Pediatric RESEARCH

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COMMENT

Shoring up the safety net for children in the COVID-19 pandemic

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The coronavirus disease 2019 (COVID-19) pandemic represents an inflection point in history and will be generation-defining for our young. Some have called the pandemic the "9-11 of Generation Z" and note the creation of a new generation of "Quaranteens" or "Coronials."[1] The pandemic has deeply affected the health and well-being of children, adolescents, and families in multiple ways (Fig. 1).

Clinical care, public health, social policy, and the research agenda must change to meet the new imperatives of COVID-19 if we are to protect children today and foster recovery for future generations. Pandemic response naturally directs resources and emphasis toward those who suffer most directly, but a failure to respond to the needs of children will create a long arc of increased risk for negative outcomes. Bronfenbrenner's ecological systems theory explains how a microsystem of institutions and groups directly impact a child's growth and development, including family, school, religious institutions, neighborhood, and peers.[2] Each of these essential components has been severely disrupted in this pandemic. The social safety net refers to programs to protect citizens from poverty and hardship and includes programs that augment a child's microsystem institutions to identify risk and provide benefits to children and families. Policy interventions must address the generational impact of the pandemic, shore up the safety net, and ameliorate the far-reaching consequences for children, adolescents, and families.

IMPACT 1: ACUTE COVID-19 MORBIDITY AND MORTALITY

The initial phase of this pandemic found that coronavirus 2 (SARS-CoV-2), the causative agent of COVID-19, affected children less severely compared to adults.[3] Serious COVID-19 illness occurs in <10% of infected children, although severe illness is likely in identifiable subpopulations: the very young and those with underlying pulmonary pathology or immunocompromising conditions. Additionally, multisystem inflammatory syndrome in children has emerged as a dangerous manifestation of COVID-19 infection in some children. Vertical transmission from mother to fetus appears rare, but severe COVID-19 illness during pregnancy can lead to premature birth or intrauterine asphyxia.[4]

Although COVID-19 illness itself has been more mild in most children thus far, its impact is not. Children suffer or thrive as their families suffer or thrive. The impact of COVID-19 on parents, grandparents, and caregivers disrupts family security. Adults likely to have young children—those aged 20–45 years—are not likely to die from COVID-19, but many are suffering from joblessness with tremendous household economic insecurity. Grandparents, in the age range at greater risk of mortality from COVID-19, are advised to isolate themselves and avoid contact with young children who may not be able to manage careful hygiene. Grandparents, however, often play a critical role in the health and safety of children. In 2011, 10% of children in the United States shared a home with a grandparent and 4% had a grandparent as primary caretaker. In most of those cases, the home belonged to the grandparent and the likelihood of family poverty was high.[5] In other families, grandparents are an important source of emotional support and guidance for children and their parents alike. When risk of disease isolates grandparents from children, the losses can be broad and deep. Pandemic response plans must recognize the unique medical impact on children and the nonmedical impacts on family structure to protect vulnerable children.

IMPACT 2: COMMUNITY STRESS

The pandemic has caused unemployment and a collapse in household incomes, deepening existing poverty and plunging many more into new poverty. Almost 40% of Americans in households making <$40,000 a year had lost a job in March 2020.[6] Those with low paid but essential jobs (hospital workers, grocery stores, home health care, urban transit) remain employed, but at high risk of exposure to the coronavirus. This group is disproportionately Black and Hispanic.[7] If past recessions are an indicator, in economic downturns like the current one, children are the most affected and bear the longest consequences.[8] A survey in late April found that >17% of young children in the United States did not have sufficient food, a rate three times higher than during the worst of the Great Recession.[9]

High poverty with associated racial ethnic disparities disproportionately affected our young. In 2018 the US poverty rate for children was 54% higher than that for adults[10] with 18%—approximately one in five—living below the federal poverty level (FPL, $25,465 for a family of four) in 2018 and nearly two in five living in low-income families (200% FPL).[11,12] Black and Hispanic children were nearly three times more likely to live in poverty compared to white children.[10] Forecasting estimates of poverty during the COVID-19 crisis suggest that poverty rates in the United States could reach the highest levels in over 50 years with working-age adults, children, Blacks, and Hispanics facing particularly large increases. For children the poverty rate is projected to rise by 53%.[13]

Like other economic and public health crises, this pandemic has exposed and exacerbated existing racial/ethnic and

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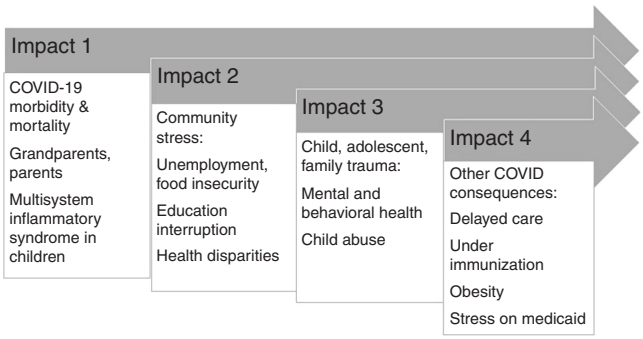

Fig. 1 Impact of the COVID-19 pandemic on children and adolescents. Multiple impacts over time include morbidity and mortality; community stress; child, adolescent and family trauma; and additional consequences.

socioeconomic disparities. Adding an extra dimension of suffering to our awareness of disparities, the murder of George Floyd has served to highlight the fact that race/ethnicity and poverty are social determinants of justice as well as health. This is illustrated in the racial/ethnic breakdowns of those infected and those who have died. In this modern crisis, educational and technological disparities are also on display. Low-income children are less able to access online education, and families may be unable to access telemedicine due to inadequate internet service or devices. Families with limited English proficiency face additional challenges in utilizing these new modalities.

Policies that address the pandemic must correct existing inequities that disadvantage children and families. The Family First Coronavirus Response Act signed into law March 18 removed some barriers to nutrition programs and provided paid sick and family leave for some, but did not go far enough. Aid and relief packages must consider specific family anti-poverty initiatives outlined by the National Academy of Medicine report,[14] ensure children have their basic needs met, and support schools in providing quality outreach and education to all children.

IMPACT 3: DOWNSTREAM CHILD, ADOLESCENT, AND FAMILY TRAUMA

The pandemic and efforts at flattening the curve have both taken a toll on mental health. A recent Kaiser Family Foundation poll revealed that 45% of adults feel that their mental health is worse due to the isolation, anxiety, and economic uncertainty caused by the pandemic.[15] A large study of children in Wuhan, China concluded that the pandemic affects the mental health of school-aged children in the same manner as other traumas.[16] Normal child development relies on social interactions. Pandemic isolation has disrupted necessary connections with families, friends, peers and community.

Stay-at-home lockdown orders have been effective public health safety measures. Sadly, home is not necessarily the safest place for many children. Increased stress levels in parents are a major predictor of abuse and neglect of children. The support systems that parents rely on, including church, extended family, and other community organizations are not available. Children and adolescents have no access to their normal opportunities for refuge from a troubled home.

The National Sexual Assault Hotline reported a 22% increase in calls in March 2020, and, for the first time ever, more than half came from people under the age of 18 years. Sixty-seven percent of children reporting to the hotline identified a family member as the perpetrator.[17] Reports to child-protective service agencies, however, have declined substantially. While that may seem counterintuitive, children locked down in their homes are away from the safety net of teachers and counselors who are mandatory reporters of abuse.

Similarly, for children and adolescents with mental health needs, the closure of schools and other support programs mean a lack of access to reliable resources. Children with special education and neurobehavioral disorders are at increased risk of behavior exacerbations and potential resultant violence from tense caretakers.

Protecting children requires a strong and comprehensive community safety net. The pandemic has highlighted the importance of health and education working together through programs such as school-based health centers, integrated mental health, and nutrition and wellness programs. School remains a critically important component of the safety net for children. Risk benefit data increasingly suggest carefully re-opening schools, especially in communities where the spread of the virus is under better control, as evidenced by low positivity rates and declining new cases. In communities experiencing a surge in transmission and new cases, efforts must be made to keep children connected and in the public eye with virtual classrooms, video and telephone check-ins, and public willingness to report concerns.

IMPACT 4: OTHER CONSEQUENCES OF SHELTERING

The consequences of stay-at-home orders have threatened the health of children in additional ways. The volume of patients seeking healthcare for nonurgent and urgent issues has decreased dramatically, raising concerns about delayed care and presentation of more advanced illness. Lockdown-related sedentary behavior and nutrition challenges have been documented, raising concerns about accelerating obesity.[18]

The CDC (Centers for Disease Control and Prevention) and states have documented a frightening decline in childhood immunizations. Vaccine orders to the National Vaccines for Children Program, which provides federally purchased vaccines to ~50% of American children, has declined precipitously as has the number of vaccine doses administered.[19] In the month of April, the Maryland immunization registry has documented a 55% and 71% reduction in doses of DTaP and MMR given, respectively. We cannot risk suffering an outbreak of vaccine-preventable disease as a consequence of COVID-19. At a time when we are debating what is essential or nonessential, the pandemic has demonstrated our vulnerability to infectious diseases and that immunizations are essential. Now is the time for public health campaigns encouraging immunizations.

The reduction in immunizations reflects both parental concerns about potential exposure to COVID-19 during well-child visits and the fact of decreased access to vaccination as some pediatric practices and immunization clinics have had to limit hours or services due to extreme financial stress. The pandemic has taught us the importance of our public health infrastructure. Primary care clinicians are the first contact families have with the healthcare system and are a critical part of the public health and safety net infrastructure. Stimulus packages thus far have focused on Medicare providers. Pediatric primary care and immunization programs must be protected.

An additional burden on pediatric care will emerge from the stress on state Medicaid budgets as unemployment persists and employer-based insurance coverage is lost. With 40% of children pre-pandemic covered by Medicaid and the Children's Health Insurance Program and 5% uninsured, it is expected that these percentages will grow.[20] Rescue packages must support state Medicaid budgets to avoid cuts to benefits or provider payments for children and their parents.

SUMMARY

The support systems and safety nets that allow children to thrive have been stripped away during this pandemic. Family illness, and mental and financial stress have challenged the family unit. Social

connections necessary for child development have been interrupted. Institutions that children depend on—schools, primary care, social services, and churches—are seriously disrupted. While there have been admirable efforts to cope, there is opportunity and urgency to develop and implement new connections, supports, and safety nets for children and families. The reverberations of the pandemic continue and will be felt far into the future. We must act now to protect our greatest asset, the invisible victims in this pandemic, our children.

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AUTHOR CONTRIBUTIONS

T.L.C. and M.M.: conceptualized and wrote the manuscript, revised each draft, and approved the final manuscript. M.A.: revised the draft and approved the final manuscript.

ADDITIONAL INFORMATION

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