

COVID-19’s Impact on Pediatric Health Care in South Carolina: Supporting and Strengthening the Sector *i(cs)*

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INSTITUTE *for* CHILD SUCCESS

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Introduction

While the worst direct impacts of the COVID-19 pandemic seem to spare children, they and their families have been negatively impacted during this crisis as a result of the economic contraction, stay-at-home policies reducing available services, social isolation, and more. This report examines impacts on families themselves as well as child health professionals in order to gauge the lasting impacts of COVID-19 on the pediatric health sector in South Carolina, and to provide recommendations for supporting and strengthening the sector to ensure a healthy future for all of the state’s children.¹

COVID-19 has impacted the sector, the families it serves and the professionals working within it in a variety of ways, many of which have impacts on other parts of the sector. This report is structured around four categories of impacts:

¹ Analysis in this document comes largely from a survey conducted of South Carolina pediatricians in May; national data from surveys of primary care and pediatric providers collected by the Larry A. Green Center at Virginia Commonwealth University; and several public data sources, including the Census Bureau’s weekly COVID-19 impact survey for South Carolina and records from the Department of Health and Environmental Control (DHEC).

- **Population health**, including impacts on vaccination rates and primary care infrastructure;
- **Patient/family health**, including vaccinations, obesity, accidents and preventable injuries, and child welfare issues;
- **Business/professional health**, including the changes to the operations and financial stability of practices as well as telemedicine;
- **Physician health**, including the well-being of providers navigating this time and professional supports.

Population Health

PATIENT VISITS

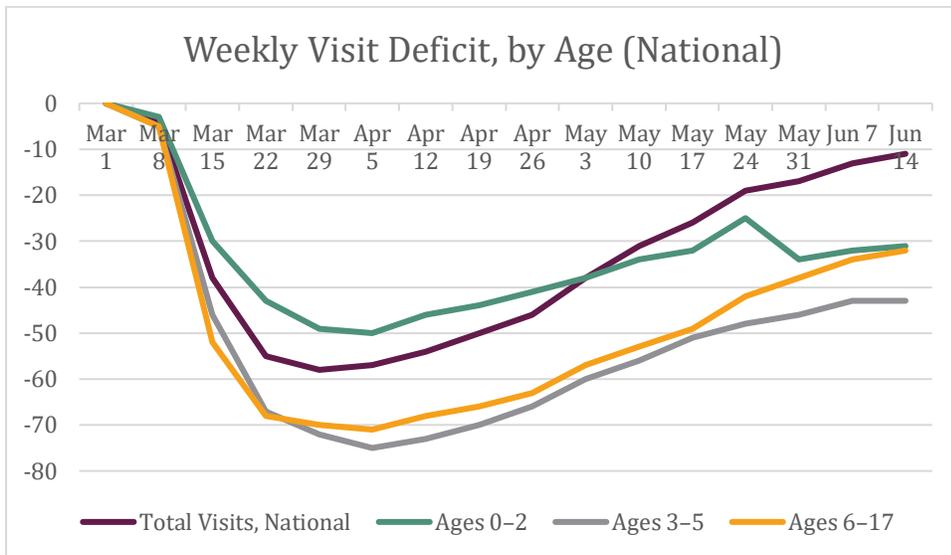
Pediatric visits for all child health needs have declined from March of 2020 to May 2020 (when the survey was administered); additional data tied to the increasing prevalence of COVID-19 in South Carolina suggest these continue to be lower. Pediatricians in the state were asked which types of visits they had seen decline since the start of the pandemic:

Visit Type	Percent of Respondents Reporting a Decline
Acute condition	91%
Chronic condition	90%
Well-child	83%
Vaccination	83%

While providers were not asked to quantify the decline based on administrative records, the most common response indicates that each of these visit types has declined by about 50 percent.

Nationwide data also reflect declining visits.ⁱⁱ As of June 14, 2020, visits across all ages and specialties have declined, resulting in a 40 percent deficit over the last three months below expected visits.ⁱ Pediatric visits are particularly hard hit. Even by the week of June 14, when many specialties began to “rebound,” weekly pediatric visits were still down by 33 percent compared to the baseline, with a cumulative deficit of 47 percent. The “bounceback” also differs by age of the patient, as seen in the following chart. Visits for patients ages 3 to 5 had the largest weekly decrease in this time period, with a 75 percent decrease in the week of April 5.

ⁱⁱ Data was provided by Phreesia, a health care technology company, working with 50,000 providers across all 50 states; in a typical year, these providers average more than 1 million visits per week. Researchers at Harvard University collaborated on the data analysis.



Source: Ateev Mehrotra et al., [The Impact of the COVID-19 Pandemic on Outpatient Visits: Practices Are Adapting to the New Normal](https://doi.org/10.26099/2v5t-9y63) (Commonwealth Fund, June 2020). <https://doi.org/10.26099/2v5t-9y63>

Throughout the pandemic, South Carolina pediatricians have not closed completely but rather devised alternate arrangements to continue safely meeting the needs of patients. The Institute for Child Success (ICS) identified major types of adjustments to practice, often used in tandem:

- **Scheduling:** Several providers noted that they have opted to have “well-child visit” and “sick visit” times each day, with most opting for well-child visits to be scheduled only in the morning. Afternoons were reserved for sick visits, or for a switch to telehealth visits.
- **Physical Space:** Providers have developed novel strategies for utilizing available space to keep well and sick patients separate, including using hallways, parking lots and outdoor spaces as waiting areas to allow for distancing. Providers even reported conducting sick visits in their parking lots, with their family vehicles, in tent areas outside.
- **Telehealth:** Ninety percent of SC survey respondents reported using telehealth for at least some visits. Several noted that these visits are particularly important for screening possible COVID-19 cases and determining whether to refer to a testing location. Others have prioritized telehealth for specific needs, including asthma, attention deficit hyperactivity disorder (ADHD), and specific age well-child visits where shots are not usually administered.

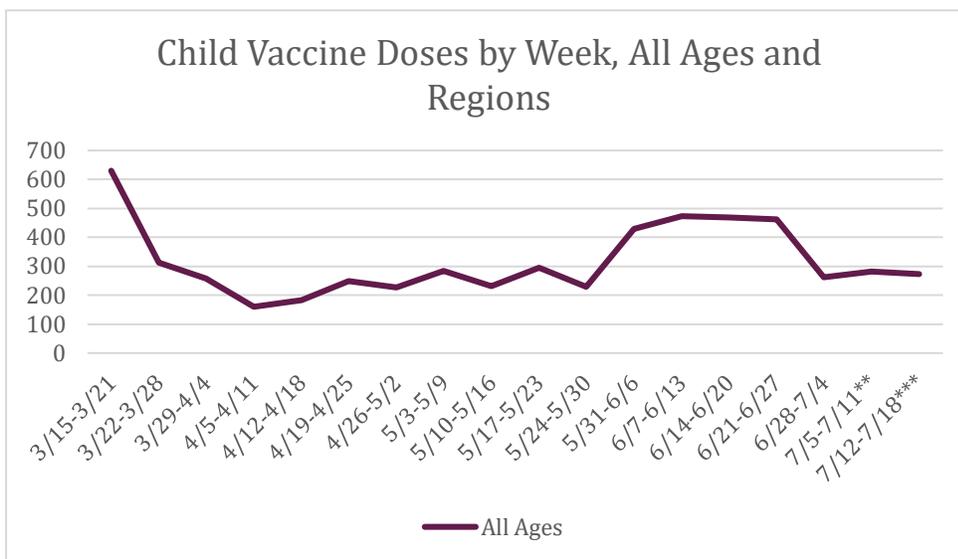
SC pediatricians also highlighted a need for public safety measures, noting that there has become a divide, often political, in how people receive the safety recommendations from the Centers for Disease Control and Prevention (CDC) and the state.

IMMUNIZATIONS

There are two key areas of concern regarding pediatric vaccinations at this time: compliance with the recommended childhood vaccination schedule and expanding the reach of the seasonal flu vaccine. The CDC warns falling behind on regular childhood immunizations could result in an increase in vaccine-preventable diseases in communities. Families may also have a difficult time catching up on necessary vaccinations in time for the eventual return to in-person schooling.²

In South Carolina, providers were asked to gauge the changes they had seen in pediatric vaccination; over 60 percent estimated decreases for 3 to 5-year-olds; 11 to 12-year-olds; and 16 to 18-year-olds. An analysis of vaccination administration data from the South Carolina Immunization Registry (maintained by the state’s Department of Health and Environmental Control, or DHEC) illustrates a decline in vaccines given since the pandemic began. Based on the number of vaccines given statewide in the weeks of March 8 and March 15 (before the national emergency was declared on Friday March 13), we estimate that about 10,500 fewer vaccines were administered from March 22 to July 18 than would be typical. Put another way, only about 32 percent of the vaccines expected to be administered based on previous data were actually given since the pandemic began.ⁱⁱⁱ

Vaccine administrations declined rapidly in the weeks following the declaration of the national emergency and stayed low through May. Rates began to increase in June, though declining again in the week of June 28 as South Carolina became a “hotspot” of COVID-19 cases.



ⁱⁱⁱ ICS requested data on vaccines administered to children beginning the week of March 8, the last full week before the national emergency declaration. Rates of vaccinations in the week of March 8 are significantly higher than the following week (March 15), despite the fact that the national emergency was declared on a Friday. This may be a real reason, as families began to skip appointments based on concerning news of the virus spreading; however, we cannot be sure that this one-week change was *only* due to COVID-19 concerns. We have used an average of the vaccines administered in these two weeks to create the baseline for comparison and will revise the estimates if additional data are received from DHEC.

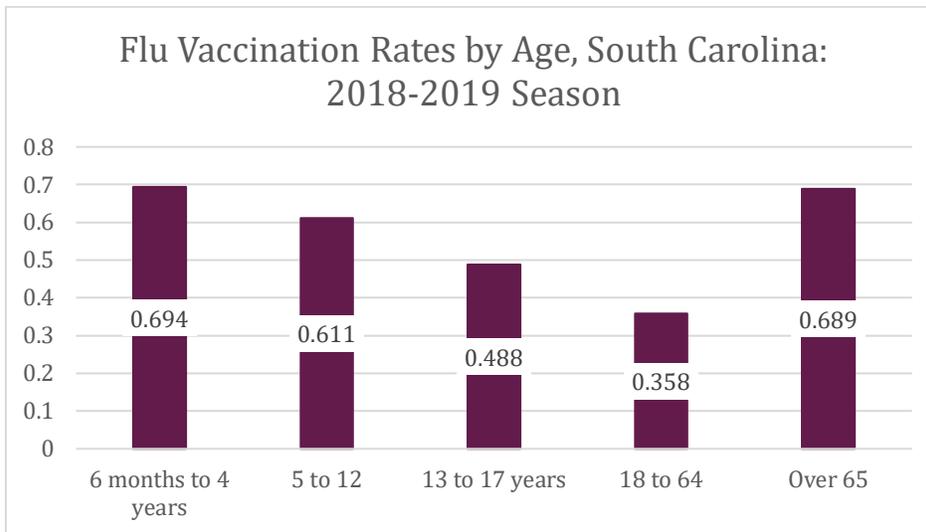
In addition to the necessary catch up of the regularly scheduled childhood vaccines, the AAP³ and others have recommended widespread influenza vaccination for children and adults in the upcoming flu season. While these vaccines will not protect against COVID-19 infection, they can reduce stress on the healthcare system in the case of another “wave” of COVID-19 infections as well as reduce the likelihood of “false alarms,” particularly in schools, as symptoms of the two ailments may be similar. The AAP and others recommend extending flu “season” to cover September to December to encourage uptake; vaccines usually begin in earnest in the fall.⁴ In South Carolina in the 2018-19 season, the largest increase in seasonal flu vaccination rate (all ages) was from September to October, increasing from 9 percent to 26.7 percent in that time. The rate increased about another 10 points by November.⁵ Given the suggested guidance of “expanding” the window, focusing on September for increasing access and vaccination rates may be the “sweet spot.”

RECOMMENDATIONS

Expert guidance focuses on several prongs to respond to both the need for “catch up” vaccines and address expanded need for flu vaccines as well as encourage families to return to their pediatric providers:⁶

- **Development of guidance and supporting materials (communications campaigns; guidance on safe vaccine administration).** This should include information on the importance of vaccination to parents, providers and partners, including working with schools to identify needs and gaps. SCAAP has already begun this effort through their online presence to encourage parents to continue well-child visits and vaccination appointments. Providers should be prepared to address family questions about the safety precautions in use at an office, as well as specific concerns that may arise with the catch-up schedule. For example, the CDC suggests providers condense immunizations into fewer visits; parents may have concerns about a child receiving more vaccinations than usual at one time. Providers can benefit from guidance on how to answer these questions so they are confident and prepared.⁷

For South Carolina flu vaccines, there are notable differences by age range with the highest rates for children under age 4 and adults over 65. Adolescents ages 13 to 17 have a rate of only 49 percent. While these ages and their parents may not have prioritized the flu vaccine in the past because of a perception that it is a mild illness, there is evidence that COVID-19 may impact adolescents similarly to adults. Reaching out to these families to discuss all vaccines a teenager needs is essential.



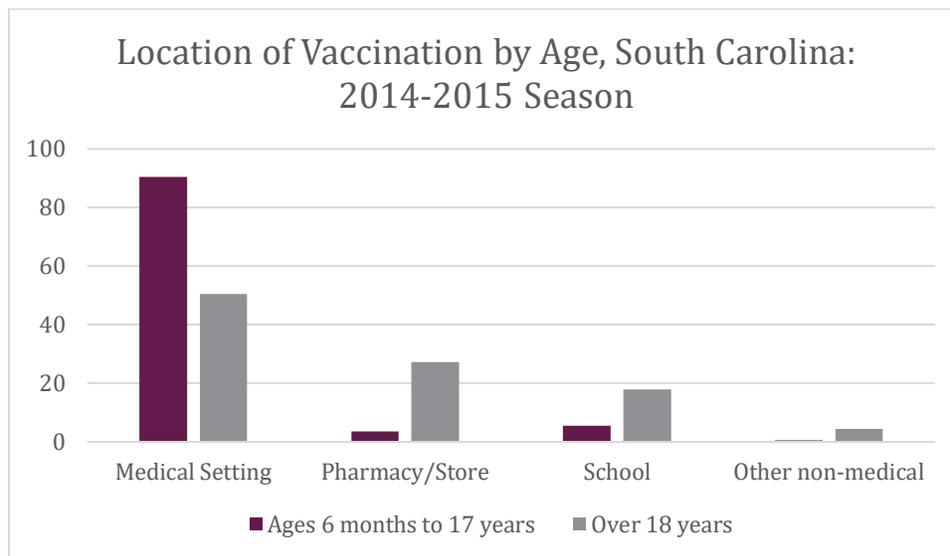
- Deployment of reminder/recall systems:** Many SCAAP survey respondents felt they had incorporated changes to promote safety in the office, and yet families were not returning for visits and vaccinations. However, only one provider reported in the open-ended results that they felt their communications to patients had helped their operations. To this end, utilizing reminder and recall systems could be an effective strategy both to reconnect with patients and families and to address children falling behind on vaccinations (or due for a vaccination soon). Data from a survey of state immunization managers responding to the current vaccination decline found that 13 out of 40 respondents (about one-third) were overseeing a centralized reminder/recall effort to this end. Systems may use different communication methods at different times (phone calls, letters, postcards, text messages, or patient portal). Previous research has found reminder/recall systems to be a cost-effective outreach strategy, with a median cost per person per year of \$2.13.⁸ However, it is unclear whether these systems will be as effective given COVID-19 concerns; this is not simply an issue of parents having forgotten an appointment but rather of having specific health and safety concerns. Communications is, at the very least, the first step towards better addressing falling vaccination rates.
- Summer “catch up” clinics and early fall flu clinics:** The first approach for meeting vaccine needs should be encouraging patients to return to their pediatric provider. This achieves a number of goals in terms of re-connecting the patient-provider relationship for well-child visits, sick visits and immunizations, and ensures continuity of care. Changes to pediatric office practices, including eliminating waiting rooms altogether and differentiating time for well-child versus sick visits all help to reassure patients it is safe to return to the office; many providers are already doing this in South Carolina. However, it is possible that providers simply will not have the capacity (staffing, space, hours) alongside their COVID-19 precautions to address all vaccination needs in the lead up to back to school.

States are considering a range of options to address vaccination challenges, including:^{9,10}

- House calls from the pediatric practice to administer the shot at the patient’s home
- Off-site distribution locations, including mobile units and “field” units which will not see sick patients
- Traveling “strike teams”
- “Drive through” vaccination locations in which patients stay in their cars

Understanding which of these may be the best approach in South Carolina requires significant collaboration across health care providers and state and local agencies. Partnerships with schools are *essential* to understand local needs; to reach out to parents from a trusted source; and, potentially, to utilize space for outdoor clinics (parking lots, athletic fields, etc.).

CDC data from the 2014-15 season found that for children up to age 17, the vast majority of flu vaccines were given in medical settings (doctor's office, health maintenance organization (HMO), hospital/Emergency Departments (ED), clinic/health centers and health departments). Only about 6 percent of children received their flu shot at school, which presents a significant opportunity for expansion. A very small – 0.5 percent – of children received their flu shot at “other, non-medical” settings which includes community centers and “pop up” clinics.



Source: CDC. (2018). Place of influenza vaccination estimates for children and adults by State, National Immunization Survey-Flu (NIS-Flu) and Behavioral Risk Factor Surveillance System (BRFSS), United States, 2014-15 influenza season. <https://www.cdc.gov/flu/fluview/reportshtml/place-vaccination/report1415/reporti/index.html>

We strongly recommend that any such pop-up locations collaborate closely with local pediatric practices to ensure continuity of care. There was a concern in the SCAAP provider survey that the reduced visit rates during this crisis may be undermining the patient-provider relationship which is so important in pediatric health care. Outsourcing flu shots to non-affiliated locations may further that concern. Additionally, a small percent of pediatricians in a weekly national survey – about 10 percent – reported having to dispose of expired vaccines in the last four weeks,¹¹ a potentially significant financial cost at a time when many practices are struggling to stay afloat. Supporting outreach efforts to bring patients back to their current providers should be the first priority in strengthening that relationship as well as stemming practice financial losses.

Patient/Family Health

The combination of a highly contagious virus as well as the economic fallouts of widespread business closures introduce a host of issues families are facing, particularly given the uncertainty as to how long this crisis will continue. The combination of missed acute care and well-child visits as well as significant changes and stressors in a family's life puts children and families at risk of exacerbating medical conditions or missing early opportunities for preventative care. Several of these concerns are discussed below.

OBESITY AND DIABETES

While it is early to analyze data in the US on changing obesity rates since the COVID-19 pandemic began, analysis of some early data from Italy found that COVID-19 lockdowns have worsened childhood obesity. The study looked at 41 overweight children in Verona and found that compared with the same time period last year, children ate an additional meal, slept an extra 30 minutes per day, spent an additional five hours in front of a screen each day, and increased their consumption of sugary drinks and junk food.¹² A recent study published in the *Journal of Health and Sport Science* predicts an increase in childhood obesity rates as a result of the COVID-19 pandemic and response.¹³ The amount of this increase could be as high as 2.4 percent nationwide if school closures continue until December 2020. Researchers used a dataset from the Department of Education-supported Early Childhood Longitudinal Study, Kindergarten Class of 2010–2011 to establish baseline BMI levels for children. They then ran simulations based on four different scenarios, involving school closure through either May, August, October, or December 2020. Assumptions in the model were that students would experience less physical activity through lack of access to physical education (PE) classes, and generally decreased physical activity due to closure of gyms and parks and cancellation of sports activities.

There is a complex relationship between food insecurity and obesity, as the food which is accessible to families facing challenges may not be the most nutritious or their preference. According to the Census Bureau's Pulse Survey (a weekly survey implemented in response to the pandemic) 36 percent of South Carolina respondents with children under age 18 reported having enough food "but not always the type we wanted," suggesting issues with grocery store inventory or accepting food donations which are different than the family's typical food. Another 14 percent of households reported "sometimes" or "often" not having enough to eat in the previous seven days as of late May.¹⁴ While the availability of food itself is the most urgent issue from a policy perspective, the Census collection also includes an option for "Enough food, but not always the types wanted," which may include families utilizing donated food with little choice as well as families who have been unable to obtain their usual.

Ten percent of the respondent population indicated they had **received free groceries or meals** in the last seven days, distributed among the following sources (note that respondents could select more than one option):

School or other programs aimed at children	91.7%
Food pantry or food bank	45.2%
Other community program	9.5%
Family, friends or neighbors	6.2%
Religious organization	2.2%
Home-delivered meal service like Meals on Wheels	0.2%

It is well documented that children tend to gain weight over summer recess in general, and this phenomenon is being exacerbated by school closures. Children are both missing out on structured physical activity, as well as losing access to healthy meals. In addition, purchasing trends indicate that many households are buying shelf-stable foods that are processed and dense in calories – as opposed to fresh foods – which will also lead to weight gain.¹⁵

Additionally, several pediatricians in South Carolina have anecdotally reported seeing an increase in new cases of pediatric diabetes since quarantine began, reflecting a developing trend that is being identified elsewhere. The *New York Times* reported an increase new-onset diabetes cases for kids in a Baltimore, Maryland hospital as well.¹⁶ New research suggests a relationship between COVID-19 infection and new-onset diabetes:

“As Dr. Sanjoy Dutta, Ph.D., the vice president of research for the JDRF (formerly the Juvenile Diabetes Research Foundation), explained, the cellular protein that is the primary docking site for the coronavirus is found on pancreatic beta cells and other cells involved in metabolism. If the coronavirus infects these tissues, sugar metabolism could be affected, he said, causing diabetes-like symptoms.”¹⁷

Noting a “bi-directional” relationship (COVID-19 infection may be linked to new cases of diabetes; having diabetes may be linked to a more severe instance of COVID-19), researchers have now created an international registry for patients with COVID-19-related diabetes (<https://covidiab.e-dendrite.com/>), meant to “establish the extent and phenotype of new-onset diabetes that is defined by hyperglycemia, confirmed COVID-19, a negative history of diabetes, and a history of a normal glycated hemoglobin level.”¹⁸ Note that this research is including both adult and pediatric cases that meet their criteria.

The resources above focus on a link between patients with COVID-19 who then develop diabetes; however, the anecdotal reports in South Carolina are not focused solely on children who are positive for COVID-19. It is unclear whether there is a link between our current challenges – particularly the link between the stay-at-home order and obesity - and an increase in new diabetes cases. A study from the UK and Ireland, however, does identify pediatric diabetes cases as having presented late to clinicians for treatment during quarantine. Over 2,500 practitioners reflected on their emergency care experiences in mid-April 2020 to identify conditions which presented for care more advanced than was typically based – the researchers believe – on parents taking seriously national “stay-at-home” orders.¹⁹ Providers recalled at least 44 cases of type 1 diabetes coming in

late, with 23 involving diabetic ketoacidosis. This would be in line with what one SC pediatrician reported: parents are afraid to come in for acute care visits, and “when children are being brought in, overall they have seemed a bit sicker than previously, likely due to the delay of care.”

Rise in accidents/preventable injuries

Since the start of the COVID-19 pandemic, medical facilities have seen an increase in certain types of injuries, coupled with an overall decrease in children seeking care. As noted previously, many parents have been hesitant to bring their children in for medical care, particularly in the early stages of the pandemic in March and April. Meanwhile, stay-at-home orders have resulted in an increase in injuries occurring in the home, particularly accidental poisonings and injuries sustained inside the home.

The National Syndromic Surveillance Program (NSSP) found that the number of ED visits decreased 42 percent per week during March 31-April 27, 2019; the highest rate of decline was for children ≤ 10 , for whom rates declined by 72 percent.²⁰ In addition, data from National Poison Data System (NPDS), CDC and the American Association of Poison Control Centers found that calls to poison centers increased 20.4 percent and 16.4 percent for cleaners and disinfectants, respectively, in January – March 2020 as compared with the same time period in 2019.²¹

Data from one pediatric trauma hospital found that pediatric fractures actually declined from March 15-April 15, 2020 as compared with data from 2018 and 2019. In this facility, pediatric fracture rates were 2.5 times lower than expected; however, rates of fractures acquired either at home or on a bicycle increased, while sports-related injuries decreased.²² Another children’s hospital found that dog bites in children were three times more common after the region’s stay-at-home order was enacted.²³

In short, injuries sustained at home have increased, as is to be expected in a time when parents are at home, under additional stress because of the pandemic and potential economic concerns, and often without adequate child care.

Mental Health

The crisis has also brought into relief changing needs of patients and families, either created by the crisis or exacerbated. Several SC pediatricians noted the increased in mental health needs for patients in the last few months, particularly “teen/ preteen anxiety and depression” and “kids acting out, becoming depressed, etc.” while quarantined. However, “we continue to not have enough options for our patients, meaning both counselors and psychiatrists. Either they are waiting months and months to be seen or being required to pay out of pocket - this usually causes parents to simply not show up for appointments.” In the weekly national survey of primary care providers fielded by the Larry A. Green Center, 84 percent of pediatric respondents reported higher mental and emotional distress among patients as of June 29.²⁴

In a national survey from the University of Oregon’s Rapid Assessment of Pandemic Impact on Development (RAPID) – Early Childhood team, which focused on families with young children, financial hardship is linked to worse emotional well-being for caregivers, including higher reported experiences of stress, anxiety, depression and loneliness. This triggers what the researchers refer to as “a hardship chain reaction,” with higher rates of child emotional issues in households facing extreme financial challenges as well, a tangible representation of the impact of stress brain science has long demonstrated:

“Our data show a chain reaction that unfolds over time. Caregiver reports of financial and material hardship are directly linked the following week to increases in caregiver emotional distress. Caregiver emotional distress is then linked to increases in child emotional distress in the subsequent week.”²⁵

The same researchers also find that caregiver well-being decreases as local COVID-19 infection rates increase, with higher stress levels reported early in the crisis in New York and New Jersey but Texas, Arizona and Florida rates spiking in June and July as case rates have increased. Given South Carolina’s increasing case rates, this finding suggests that caregivers may be under more stress now than they were in April when the crisis began.²⁶ Given this strong link between family financial situation and child well-being, the researchers recommend expanding state and federal financial assistance options (including those currently in effect or currently expiring). They also call for funding specifically to help address adult and child mental health needs, though do not identify a specific set of investments.

The same researchers looked at how parents are faring and similarly, found that while mental well-being (based reports of anxiety, depression, loneliness and stress) was improving on the whole, this was not true for all households. Among low-income households, Black households, and households with three or more children, caregiver well-being was not rebounding. In families with a child with a disability, caregiver mental health issues were increasing after previous declines. The researchers controlled for factors including income changes, food insecurity and inadequate health care access; it is possible, though, that these changes have been triggered by recent changes such as school being out of session and workplaces reopening.

The University of Oregon researchers also collected data on child well-being in terms of behavior problems (“fussy or defiant”) and emotional difficulties (“too fearful or anxious”). Comparing results over time, the overall rates of child difficulties reported by parents has decreased since the beginning of the crisis, from about 53 percent in the week of April 6 to 50 percent the week of June 8 (with a peak of 55 in the week of May 4). The researchers theorize this is in part due to adjustment to the realities of “new normal,” but note that these rates have not decreased for all families. In particular, low-income households and households with children with a disability have remained high. Single-parent households and Black households are two groups where rates of behavioral problems had been declining but have increased again in recent weeks.²⁷

The researchers identify the need for additional funding for and expanded access to family and child mental health services, including: “home visitation programs, early childhood special education programs and evidence-based interventions. These resources need to be focused on and made immediately available to the subgroups showing the greatest levels of need. Notably, these are subgroups in which there have historically been gaps in access, and these gaps have only increased during the pandemic.” They also call for contingency planning in case of the need for future social distancing in subsequent waves of the pandemic, particularly to help avoid this high level of caregiver turnout as well as to preserve social connections which are an important protective factor.

Rise in child abuse/trauma

Research shows that rates of [child abuse](#) increase during times of crisis,²⁸ as stress levels rise and people are unable to access their normal social and support networks. Concerningly, reports of child abuse have declined during the pandemic, as the individuals normally reporting abuse (teachers, school staff, social workers, health care and mental health care professionals, child care providers, etc.) have lost access to these children. In fact, in New York City, reports of child abuse for the first eight weeks of Spring 2020 are down 51 percent from the levels they were at the same time in 2019.²⁹

This trend of decreased reports of child maltreatment is seen all across the US. Evidence of child maltreatment currently is largely anecdotal, from hospitals' observations of trends in children coming in with injuries consistent with child abuse. Hospitals in Pennsylvania have reported fewer children coming in with injuries that would suggest child abuse, but of those coming in, their injuries are more severe.³⁰ Cook Children's Hospital in Fort Worth reports that on a single day in March two children died as a result of injuries likely sustained as part of abuse;³¹ during one week in March the hospital treated six children who had suffered abuse, which is the number of children they usually treat in one month.³² A hospital in Louisville has also reported a rise in cases of suspected abuse so severe as to require hospitalization.³³ While systematically collected data is not available at this time to gauge the changes in child abuse injuries since the pandemic began, these accounts from across different communities raise major concerns that while reporting rates are lower, children may be victims of more severe abuse injuries while at home.

Business Health

REVENUE DECLINE

Because most practices utilize a fee-for-service model through insurance payments, the decline in visits has directly impacted revenue and financial stability. The impacts seem to differ based on insurance type, with the largest "bounceback" among Medicare patients and the slowest among Medicaid patients. Commercial insurance patients are in between. The sharp decrease in Medicare visits early in the crisis was expected given the messaging about older adults being most at risk from the coronavirus and encouraged to stay home. The slow increase in Medicaid patients returning is particularly concerning for pediatricians.

Insurance Type	Worst Week (3/29) Decrease	Most Recent Week (6/14) Decrease
Medicare	-63%	-5%
Commercial Insurance	-56%	-13%
Medicaid	-53%	-20%

Source: Ateev Mehrotra et al., (2020 June) [The Impact of the COVID-19 Pandemic on Outpatient Visits: Practices Are Adapting to the New Normal](#) (Commonwealth Fund). <https://doi.org/10.26099/2v5t-9y63>

In their weekly survey of primary care providers as of May 22, the Larry A. Green Center found that 38 percent of respondents had received financial support through the federal Paycheck Protection Program; this rate was about 46 percent among pediatric providers who responded.^{iv 34} No other source of outside funding was reported by a significant number of providers, lending support to the observation that pediatric primary care settings have not been able to access the full financial support they need.

Providers do not have financial reserves to carry them through the duration of this crisis. Across all primary care respondents, 77 percent reported that April was a negative-revenue month for their practice (compared to 18 percent reporting this pre-COVID-19 for January 2020). Over half of respondents in pediatrics did not know how long their practice could continue financially; many respondents expected their financial reserves to last three months or less. Note that this survey was concluded May 26; the “six weeks or fewer” reported by 13 percent of pediatric providers would bring them to the week of July 6.

SC pediatricians were asked about issues they were experiencing related to billing, payment, and insurance policies. The results to this question were quite surprising – of the eighth potential billing issues listed in the survey, one-third of respondents reported no issues at all. Of those who reported at least one issue, the average was to report 2.2 issues, with one practitioner even selecting all eight options.

Telehealth claims to private insurance companies and patients losing access to previous insurance were the two most common issues reported by those who noted a billing issue (providers could select multiple issues).

Private insurance issues regarding telehealth	27%
Patients have lost insurance	20%
Medicaid issues regarding telehealth	15%
Private pay patients unable to afford costs	11%
Private insurance denied claims	9%
Medicaid slow to reimburse	8%
Private insurance slow to issue reimbursements	6%
Medicaid denied claims	4%

Notably, these issues differed by practice type. Small independent practices were the most likely, on average, to report any billing issue, followed by academic affiliated and “other” practices.

SC providers also pointed to broader issues in the health care sector and pediatrics more specifically which have been exacerbated by the crisis and the response, particularly around quality improvement initiatives and bonuses under Healthcare Effectiveness Data and Information Set (HEDIS).

^{iv} The weekly survey administered by the Green Center has a range of approximately 500 to 1,200 respondents across over 40 states. However, the responses among pediatricians are somewhat limited, ranging from 6 to 10 percent of the total sample. Pediatrician-specific data is provided here for “real time” information on challenges but cannot be generalized to all practices based on the small number of respondents.

Telehealth has been an important resource for continuing patient care as well as providing some degree of revenue replacement, though providers report it has its own challenges. A national analysis found that after peaking in mid-April, telehealth visits (telephone and video) have tapered off though their use remains higher than pre-pandemic. At its peak, telehealth represented nearly 14 percent of all visits conducted by those in the sample; more recently, in the week of June 14, this is just 7 percent. These visits have become important for both patient health and practice revenue; over 60 percent of pediatricians in the Green Center survey (June 29) reported their practice was not prepared to handle lost or reduced payment for video- and/or phone-based care.

SC pediatricians report an interest in utilizing telehealth in some capacity in the future, with two-thirds of respondents discussing this in their response. In particular, providers reported it would be useful in the future particularly for:

- follow-ups for well-controlled chronic conditions, including asthma
- medication management for anxiety, depression, ADHD and attention deficit disorder (ADD)
- medically complex patients for some appointments

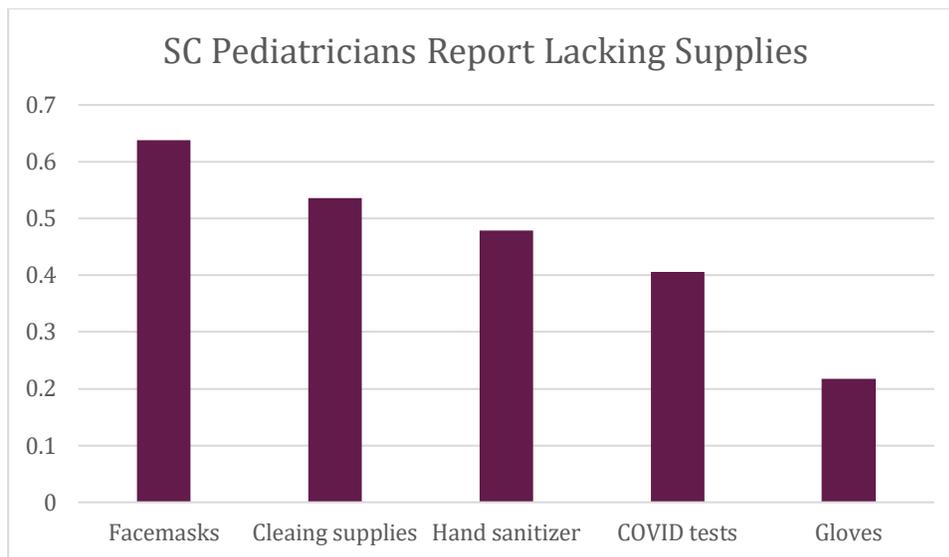
SC providers were overwhelmingly clear that insurance coverage is the major issue in determining whether they would continue telehealth. There are also technical challenges that need to be addressed for widespread adoption, including adapting to electronic prescriptions; collecting patient documents virtually; and increasing both provider and patient familiarity with the “patient portal.” While there has been some flexibility offered regarding non-Health Insurance Portability and Accountability Act (HIPAA) compliant software during the pandemic, it will likely revert to pre-COVID-19 HIPAA guidelines once the national emergency is declared over. In addition, providers expressed concern over patient familiarity with this new technology, patient access to quality internet service, standard document and information collection, and prescription of controlled substances, to name a few, as items for which clarity was needed. Potential strategies include:

- providing grants to providers to continue practicing telehealth until firmer guidance on reimbursement is provided
- pursue "shared services" purchasing of software whereby providers purchase compliant software as large groups, thereby reducing individual costs. While the AAP does not recommend or endorse any specific platforms, they provide some guidance on vendors who provide HIPAA-compliant video portals, or those that can be customized for this need.³⁵
- provide grants to said provider groups for purchase of compliant software
- press for more specific guidance from insurers, public and private, on reimbursement rates for telehealth beyond COVID-19

PERSONNEL & EXPENSES

About 70 percent of SC pediatricians reported making staffing changes to address changing financial and scheduling needs. This has included furloughs, salary reductions and hourly reductions.

Providers are also facing new expenses at the same time as reduced revenue. As of late June 2020, 65 percent of national pediatric providers surveyed reported making a “significant investment” in cleaning supplies in the last month; 71 percent expected they would need to reuse PPE in their practice in the coming four weeks.³⁶ As of May, SC pediatricians were also experiencing these shortages: about 64 percent of respondents indicated difficulty in stocking enough facemasks for their needs, and more than half are struggling to find sufficient cleaning supplies.



Other items that were noted in the open-ended responses included gowns, face shields, shoes coverage and thermometer covers. This is a delicate case of supply and demand – some providers are able to make do with existing supplies because the overall patient volume is down, while others have adjusted their practices in response. The experience may also differ significantly based on the resources of a practice – whether it is a large system or a small practitioner, whether they have access to alternate suppliers if a primary source is sold out, and where they are located.

Physician Well-Being

Children and families are not the only ones experiencing increased stress as a result of the pandemic; primary care providers, pediatricians in particular, are experiencing health and financial worries as well. SC pediatricians were asked to report their stress levels on a scale of 1-10 (ten being the most stressed) in three specific areas; the average responses across all respondents are below and reflect a significant degree of concern in all areas:

Area of Concern	Average
Financial stability of practice	7.2
Safety of staff	6.4
Health and well-being of patient families	7.2

As in other questions, a notable difference in responses can be found depending on the provider type:



Small independent practices and Federally Qualified Health Centers (FQHC) have the highest average scores on these worry level scales, with small practices particularly concerned about the financial health of the practice, while FQHCs reported the highest level of concern regarding staff safety at work as well as the well-being of the patients they serve. Given that FQHCs are focused on providing services to traditional underserved communities and populations, this likely reflects concerns about the disproportionate impacts of the virus and the economic crisis on the patients they serve. Small practices were also the most likely to report multiple billing issues in a previous question, which is in line with the high level of financial concern expressed here.

SC pediatricians further reflected on the measures they have taken to try to keep their staff intact and the concerns of their practices regarding staffing:

- “None have had hours reduced without pay and none have been furloughed. I have personally not taken a paycheck in three pay periods to be able to accomplish this.”
- “I own the practice and have been paying everyone their normal salary even though the practice's volume has been considerably decreased. I am the only one affected financially...”
- “I am concerned about increased risk of burnout to staff (providers, nurses, frontline office administrative staff). People are being asked to do ‘a lot with a little’ and are facing changes to expectations about work/life balance on an ongoing basis, without a true ‘end in sight’ for many of the stressors.”
- “Our social workers and case managers were furloughed/reduced staffing, which seems counterintuitive...”
- “As part of a larger FQHC organization which has additional sites for family medicine, we have seen an unequal treatment in our pediatric staff compared to the adult staff. Everyone, from providers to front desk staff, at our pediatric site have had partial furloughs with

reduced days in office and reduced pay...while no provider or nurses and only some front desk staff were furloughed at any of the adult sites.”

The health and safety of providers is also a very real concern. As of the June 29 survey by the Green Center, 42 percent of pediatric respondents said they still lacked PPE needed for their practices.³⁷ Asked to rank the strain on their practice on a scale of 1 to 5, with 5 being “severe impact,” 79 percent of pediatricians in this national sample registered a 4 or 5.³⁸

NEXT STEPS

Going forward, the South Carolina Chapter of the AAP (SCAAP) will actively engage with the SC Department of Health and Human Services (SC DHHS) and the SC Department of Health and Environmental Control (SC DHEC) using current and future collaborations to address the specific issues in this report. Public health, patient and family health, professional (business) health and physician personal health are all critical components of the health care puzzle—and especially in a health care crisis such as this current COVID-19 pandemic. Without active integration across governmental, health care systems and professional (private and academic) groups, effective work does not get done. Health care professionals in SC pride themselves on getting the tough work done with the active help of related agencies.

The SC DHHS and SC DHEC collaborations are currently strong. These state agencies work hard on behalf of children and families, and the SCAAP works hard to shore up identified areas for improvement.

As we review national data and data from pediatric colleagues from state chapters across the country, best practices will be sought. A strength of the national AAP and its networks is the sharing of information and best practices in an evidence-based fashion. Representatives from AAP District IV (Kentucky, North Carolina, South Carolina, Tennessee and Virginia) communicate on a regular basis to seek solutions to shared concerns. This latter network is extremely valuable to the SCAAP leadership.

The SCAAP takes its commitment to the children, families and the pediatric practitioners of SC quite seriously. As noted throughout this report, the collective health of the population, the health of the children and their families, the professional (business) health of the SCAAP members and the personal well-being of the SCAAP members have all been impacted by the COVID-19 pandemic. While a volunteer organization such as the SCAAP can often be pulled in too many directions, this dedicated group of professionals share a joint commitment to address the current health care/public health care crisis with common purpose and determination on behalf of children, families and pediatric professionals.

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