COVID-19 Conversations

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COVID19Conversations.org
#COVID19Conversations

APHA
American Public Health Association
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NATIONAL ACADEMY OF MEDICINE
COVID-19 Infection rates in children

380,000 cases reported
180K since 7/9 (90% increase in 4 weeks)

9.1% of total cases as of 8/6/20

~ <3% of hospitalizations
~ <1% of deaths

MIS-C: Multisystem Inflammatory Syndrome – COVID-19
Looking more closely

- **Geneva:** Ages 5-9 risk was 32% that of adults age 20-49 and no significant difference between 10-19 yo and 20-49 yo

- **Iceland:**
  - More than 22,000 residents
  - Age < 10: 6.7% positive,
  - Age > 10: 13.7% positive

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31304-0/fulltext
Why are the rates lower in children?

• Less exposure?
• Less testing?
• Biologic resistance?
Children and transmission: less than adults?

- Multiple studies have found children are the index cases in fewer than 10% of COVID-19 familial clusters

Contact Tracing during Coronavirus Disease Outbreak, South Korea, 2020

59,000 contacts of 5,700 index patients Jan – March, 2020
- 10,600 – household contacts (12% positive)
- 48,000 – non-household contacts (2% positive)

- HIGHEST rates: Index pt was 10-19 years of age (18.6% contacts +)
- LOWEST rates: Index pt was 0-9 years of age (5.3% contacts +)

Is it less virus?

- 145 patients with mild-moderate disease within 1 week of symptom onset
- 10-100 fold greater viral burden in the upper respiratory tract of young children < 5 years of age

Heald-Sergeant, et al

*JAMA Pediatrics*  Published online July 30, 2020
Over 10 days in March, all 50 states closed K-12 schools and childcare centers and enacted other non-pharmaceutical interventions to slow the spread of SARS-CoV2

Interrupted time series analyses, adjusted at the state level for testing capacity, population density, health status, social vulnerability
- 62%/week
1.37M fewer cases

- 58%/week
40K fewer deaths
How do we re-open K-12 schools safely?

- Recommendations on re-opening schools (NASEM)
- Lessons from the Danish experience
- Pandemic preparedness: Use expertise already present in schools