



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Contents lists available at ScienceDirect

Journal of Pediatric Nursing

journal homepage: www.pediatricnursing.org

Hot Topics Department

Social Distancing for COVID-19 Decreased Infectious Diseases in Children



Deborah L. McBride, PhD, RN *

Samuel Merritt University, CA, USA

The social distancing resulting from the COVID-19 pandemic has resulted in a significant decrease in a number of common childhood illnesses according to a recent study (Hatoun et al., 2020). Many children have been sheltering at home during the pandemic. It was expected that children removed from their normal peer-to-peer interactions at schools, day care centers and other activities would decrease the transmission of many common childhood infectious diseases. The recent study analyzed data from a large private pediatric care network to determine the impact of the COVID-19 social distancing on the incidence of 12 infectious childhood diseases. The researchers look at diseases that often bring children to their health care provider's office: acute otitis media, bronchiolitis, common cold, croup, gastroenteritis, influenza, non-streptococcal pharyngitis, pneumonia, sinusitis, skin and soft tissue infections, streptococcal pharyngitis, and urinary tract infections. The researchers compared the weekly incidence of diseases in the medical records of 375,000 children aged 0 to 17 years seen at 80 pediatric clinics associated with a large Massachusetts pediatric primary care network during 2019 and 2020, covering periods before and after the institution of social distancing and the closure of schools and nonessential businesses. The researchers found that the rates of diagnoses per 100,000 children for the 12 childhood infectious diseases were significantly lower after social distancing was instituted. All of the diseases showed a decline, but some decreases were particularly notable. The largest declines were in respiratory illness including influenza (99.5%), croup (96.5%), and bronchiolitis (92.9%). The smallest decreases were in skin and soft tissue infections and urinary tract infections (35% for each). The prevalence of each of the other conditions analyzed—acute otitis media, common cold, gastroenteritis, influenza, non-streptococcal pharyngitis, and sinusitis also showed a significant decline in the 2020 post-social distancing period than would have been expected based on the 2019 data. The researchers acknowledged the possible role of families not seeking care, but noted that the smaller decrease in urinary tract infections, not generally considered an infectious disease, suggests that changes in care-seeking behavior had a modest effect on the other declines. According to the researchers the

impressive impact of social distancing on the spread of infectious diseases among children demonstrates the power that social distancing and other infection control behaviors like handwashing, cleaning environmental surfaces and wearing a mask can have on the spread of diseases.

Although the study showed how much social distancing and other extreme infection prevention measures can reduce childhood infections, the researchers also noted that this decrease needs to be balanced against the social and developmental importance of going to school (Hatoun et al., 2020). In the post pandemic era, severe social restriction will not be implemented. However, it is important to remember the positive impact of lessons learned during the pandemic including the importance of handwashing, of staying home at the first sign of an infection and of vaccines to reduce the spread of infections among children. It is also important to remind caregivers of the need to protect their children against vaccine-preventable diseases.

The Centers for Disease Control and Prevention (CDC) has reported that the immunization rates for American children have dramatically decreased since the onset of the COVID-19 pandemic (<http://dx.doi.org/10.15585/mmwr.mm6919e2>). This decrease in routine pediatric vaccinations has mirrored a significant decrease in the overall use of healthcare, indicating that the reported declines in infectious diseases in children may also reflect infections going undiagnosed and untreated. Parental concerns about potentially exposing their children to COVID-19 during well-child visits might have contributed to the decline in infectious diseases observed.

As social distancing is relaxed, children who are not protected by vaccines will be more vulnerable to serious diseases such as measles and whooping cough. Coordinated efforts by health care providers and public health officials on all levels will be necessary to rapidly catch up on missed routine vaccinations. These efforts include the US Department of Health and Human Services coordinating a “Catch-up to Get Ahead” public relations effort to promote the importance of childhood immunizations (<https://www.hiv.gov/blog/now-time-catch-get-ahead-childhood-immunizations>). To encourage vaccinations now caregivers can inform parents about COVID-19 safety precautions and employ practices in healthcare settings such as dedicating separate clinic rooms or appointment times for sick visits and well visits, reducing the number of patients on-site at any given time, extending office and clinic hours for the administration of catch-up vaccines and encouraging parents to take their children to be vaccinated. As children return

* Corresponding author at: 1611 Allston Way, Berkeley, CA 94703, USA
E-mail address: dmcbride@samuelmerritt.edu.

to daycare, preschool and school a resurgence of the epidemic childhood diseases at the end of the COVID-19 outbreak could occur. Encouraging caregivers to bring their children in to catchup on vaccinations delayed as a result of the lock-down may prevent children who are either unvaccinated or under-vaccinated becoming collateral damage of this virus.

Declaration of Competing Interest

The views expressed in this article are the authors' own and not an official position of their institutions.

The authors declare that there are no conflicts of interest.

References

- Hatoun, J., Correa, ET, Donahue, SMA, & Vernacchio, L (2020). Social Distancing for COVID-19 and Diagnoses of Other Infectious Diseases in Children. *Pediatrics*, 146(4), Article e2020006460 <https://doi.org/10.1542/peds.2020-006460> Epub 2020 Sep 2 32879032.