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COVID-19 for Pediatric Populations

April 27, 2021

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Disclosures



- No financial disclosures
- What gets said here today may change based on new data and recommendations
 - Knowledge moves rapidly



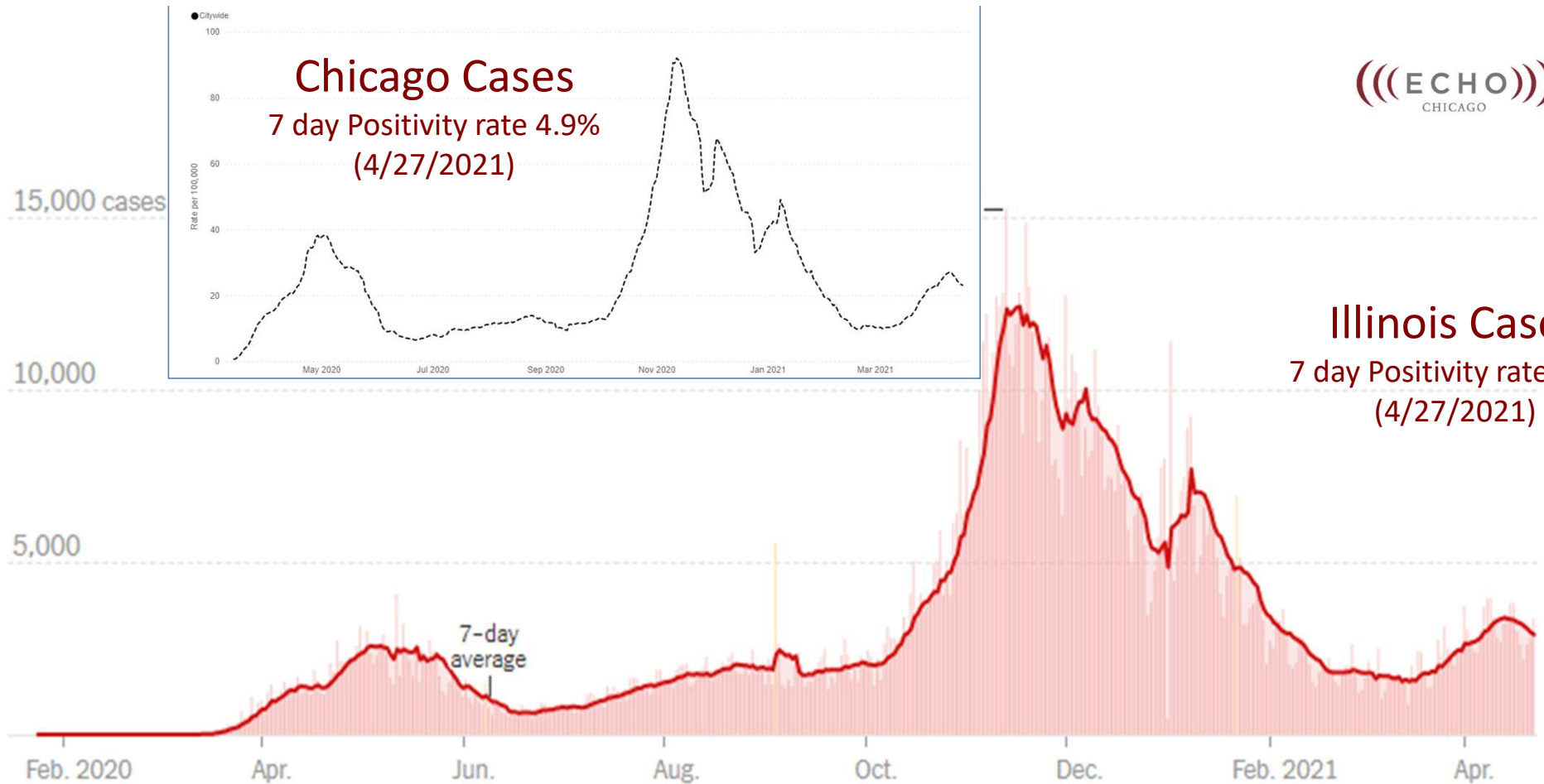
Agenda



- Demographics
 - Disease rates
 - Vaccination rates
- Sports and COVID

Epidemiology





Illinois Cases
7 day Positivity rate 3.9%
(4/27/2021)

<https://www.nytimes.com/interactive/2020/us/illinois-coronavirus-cases.html>

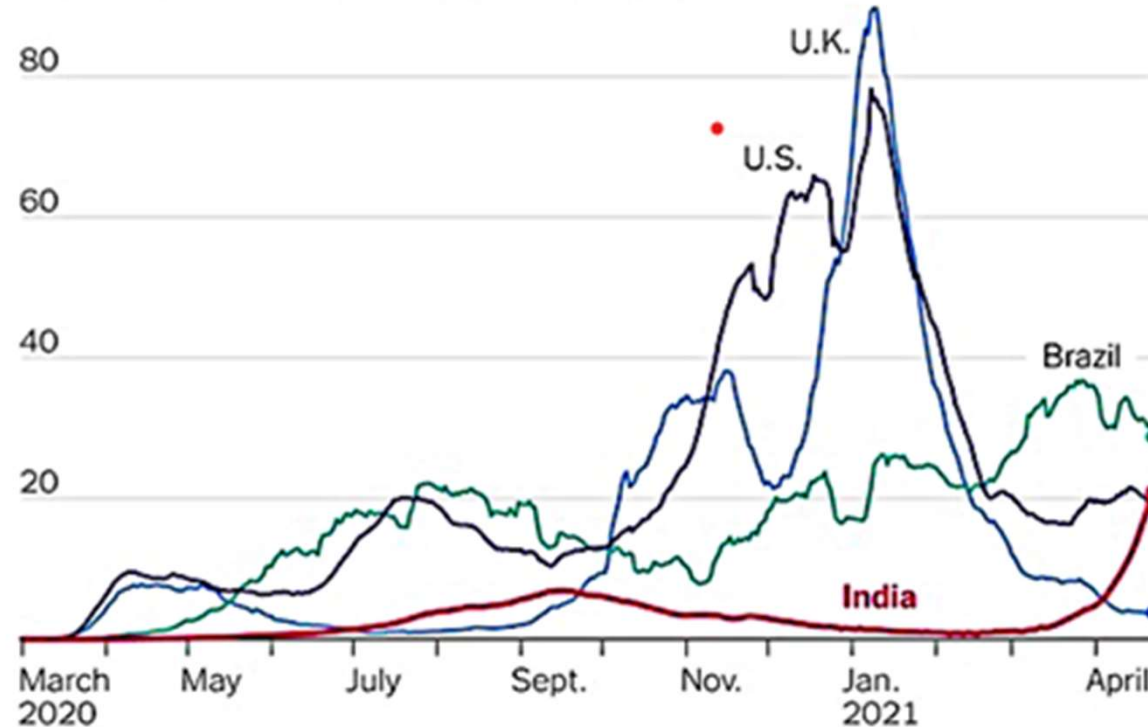
<https://covidactnow.org/us/illinois-il?s=1330330>

<https://www.chicago.gov/city/en/sites/covid-19/home/covid-dashboard.html>

A Wider View



Covid-19 Cases per 100,000 Residents



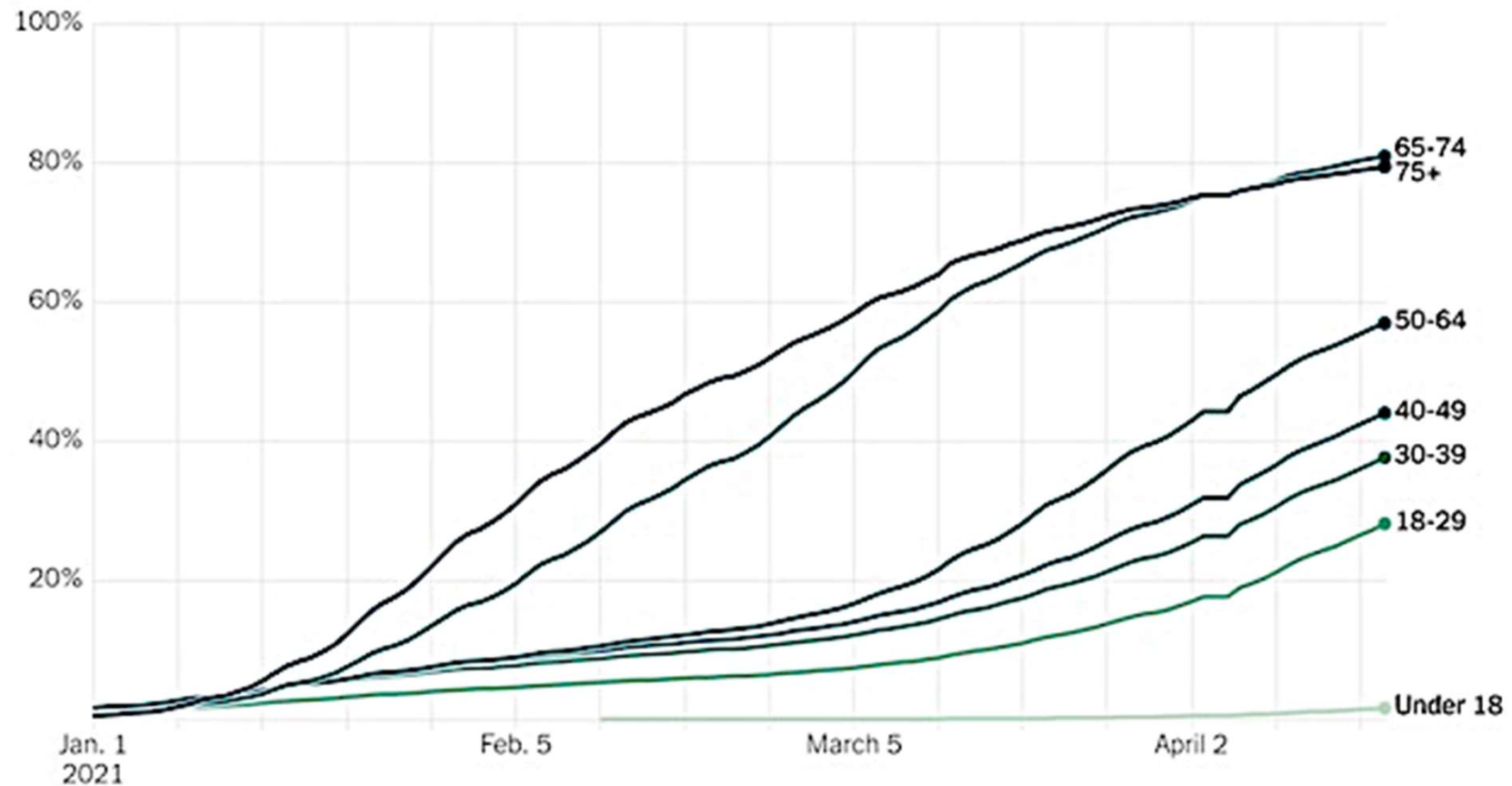
Population

US	331.4M
India	1.4B
Brazil	212.8M

Graph reflects 7-day moving averages.

By The New York Times | Sources: Governments, health agencies and hospitals

Share of age groups that have received at least one dose of a Covid-19 vaccine



Source: Centers for Disease Control and Prevention. Data as of April 18.



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And Since We are Talking About Vaccine

- J&J CNS clot risk: 1 in 150,000 to 1 in 1,000,000 depending on age and sex
- Other situations with stroke risk:
 - Being a child: 1 in 17,000 chance of having a stroke
 - Pregnancy: 1 of every 3,333 pregnant women
 - Person with COVID needing hospitalization: 1 out of every 72
 - Person with COVID: 1 in 1000 risk
- For comparison, lifetime risk:
 - Dying from obesity: 1 in 100
 - Getting struck by lightning: 1 in 80,000 vs. getting struck and dying 1 in 140,000
 - Developing skin cancer: 1 in 33
 - Contracting HIV: 1 in 1,000
 - Getting pregnant from unprotected sexual intercourse: 1 in 20
 - Shark attack: 1 in 60,000
 - Drowning: 1 in 1,100
 - Dying from a dog attack: 1 in 87,000
 - Flipping a coin: throwing heads 20 times in a row 1 in a million
- We must help people understand the risk

CORONAVIRUS SPORTS IMPACT



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MGN

Masking and Athletics



- Athletes should wear face masks at all times:
 - Between practice drills, on the sidelines, arriving at or departing from the playing facility, in the locker room, while not on the playing field, during shared transportation to/from an event and during competition when plausible
 - Face mask should fit well and be worn over the nose and below the chin
 - If the face mask is removed for a break, the athlete should remain at least 6 feet away from all other individuals
 - Individual sports performed outside are lower risk (e.g., golf and singles tennis) and a face mask may not be necessary if the athletes are appropriately distanced
- Face masks have been shown to be well tolerated by the majority of individuals who wear them for exercise, with certain exceptions
 - Face masks should not be worn for competitive cheerleading (tumbling/stunting/flying) and gymnastics (while on the different apparatuses) because of the theoretical risk that the mask may get caught on objects and become a choking hazard or accidentally impair vision
 - During wrestling, a face mask could become a choking hazard and is discouraged (*wrestling should be discouraged in general due to risk of spread*)
 - Individuals who swim/dive/participate in water sports should not wear a face mask while they are in the water
- Any face mask that becomes saturated with sweat should be changed immediately

Infection Control During Sports



- Maintain practice groups in consistent pods of small sizes that do not mix
 - Small pods allow for easier contact tracing and fewer numbers of athletes needing to be quarantined if a case occurs
- Frequently touched surfaces (e.g., drinking fountains, equipment) should be cleaned and disinfected at least daily and if possible between uses
- Sharing of equipment and use of communal spaces, such as locker rooms, should be reduced
- When possible, athletic areas with poor ventilation (i.e., weight rooms) or small spaces where distancing cannot be maintained should be avoided
- Increased ventilation via opening doors or windows when safe
- Do not share food or drink
 - Participants should be encouraged to bring their own water bottles
- Individuals with any signs or symptoms of SARS-CoV-2 infection should not attend practices or competition and notify their coach, trainer, and/or school of their signs/symptoms

Travel for Sports Competitions

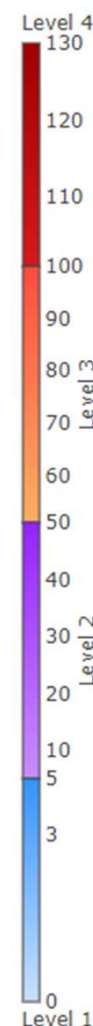
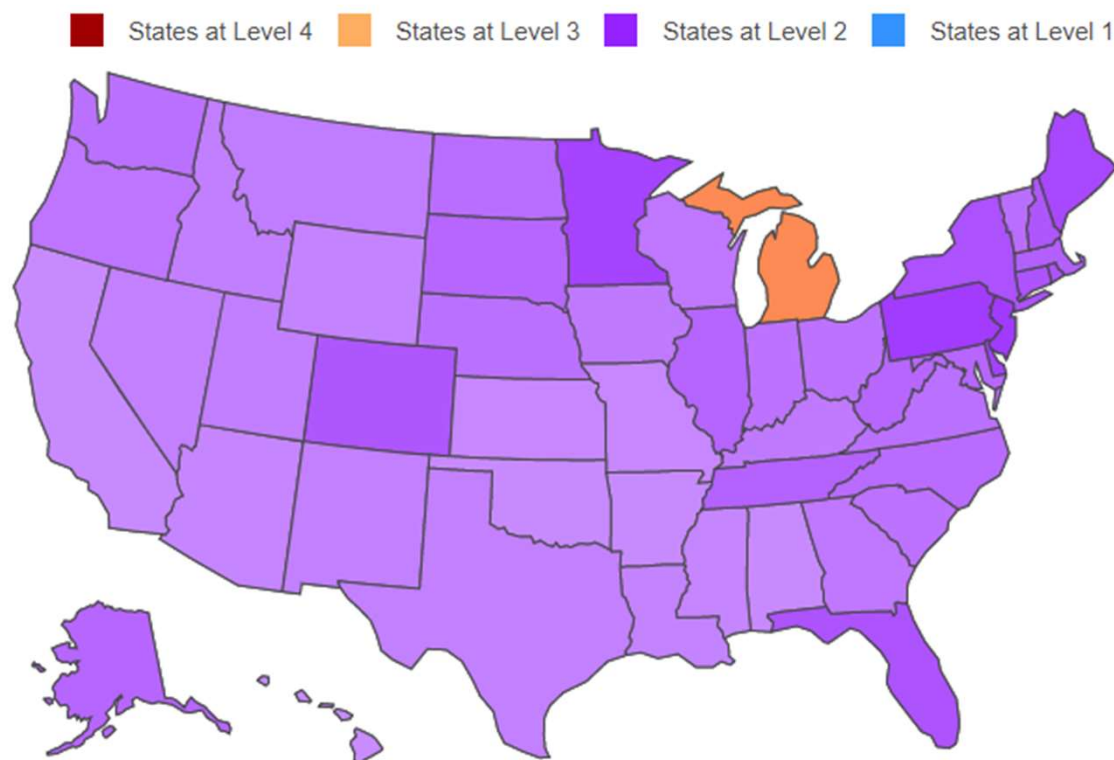
- Minimizing travel to other communities and regions
- If anyone (athlete and/or family of athlete) has signs/symptoms consistent with COVID-19, is in quarantine for exposure, or is awaiting COVID-19 test results, they should not travel or attend any sports activities
- Families should review competition/tournament COVID-19 safety protocols prior to attending an event
- Risk reduction strategies for individuals from different households
 - Do not share hotel rooms/living space, transportation, or meals
 - Do not participating in unmasked social activities together away from competition (swimming in hotel pools, eating meals together, social time in hotel lobby)

Travel for Sports Competitions

- Check if the area of travel requires a period of quarantine upon arrival, or if their home state requires a quarantine upon return home
 - Illinois (<http://www.dph.illinois.gov/covid19/travel>) and Chicago (<https://www.chicago.gov/city/en/sites/covid-19/home/emergency-travel-order.html>) rules are different and can be found here

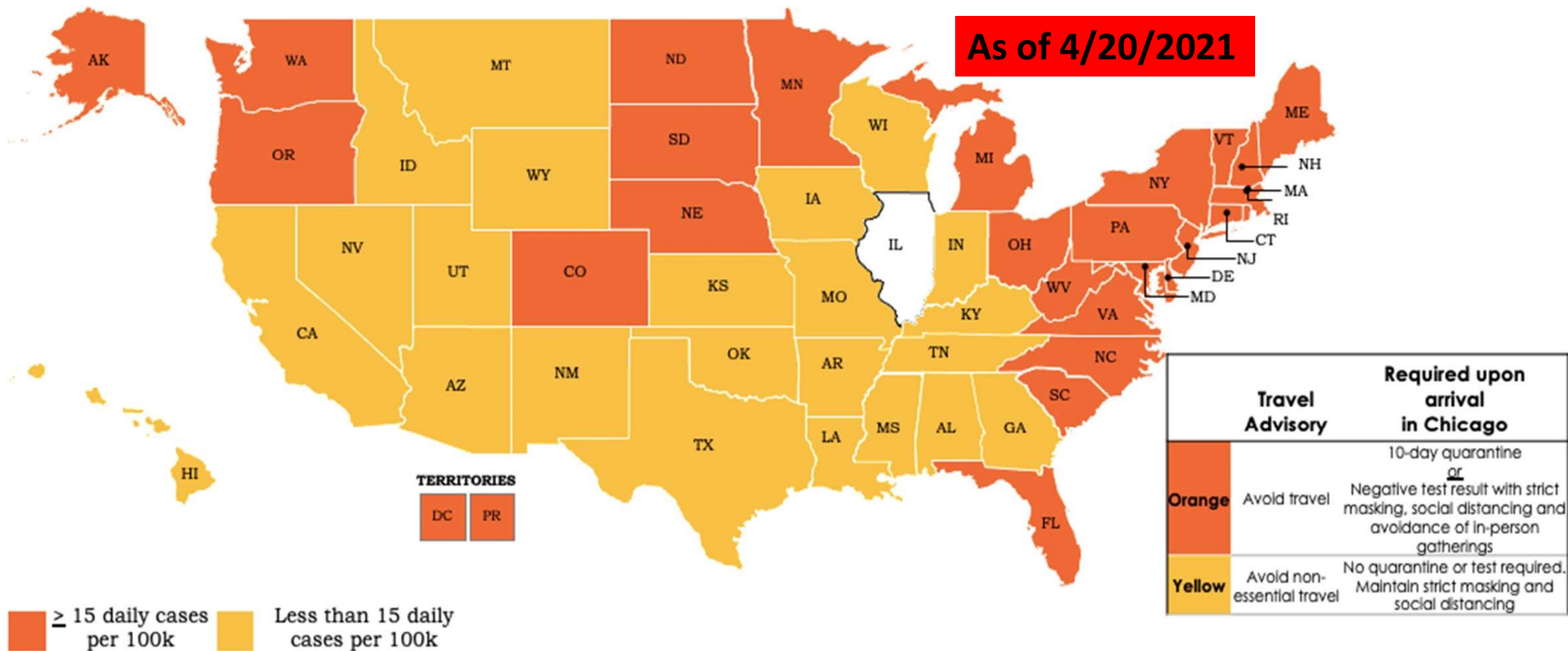
Map of High Risk States

- Travel at your own risk is the message from Illinois broadly
- There is no requirement to quarantine when traveling to the state of Illinois





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<https://www.chicago.gov/city/en/sites/covid-19/home/emergency-travel-order.html>

Cook County and City of Chicago are the Same

Travel to/from Orange states

- Obtain a negative COVID-19 test result no more than 72 hours prior to arrival in suburban Cook County/Chicago; OR
- Quarantine for a 10-day period (or for the duration of their time in suburban Cook County, whichever is shorter); OR
- Be fully vaccinated, maintain strict masking and physical distancing, and not have any COVID-19 symptoms
 - Fully vaccinated is defined as two weeks after the second dose of a two-dose COVID-19 vaccine or two weeks after one dose of a single-dose vaccine.

<https://www.chicago.gov/city/en/sites/covid-19/home/emergency-travel-order.html>

Testing and Sports

- Persons that should have diagnostic testing
 - Those with signs or symptoms of COVID-19
 - Close contacts with a person with confirmed or probable SARS-CoV-2 infection
 - Screening based on recommendations from public health authorities, licensing agencies or others responsible for events
- Rapid, point-of care serial screening can identify asymptomatic cases and reduce transmission
 - This is especially important when risk of transmission is high
 - The selection and interpretation of SARS-CoV-2 tests should be based on the context in which they are being used, including the prevalence of SARS-CoV-2 in the population being tested
 - Prior receipt of an mRNA COVID-19 vaccine will not affect the results of SARS-CoV-2 viral tests (NAAT or antigen) but reduce the chance of a true positive
 - Areas of low risk may have false positives at a high enough rate to lead to needless quarantining
- Providers must educate families that a negative test result decreases the risk of spreading disease but does not eliminate the need for masking, physical distancing, and quarantining as appropriate

<https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-interim-guidance-return-to-sports/>

Return to sport for a COVID-19 confirmed case

- All youths who test positive for SARS-CoV-2 should not exercise until a physician clears them
- **Children with asymptomatic/mild illness:** After their isolation time is completed, the primary care physician should review the 14-point pre-participation screening evaluation with emphasis on cardiac symptoms and perform a complete physical examination
- **Children with moderate illness:** After symptom resolution (at least 10 days past the positive result), the primary care physician should review the 14-point pre-participation screening evaluation with emphasis on cardiac symptoms and perform a complete physical examination and an ECG
- **Children with severe illness/MIS-C:** They should not exercise for at least three to six months and should obtain cardiology clearance prior to resuming training or competition. They may require other tests based on signs or symptoms

<https://www.aappublications.org/news/2021/03/01/covid19-sports-guidance-030121>

American Heart Association 14-Element Screening for Participation in Sports

- Medical history with parental verification recommended for all high school and middle school athletes
- History screen:

<ol style="list-style-type: none"> 1. Exertional chest pain/discomfort 2. Exertional syncope or near-syncope 3. Excessive exertional and unexplained fatigue/fatigue associated with exercise 4. Prior recognition of a heart murmur 5. Elevated systemic blood pressure 6. Prior restriction from participation in sports 7. Prior testing for the heart ordered by a physician 	<ol style="list-style-type: none"> 8. Premature death-sudden and unexpected before age 50 yr due to heart disease, in one or more relatives 9. Disability from heart disease in a close relative < 50 yo 10. Specific knowledge of certain cardiac conditions in family members: hypertrophic or dilated cardiomyopathy, long-QT syndrome or other ion channelopathies, Marfan syndrome, or clinically important arrhythmias 	<ol style="list-style-type: none"> 11. Physical exam/Heart Murmur-exam supine and standing or with valsalva, specifically to identify murmurs of dynamic L ventricular outflow tract obstruction 12. Femoral pulses to exclude aortic stenosis 13. Physical stigmata of Marfan syndrome 14. Brachial artery blood pressure (sitting, preferably taken in both arms)
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- Positive/abnormal screen warrants further evaluation and 12-lead EKG with consideration of withholding participation in sports until symptoms are evaluated
- AHA does NOT currently recommend routine 12-lead ECG for sports screening