Communications@dese.mo.gov
Held weekly on Thursdays
4:00-5:00 PM

Register here

GOALS:
- Bring together pediatric infectious disease specialists, school leaders, school nurses, LPHAs & primary care physicians to discuss COVID-19 & kids
- Share timely information about COVID-19 & kids
- Provide a platform for information sharing & learning across communities caring for children
Email live webinar questions to: Communications@dese.mo.gov
Updates: dese.mo.gov/covid19