



Health Care Payment and Delivery System Reform for Children as a Tool to Improve the Health of Vulnerable Communities

The COVID-19 pandemic, and its disproportionate impact on low-income people and people of color, has starkly demonstrated the need for long-term investments targeted at social drivers of population health. Although chronic physical and behavioral health problems are not the only source of these disparities, they are among the most important causes. Health inequities often start in childhood. Yet important efforts to re-orient our health care system to focus more on prevention and changing long-term outcomes have largely excluded children. This paper is a call to policymakers to recognize the long term health, social, and economic benefits of upstream investments for children, including those who have experienced trauma, violence or severe adversity, and to fully include children in health care payment and delivery system reform.

Large scale efforts to transform the way we pay for and deliver health care have gained considerable momentum over the last 10 to 15 years. These efforts have stemmed from an acknowledgment that our current system is far too expensive and does not deliver on the promise of high-quality health and health care that our nation's families deserve. The COVID-19 pandemic has reinforced the urgency behind efforts to move towards value-based care as entire sectors of the health care system — most notably, primary care — are at risk of collapsing. The collapse of primary care is being driven by the failure of the fee-for-service payment model which is the predominant payment model in the U.S. health care system. The failure of fee-for-service economics

has been the driving force behind efforts to move towards value-based care and payment. A weakened and reduced primary care infrastructure would be devastating for the health care system and the health and well-being of children and their families.

With the pandemic, we can anticipate a renewed focus on payment and delivery reform and intersections with public health. Unfortunately, because cost is often the starting point for transformational efforts by state and national policymakers, the health care transformation enterprise focuses predominantly on adults, particularly those with chronic conditions^{2,3} and overlooks the importance of making early investments in the health and well-being of children.¹

The publications referenced here report that efforts to transform state Medicaid programs focus largely on the 5% of Medicaid beneficiaries that contribute to 50% of Medicaid spending. These individuals are almost exclusively elderly individuals with disabilities, leaving children out of the bulk of health care transformation efforts.

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As a nation, we fail to acknowledge the direct correlation between the health and well-being of a child and the long-term health of the adult that child becomes. As a result, we continue to see profound and worsening health challenges for children and families, as well as associated morbidity and mortality in adult populations as these children age. The COVID-19 Pandemic has been a particularly intense example of a broader American problem.

In order to address these challenges federal and state policymakers must advance reforms that focus on improving health care delivery and payment for children. There are important opportunities to improve long-term health and social outcomes if our nation prioritizes upstream investments for children and fully incorporates the care of children into health system transformation.

This paper will:

- Examine the reasons children have been left out of current delivery system reform efforts.
- » Discuss existing and promising payment reform models and approaches.
- » Identify recommendations for policymakers to develop and scale up payment models that make investments in early childhood and address childhood trauma, exposure to violence and ACE's, and result in improved health outcomes and reduced costs to our health care and social service systems over the long term.

Background

For decades, the United States has grappled with how to address both the rising cost of American health care and poor population health outcomes. The United States has suffered, by far, more deaths from COVID-19 than any other country which has largely been driven by the incredibly high rates of infection and death in Black and Latino communities. The U.S. has the highest rates of infant mortality and maternal mortality and the lowest life expectancy compared to other industrialized nations. Even before the current economic crisis, 44% of Americans reported not seeing a doctor when they need to because the costs are too high, and nearly two-thirds believe that, as a country, we do not get good value from the health care system.

While key health indicators are lagging, we are spending much more per person on health care. In 2015, for the first time, the federal government spent more on health care — \$936 billion — than on any other entitlement program, including Social Security, which cost \$882 billion in the same year. In 2019, U.S. national health expenditures amounted to an estimated \$3.8 trillion. Federal health care spending will constitute an increasingly large share of the national budget. In fact, health care spending is estimated to increase from 27% of noninterest spending in 2018 to 40% by 2048. COVID-19 is expected to compound the nation's health care cost crisis amidst the COVID-19 generated economic downturn.

Amber Hewitt, Eliot Fishman, Winnie Luo, Lee Taylor-Penn. "The Fierce Urgency of Now: Federal and State Policy Recommendations to Address Health Inequities in the Era of COVID-19". May 2020. Available at: https://familiesusa.org/wp-content/uploads/2020/05/HE_COVID-and-Equity_Report_Final.pdf

iii At the time of publication, 2019 U.S. national health expenditures had not been finalized.

Despite our nation's extraordinary investments in health, the U.S. continues to fall short of achieving the high-quality, high-value health care every American deserves.

Over the last decade, public and private payers, providers, and purchasers have designed, implemented, and tested important new approaches to delivery and payment for health care in an effort to improve the quality of care patients receive and to reduce health care costs. Many of these new approaches focus on creating alignment between value for patients and earnings for health care providers. This alignment requires holding providers accountable for overall cost trends and longer-term outcomes and transforming how primary care is organized and reimbursed for adult patient populations, in particular those requiring high-cost care. 12,13

Up to this point, health insurers and other payers have focused payment and delivery reform models on adults. Children have been almost entirely left out of the equation. ^{iv,14} Children as a group tend to be much less costly than adults; therefore, there are fewer opportunities to drive immediate savings through transformed care delivery. ¹⁵ The few efforts to incorporate the needs of children into delivery reform — primarily from the Center for Medicare & Medicaid Innovation (CMMI) — have been small in scale and on lengthy timelines relative to similar efforts targeting adults. ¹⁶

If we are to overcome the inequities in population health reflected in COVID-19 death statistics, there is a need to leverage health care transformation efforts to make investments in evidence-based early childhood interventions that will reorient the health care system to proactively intervene and change a child's health outcomes. There is strong evidence that such early interventions can lead children to healthy, productive adult lives, cascading savings to society in reduced health care spending and increasing productivity.¹⁷

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^{iv} Only one model from the Center for Medicare & Medicaid Innovation, Integrated Care for Kids (InCK), targets children.

The Case for Developing Payment Models for Children

As described above, the primary standard by which most health care transformation efforts are judged — including the statutory standard for pilot projects operated by CMMI — is the achievement of short-term savings. The emphasis on savings has resulted in payment and delivery system reform efforts that are focused on adult populations, all but forgetting children, for whom health improvements would generally yield savings over a longer period.¹⁸

A few reform efforts are focused on very high-cost children, or children and youth with special health

care needs (CSHCN). This population is defined as children and youth who have or are at increased risk for chronic physical, developmental, behavioral, or emotional conditions and who also require health and related services of a type or amount beyond that required by children generally. These children, by definition, utilize a larger amount of services and thus present a shorter-term opportunity to reduce costs and improve outcomes. We are strongly supportive of these efforts. However, leaving most children out of large-scale payment and delivery reform is woefully shortsighted.

While children may be healthier than adults are and result in lower costs in the short term, there

Adverse Childhood Experiences

The original ACE study was conducted in two waves of data collection by Vincent Felitti et al. from 1995 to 1997. The study surveyed over 17,000 Kaiser Permanente HMO members about childhood exposure to 10 adverse experiences: emotional, physical, or sexual abuse; mother treated violently, or living with household members who had substance use disorders, were mentally ill, or were ever imprisoned; loss of a parent to separation or divorce; and emotional or physical neglect. Research has shown that the greater a child's exposure to ACEs, the more likely they are to experience poor health and poor social outcomes in adulthood, ranging from increased rates of heart disease, diabetes, and cancer to an increased likelihood of incarceration or failure to graduate from high school. Among other findings, data suggests that experiencing six or more ACEs reduces one's life expectancy by 20 years. 99

Since the publication of the original ACE study, the field of ACE research, policy, and practice has advanced considerably. Our understanding of adversity and conceptualization of ACEs has broadened beyond a core set of familial indicators to include other adverse experiences — indicators driven by historic, systemic, and institutional inequities, including poverty, racism, diminished opportunities for employment, limited access to health care, housing instability, and food insecurity that contribute to adversity, toxic stress, and trauma for children and families.

^v Data on neglect (emotional and physical) was only collected during Wave 2 of the study.

The failure to leverage delivery system and payment reform efforts to make investments in early childhood perpetuates the need for high-cost interventions later in life

are substantial long-term societal costs for not providing children and families with comprehensive health services to meet their needs, starting in early childhood.²⁰ The evidence on the long-term effects of adverse childhood experiences (ACEs) is a case in point. Left untreated, ACEs — trauma related to a child's exposure to abuse, neglect, parental substance abuse, domestic violence, and other forms of adversity — can have a serious impact on physical health, mental health, and productivity into adulthood.²¹

In 2016, half of U.S. children had experienced one ACE, and more than 20% had experienced two or more ACEs.²² When ACEs are not addressed, they can be a strong predictor of poor health and social outcomes that affect not just children's healthy development but also their health throughout their life. 23,24 In addition, there are significant economic and societal costs associated with those negative health outcomes as those children age into adults.²⁵ On average, people exposed to six or more ACEs die nearly 20 years earlier than those without ACEs.²⁶ The Centers for Disease Control and Prevention (CDC) estimates the lifetime costs associated with child maltreatment at \$124 billion, of which productivity losses account for \$83.5 billion, health care accounts for \$25 billion, special education accounts for \$4.6 billion, child welfare accounts for \$4.4 billion, and criminal justice accounts for \$3.9 billion.²⁷ There are also costs associated with domestic violence including a lifetime cost of

\$3.6 trillion for all victims, which includes \$2.1 trillion in medical costs.²⁸ Very importantly, however, with proper supports and services, children and families can flourish despite ACEs.²⁹

Moreover, there are deeply troubling signs of poor child health that do not express themselves as health care costs but instead in lives cut short. Childhood, youth and young adult mortality rates have begun to trend back up after decades of declining. Between 2014 and 2015, the rate of mortality for individuals aged 15-19 increased from 41.5 to 51.5 deaths per 100,000 lives. According to recent data released from the CDC, violent deaths — deaths due to suicide and homicide — are a leading cause of premature death for children, youth and young adults in the U.S. In 2017, suicide was the second-leading cause of death for individuals ages 10-24. The number of suicides for children 10-14 — that is children in middle school — *tripled* between 2007 and 2017. 20

These trends in key health indicators not only demonstrate some of the ways the U.S. health care system is failing children and families, but they portend an uncertain future for the health of our nation. Healthy adulthood is directly connected to the care children receive in their early years. While there is good reason to improve care delivery and develop payment systems to address chronic illness and common health concerns in adults, a focus on children has the potential to yield more long-term and sustained improvements. By doing so, we could

provide children with the solid foundation to live to their greatest potential and likely reduce overall health care spending in the long term.

Not only is providing robust early childhood health services the right thing to do, it is also a practical solution to improving our society and breaking often intergenerational cycles of trauma and violence. The failure to leverage delivery system and payment reform efforts to make investments in early childhood perpetuates the need for high-cost interventions later in life. For low-income children, who are disproportionately affected by negative health and social factors, the consequences of being left out of delivery system reform are even more devastating. If the transformation enterprise was better focused on the factors that drive health outcomes beginning in early childhood, entire life trajectories could be altered, allowing children to enter adulthood as healthier individuals. Research shows that for every dollar invested into evidence-based early childhood initiatives, there is an economic benefit to society ranging from \$1.80 to \$17.07.33 Net benefits were larger for the programs that had the longest follow-up period because they were more easily able to measure ultimate economic impact through measures like employment and crime reduction.³⁴ In fact, some of largest net benefits to society are seen in the long-term outcomes of employment status, crime reduction, and educational attainment.³⁵ These studies show that there was even a ripple effect, as parents of children who received interventions experienced improved labor market performance.³⁶

Key Models and Trends in Payment and Delivery System Reform

The federal government, state governments, health plans, health care providers, and other key stakeholders have made significant investments to transform the way the U.S. pays for and delivers health care.

For example, over the last decade, CMMI has designed and tested delivery system and payment reform initiatives reaching well over 2.5 million patients and 60,000 clinical providers across all 50 states.³⁷ While CMMI recently launched a small child-focused initiative, the Integrated Care for Kids (InCK) program, the bulk of CMMI's efforts focus on adult and senior populations.³⁸ CMMI currently oversees some of the most promising models, including accountable care organizations (ACOs), bundled payments, and patientcentered medical homes (PCMH). Evaluation of these models shows encouraging results on cost savings and improved quality, and there has been wide adoption of these models across public and private payers. 39,40 Many believe these models also have significant potential to improve the care and health of children and their families. 41,42 Currently, efforts are underway to adapt these payment and delivery models for children, though at a much smaller scale. They are at varying levels of implementation, as described below.

Integrated Care for Kids (InCK), which was initiated in early 2019, is an important, albeit modest, step taken by CMMI to include children in payment reform. This model aims to reduce expenditures and improve the quality of care for children under 21 years old who are covered by Medicaid and the Children's Health Insurance Program (CHIP) through the prevention,

early identification, and treatment of behavioral and physical health needs. CMMI has awarded nearly \$126 million to states and organizations to implement this model in Connecticut, Illinois, New Jersey, New York, North Carolina, Ohio, and Oregon. 43 In essence, this program functions as a planning grant to states, with the goal of catalyzing state development or refinement of advanced payment models for children at-risk for developing significant health needs. Compared to the considerable scale CMMI has achieved in developing payment reforms for adults, the InCK initiative does not make a large enough investment to drive delivery system reform efforts at scale for children, nor does it establish medium-term timelines for widespread adoption of a specific model or set of models. In comparison, CMMI awarded almost \$1 billion in State Innovation Model (SIM) awards to states in 2013 and 2014 to focus on payment and delivery reform for adults, and with an expectation of rapid transition from planning to largescale testing and implementation of new payment models over a five-year period.44

Accountable care organizations (ACOs) are groups of health care providers that take on shared financial risk and incentives, and are collectively accountable for the health of a patient population. The Medicare Shared Savings Program (MSSP) is mostly responsible for the initial growth in the ACO model. MSSP was established by the Affordable Care Act and is a permanent part of the Medicare program. MSSP is a type of payment model that allows ACOs to assume different levels of financial risk and savings that make them accountable for the cost and quality of care for the Medicare beneficiary population they serve. The first cohort of ACOs in MSSP launched in 2012. 46 To date, MSSP

focuses on providing better care management for elderly populations with opportunities to achieve short-term savings through reductions in the use of inpatient and other high-acuity care settings. ⁴⁷ Other common ACO models include the Pioneer ACO and Next Generation ACO models, both of which focus on Medicare beneficiaries. ACOs also are prolific in the commercial space and increasingly in state Medicaid delivery systems. Medicaid ACOs are currently active in 12 states and are under development in at least 10 additional states. ⁴⁸ Across all payers (Medicare, commercial, and Medicaid), there were 1,588 existing public and private ACOs in 2019 covering nearly 44 million people. ⁴⁹

In almost all instances, ACO delivery and payment reforms are aimed at adult populations.⁵⁰ The uptake of ACOs focused on children has been limited, yet there is considerable overlap in the core elements of an ACO model and accepted principles for effective pediatric care, including patient- and family-centered care, care coordination, robust primary care medical homes, and quality measurement focused on outcomes. 51 As noted above, children have not been a focus of ACO efforts because they generally are a low-cost population and current ACO models are not designed to reward long-term improvements in quality and outcomes.⁵² Despite the opportunity to leverage ACOs on a much larger scale to improve the health and well-being of children, there is a mismatch between ACO annual savings targets and the longerterm trajectory that is required to realize improved health at lower costs for children.

Bundled payments are a single payment for a group of clinically related medical services, often over a timelimited "episode." Bundled payments are designed to incentivize better coordination among health care

providers treating a patient during an episode of care. Some of the highest-profile bundles are being developed by CMMI and are occurring in the Medicare program, such as the Bundled Payments for Care Improvement Advanced model, with some strong, positive impacts on costs.⁵³ Bundled payments have been adopted by commercial insurers and employers, and there are significant efforts underway in Medicaid and among private payers.⁵⁴

With the exception of maternity services, there has not been a significant uptake of bundled payments for child health services because the financial paradigm of bundled payments is to target higher-cost acute medical conditions in adult populations (e.g. hip replacement, hospital inpatient cardiac or orthopedic procedures) with clear savings potential generated by fee-for-service incentives (e.g., by standardizing medical device costs). 55 However, changing incentives for pediatric providers could similarly help to finance preventive interventions, particularly for children with acute episodes of physical or mental illness. For example, Ohio's Medicaid program is implementing a pediatric acute lower respiratory infection episode of care payment as part of its statewide health care transformation efforts.56

Primary care medical homes refers to the transformation of primary care through a teambased approach, including the patient-centered medical home (PCMH). The PCMH model aims to coordinate patient care and to make connections to community resources to support patient health. CMMI is testing various medical home models, including the Comprehensive Primary Care Plus (CPC+) initiative and the Primary Care First model. However, both are largely focused on adult populations. ^{57,58}

The medical home model has been widely adopted by private payers and in state Medicaid delivery systems.⁵⁹ Notably for children, there has been a moderate uptake of the PCMH model or other primary care medical home models for the pediatric population. Indeed, the concept of medical home began in the pediatric community. A common primary care medical home model for children is focused on children with medical complexity (CMC) and integrates a primary care medical home with tertiary care. 60,61 This integrated model for CMC is the exception that proves the rule. By focusing on short-term avoidable costs, it perpetuates the existing model and framework, and keeps children from being meaningfully included in payment reform. CMC are a small subgroup of CSHCN, defined as children and youth with chronic conditions associated with medical fragility, substantial functional limitations, increased health and other service needs, and increased health care costs. 62 Although CMC account for a small portion of children, CMC consume about one-third of all child health expenditures and account for more than 40% of all child hospital deaths. 63 These factors align CMCfocused models with existing health care transformation efforts focused on reducing health care costs and improving health care quality.

Unfortunately, broader pediatric medical homes have largely not been incorporated into PCMH frameworks for the Centers for Medicare & Medicaid Services (CMS) and commercial insurers, missing an important opportunity to establish primary care as the foundation to comprehensive, coordinated care delivery with financial accountability not just for adults but also for children. 64

For example, some of the most effective pediatric models for managing and preventing ACEs, such as DULCE (Developmental Understanding and Legal Collaboration for Everyone) and HealthySteps, include basing an interdisciplinary team in a pediatric medical home. DULCE is an evidence-based pediatric intervention that leverages an interdisciplinary team consisting of a family specialist, medical provider, legal partner, early childhood representative, mental health representative, and a clinical administrator to support families during the first six months of a baby's life. 65 HealthySteps is an evidence-based, interdisciplinary pediatric primary care program that promotes parenting and healthy development for babies and toddlers, with an emphasis on families in low-income communities. 66 There is a natural synergy between evidence-based primary care programs such as DULCE and HealthySteps and a model such as CPC+, which also leverages interdisciplinary teams to deliver primary care but to adults rather than children. An advanced primary care model such as CPC+ could leverage existing evidence-based childhood interventions and adapt to meet the needs of children.

The PCMH model and other primary care medical home models are ready to expand their provision of services beyond CMC and CSHCN to provide comprehensive, team-based, coordinated health care to all children.

A New Vision for Children's Health Care

Despite a body of evidence that shows interventions in early childhood could prevent the need for high-cost care later in life,⁶⁷ delivery system and payment reform efforts, driven by the pursuit of reduced costs in the short term and midterm, have been almost entirely focused on adults and seniors. There is a disconnect between how the health care transformation enterprise approaches reducing costs and improving outcomes for adults, and how it ignores the systemic factors driving poor health outcomes in children, which can lead to high costs in adult populations.

In order for health and health care stakeholders to meaningfully transform the health care system and realize the long-term benefits, national and state leaders must envision and deploy a new way of delivering health care for children. The health care transformation enterprise must make the commitment to address whole-person care, which addresses medical, behavioral, and social needs⁶⁸ over the life course, starting at preconception and going through infancy, early childhood, and beyond. It must also acknowledge the critical role that families and caregivers play in a child's life. This new vision for children's health must serve families together in two- or three-generation approaches that address the needs of parents and break cycles of violence and trauma that also influence long-term health outcomes. A new approach that invests upstream in prevention could

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leverage the existing momentum and infrastructure of delivery system and payment reform efforts to establish clear and measurable objectives that hold children's health care providers accountable for improving children's health and well-being.

A necessary condition for incorporating children into payment and delivery reform is changing the way we calculate return on investment when we evaluate children's programs. When we evaluate evidence-based interventions that improve the health and well-being of children and their families in large-scale pilots, we should consider the lifelong consequences of limited access to health care and poor health in early childhood and childhood trauma as a cost to our health care system. As described below, evidence-based interventions are ready for these large-scale pilots.

How to Get Started: Building on and Scaling up Existing Models to Advance System Transformation for Children

While there are a number of existing models that demonstrate evidence-based best practices that are working to improve children's health and wellbeing, those models and interventions have not been brought to scale. Below is an overview of two categories of evidence-based interventions — clinical and support services interventions — that could be integrated immediately into delivery system and payment reform efforts, and scaled nationally.

Clinical Interventions

Integrate Primary Care and Behavioral Health.

Integrating behavioral health into a primary care medical home is a strong fit for pediatric settings. Integrated primary care and behavioral health is

foundational to providing whole-person care and allows providers to establish a seamless care delivery and referral process that ensures children are not only receiving the right medical interventions but also the right behavioral, social, or trauma-specific services with practitioners who are trained in trauma-informed care. ⁶⁹ In a fully integrated system of care, behavioral health practitioners and services for children and their adult caregivers would be co-located in the primary care setting. Further, co-located providers would have direct communication with each other and work from a shared care plan for their patients.

There are multiple forms of primary care medical home models, such as a PCMH, that can be leveraged to integrate behavioral health.70 Common among all primary care medical home models is the goal of providing comprehensive care that establishes accountability for meeting the patient population's physical and mental health care needs, including prevention and wellness, acute care, and chronic care.⁷¹ This emphasis on comprehensive, responsive teambased care makes PCMH well suited to meet the timesensitive developmental and medical needs of children as well as the behavioral health needs of parents and other caregivers, which can have a dramatic impact on children's lives. By definition, primary care medical homes are well positioned to integrate behavioral health and primary care.

Another promising model comes from the example of Project Catalyst: Statewide Transformation on Health and Intimate Partner Violence (IPV), which is supported by the U.S. Department of Health and Human Services and administered by Futures Without Violence. The leadership teams for this project are working at the state level to build partnerships between domestic violence agencies and community health centers to better

recognize and respond to the needs of victims of family violence and human trafficking in a multigenerational way. The project uses comprehensive training curricula, health care provider resources, and policy development to integrate IPV and human trafficking response into the health care delivery system. This model has shown promising results for the integration of services for survivors of violence and trafficking and holds important lessons for how to serve children and families through integrated care across stakeholders and disciplines — and how to engage health care providers in addressing trauma and violence.⁷²

Address the Symptoms of Trauma of Parents and Caregivers. To build strong and resilient families — a cornerstone support for children's well-being — health care systems must address the symptoms of trauma being experienced by children and parents and caregivers who have been exposed to violence or abuse. Health professionals can help play a critical role in supporting survivors. Simply talking about the issue and offering resources can improve outcomes. For instance, women who talked to their health care providers about abuse were four times more likely to use an intervention.⁷³ Importantly, evidence-based interventions now exist. One simple intervention that can be implemented in primary care practices is the CUES protocol (which stands for confidentiality, universal education + empowerment, support). This model has also been implemented in pediatric, primary care, and home

visiting programs with parents. It relies on strong partnerships between health systems and community-based programs and has shown promising results. ^{74,75} Child-parent psychotherapy (CPP) is another evidence-based intervention for children aged o-5. CPP is a dyadic, relationship-based treatment for parents and young children that aims to help restore normal developmental functioning in the wake of domestic violence and trauma and focuses on restoring the attachment relationships that are negatively affected by violence. ⁷⁶

Connect Community Health Workers for Care Coordination to Pediatric Practices and Home Visiting. Community health workers (CHWs) are front-line public health workers who are trusted members of, and deeply rooted in, the communities they serve. There is substantial evidence that CHWs play a unique and invaluable role within health care teams.⁷⁸ For example, CHWs can help families enroll their children in coverage, increase access to screening and preventive services, and improve care coordination and disease management for children with chronic condition and those with complex health and social needs.⁷⁹ CHWs serve as critical culturally responsive liaisons between parents and pediatric care and can also help to connect parents to needed social services. Some CHW programs include curricula that support parents, including those experiencing IPV, and provide a two-generation response to families and caregivers.80

Health care systems must address the symptoms of trauma being experienced by children and parents and caregivers who have been exposed to violence or abuse. Some of the most promising pediatric delivery reform models include CHWs as part of their clinical practice workforce. For example, the Pediatric Community Health Worker program at New York-Presbyterian Hospital focuses on families with CSHCN. The CHWs serve on interdisciplinary teams at the pediatric PCMHs and are imbedded in community-based organizations so they can provide the essential link between clinical care and community-based services and supports. Results from the work include an 85% success rate of connecting caregivers with unmet social needs to social services resources (housing, food insecurity, and insurance).81

Healthy Families America (HFA) is a national evidenced-based program that aims to improve the health of pregnant women and their babies, improve birth outcomes, strengthen parent-child bonding, and create a healthy environment for the family through home visiting services. The program operates in 38 states, the District of Columbia, and five U.S. territories. HFA utilizes CHWs to educate parents during pregnancy and the early parenting years about the growth and development of a baby, support parents in bonding with their baby, help create a safe and caring home for the family, and provide assistance to access community resources.

Identify and Respond to ACEs. Routinely addressing ACEs and trauma is integral to a trauma-informed approach to care delivery. Assessment for ACEs in primary care settings is evidence-based; however, identification of ACEs as a stand-alone intervention is inadequate. Furthermore, screening as a stand-alone intervention is inadequate. Parents of young children should be given information about the impact trauma, violence, and ACEs have on health and well-being;

about strategies that promote resiliency; and about where to receive services regardless of their choice to disclose or not disclose abuse. In an integrated system of care, many of those services would be co-located in the primary care practice, and families would be given a warm hand-off to the referral partner, enabling integrated service delivery. For example, California is working to scale up a statewide ACEs screening program and trauma-informed provider care⁸² based on a model developed previously at the Center for Youth Wellness.⁸³

Expand Home Visiting Programs.84 One home visiting model, the Nurse-Family Partnership, is an evidence-based prenatal and early childhood program where trained nurses regularly visit young, first-time mothers, starting early in pregnancy and continuing until the child reaches age 2.85 Expectant mothers are able to develop a strong, trusted relationship with a health care provider who serves as a resource for the mothers on the full scope of health, health care, and social support services needed to keep new mothers and their babies healthy. The Nurse-Family Partnership has a robust evidence base, 86 as do other home visiting programs, such as the HFA program mentioned above. Regardless of the model selected, it is essential that home visitors are trained in helping parents navigate routine health care services for themselves and their children and identifying and responding to family violence and parental trauma. The Health Resources and Services Administration has recently funded a quality improvement initiative, known as a Collaborative Improvement and Innovation Network (CollN), to help home visiting programs offer universal education and effective supports for families experiencing abuse.87,88

Support Services

Provide Evidence-Based Parenting Classes.

Evidence-based parenting classes have been shown to improve the health and well-being of the children and parents they serve, and they are a principal tool for preventing and mitigating ACEs. For example, CenteringParenting is an evidence-based group care model of well-child and well-woman care that incorporates health assessment, education, and support with the goal of providing family-centered pediatric and well-woman care to better meet the health and social needs of patient populations.⁸⁹ The U.S. health care system currently lacks a payment and delivery infrastructure to support the availability of these classes at scale. As a pilot program, in April 2019, nine health centers across seven states won awards to implement CenteringParenting. Both Michigan and Oregon have gone further and use Medicaid funds to support evidence-based parenting programs.90

Integrate Family Peer Supports. Peer-delivered family support and advocacy has been standard practice in children's mental health services for nearly three decades. 91 However, such services are not widely reimbursed by health insurance for children, although peer supports for adults with serious behavioral health challenges often are reimbursed by health insurance. 92 Family peer support models offer guidance, hope, advocacy, and camaraderie for parents and caregivers of children and youth receiving services from mental health, substance use, and related service systems. Through face-toface support groups, phone calls, or other meetings, parent support providers offer their personal experience as parents of children living with social, emotional, behavioral, or substance use challenges

to support similarly situated parents or caregivers.⁹³ Peer supports can be particularly effective for families who have experienced violence and trauma.⁹⁴ Parent providers undergo specialized training to provide support to other parents and caregivers. The family peer support model helps ensure parents and caregivers have the support and resources needed to effectively navigate various health, education, child welfare, juvenile justice, and social service systems to help their child access appropriate services.⁹⁵

While there are opportunities for health care stakeholders who are not policymakers to continue development and implementation of delivery system reform for children, policymakers must also act.

Overall evidence clearly suggests these programs are effective. Studies indicate the many benefits of family and youth peer support, including increased service initiation and completion; reduced symptoms; increased function at discharge; reduced stress; improved mental health, well-being, and self-efficacy; and increased engagement in treatment services.⁹⁶

Health care payers and providers can integrate these and other evidence-based early childhood and two-generation interventions into their efforts to transform the payment and delivery system. State Medicaid programs are a vital partner in the undertaking of this work given the opportunities in Medicaid to seek reimbursement for services beyond clinical

care. Because peer supports are an established Medicaid-reimbursable service that most states offer to adults with mental illness and/or substance use disorders, state Medicaid agencies need no special waiver or other authority to begin offering traumainformed behavioral health supports for parents. Moreover, parent support providers are the kind of nontraditional service that tends to be strongly incentivized by more flexible and accountable payment models, in which measures of child developmental success and parental well-being are tied to significant financial rewards.

Recommendations for Policymakers

The following are recommendations for Congress and state leaders to begin making immediate investments in children's health and well-being.

» Congress should mandate CMS to design and test new delivery and payment models exclusively focused on early intervention and prevention for children using evidence-based interventions, including those highlighted in this paper. Congress should require that in designing these new models, CMS should expand CMMI's statutorily defined goal of achieving short-term savings to include

- requirements that (1) a percentage of all short-term savings produced and certified by the CMS Office of the Actuary within tested payment models (e.g., 10%) be reinvested in upstream interventions aimed at longer-term health outcomes for children that will produce savings over the life course and (2) models are prioritized that more effectively link payment to those same goals.
- » CMMI should work with states to apply existing reformed payment models, including ACOs, bundled payments, and CPC+, to pediatricians as stand-alone pilots.
- Congress should mandate new preventive services under both Title XIX (Medicaid) and Title XXI (CHIP) of the Social Security Act for children exposed to ACEs. Those services should include evidence-based parenting classes, family peer support and advocacy services, including domestic violence services, and evidence-based home visiting programs, such as the Nurse-Family Partnership program or Healthy Families America model.

- Sovernors should develop and fund children's cabinets that include interagency participation across the sectors that influence children's and families' health and well-being to develop and implement a statewide action plan to improve the health and well-being of children in their state. Governors should include the following agencies in the children's health cabinet: Medicaid, public health, child welfare, behavioral health, corrections, education, and public safety.
- States should leverage their primary Medicaid authorities, including Section 1115 Medicaid waivers, home and community-based services waivers, and Medicaid managed care, to build and strengthen comprehensive Medicaid-based payment and delivery systems for children who are at risk but not medically complex. The system should incentivize and/or directly reimburse interdisciplinary care teams, home-based interventions, and a suite of support services for children with ACEs. States should make changes to pediatrician payment, paying for new services tied to social determinants of health, and building administrative infrastructure to create and oversee primary care linkages to other service delivery systems that touch children. To fund this work, states should consider taking a portion of savings from their adult-focused payment and delivery reform efforts and reinvesting upstream into children's care.

Conclusion

Health care payment and delivery system reform for children is one of our most urgent and most powerful tools to address the health inequities that have become all too apparent in 2020. However, new legislation and regulatory policy change at the federal and state levels are needed to redirect the health care transformation enterprise to proactively improve children's health and health care. In particular, as the health care transformation enterprise reinforces efforts to move towards value-based care in light of COVID-19, it should make investments in evidencebased interventions that address the social factors in early childhood that drive long-term health outcomes. A successful strategy, particularly during the COVID-19 generated economic downturn, may include requiring that a percentage of savings generated through alternative payment models be reinvested in such interventions. It is time for federal and state action to integrate evidence-based services for children into delivery system and payment reform efforts.

Endnotes

- 1 Amber Hewitt, Eliot Fishman, Winne Luo, Lee Taylor-Penn, "The Fierce Urgency of Now: Federal and State Policy Recommendations to Address Health Inequities in the Era of COVID-19", Families USA, 05.26.2020.
- ² Robin Rudowitz, Kendal Orgera, and Elizabeth Hinton, "Medicaid Financing: The Basics," Kaiser Family Foundation, March 21, 2019, https://www.kff.org/reportsection/medicaid-financing-the-basics-issue-brief/.
- ³ S. Wilkniss et al., *Building Complex Care Programs: A Road Map for States* (Washington, DC: National Governors Association Center for Best Practices, June 2017), https://www.nga.org/wp-content/uploads/2019/08/ComplexCare_RoadMap_12.17 Health.pdf.
- ⁴ Alliance for Health Policy, "Chapter 6"; Rabah Kamal, Daniel McDermott, and Cynthia Cox, "How Has U.S. Spending on Healthcare Changed over Time?" Peterson-KFF Health System Tracker, December 20, 2019, https://www.healthsystemtracker.org/chart-collection/u-s-spending-healthcare-changed-time/#itemhealth-spending-growth-has-outpaced-growth-of-the-u-seconomy_2017.
- ⁵ West Health Institute and NORC at the University of Chicago, "Americans' Views of Healthcare Costs, Coverage, and Policy" (Issue Brief), March 2018, https://www.norc.org/PDFs/WHI%20 Healthcare%20Costs%20Coverage%20and%20Policy/WHI%20 Healthcare%20Costs%20Coverage%20and%20Policy%20 Issue%20Brief.pdf.
- ⁶ Alliance for Health Policy, "Chapter 6 Delivery System Reform," *Sourcebook*, August 31, 2017, http://www.allhealthpolicy.org/sourcebook/delivery-system-reform/.
- ⁷ Centers for Medicare & Medicaid Services, "National Health Expenditure Projections 2018-2027: Forecast Summary," https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/ForecastSummary.pdf.
- ⁸ Committee for a Responsible Federal Budget and Concerned Actuaries Group, "Health-Care Spending in the Long-Term Outlook," *The Bottom Line* (blog), July 2, 2018, http://www.crfb.org/blogs/health-care-spending-long-term-outlook.
- ⁹ Sarah M. Bartsch, et al., "The Potential Health Care Costs and Resource Use Associated with COVID-19 in the United States," *Health Affairs* (April 2020), https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.00426

- ¹⁰ Michael E. Porter and Thomas H. Lee, "The Strategy That Will Fix Health Care," *Harvard Business Review* (October 2013), https://hbr.org/2013/10/the-strategy-that-will-fix-health-care.
- ¹¹ Porter and Lee, "The Strategy."
- ¹² Michael E. Porter, Erika A. Pabo, and Thomas H. Lee, "Redesigning Primary Care: A Strategic Vision to Improve Value by Organizing around Patients' Needs," *Health Affairs* 32, no. 3 (March 2013): 516–25, https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2012.0961.
- ¹³ Susan Hayes et al., "High-Need, High-Cost Patients: Who Are They and How Do They Use Health Care? A Population-Based Comparison of Demographics, Health Care Use, and Expenditures," The Commonwealth Fund, August 29, 2016, https://www.commonwealthfund.org/publications/issue-briefs/2016/aug/highneed-high-cost-patients-who-are-they-and-how-do-they-use.
- ¹⁴ Centers for Medicare & Medicaid Services, "Innovation Models," https://innovation.cms.gov/initiatives/#views=models.
- ¹⁵ Health Care Cost Institute, 2017 *Health Care Cost and Utilization Report* (February 2019), https://www.healthcostinstitute.org/ https://www.healthcostinstitute.org/ https://www.healthcostinstitute.org/ https://www.healthcostinstitute.org/ https://www.healthcostinstitute.org/ https://www.healthcostinstitute.org/ https://www.healthcostinstitute.org/ https://www.healthcostins.html https://www.healthcostins.html https://www.healthcost.ntml https://www.healthcost.ntml https://www.healthcost.ntml https://www.healthcost.ntml https://www.healthcost.ntml <a href="mages/easyblog_articles/276/HCCI-2017-Health-Care-Cost-and-utilization-n
- ¹⁶ Martin Cohen et al., Systematic Review of CMMI Primary Care Initiatives Final Report (prepared for the Centers for Medicare & Medicaid Services by Kennell and Associates Inc. and RTI International, February 2018), https://innovation.cms.gov/Files/reports/primarycare-finalevalrpt.pdf.
- ¹⁷ Jorge Luis García et al., "Quantifying the Life-Cycle Benefits of a Prototypical Early Childhood Program," NBER Working Paper, no. 23479 (Cambridge, MA: National Bureau of Economic Research: June 2017), https://heckmanequation.org/www/assets/2017/01/w23479.pdf.
- ¹⁸ Suzanne C. Brundage and Chad Shearer, *Achieving Payment Reform for Children through Medicaid and Stakeholder Collaboration* (United Hospital Fund), https://uhfnyc.org/media/filer_public/f1/91/f1919d49-2158-467c-b64f-d3e36e32c033/achieving_payment_reform_for_children_uhf.pdf.
- ¹⁹ Merle McPherson et al., "A New Definition of Children with Special Health Care Needs," *Pediatrics* 102, no. 1 (July 1998): 137–139, https://doi.org/10.1542/peds.102.1.137.

- ²⁰ Samantha Artiga and Petry Ubri, "Key Issues in Children's Health Coverage," Kaiser Family Foundation, February 15, 2017, https://www.kff.org/medicaid/issue-brief/key-issues-in-childrens-health-coverage/.
- ²¹ Shannon M. Monnat and Raeven Faye Chandler, "Long-Term Physical Health Consequences of Adverse Childhood Experiences," *The Sociological Quarterly* 56, no. 4 (2015): 723–52, https://doi.org/10.1111/tsq.12107.
- ²² C.D. Bethell et al., "Adverse Childhood Experiences Among US Children" (Issue Brief), Child and Adolescent Health Measurement Initiative, Johns Hopkins Bloomberg School of Public Health, October 2017, https://www.cahmi.org/wp-content/uploads/2018/05/aces fact sheet.pdf.
- ²³ Jack P. Shonkoff et al., "The Lifelong Effects of Early Childhood Adversity and Toxic Stress," *Pediatrics* 129, no. 1 (2012): e232–e246, https://doi.org/10.1542/peds.2011-2663.
- ²⁴ Elaine Arkin, ed., et al., *Time to Act: Investing in the Health of Our Children and Communities* (Robert Wood Johnson Foundation Commission to Build a Healthier America, January 2014), https://www.rwjf.org/content/dam/farm/reports/reports/2014/wjf409002#page=44.
- ²⁵ Centers for Disease Control and Prevention Injury Prevention & Control, Division of Violence Protection, "Adverse Childhood Experiences: Looking at How ACEs Affect Our Lives and Society" (Infographic), https://vetoviolence.cdc.gov/apps/phl/images/ACE_Accessible.pdf.
- ²⁶ CDC Injury Prevention & Control, "Adverse Childhood Experiences."
- ²⁷ CDC Injury Prevention & Control, "Adverse Childhood Experiences."
- ²⁸ Cora Peterson et al., "Lifetime Economic Burden of Intimate Partner Violence Among U.S. Adults," *American Journal of Prevention Medicine*, October 2018, 55(4) 433-4444, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6161830/
- ²⁹ Christina D. Bethell, Narangerel Gombojav, and Robert C. Whitaker, "Family Resilience and Connection Promote Flourishing among US Children, Even Amid Adversity," *Health Affairs* 38, no. 5 (May 2019), https://doi.org/10.1377/hlthaff.2018.05425.
- ³⁰ B. Bastian et al., "Mortality Trends in the United States, 1900–2017," National Center for Health Statistics, 2019, https://www.cdc.gov/nchs/data-visualization/mortality-trends/index.htm.

- ³¹ Sally C. Curtin and Melonie Heron, "Death Rates Due to Suicide and Homicide among Persons Aged 10–24: United States, 2000–2017," NCHS Data Brief, no. 352 (Hyattsville, MD: National Center for Health Statistics, October 2019), https://www.cdc.gov/nchs/data/databriefs/db352-h.pdf.
- 32 Curtin and Heron, "Death Rates."
- ³³ Lynn A. Karoly, M. Rebecca Kilburn, and Jill S. Cannon, *Proven Benefits of Early Childhood Interventions* (Santa Monica, CA: RAND Corporation, 2005), https://www.rand.org/pubs/research_briefs/RB9145.html.
- ³⁴ Lynn A. Karoly, M. Rebecca Kilburn, and Jill S. Cannon, *Proven Benefits of Early Childhood Interventions* (Santa Monica, CA: RAND Corporation, 2005), https://www.rand.org/pubs/research_briefs/RB9145.html.
- 35 Karoly, Kilburn, and Cannon, Proven Benefits.
- ³⁶ Karoly, Kilburn, and Cannon, *Proven Benefits*.
- ³⁷ Melinda K. Abrams et al., "The Affordable Care Act's Payment and Delivery System Reforms: A Progress Report at Five Years," The Commonwealth Fund, May 2015, https://www.commonwealthfund.org/sites/default/files/documents/media-files-publications-issue-brief-2015-may-1816-abrams-aca-reforms-delivery-payment-rb.pdf.
- ³⁸ Government Accountability Office, "CMS Innovation Center: Model Implementation and Center Performance" (GAO-18-302), March 26, 2018, https://www.gao.gov/products/gao-18-302.
- ³⁹ Yalda Jabbarpour et al., *Advanced Primary Care: A Key Contributor to Successful ACOs* (Washington, DC: Patient-Centered Primary Care Collaborative and Robert Graham Center, August 2018), https://www.pcpcc.org/sites/default/files/resources/PCPCC%202018%20Evidence%20Report.pdf.
- 40 http://www.medpac.gov/docs/default-source/reports/jun18_ch8_medpacreport_sec.pdf?sfvrsn=0
- ⁴¹ American Academy of Pediatrics, "Accountable Care Organizations (ACOs) and Pediatricians: Evaluation and Engagement," 2011, https://www.aap.org/en-us/professional-resources/practice-transformation/getting-paid/Pages/
 https://www.aap.org/en-us/professional-resources/practice-transformation/getting-paid/Pages/
 https://www.aap.org/en-us/professional-resources/practice-transformation/getting-paid/Pages/
 https://www.aap.org/en-us/professional-resources/practice-transformation/getting-paid/Pages/
 https://www.aap.org/en-us/professional-resources/practice-transformation-getting-paid/Pages/
 https://www.aap.org/en-us/professional-resources/practice-transformation-getting-paid/Pages/
 https://www.aap.org/en-us/pages/
 https://www.aap.org/en-us/pages/
 https://www
- ⁴² Bailit Health, *Value-Based Payment Models for Medicaid Child Health Services: Report to the Schuyler Center for Analysis and Advocacy and the United Hospital Fund* (July 13, 2016), https://uhfnyc.org/media/filer_public/02/4f/024fdd3f-4fd8-426b-86b8-128ef485f465/bailit-vbp-final_20160713.pdf.

- ⁴³ Centers for Medicare & Medicaid Services, "Integrated Care for Kids (InCK) Model," last updated December 19, 2019, https://innovation.cms.gov/initiatives/integrated-care-for-kids-model/.
- ⁴⁴ Centers for Medicare & Medicaid Services, "State Innovation Models Initiative: General Information," last updated December 6, 2019, https://innovation.cms.gov/initiatives/state-innovations/.
- ⁴⁵ CMS, "State Innovation Models Initiative."
- ⁴⁶ Medicare Payment Advisory Commission (MedPAC), "Chapter 6: Assessing the Medicare Shared Savings Program's Effect on Medicare Spending," in *Report to the Congress: Medicare and the Health Care Delivery System*, (Washington, DC: MedPAC, June 2019), <a href="http://www.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.gov/docs/default-source/reports/jun19.ch6.medpac.g
- ⁴⁷ James M. Perrin et al., "Pediatric Accountable Care Organizations: Insight from Early Adopters," *Pediatrics* 139, no. 2 (February 2017): e20161840, https://doi.org/10.1542/peds.2016-1840.
- ⁴⁸ Center for Health Care Strategies, "Medicaid Accountable Care Organizations: State Update," June 2017, https://www.chcs.org/media/ACO-Fact-Sheet-06-13-17.pdf.
- ⁴⁹ David Muhlestein et al., "Spread of ACOs and Value-Based Payment Models in 2019: Gauging the Impact of Pathways to Success," *Health Affairs Blog*, October 21, 2019, https://www.healthaffairs.org/do/10.1377/hblog20191020.962600/full/.
- ⁵⁰ GAO, "CMS Innovation Center."
- ⁵¹ Perrin et al., "Pediatric Accountable Care Organizations."
- ⁵² Perrin et al., "Pediatric Accountable Care Organizations."
- ⁵³ Amol S. Navathe et al., "Cost of Joint Replacement Using Bundled Payment Models," *JAMA Internal Medicine* 177, no. 2 (February 2017): 214–22, https://doi.org/10.1001/jamainternmed.2016.8263.
- ⁵⁴ Suzanne F. Delbanco, "The Payment Reform Landscape: Bundled Payment," *Health Affairs Blog*, July 2, 2014, https://www.healthaffairs.org/do/10.1377/hblog20140702.039879/full/.
- ⁵⁵ Aaron Glickman, Claire Dinh, and Amol S. Navathe, "The Current State of Evidence on Bundled Payments" (Issue Brief), Leonard Davis Institute of Health Economics, University of Pennsylvania, vol. 22, no. 3, October 2018, https://ldi.upenn.edu/sites/default/files/pdf/LDI%20Issue%20Brief%202018%20No.%203_41.pdf.
- ⁵⁶ Ohio Department of Medicaid, "Episodes of Care," accessed January 20, 2020, https://medicaid.ohio.gov/provider/
 https://medicaid.ohio.gov/provider/
 Paymentlnnovation/Episodes#1887209-episodes-linked-to-payment.

- ⁵⁷ Centers for Medicare & Medicaid Services, "Comprehensive Primary Care Plus (CPC+) Practice Frequently Asked Questions," August 1, 2016, https://innovation.cms.gov/Files/x/cpcplus-fags.pdf.
- ⁵⁸ Centers for Medicare & Medicaid Services, "Primary Care First Model Options," accessed January 28, 2020, https://innovation.cms.gov/initiatives/primary-care-first-model-options/.
- ⁵⁹ CMS, "Primary Care First Model Options."
- ⁶⁰ Eyal Cohen et al., "Status Complexicus? The Emergence of Pediatric Complex Care," *Pediatrics* 141, Suppl. 3 (March 2018): 141, S202-S211, https://doi.org/10.1542/peds.2017-1284E.
- ⁶¹ Eyal Cohen et al., "Integrated Complex Care Coordination for Children with Medical Complexity: A Mixed-Methods Evaluation of Tertiary Care-Community Collaboration," *BMC Health Services Research* 12 (2012): 366, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3529108/.
- 62 Cohen et al., "Status Complexicus?"
- 63 Cohen et al., "Status Complexicus?"
- ⁶⁴ Centers for Medicare & Medicaid Services, "Pediatric Alternative Payment Model Opportunities: General Information," last updated January 8, 2020, https://innovation.cms.gov/initiatives/pediatric-apm.
- ⁶⁵ Center for the Study of Social Policy, "Developmental Understanding and Legal Collaboration for Everyone (DULCE)," accessed January 30, 2020, https://cssp.org/our-work/project/dulce/.
- ⁶⁶ Zero to Three, "What Is HealthySteps?" updated July 2018, https://www.healthysteps.org/article/what-is-healthysteps-11.
- ⁶⁷ Karoly, Kilburn, and Cannon, *Proven Benefits*.
- ⁶⁸ California Health Care Safety Net Institute, "Whole Person Care Support," accessed February 2, 2020, https://safetynetinstitute.org/membersupport/wpcsupport/.
- ⁶⁹ Meryl Schulman and Alexandra Maul, "Screening for Adverse Childhood Experiences and Trauma," Center for Health Care Strategies, February 2019, https://www.chcs.org/media/TA-Tool-Screening-for-ACEs-and-Trauma_020619.pdf.
- ⁷⁰ Agency for Healthcare Research and Quality, "Primary Care Transformation," last reviewed September 2015, https://www.ahrq.gov/ncepcr/research-transform-primary-care/transform/index.html.
- ⁷¹ Agency for Healthcare Research and Quality, "Primary Care Transformation."

- ⁷² Family and Youth Services Bureau, "Project Catalyst Leads to Successful Interventions for Survivors of Abuse," October 9, 2018, https://www.acf.hhs.gov/fysb/news/project-catalyst-leads-to-successful-interventions-for-survivors-of-abuse.
- ⁷³ Laura A. McCloskey et al., "Assessing Intimate Partner Violence in Health Care Settings Leads to Women's Receipt of Interventions and Improved Health," *Public Health Reports* 121, no. 4 (2006): 435–44, https://www.ncbi.nlm.nih.gov/pmc/articles/ PMC1525344/.
- ⁷⁴ Elizabeth Miller and Jocelyn Anderson, "Evidence-Based 'CUES Intervention' to Address Intimate Partner Violence/Human Trafficking in Primary Care Settings, and Tools for Ryan White-Funded HIV Programs" (Webinar), Futures Without Violence, August 8, 2018, https://www.futureswithoutviolence.org/wp-content/uploads/Demo-Site-Webinar-3-Final.pdf.
- ⁷⁵ Elizabeth Miller et al., *Integrating Prevention and Intervention: A School Health Center Program to Promote Healthy Relationships* (February 2015), https://www.ncjrs.gov/pdffiles1/nij/grants/248640.pdf.
- ⁷⁶ Alicia F. Lieberman, Patricia Van Horn, and Chandra Ghosh Ippen, "Toward Evidence-Based Treatment: Child-Parent Psychotherapy with Preschoolers Exposed to Marital Violence," *Journal of the American Academy of Child & Adolescent Psychiatry* 44, no. 12 (December 2005): 1241–48, https://jaacap.org/article/S0890-8567(09)62235-8/fulltext.
- 77 American Public Health Association (APHA), "Community Health Workers," accessed January 20, 2020, https://www.apha.org/apha-communities/member-sections/community-health-workers.
- ⁷⁸ Community Preventive Services Task Force, "Cardiovascular Disease: Interventions Engaging Community Health Workers," *Guide to Community Preventive Services*, accessed October 26, 2016. https://www.thecommunityguide.org/findings/cardiovascular-disease-prevention-and-control-interventions-engaging-community-health.
- ⁷⁹ Sinsi Hernández-Cancio, Shadi Houshyar, and Maria Walawender, *Community Health Workers: Key Partners in Improving Children's Health and Eliminating Inequities* (Washington, DC: Families USA, September 2018), https://familiesusa.org/wp-content/uploads/2019/09/HE_CHWs-and-Kids_Issue-Brief.pdf.
- ⁸⁰ Ashley Wennerstrom et al., "Creating Safe Spaces: A Community Health Worker-Academic Partnered Approach to Addressing Intimate Partner Violence," *Ethnicity & Disease* 28, Suppl. 2 (2018): 317–24, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6128352/.

- 81 New York-Presbyterian Hospital, "Current Work at the Center for Community Health Navigation," https://www.nyp.org/acn/community-programs/center-for-community-health-navigation/our-work.
- ⁸² California Department of Health Care Services (DHCS), "Trauma Screenings and Trauma-Informed Care Provider Trainings," last modified January 29, 2020, https://www.dhcs.ca.gov/provgovpart/Pages/TraumaCare.aspx.
- ⁸³ Center for Youth Wellness, Policy Report: Children Can Thrive: A Vision for California's Response to Adverse Childhood Experiences, https://centerforyouthwellness.org/wp-content/themes/cyw/build/img/building-a-movement/children-can-thrive.pdf.
- ⁸⁴ Nurse-Family Partnership, "About Us," accessed January 20, 2020, https://www.nursefamilypartnership.org/about/.
- ⁸⁵ Social Programs That Work, "Social Programs That Work Review: Evidence Summary for the Nurse Family Partnership," updated January 2020, https://evidencebasedprograms.org/document/nurse-family-partnership-nfp-evidence-summary/.
- ⁸⁶ Social Programs That Work, "Nurse Family Partnership."
- ⁸⁷ Home Visiting Collaborative Improvement and Innovation Network, "About," accessed February 2, 2020, http://hv-coiin.edc.org/about.
- ⁸⁸ Blue Shield of California Foundation, *Breaking the Cycle: A Life Course Framework for Preventing Domestic Violence* (San Francisco, CA: Blue Shield of California Foundation, 2019), https://blueshieldcafoundation.org/sites/default/files/publications/downloadable/BreakingtheCycleLifeCourseFramework.pdf.
- ⁸⁹ Katrina Organ and Tess Solomon, "CenteringParenting: Family Centered Well-Baby and Well-Woman Care," The Institute for Family Health, http://www.institute.org/wp-content/uploads/2017/04/ Organ.pdf.
- ⁹⁰ Kay Johnson and Charles Bruner, "Part Five: Medicaid Financing for Other Needed Services Promote Healthy Child Development within and Beyond the Medical Home," in *A Sourcebook on Medicaid's Role in Early Childhood: Advancing High Performing Medical Homes and Improving Lifelong Health* (Child and Family Policy Center, 2018), 71-86, https://www.cfpciowa.org/documents/filelibrary/medicaid_finance/section_pdfs/Combined_piece_5A8095C6D6B29.pdf.

- ⁹¹ Toni Donnelly, Denise Baker, and Lynda Gargan, "The Benefits of Family Peer Support Services: Let's Examine the Evidence," (Webinar), Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services, accessed January 28, 2020, https://www.nasmhpd.org/sites/default/files/Benefits%20of%20Family%20Peer%20Support%20FIC%20SAMSHA%20Updated.pdf.
- ⁹² Kimberly Eaton Hoagwood et al., "Family Support in Children's Mental Health: A Review and Synthesis," *Clinical Child and Family Psychology Review* 13, no. 1 (December 2009): 1–45, https://www.researchgate.net/publication/40690319 Family Support in Children's Mental Health A Review and Synthesis.
- ⁹³ U.S. Department of Health and Human Services Substance Abuse and Mental Health Services Administration (SAMHSA), "Family, Parent and Caregiver Peer Support in Behavioral Health" (Infographic), https://www.samhsa.gov/sites/default/files/programs_campaigns/brss_tacs/family-parent-caregiver-support-behavioral-health-2017.pdf.
- ⁹⁴ Geetha Gopalan et al., "Engaging Families into Child Mental Health Treatment: Updates and Special Considerations," *Journal of the Canadian Academy of Child and Adolescent Psychiatry/ Journal de l'Académie canadienne de psychiatrie de l'enfant et de l'adolescent* 19, no. 3 (2010): 182–96, https://psycnet.apa.org/record/2011-01783-003.

- ⁹⁵ U.S. Department of Health and Human Services SAMHSA, "Caregiver Peer Support."
- ⁹⁶ Center for Health Care Strategies, "Family and Youth Peer Support Literature Review," September 2013, https://www.chcs.org/media/FYPS_Literature_Review_FINAL.pdf.
- ⁹⁷ U.S. Department of Health and Human Services SAMHSA-HRSA Center for Integrated Health Solutions, "Peer Providers," https://www.integration.samhsa.gov/workforce/team-members/peer-providers.
- ⁹⁸ Center for Health Care Strategies, "Medicaid Financing for Family and Youth Peer Support: A Scan of State Programs," May 2012, https://nwi.pdx.edu/pdf/CHCS-Family_Youth_Peer_Support_Matrix_052512.pdf.
- ⁹⁹ David W. Brown et al., "Adverse Childhood Experiences and the Risk of Premature Mortality," *American Journal of Preventive Medicine* 37, no. 5 (November 2009): 389–396, https://www.aipmonline.org/article/S0749-3797(09)00506-6/fulltext.

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