Impact of COVID-19 on Children and School Health Services

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Maryland State School Health Council Webinar
June 10, 2020
Agenda

❖ Today’s key updates
❖ School Related Issues and Considerations
❖ Consequences of Pediatrics and COVID-19
  ➢ Childhood Immunizations
  ➢ Multisystem Inflammatory Syndrome in Children
❖ Q & A
# Morbidity and Mortality Update

<table>
<thead>
<tr>
<th></th>
<th>Cumulative Cases</th>
<th>Cumulative Hospitalized</th>
<th>Cumulative Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>United States</strong></td>
<td>1,970,596 (06/09/20)</td>
<td>224,813 (06/09/20)</td>
<td>105,981 (06/09/20)</td>
</tr>
<tr>
<td><strong>Maryland</strong></td>
<td>59,465 (06/10/20)</td>
<td>9,755 (06/10/20)</td>
<td>2,719 (125*) (06/10/20)</td>
</tr>
</tbody>
</table>

* Probable COVID-19 deaths

<table>
<thead>
<tr>
<th>Age</th>
<th>Cases (06/10/20)</th>
<th>Deaths (06/10/20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>1,573</td>
<td></td>
</tr>
<tr>
<td>10-19</td>
<td>2,791</td>
<td>(1)</td>
</tr>
<tr>
<td>20-29</td>
<td>8,408</td>
<td>(14) 1*</td>
</tr>
<tr>
<td>30-39</td>
<td>11,089</td>
<td>(34) 4*</td>
</tr>
</tbody>
</table>

* Probable COVID-19 deaths

Sources
- [https://datausa.io/coronavirus](https://datausa.io/coronavirus) Accessed 06/10/2020
COVID-19 Growth in Maryland

Increase in Total # of COVID-19 Cases and Negative COVID-19 Tests Over Time

MD Positivity Rate = 7.24% (06/10/2020)
US  Positivity Rate = 9.36% (06/09/2020)

Sources
https://coronavirus.maryland.gov/ Accessed 06/10/2020
https://datausa.io/coronavirus Accessed 06/10/2020
Disparities in COVID-19 Impact (Deaths)

Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>1,184</td>
</tr>
<tr>
<td>Male</td>
<td>1,227</td>
</tr>
</tbody>
</table>

Age

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-19</td>
<td>0</td>
</tr>
<tr>
<td>20-29</td>
<td>1</td>
</tr>
<tr>
<td>30-39</td>
<td>168</td>
</tr>
<tr>
<td>40-49</td>
<td>385</td>
</tr>
<tr>
<td>50-59</td>
<td>600</td>
</tr>
<tr>
<td>60-69</td>
<td>1,102</td>
</tr>
</tbody>
</table>

MDH Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>1,187</td>
</tr>
<tr>
<td>Central</td>
<td>935</td>
</tr>
</tbody>
</table>

Race and Ethnicity

<table>
<thead>
<tr>
<th>Race</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1,016</td>
</tr>
<tr>
<td>Black</td>
<td>995</td>
</tr>
<tr>
<td>Hispanic</td>
<td>226</td>
</tr>
</tbody>
</table>

Sources [https://coronavirus.maryland.gov/](https://coronavirus.maryland.gov/) Accessed 06/10/2020

Death Data available through 5/31/2020
Challenges for Pediatrics

❖ Impact of school closure on children and families
❖ Need for routine well child visits and immunizations
❖ Data about how COVID-19 affects children is still emerging
  ➢ Symptoms list growing
  ➢ Mild illness hard to identify COVID-19 (common)
  ➢ Limited testing for children (improving)
  ➢ Children as carriers? vs infected by adults?
❖ Increased challenges to treating/managing illness in families
❖ Challenges to practice of primary care
❖ Slower development of guidance for children
❖ Developmental considerations for application of guidance
❖ Special needs populations (foster, DJS, homeless, etc.)
Return to In-Person Education: Context

❖ Epidemiology of SARS-CoV2 (COVID-19).

❖ The availability of testing; the capacity for community surveillance and contact tracing.

❖ Policy, procedures and infrastructure to maintain infection control procedures and other processes to limit spread

❖ Emerging data about the role that school-aged children and adolescents play in transmission of COVID-19.

❖ The possibility of intermittent closures of schools in the event of COVID-19 infections.

❖ Establishing options for a phased re-opening

School Health Considerations and Re-opening Guidance

- Social/physical distancing (e.g., class size, schedules)
- Cloth face coverings
- Temperature/symptom checks
- Diverse student needs (e.g., disabilities and special populations)
- Sports/athletics
- Access to testing
- Supplies

- Training
- Cleaning
- Planning for intermittent closures
- Response plans and protocols for illness
- Absenteeism data and reporting
- Annual SHS requirements (e.g., IZ, sports PE)
- On-site SHS / SBHCs
- Mental Health

Maryland DEPARTMENT OF HEALTH
Current Efforts

❖ Support for school nutrition programs
❖ Listening sessions with SHS leaders
❖ Workgroup for guidance development
Childhood Vaccinations
Current Recommendations

• Both CDC and AAP recommend continuation of essential services, including immunizations, during the COVID-19 pandemic

• Prioritize well child and immunizations for <24 months of age.
MMWR Article – May 8, 2020

• “Effects of the COVID-19 Pandemic on Routine Vaccine Ordering and Administration – United States, 2020”

• Sharp decreases in ordering and administrations noticed starting in mid-March (national emergency declaration) and continuing though April

• Smaller decline in administrations to <24 months in line with CDC and AAP recommendations
FIGURE. Weekly changes in Vaccines for Children Program (VFC) provider orders* and Vaccine Safety Datalink (VSD) doses administered† for routine pediatric vaccines — United States, January 6–April 19, 2020.
Maryland Vaccinations

• Source: ImmuNet (Maryland’s Immunization Information System (IIS))

• Compared Jan-May 2019 to Jan-May 2020

• Looked at the number of vaccinations by age (0-18 yo) and vaccine type

• Not much difference Jan-Feb 2019 vs Jan-Feb 2020

• Began to see downward trend in March and then more significant change in April

• Some improvement seen in May
Vaccinations by Age – April/May

Percent decrease in doses administered between 2019 and 2020 by age, April and May, Maryland

Source: Maryland ImmuNet (data as of 5/28/2020)
Vaccinations by Vaccine Type – April/May

Percent decrease in doses administered between 2019 and 2020 by vaccine type, April and May, Maryland

* Routine Childhood Vaccines
Source: Maryland ImmuNet (data as of 5/28/2020)
State Strategies to Improve Vaccinations

• Communication to parents
  • Child care
  • Schools
    • LSHCs
    • Wellness Councils
  • SBHCs
• Communication Materials
  • FAQ Document
  • Media (PSA, Social Media)
• Program collaborations
Multisystem Inflammatory Syndrome in Children (MIS-C)
What is Multisystem Inflammatory Syndrome in Children (MIS-C)?

- Multisystem inflammatory syndrome in children (MIS-C) is a new health condition associated with COVID-19 that is appearing in children in the US and elsewhere. The syndrome was previously called pediatric multisystem inflammatory syndrome or PMIS.

- Features of Kawasaki Disease and Toxic Shock Syndrome

- Previously healthy children presenting with a severe inflammatory syndrome with Kawasaki disease-like features

- Most positive for current or recent infection by SARS-CoV-2, or had an epi link to a COVID-19 case
Signs and Symptoms

❖ Prolonged fever (temperature of 100.4 degrees F or 38.0 degrees C or greater)
❖ Irritability or decreased activity
❖ Abdominal pain without another explanation (often very severe), diarrhea, vomiting
❖ Rash, Swollen hands and feet, which might also be red
❖ Conjunctivitis (red or pink eyes)
❖ Poor feeding
❖ Hypotension
❖ Multiorgan involvement (cardiac, gastrointestinal, renal, hematologic, dermatologic and neurologic)
❖ Respiratory symptoms NOT present in all cases
Situational Descriptions

May 5, 2020 case series in NYC
May 6, 2020 case series in the UK (April 2020)
May 13, 2020 one case series in Italy
Centers for Disease Control and Prevention: HAN (5/14/2020)

Case Definition for Multisystem Inflammatory Syndrome in Children (MIS-C)

- An individual aged <21 years presenting with fever\(^1\), laboratory evidence of inflammation\(^2\), and evidence of clinically severe illness requiring hospitalization, with multisystem (≥2) organ involvement (cardiac, renal, respiratory, hematologic, gastrointestinal, dermatologic or neurological); **AND**
- No alternative plausible diagnoses; **AND**
- Positive for current or recent SARS-CoV-2 infection by RT-PCR, serology, or antigen test; or COVID-19 exposure within the 4 weeks prior to the onset of symptoms

\(^1\)Fever ≥38.0°C for ≥24 hours, or report of subjective fever lasting ≥24 hours
\(^2\)Including, but not limited to, one or more of the following: an elevated C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), fibrinogen, procalcitonin, d-dimer, ferritin, lactic acid dehydrogenase (LDH), or interleukin 6 (IL-6), elevated neutrophils, reduced lymphocytes and low albumin

**Additional comments**

- Some individuals may fulfill full or partial criteria for Kawasaki disease but should be reported if they meet the case definition for MIS-C
- Consider MIS-C in any pediatric death with evidence of SARS-CoV-2 infection

https://emergency.cdc.gov/han/2020/han00432.asp
Key Takeaways

❖ There is still much uncertainty in the pandemic
❖ The role of schools in this epidemic will continue to evolve
   ➢ Need for School Health guidance
❖ Several secondary consequences of COVID-19 in children that pose challenges to children and schools (e.g., IZ, MIS-C, other)
   ➢ Need community collaborations and communication
Discussion and Questions