

**Putting Kids First:
Addressing COVID-19's Impacts on Children
Oversight and Investigations Subcommittee
Energy and Commerce Committee
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Written Testimony of
Margaret G. Rush, MD, MMHC
President
Monroe Carell Jr. Children's Hospital at Vanderbilt
Professor of Clinical Pediatrics
Vanderbilt University

Chairwoman DeGette, Ranking Member Griffith, Chairman Pallone, Ranking Member McMorris Rodgers and honorable Members of the Committee, thank you for the opportunity to speak to you today about the impact of the COVID-19 pandemic on children, families, and the children's healthcare system from the vantage point of children's hospitals.

My name is Dr. Margaret Rush. I am a pediatrician with specialty board certification in neonatology (newborn intensive care) and have enjoyed a career spanning all components of academic medicine: research, education, clinical care and for the past 17 years, hospital administration, all at Vanderbilt University Medical Center.

I have the privilege of serving as the President of Monroe Carell Jr. Children's Hospital at Vanderbilt, a 343-bed, freestanding hospital with ambulatory clinic space located on the Vanderbilt University Medical Center (VUMC) campus in Nashville, Tennessee. Additionally, we have over 20 offsite and affiliated clinic locations and 11 hospital partnerships that span the state from Memphis in the west to Knoxville in the east.

As the only comprehensive children's hospital in Middle Tennessee, Monroe Carell Jr. Children's Hospital at Vanderbilt serves almost half of the 95 counties in the state of Tennessee. For 15 consecutive years, we have been ranked among the best children's hospitals in the nation and

this year, earned the distinction as the No.1 children's hospital in Tennessee and the southeast region. Our Department of Pediatrics has the 4th highest level of NIH funding of a department of pediatrics in the United States (\$46 million)¹ and is home to some of the world's leading pediatric scientists, including many internationally recognized pediatric infectious disease experts who have contributed to understanding the biology of the SARS-CoV-2 virus and to the development of COVID-19 treatments and vaccines, clinical trials in adults and children, clinical guidelines for testing children and finally advising public health officials working to control the pandemic.

Although COVID-19 is much less likely to lead to death in children, many children are contracting the Delta variant and becoming sick. COVID-19 has an immediate and lasting impact on the entire community. I want to tell you about a pediatric patient Sophia. Like children across the country, Sophia and her parents were excited for the school year. As Sophia prepared to start kindergarten, neither her mother, a schoolteacher, nor her father, who worked in a small business, were vaccinated. Within a few days of starting kindergarten, Sophia contracted COVID-19, developed mild symptoms and did not require hospitalization. But her mother then her father both became infected, critically ill and tragically, neither survived. Sophia is now orphaned without parents and joins the 1.5 million children world-wide who has lost a primary or secondary caregiver to COVID-19.

Sadly, this story is one of three like it that I heard from various colleagues the past two weeks. Sophia, now five, will carry this pain forever. There should be no question that this pandemic has negatively impacted the health and well-being of children, now and perhaps well into the future.

Children are often a secondary thought when considering major societal decisions. Yet, they are our future. This story and others like it, sadly illustrate the issues we have faced throughout the pandemic from a societal perspective. Though schools immediately pivoted to protect students,

teachers, and coaches in March of 2020 and through the fall of 2020, many have relaxed or eliminated infection prevention measures this school year.

Tennessee is one of a number of southern states where there is a degree of vaccine unreadiness and misinformation. Relatively low rates of vaccination are clearly correlated with the fact that Tennessee has intermittently ranked No.1 for the highest number of COVID positive cases for both adults and children in recent weeks. This is not a statistic I am proud of as a long-time resident. This in turn has resulted in the highest number of hospitalizations and deaths for children to date. Stories like Sophia's are preventable.

Purpose Statement

I am here to share the perspective of children's hospitals as we have navigated the impact of the COVID-19 pandemic. I also appreciate the opportunity to speak more broadly about the role children's hospitals play in advocating for the unique needs of children and adolescents, relative to the impact of the pandemic on their health and overall well-being. My testimony is based upon my expertise in pediatric medicine generally, the work of my colleagues, my experience over the past 18 months leading the Monroe Carell Jr. Children's Hospital at Vanderbilt (hereafter referred to as Children's Hospital) and as one of the leaders in my health system's COVID-19 Command Center.

Introduction: The Importance of Children's Hospitals in National Healthcare Landscape

Children's hospitals account for only 2% of all the hospitals across the United States, yet we provide nearly all the specialized care for children, adolescents, and increasingly young adults for chronic childhood conditions nationwide. In addition to serving as the safety net of pediatric healthcare for the 80 million children in the United States (20% of the population), most children's hospitals provide the core of the nation's pediatric medical education and research through affiliation with academic medical centers and schools of medicine and nursing.

Children's hospitals in the United States are not-for-profit, community-benefit organizations and Medicaid, not Medicare, is the payor for more than 50% of all patient volumes; thus we have a very different revenue structure than adult-focused hospitals. During the last year, these differences have been highlighted as children's hospitals that have experienced significant financial impact from COVID-19 have often struggled to access federal relief targeted by Medicare-based criteria. Medicaid is a lifeline; this federal-state partnership is the largest source of children's healthcare coverage in the United States. It covers children in every state, from every background. Many of the 40 million children who rely on Medicaid experience medical and social complexities from socio-economic, racial and environmental disparities, and they turn to children's hospitals as resources not only for their healthcare but also to facilitate navigating some of the social complexities that impact health.

COVID-19 Infection in Children

Pediatric COVID-19 Symptoms

Children accounted for approximately 15% of COVID-19 positive cases until recent months. Now, children account for up to 30-35% of COVID-19 positive cases. Generally, even with the current Delta variant of the SARS-CoV-2 virus, children have mild, short-term symptoms, like many other viral illnesses: fever, cough, stuffy/runny nose, sore throat, headache and muscle aches. One contributing factor to minimal symptoms in children is a maturational biologic difference in children's lung cells discovered by a multicenter team of researchers led by a neonatologist at Vanderbilt². Unlike in adults, our research has found that the SARS-CoV-2 virus Delta variant interacts in children biologically in the same way as the parent strain of the virus.

Pediatric Hospitalization due to COVID-19 Infection

Since the beginning of the pandemic, while uncommon, COVID-19 infection in children and adolescents has resulted in hospitalization, with some children becoming critically ill. From March 1, 2020 -August 14, 2021, the cumulative incidence of COVID-19 associated

hospitalizations was 49.7 per 100,000 children and adolescents,³ with the highest rates of hospitalizations occurring in early September 2021. Children and adolescents who require hospitalization more often have underlying conditions such as Type 1 diabetes, obesity, congenital cardiac and circulatory conditions. While asthma is also a significant predisposing underlying medical condition for infectivity, it was not associated with higher rates of hospitalization⁴. These underlying co-morbidities have remained consistent as we have shifted dominance from the Alpha to Delta viral variants³. Of hospitalized children and adolescents, it is estimated that up to 25% require intensive care³.

One might ask then, what is different from March 2020 to late summer 2021? Like nearly all viruses, the SARS-CoV-2 virus has mutated. In doing so, it has become more contagious and thus has spread faster, particularly in unvaccinated communities. Nationally, this is most evident in the southeast region⁵ where there are lower vaccination rates compared with other regions. At Children's Hospital, we have experienced a definite change in age distribution of symptomatic children testing positive in our system. Prior to July 2021, children ages 6-11 years accounted for 18% of our COVID positive symptomatic children compared to 40% from July to present. In our experience, the Delta variant has infected a higher number of children, but the percentage of children requiring hospitalization is the same. More children are being hospitalized in all areas of the country simply because more children are being infected. While we have observed more symptomatic school-age children from testing data, we continue to see higher percentages of children younger than 5 and older than 12 hospitalized. Of 140 youth hospitalized at Children's Hospital at Vanderbilt between July 1- September 15, 2021, 40% were under 5 and 40% were over 12, and in the latter group, over 90% were unvaccinated.

After COVID-19 Infection in Children: Multi-inflammatory Syndrome in Children

There is another unique nuance to COVID-19 infection in children, an illness known as multi-inflammatory syndrome in children (MIS-C), which was first described and defined in spring 2020 by the Centers for Disease Control and Prevention (CDC)⁶. MIS-C is a syndrome (defined as a grouping of symptoms) that appears to be linked to infection with the SARS-CoV-2 virus and

results in inflammation of several organs, including the heart, lungs, blood vessels, digestive system, and kidneys. In our and others' experience, a secondary wave of seriously ill children requiring hospitalization follows the community peak of acute infection by about 3-6 weeks. The symptoms are initially non-specific, such as fever, but progress dependent upon organ involvement. All children with MIS-C require hospitalization, many need intensive care (up to 25% in our experience), and some have longer hospital stays, most in the range of 5-10 days.

At Children's Hospital, we have a multidisciplinary group that meets regularly to review evolving knowledge about best therapies and follow-up after discharge. This group includes members of eight pediatric specialties and representatives from nursing and our pharmacy. We also have established a multidisciplinary clinic with this same group to follow these patients after their hospitalization. The ability to rapidly deploy interdisciplinary teams in pediatric medicine further demonstrates the unique role children's hospitals play in our country.

Through September 13, 2021, we have admitted 67 children and adolescents with MIS-C, the majority to date clustered earlier this year following the winter COVID-19 surge. Now, we are starting to see more admissions with MIS-C from this Delta surge of infection. Unlike hospitalization with acute COVID-19 infection, in our and others' experiences⁷, this syndrome has a predilection for school-age children and more often affects Black or Hispanic-Latino children who are generally healthy without underlying medical conditions. All our children are followed long-term after discharge in our multidisciplinary clinic with visits at weeks 1 and 4, then at 3, 6 and 12 months. Inflammatory lab testing and echocardiograms are performed at these visits. Fortunately, most of our children and those in other studies^{7,8} recover fairly quickly. In our cohort, 79% have normal echocardiograms by 1-week, 93% by 1-month, and 98% by 3 months. Like acute infection, the presentation of MIS-C does not appear to be clinically different between the parent viral strain and the Delta variant.

Pediatric Long-Haul Symptoms

The question of ‘long-haul’ symptoms in children and adolescents is not yet well understood. It does appear that children and adolescents may also experience some element of ongoing symptoms such as fatigue, concentration difficulties, headaches, chest pain and palpitations, muscle weakness and aches⁹, lasting for several months. More research and longitudinal follow-up of all youth who have experienced acute COVID-19 infection, MIS-C and have some element of long-haul symptoms is necessary to understand the full impact of the pandemic on children and youth.

Impact of COVID-19 Pandemic on Children’s Hospitals

I describe the past 18 months of the nation’s children’s hospitals’ pandemic experience as the opposite ends of the bell-shaped curve.

Children’s Hospitals in 2020

Nationally, 2020 was a very different year for all children’s hospitals and pediatric primary care across our country as we experienced the COVID-19 pandemic unfold. While we braced for the potential that SARS-CoV-2’s impacts might be felt disproportionately on children early in the pandemic, we thankfully did not have that experience. The maturational biologic difference in children’s lung cells previously described combined with public health measures of social distancing, virtual schooling, and more widespread acceptance of masking, resulted in pediatricians and children’s hospitals seeing far fewer numbers of children with COVID-19 infection throughout most of 2020 compared to our peers in adult medicine. Furthermore, children did not get sick from the other common ailments of childhood. The common cold, respiratory syncytial virus, influenza and strep throat infections almost completely disappeared.

Overall utilization of healthcare by children decreased dramatically through 2020, resulting in large volume and revenue shortfalls by all children’s hospitals and community pediatricians.¹⁰ This analysis showed that overall discharges from children’s hospitals decreased by 17%, with

greater decreases in emergency room and primary care visits (35% or more). Over 90% of children's hospitals experienced a negative financial impact in 2020, most in the 5-10% range, regardless of geographic region or metropolitan market. In some instances, this revenue and volume shortfall (for some as high as 25%) resulted in downsizing of specialized pediatric staff such as respiratory therapists and nurses. This downsizing either was intentional due to revenue shortfalls or because of attrition since some chose to become "travelers" for higher financial incentivization (travel staff are healthcare professionals who contract with an agency to provide supplemental staffing for healthcare institutions).

For much of 2020, many children's hospitals, including mine, played a supporting role to our adult hospital community either by sharing staff or offering beds or both, even as we cared for small numbers of children and adolescents with COVID-19 infection or MIS-C. At Children's Hospital at Vanderbilt, we averaged 2-4 COVID positive patients a day in our designated COVID unit through most of 2020 (range 0-15). At VUMC and Children's Hospital, we ensured employment of all staff and thus deployed pediatric staff who were underutilized in their usual duties to other areas either in COVID-19 related roles or as assists to the adult enterprise inpatient units. In November, we offered a unit of Children's Hospital to the adult enterprise for non-COVID, non-critical adult patients to support system bed capacity issues. I know our experience at Vanderbilt is not unique. When neighboring adult hospitals came under immense capacity and staffing strains, many children's hospitals stepped up to help.

Children's Hospitals in 2021

Following the peak of the third COVID-19 surge in early 2021, coinciding with the onset of COVID-19 vaccination, everyone, including the healthcare industry, began to look forward to returning to our more normal routines. Leaders in children's hospitals and community pediatricians, however, faced considerable uncertainty. Some modeling suggested that we would experience ongoing volume and revenue shortfalls, particularly if children continued to be so healthy-a good problem to face. Common sense might have suggested otherwise, but no one really anticipated the perfect storm of the past six months in pediatric healthcare.

For all children's hospitals, another common pediatric illness has been center stage coming into this fourth COVID-19 surge in infection due to the Delta variant. Respiratory syncytial virus (RSV) is a winter virus that typically infects children from late October to March. As communities loosened public health measures of masking and social distancing, children, particularly the infants and toddlers born from late 2019 through 2020 (and thus who are "germ naïve") began to become sick with RSV and other winter viruses in April 2021, completely and unpredictably off-season. In a matter of weeks, most children's hospitals saw nearly a 50% increase in pediatric emergency department visits and hospital admissions for respiratory illnesses, many requiring intensive care. This respiratory surge has continued through the summer and into early fall, with no real abating in sight. This RSV surge has strained many children's hospitals' capacities, including mine.

Then the Delta COVID-19 surge arrived on top of RSV. In recent weeks, children's hospitals have *tripled* the number of hospitalized children due to COVID-19. At Children's Hospital at Vanderbilt, our peak COVID census was 27 in early September with an average daily COVID census over 20 for three consecutive weeks. At any given time, approximately 25% of these patients have been critically ill. Although we have seen slight improvements in COVID-19 volumes in the past week, we are at the beginning of an anticipated increase in MIS-C volumes.

These overlapping demands on capacity in mine and other children's hospitals may lead to in-the moment decision making about allocation of resources. We recently accepted transfer of a teenager from another children's hospital because of our ability to provide a higher level of care. This young man was obese and had undiagnosed Type 1 diabetes. He had been symptomatic with COVID-19 infection for several days before presenting to his local children's hospital. He became critically ill, requiring ventilator support. He was transferred to us as an alert status for a cardiorespiratory form of support not offered by that children's hospital. We had several children already receiving this support for non-COVID and COVID reasons. We did

accept this patient in transfer but were unable to accept any others for nearly a week because of a resource limitation in our hospital.

Aside from experiencing the financial pain from low volumes in 2020 and the strains of recent high capacity, the pandemic has significantly impacted staffing at children's hospitals. Going into the pandemic, most hospitals nationally, including children's hospitals, were challenged to be fully staffed to desired goals due to broad shortages in nursing and specialized roles such as respiratory therapy. The pandemic caused many staff either to leave healthcare completely or to shift to an employment model with higher financial reimbursement, thereby creating even greater workforce shortages. For children's hospitals, while volumes and associated revenue are in a better place in 2021, the pandemic has placed added burden on the doctors and nurses working on the frontlines. The increased capacity strain, on-going high acuity of patients and chronic staffing challenges are resulting in fatigue, distress and frustration particularly around issues related to unvaccinated status and overall 'burnout.'

Impact of COVID-19 on Children's Health

Children and their families across the country have faced substantial disruptions to their daily lives due to COVID-19 and its consequences. Intermittent or sustained loss of childcare and virtual schooling placed unprecedented demands on parents, further compounded by new work routines resulting from pandemic safety measures. The Vanderbilt Child Health Poll, launched in 2019 by the Vanderbilt Center for Child Health Policy, aims to understand the concerns and experiences of parents nationwide¹¹ and in Tennessee.¹² Early in the pandemic, the economic and social consequences were evident. Nationally, between March and June 2020, 1 in 4 parents reported their mental health was worse and 1 in 7 reported their child's behavior was worse.

Of course, safely attending school has been a priority of pediatricians and children's hospitals from the beginning of the pandemic. In the fall of 2020, Tennessee parents reported that only

38% of children were attending in-person at school, 31% virtually only, another 15% learning in a hybrid form, and 15% homeschooling. The poll revealed stark differences in mode of schooling by race. Children in Black families were substantially more likely to be attending only virtual schooling (58%) compared to children in White families (23%). The primary concern of all families with virtual schooling was lack of social interaction with other children (52%) followed closely by lack of 1:1 attention from their child's teachers. And of course, only 20% of parents felt well equipped to assume the role of teacher. This overall situation placed significant stress on mental health well-being of the family unit.

This poll, albeit not a longitudinal study, found that 2 in 5 Tennessee parents reported food insecurity. Some of this insecurity may have resulted from loss of in-person schooling (16%) since school-based food programs are part of many socioeconomically disadvantaged families' routines. In this sample period, nearly 35% of families reporting food insecurity did not receive services from programs like SNAP (Supplemental Nutrition Assistance Program) or the Pandemic Electronic Benefit Transfer Program.

Because of social distancing in place in fall of 2020, many children and youth suspended their sports and group physical activities. Nearly 40% of Tennessee parents felt it was unsafe for young people to participate in group sporting activities. In this survey, concerns were greater among Black parents with nearly 60% concerned about safety compared to 34% of White parents.

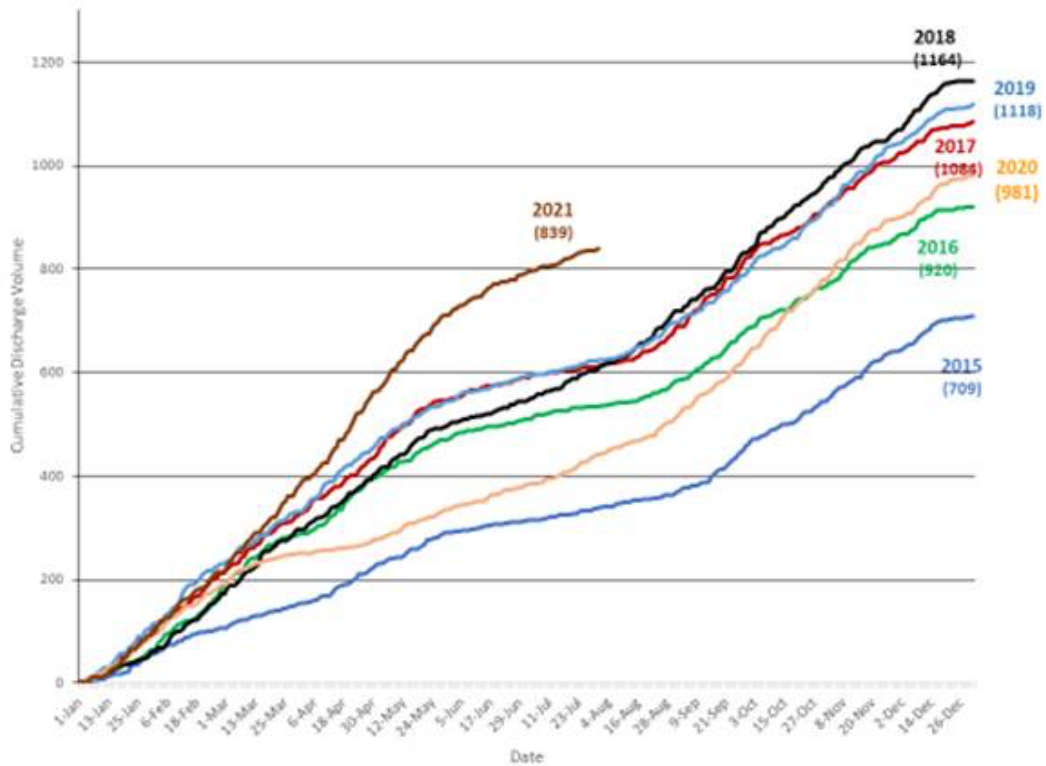
Another negative impact on children resulted from economic instability of the family. In just one year (Fall 2019 to Fall 2020), the number of uninsured children more than doubled - from 4% to 9%, a striking increase, given that our state already traditionally has one of the lowest uninsurance rates among children. In this poll, 20% of families reported either a loss of insurance or a change in insurance due to employment related changes (loss of job or change in job).

This polling presents a snapshot of concerns all culminating in a broad negative impact of the pandemic on the health of our children. Changes in insurance, economic instability compounding existing inequities, food insecurity, decreased physical activity, diminished learning and socialization are all significant concerns for the overall health of our youth. All of these factors are further heightened by the fear of the pandemic, which caused many families to delay healthcare for their children. Most notably this was seen as a delay in well-child visits which are a cornerstone of monitoring children's health from birth through adolescence. Our primary care practices and those in our community had to plead with families to come in for routine care, including other immunizations of childhood. Fortunately, we have recovered, but many children in our community and across the nation are behind on both immunization schedules and routine well-health visits. Additionally, some families delayed seeking care for more severe problems. Early last fall, three children presented to our oncology clinic with more advanced stages of childhood cancer because of fear of COVID-19. Had they been diagnosed earlier they would have had improved outcomes.

Impact of COVID-19 on the Ongoing Epidemic of Mental Health

Long before the COVID-19 pandemic began, the children's healthcare system across our nation began witnessing a behavioral health epidemic in our youth. Approximately seven or so years ago, children's hospitals across the country, including mine, began to see a new type of patient present to our emergency rooms in increasing numbers: children and adolescents with suicidal ideation and other disruptive behaviors¹³. The graph below illustrates our experience over the past seven years (data tracked by James Gay, MD):

Cumulative Annual Primary Mental Health Admissions 2015-2021



Children’s Hospital Association data¹⁴ shows the suicide and self-injury cases (ages 5-17) in the first two quarters of 2021 are 104% higher than the same period in 2016, 43% higher than same period in 2019 and 65.8% higher than 2020. Since children’s hospitals are acute care hospitals, not psychiatric hospitals, our options are to hold these patients in our emergency departments or admit them to acute care beds until there is an available acute care psychiatric bed. Long waits for placement exist at essentially every hospital because of a national shortage of inpatient beds committed to children and adolescent psychiatric needs.

At VUMC, I am fortunate that the Vanderbilt Psychiatric Hospital (VPH) is right across the street from Children’s Hospital, which has a 26-bed child and adolescent psychiatric unit that runs at nearly 100% occupancy. Because VPH is also the only facility to admit children under 10 with behavioral health diagnoses for over two-thirds of Tennessee, it becomes a referral source through the children’s hospital for out-of-region needs. Because of our regional infrastructure,

most patient awaiting acute psychiatric facility placement are admitted to our Children's Hospital.

Over the same weeks I have experienced a high COVID-19 census, I have had almost the same number of patients admitted for behavioral health needs (daily census range 17-29). Children's hospitals are ill-equipped to manage youth with appropriate support during a psychiatric episode; yet most children's hospitals have been compelled to create any number of care models to support this growing population of patients in either our emergency rooms or our hospital beds.

Our nation's pediatric mental health infrastructure is highly fragmented and has not received adequate support for decades. The fact that so many children and adolescents turn to children's hospitals for behavioral health care reflects this fragmentation on the front end: children's hospitals should be the last resort for care of this population and only when there is a medical indication.

The same negative effects of the COVID-19 pandemic on our children's physical health also negatively impact the mental health of our children and youth. The Vanderbilt Child Health Poll^{11,12} provided added information from the perspective of families. Notably, parents expressed concern about their children's anxiety, which doubled between 2019 and 2020, with nearly a quarter of those surveyed having concerns. The shift to virtual schooling also disrupted critical access to mental health counseling, which for 35% of those polled was a family's only access to mental health resources. Access to many other community-based mental health resources is limited, fragmented and very difficult for families to navigate. The shift to telehealth is ideal for these services, from schools and other community mental health agencies, but access to the Internet and challenges of navigating telehealth care visits became a barrier for many families. Across many years, studies have shown that children whose mental health needs are inadequately addressed are more likely to experience disciplinary problems, to be more chronically absent from school, and to develop other behaviors that negatively

impact physical health, thereby demonstrating the important link between physical and mental health in overall well-being.

Summary

The COVID-19 pandemic continues, with uncertainty of either a true end or transition to a manageable disease, not unlike seasonal influenza or RSV for children. We know from our journey to date, that the importance of public health measures stem the spread of infection, including masking. The generally accepted model for returning children to school is masking, regular testing, social distancing when feasible, and vaccination when eligible. Vaccinations are a mainstay of child and adolescent health. Some childhood diseases have been eradicated because of immunizations (e.g. polio, measles). Others have been tempered (e.g. influenza, human papilloma virus). The ability to vaccinate children of all ages against COVID-19 infection is a key next step in moving this pandemic to a chapter in history.

Returning to the story from the start of my testimony. The importance of promoting acceptance and safety of the COVID-19 vaccines currently accessible to the citizens of our nation is essential. Childhood immunization against COVID-19 is also essential. Young Sophia might not have become infected and more than likely would be living with her parents today had everyone been vaccinated. Pediatricians are the trusted source of truth for most families when it comes to children and adolescent healthcare. Pediatricians look forward to being able to offer COVID-19 vaccines to younger children in coming weeks and months. But they will have an uphill journey to convince families of both the safety and importance of these vaccines if we can't get beyond the misinformation and the polarized messaging in our communities.

Congress has provided timely and significant bipartisan support to healthcare providers serving on the front lines of the COVID-19 pandemic through a series of large legislative measures. Without this support, hospitals like Monroe Carell Jr. Children's Hospital at Vanderbilt that I lead would be in a far worse position today as we grapple with the current surge of the delta

variant simultaneous to high caseloads of seasonal viral infections like RSV and behavioral health patients.

Your support has included over \$186 billion for the Provider Relief Fund, which has helped hospitals, physician practices and other providers offset lost revenue and cover unreimbursed COVID-19 related expenses. Congress has provided billions in funding to accelerate COVID-19 research—including studies and clinical trials at Vanderbilt. You have helped drive the unprecedented pace of medical countermeasure development and provided funding for a range of public health activities inclusive of the ongoing vaccines distribution efforts. Finally, and of special note, I am grateful for the concern you have shown in advancing policies to break down coverage, access, and financial barriers individuals or their families might have otherwise faced in seeking testing and care for a COVID-19 infection.

Policy Recommendations

Unfortunately, as the facts of my testimony outline, unmet needs remain in our campaign to move past this virus. My colleagues at the Children’s Hospital Association and I believe there are several concrete steps Congress should take to help children at this juncture, including through consideration of legislation put forward by members of the Energy and Commerce Committee. I commend for your consideration the following:

- H.R. 5131, the Pediatric Access to Critical Healthcare (or PATCH) Act, would provide grants to children’s hospitals and other pediatric providers to make critical investments in the nation’s pediatric care infrastructure, including ICU capacity and emergency preparedness. A dedicated pediatric infrastructure account would be an excellent complement to efforts explored elsewhere by Congress and this Committee to revive Hill-Burton hospital infrastructure funding that is likely to focus on adult care facilities.

- H.R. 4943, the Children’s Mental Health Infrastructure Act, would provide funding for grants to children’s hospitals and other providers to expand pediatric mental health services, an area of enormous need discussed in my testimony.
- H.R. 4944, the Helping Kids Cope Act, would support grants for provider-led community-based initiatives that can improve behavioral health care integration and coordination. Importantly, the bill would also provide funding to support workforce training for a range of pediatric behavioral health professionals, both physicians and non-MD professionals.

I would be remiss if I did not also note the leading role that existing federal programs play in supporting the pediatric healthcare workforce. As members of this committee are aware, the Children’s Hospital Graduate Medical Education (CHGME) program is a dedicated source of discretionary dollars that support residency training programs at freestanding children’s hospitals, which are ill-served by the Medicare GME program because of the dearth of Medicare funding to these facilities. I recommend that you increase the CHGME program, which would greatly help address workforce shortages in pediatric specialty and subspecialty care areas.

While CHGME targets a specific need at freestanding children’s hospitals, many other pediatric residency and fellowship programs are supported by the larger Medicare GME program, such as those programs run at general teaching hospitals and children’s hospitals that are part of a larger system. Despite a modest expansion of Medicare-funded slots authorized by Congress in 2020, the Medicare GME program has not kept pace with the nation’s growing provider shortage projections in both primary and specialty care. Thus, in addition to expanding CHGME, Congress also should implement meaningful expansion of the number of Medicare-funded GME residency slots. H.R. 2256, the Medicare Resident Physician Shortage Reduction Act, addresses this issue.

Both CHGME and Medicare GME are critical components to the future provider workforce in pediatrics for children's hospitals.

Thank you for the opportunity to support these efforts and your consideration for the children in our nation. To quote a colleague, Dr. Thomas Tsai, professor of health policy at Harvard University, "What really protects children are the interventions directed at the rest of society."¹⁵ Children like Sophia need adults to protect them.

References:

1. http://www.brimr.org/NIH_Awards/2020
2. Schuler BA, Habermann C, Plosa EJ, Taylor CJ, Jetter C, Negretti NM, Kapp ME, Benjamin JT, Gulleman P, Nichols DS, Braunstein LZ, Hackett A, KovalM, Guttentag SH, Blackwell TS, Webber WA, Banovich NE, Vanderbilt COVID-19 Consortium Cohort, Human Cell Atlas Biological Network, Kropski JA, Sucre JMS. Age-determined expression of priming protease TMPRSS1 and localization of SARS-CoV-2 in lung epithelium. *J Clin Invest.* 2021;131(1):e140766. <https://doi.org/10.1172/JCI140766>
3. Centers for Disease Control and Prevention. 2021. *MMWR. Morbidity and Mortality Weekly Report.* 2021 (70): Hospitalizations associated with COVID-19 among children and adolescents: COVID-NET, 14 states, March 1, 2020-August 14, 2021.
4. Kompaniyets L, Agathis NT, Nelson JM, Preston LE, Ko JY, Belay B, Pennington AF, Danielson ML, DeSisto CL, Chevinsky JR, Schieber LZ, Yusuf H, Baggs J, MacKenzie WR, Wong KK, Boehmer TK, Gundlapalli AV, Goodman AB. Underlying medical conditions associated with severe COVID-19 illness among children. *JAMA Network Open.* 2021;4(6):e2111182. doi:10.1001/jamanetworkopen.2021.11182
5. American Academy of Pediatrics. (2021, September 13). Children and COVID-19: State-Level Data Report <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/>
6. Centers for Disease Control and Prevention. Emergency Preparedness and Response: HAN00432. Published May 14, 2020. <https://emergency.cdc.gov/han/2020/han00432.asp>
7. Feldstein LR, Tenforde MW, Friedman KG, Newhams M, Rose EB, Dapul H, Soma VL, Maddux AB, Mourani PM, Bowens C, Maamari M, Hall MW, Riggs BJ, Giuliano JS, Singh AR, Li S, Kong M, Schuster JE, McLaughlin GE, Schwartz SP, Walker TC, Loftis LL, Hobbs CV, Halasa NB, Doymaz S, Babbitt CJ, Hume JR, Gertz SJ, Irby K, Clouser KN, Cvijanovich NZ, Bradford TT, Smith LS, Heidemann SM, Zackai SP, Wellnitz K, Nofziger RA, Horwitz SM, Carroll RW, Rowan CM, Tarquinio KM, Mack EH, Fitzgerald JC, Coates BM, Jackson AM, Young CC, Son MBF, Patel MM, Newburger JW, Randolph AG, for the Overcoming COVID-19 Investigators. Characteristics and outcomes of US children and adolescents

- with multisystem inflammatory syndrome in children (MIS-C) compared with severe acute COVID-19. *JAMA*.2021:e2091.<https://doi:10.1001.jama.2021.2091>
8. Farooqi KM, Chan A, Weller RJ, Mi J, Jang P, Abrahams E, Ferris A, Krishnan US, Pasumarti N, Suh S, Shah AM, DiLorenzo MP, Zachariah P, Milner JD, Rosenzweig EB, Gorelik M, Anderson BR, on behalf of the Columbia University Interdisciplinary MIS-C Follow-up Program and the CUIMC Pediatric/Adult Congenital Heart Research Collaborative. Longitudinal outcomes for multisystem inflammatory syndrome in children. *Pediatrics*. 2021;148(2):e2021051155.<https://doi.org.10.1542/peds.2021-051155>
 9. Thomson H. Children with long COVID. *New Sci*.2021.249(3323):10-11. doi:10.1016/S0262-4079(21)00303-1
 10. Children's Hospital Association. The financial impact of the COVID-19 pandemic on children's hospitals: A data-driven perspective from January to December 2020.
 11. Patrick SW, Henkhaus LE, Zickafoose JS, et al. Well-being of Parents and Children During the COVID-19 Pandemic: A National Survey. *Pediatrics*. Oct 2020;146(4)doi:10.1542/peds.2020-016824
 12. www.childpolicy.org/poll
 13. Plemmons G, Hall M, Douppnik, S, Gay J, Brown C, Browning W, Casey R, Freundlich K, Johnson D, Lind C, Rehm K, Thomas S, Williams W. Hospitalization for suicide ideation or attempt: 2008-2015. *Pediatrics*.2018.141(6):e20172426 doi: <https://doi.org/10.1542/peds.2017-2426>
 14. Analysis of Children's Hospital Association PHIS database, n=38 children's hospitals. September 2021.
 15. Leatherby L, Walker AS. Least vaccinated states lead spike in children's cases, leaving some hospitals stretched. *The New York Times*: <https://nyti.ms.3jSE9Lc>