InCK Marks

Helping Leaders Advance Child Health Care Transformation

WHY KIDS AND WHY COMMUNITY HEALTH WORKERS?

Advancing Primary Child Health Care Practice Transformation and Community Health Responses to Rectify Racial Inequities and Improve Population Health

Charles Bruner, August 2022 Working Paper, with editorial support from Eve Sullivan[1]

Doctors, including pediatricians, have specialized training and expertise in medical conditions, including disease and infirmity, that impact health. Their knowledge and expertise is necessary and often critical to life and health. Doctors also recognize that, while medical care plays a critical role, it addresses only a small portion of what contributes to health and well-being. When all you have is a medical treatment hammer, however, patients can be treated as medically-diagnosable nails. The challenge in advancing health through the medical system is providing doctors and pediatricians with more than a hammer and with the ability, usually through a warm handoff to other care providers, to respond to nonmedical issues affecting health. Nonmedical issues – social, relational, behavioral, and economic – impact so much of a person's, and particularly a child's, health and well-being. While community health workers are not the only staff who can receive this handoff, in many instances and particularly in poor and medically-underserved communities, they are uniquely equipped to effectively respond to these important nonmedical needs.

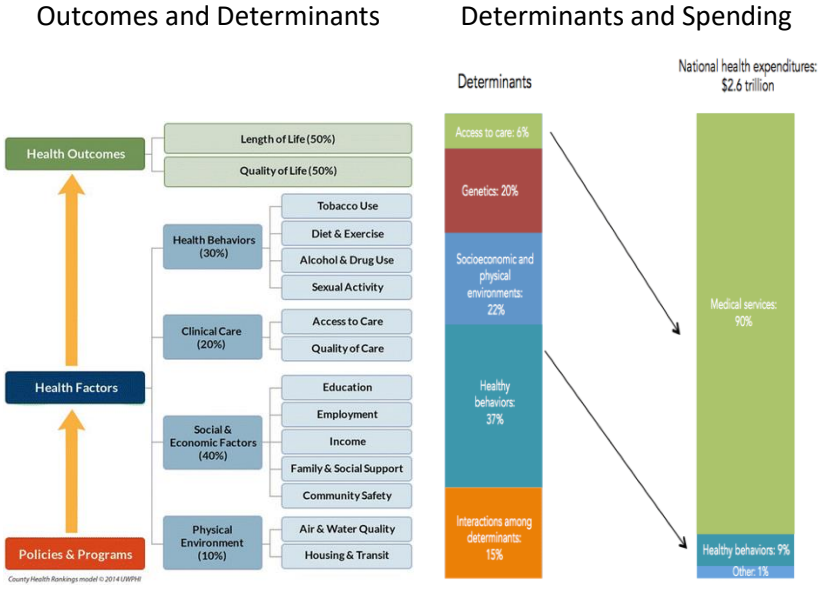
Defining and Improving Health: The Imperative of Addressing Social Determinants. The medical community long has recognized that health is more than the absence of disease or

infirmity. As the World Health Organization's defined it in 1947: "Health represents a state of physical, mental, and social well-being, not merely the absence of disease or infirmity."[2]

The health care community also has recognized that medical care alone plays only a small role in people's health, ten to twenty percent in the most commonly-cited studies.[3] The vast majority, seventy to eighty percent, is attributed social or economic or environmental conditions or lifestyle,[4] which have also been described, both internationally[5] and in the United States,[6] as social determinants of health. While some people use the term "social determinants of health" primarily to apply to economic factors, the research and scholarship on social determinants generally includes social factors such as stress, social ties and relationships, home and community safety and support, and inclusion and non-discrimination.

Costs and Impacts of Health Care in the United States. The overwhelming majority of spending on health in the United States has been to treat disease and infirmity, often at the end of life, with costly medical therapies.[7] Some of these treatments may have negative side effects and do little to prolong life,[8] and some may not address the patient's U.S. has been the leader in advancing medical treatments and technologies in treating disease and infirmity and now spends more per capita on health care than any other nation. The U.S. spends by far the most per capita among all Organisation for Economic Co-operation and Development (OECD) countries: $10,948 annually, with Switzerland next highest at $7,138 annually.[9] Further, this spending is concentrated among older and infirm populations, with the per capita expenditures on those 65 years of age and older more than five times the expenditures for those under 18.[10] The United States now spends nearly 20 percent of its GDP on health care.[11]

Factors Influencing Health and U.S. Health Care Expenditures



Source on Outcomes and Determinants. County Health Rankings Model. University of Wisconsin.

Source on Determinants and Spending. Galea, S (2016). The Public Health Mismatch. *Public Health Post. https://www.publichealthpost.org/databyte/public-health-spending-mismatch/*

At the same time, even with respect to medical conditions, the United States lags many other advanced OECD countries in the prevalence of disease and disability and in the most

profound measures of health, infant and maternal mortality and life expectancy.[12] Further, the huge disparities in health by race, place, and socio-economic status in the United States highlight the urgent need to respond differently to populations that have been historically marginalized or subject to institutional or individual discrimination.[13] With the growing diversity of the United States population, and children leading this change and being the age group most likely to live in poverty and experience adversities,[14] a focus on children is needed to heed the calls for a national reckoning on racial equity in health.[15]

Health Transformation and Value-Based Care. These unfortunate realities have led many in the health care community to call for a transformation of health care. The largest philanthropy devoted to health care, the Robert Wood Johnson Foundation (RWJF), advocates "building a culture of health" by making more ecological and holistic responses to people's health care needs and their well-being. Most recently, RWJF has focused squarely on the health care systems' responsibility to advance racial equity.[16]

Don Berwick, head of the Centers for Medicare and Medicaid Services under President Barack Obama, wrote a seminal article in 2008 calling for health care reforms to address the "triple aim" of improved health care quality, improved population health, and reduced per capita health care expenditures,[17] Berwick's article has been widely cited in calling for a move away from fee-for-service models to valued-based payment systems and formed the basis for the Obama Administration's $10 billion investment in the Center for Medicare and Medicaid Innovation (CMMI).[18]

Although Berwick's article emphasized the need for increased preventive services and greater investment in primary care, the emphasis in health care transformation, including the work of CMMI, has been on advancing health while containing or reducing the costs of medical care.[19] The predominant focus of work so far has been on persons with complex medical needs or chronic disabilities, not on prevention programs or on children who do not face major medical conditions or significant developmental disabilities or delays.[20]

Opportunities for Investing in Children's Healthy Development as Part of Health Transformation. At the same time, there has been an increasing overall policy focus, largely from the education and human services worlds, upon the need for greater investment in the healthy development of children, particularly young children. Economist James Heckman, in his "Heckman equation," argues that the most important societal investments – because they have the highest return-on-investment – are in services for young children and their healthy development, particularly their social and emotional development,[21] including services for their parents and caregivers. Even before the turn of the last century, the National School Readiness Goals Panel provided a framework for young children's school readiness that encompassed the World Health Organization's definition of health. This framework identified five key domains of school readiness: physical health and motor development, social and emotional development, general cognition, language and literacy, and approaches to learning.[22] Increased attention to early childhood has resulted in increased investments in early care and education and preschool programs, although investments in young children still lag behind those for older ones.[23] Such frameworks have generally recognized the role of health care (including mental health care, dental health,

and nutrition), family support (economic and social support and parenting education), early care and education, and early intervention as all core and interrelated components. Despite these statements, only limited progress has been made to extend child health care beyond basic coverage for medical treatment.

Primary Child Health Care as a Priority Focus and Opportunity. More than most other medical fields, the primary child health care community has recognized and emphasized the importance of a holistic approach to health. The concept of a patient-centered medical home began in the child health community.[24] The national standards for well-child care, *Bright Futures*,[25] emphasize the primary health care practitioner's responsibility to identify social as well as biomedical determinants of health, provide anticipatory guidance addressing them, and ensure effective referrals to help children and their families thrive. The American Academy of Pediatrics has issued a number of policy statements and papers on the pediatrician's role in bringing a family focus to pediatrics,[26] addressing issues of poverty and its impact on child health,[27] and responding to adverse childhood experiences and preventing toxic stress.[28] With leadership from recognized pediatricians, the National Academy of Science, Engineering, and Medicine (NASEM) has issued reports that synthesize the research on improving healthy child development, and these reports reference many exemplary practices in primary child health care practice.[29] NASEM currently facilitates a Collaborative on Healthy Parenting in Primary Care and has established a new committee to complete a report on primary pediatric care.[30] A consortium of foundations, led by the David and Lucile Packard Foundation and the Einhorn Collaborative, has established a Pediatrics Supporting Parents Initiative.[31] Healthy People 2030 has placed a special emphasis upon safety, stability, and nurturing in home

Healthy People 2030 Goals for Children and their Parents and Caregivers

The Office of Disease Prevention and Health Promotion's *Healthy People 2030* sets goals for our nation's health and builds on knowledge gained over the last 4 decades in health care – with an increased focus on health equity, social determinants of health, and health literacy and a major new focus on well-being. For children, *Healthy People 2030* recognizes the primary role families play, with ecological goals that go well beyond medical care.

Goal: Improve the Health and Well-Being of Children. Childhood is a critical period of growth and development — and a child's experiences, behaviors, and health problems can have long-term impacts. Healthy People 2030 focuses on ways to directly and indirectly improve children's health, safety, and well-being. Safe, stable, and supportive relationships are critical for children's health, development, and well-being. Family-level interventions can help keep children safe and healthy.

Goal: Help parents and caregivers improve the well-being and health for their loved ones and their selves. Parents and caregivers have a major impact on the health and well-being of children and adolescents, older adults, and people with health conditions or disabilities. Healthy People 2030 focuses on ways parents and caregivers can help keep the people they care for — and themselves — healthy and safe.

environments as foundational to life course and healthy development. The interrelated goals for children and their parents are shown in the insert.[32]

ACEs as a Further Reason for Emphasis. In its encyclopedic 2020 report, the California Surgeon General's *Roadmap for Resilience* (438 pages and 1607 citations),[33] documented the explosion of medical research on adverse childhood experiences (ACEs)[34] and how to prevent or mitigate them. Particular emphasis is given to providing trauma-informed care to support child health. While important in addressing the centrality of childhood development to lifelong health and in recognizing the need to respond more effectively and holistically to adverse experiences, particularly toxic stress, responses based upon preventing or mitigating incidences of childhood adversity are, at best, only part of the solution to advancing child health and racial equity.

Moving Toward a New Service Paradigm Based Upon the Science and Research on Healthy Child Development. Different bodies of research on healthy child development – on nurturing,[35] resilience,[36] protective factors,[37] early relational health,[38] mindfulness and flourishing,[39] hope,[40] reciprocity,[41] hardiness,[42] protective and compensating experiences (PACEs)[43] and simply child development and family support[44] – show that key to healthy child development involves more than the absence of adversity or stress. It requires the presence of nurturing. Strengthening such nurturing in most instances entails an assets-based approach to working with parents and others in parenting roles to help them realize their potential and their goals for their children. Such parenting education and support itself is a powerful motivation for positive change in families.[45] A wide variety of parenting education programs have shown effectiveness in strengthening families, enhancing bonding and attachment, and improving child development.[46] The Center for Community Resilience also has emphasized that "adverse community experiences" have their own impact on healthy development and require community-building responses, not only interventions focused on individuals and their needs.[47]

Further, leaders in early childhood have emphasized that advancing healthy development in young children requires providers who work within a multicultural framework rather than a dominant-culture one.[48] From the practical side, multiple ACEs for older adults, gathered over the course of their childhood, have strong associations with most major adult diseases and disabilities, but screening very young children for ACEs identifies only a small percentage of those with current multiple ACEs. Absent an early response that supports parents and caregivers in their roles,[49] many individuals will experience such harms as they progress through childhood.[50]

To summarize, bolstering children's resiliency through nurturing equips them to respond to and bounce back from adverse experiences and other stresses and setbacks when they occur. As important, however, is the fact that nurturing is key, in its own right, to assuring healthy child development.[51]

Focusing Upon Place: Engaging Families and Communities with the Most at Stake. Clearly, engaging and supporting families in providing safe, stable, and nurturing home environments requires medical care providers to establish trusting relationships with

caregivers. Research shows that such relationships are built largely on understanding, relating to and valuing the family and partnering with caregivers in realizing their goals for themselves and their children.[52]

Families are part of communities and primary child health practices can and should develop working relationships with educators, social service providers, community-based organizations, employers, and government officials in order to establish environments that are supportive to child-rearing. Such efforts can support new leadership and community cohesion that provide options for children and families to advance without leaving their communities.[53] It is important to note that poor and underserved communities or "socially vulnerable" communities[54] also represent "high opportunity communities".[55]

Children with needs for additional attention and support cannot be identified simply by screening for and responding to specific ACE's or other deficits and stresses in the child's home environment. Exemplary practices have recognized that screening for ACEs has potential pitfalls and should not be the only tool for identifying and responding to concerns regarding social determinants of health. Such screening needs to be accompanied by consistent effort – and sufficient time with families – to identify their strengths, value their own goals and experiences, and support their resolve.[56]

The Specific Role for Community Health Workers. The question now is how and by whom such relational care can be provided within primary child health care. *Bright Futures* provides a comprehensive guide for providing well-child care from the perspective of the primary care practitioner and his or her role in providing anticipatory guidance, but this is not all. Much of the identification, relationship-building, and response envisioned in *Bright Futures* entails the practitioner's "warm handoff" to someone else in the practice or clinic or connected to the practice, someone with primary responsibility for follow-up and continuity in engagement and support.[57] It is here, particularly for children and their families in poor and underserved communities, that community health workers (CHWs) must play a key role.[58]

Both primary child health practices and public health systems require medical expertise in responding to medical health conditions. They largely have been organized around such medical leadership and staffing and composed of professionals with life experiences very different from those in poor and medically-underserved communities. The socio-economic status and racial and ethnic composition of health care providers serving poor and medically-underserved communities often simply do not match those of the population they serve. Bridging the gap between the culture of the primary care practice or public health system and the culture of such communities requires concerted and intentional efforts to create such bridges. Bridge-building needs to include frontline staff who have the experience and understanding to do it.

Community health workers come by many different names, but the term refers to staff, usually paraprofessionals, who live in or are from those poor and underserved communities and who share the racial, cultural, linguistic, and experiential backgrounds of residents in those communities.[59]

CHWs are not the only people within a practice who can fulfill this bridging and relational role. Others – health coaches, child development specialists, social workers and parenting educators – also can be effective in this role with some families. CHWs can be particularly effective with many families, however, precisely because of their shared life experiences and knowledge of the community and their immediate ability to relate to and engage those they serve. Further, CHWs who are valued and called upon by professional staff as experts in connecting with the community can be key to the practice becoming more responsive to and more trusted within communities with the most need for and the most to gain from such enhanced primary care.[60] It is not a question of either: practices should have CHWs as staff and have staff with specific expertise and knowledge in parenting and child development.[61] In fact, there is substantial synergy in incorporating both – recognizing that they can support, learn from, and teach each other.[62]

Incontrovertible Evidence of CHW Effectiveness. The research on well-resourced and well-integrated community health workers as part of clinical practice teams has been described as "incontrovertible" and "a core component of a high-performing health system."[63] There is a deep and compelling cross-disciplinary research base showing the efficacy of CHWs in many different settings, including health care.[64] As a result, the Office of Homeland Security included CHWs on its list of critical infrastructure workers during the COVID-19 pandemic, and the Centers for Disease Control and Prevention has emphasized the importance of CHWs in improving responses to both general and specific health conditions.[65] Community health workers have demonstrated immediate positive health impacts in responding to patients with complex and chronic health conditions. These impacts include following medical protocols and better maintaining patients' overall health through strengthening their resiliency,[66] often with high returns-on-investment.[67] CHWs have strengthened community-clinic linkages that respond to social as well as clinical determinants of health[68] and have proved effective in helping reduce racial and ethnic health inequities.[69]

Keys to CHW Effectiveness. Research is clear that for CHWs to be effective, they must be well-resourced, integrated, and truly valued through training, ongoing reflective supervision, manageable workloads, and overall support and recognition within the practice. The basis of such effective integration includes recruiting and selecting CHWs for their relational skills and giving them flexibility in building relationships in order to provide patient-centered and patient-driven responses. This flexibility is markedly different from most medical services which provide specific treatments for specific identified health conditions. One reason for the effectiveness of CHWs is their knowledge of and connection to the communities in which patients and their families live, a familiarity that often requires substantial time in communicating and working with community partners as well as with families. Building these connections requires time that, unfortunately, often is not billable within current child health insurance coverage.

Effective integration of CHWs into a practice or clinic means supporting CHWs in a way that does not medicalize their services or narrow their focus to a medical model. CHWs serve multiple roles, characterized by one research synthesis as including 12 functions (care coordination, health coaching, social support, health assessment, resource linking, case

management, medication management, remote care, follow-up, administration, health education and literacy support) across three areas of focus: clinical services, community resource connections, and health education and coaching.[70] These functions align with the National Committee for Quality Improvement and the Penn Center for Community Health Workers enumeration of nine critical inputs for effective community health worker programs: recruitment and hiring, training, supervision, support, scope of work, workforce development, health and social care team integration, organizational data systems and engagement, and program stability.[71] They are consistent with the competencies set for family support professionals more generally[72] and in the parenting education community.[73]

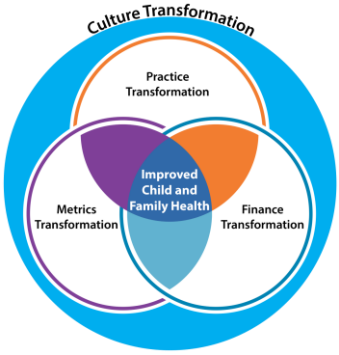
When CHWs are supported for what they do – and not directed by the practice to focus solely on specific medical concerns – they also inform and change practices to become more responsive individually, culturally and racially and, as a result, more effective.[74] They can, in fact, be racial equity leaders, helping to ensure that health systems contribute to rectifying inequities and themselves become racial equity organizations.[75]

While most of the research on engaging CHWs in medical practices has been directed to care for adults and persons with special health care needs or disabilities, their impacts both on population health and on racial equity are greatest in supporting children's healthy development by responding to social determinants of health.[76] This benefit accrues particularly to young children and children in low-income and underserved communities.[77] Those who work with families, including CHWs, come by many different names: family navigators and advocates, health realization coaches, relational care coordinators, traditional health workers,[78] community wellness advocates,[79] doulas, family development specialists, parenting educators, and community wellness advocates. They play a particularly important role in strengthening the safety, stability, and nurturing of home environments. As noted earlier, both the Centers for Disease Control and Prevention and Healthy People 2030 emphasize this as foundational to child health and well-being.[80] While screening and diagnosing a child for health and developmental concerns and responding to child-specific concerns are important, the primary factors impacting the child's health and well-being are social determinants of health (economic, social, and relational). It is in these domains that CHWs and medical homes can have the greatest impact.[81]

Readiness of the Field: From Evidence and Exemplary Practice to a New Standard of Care. In concluding its six-year funding from the Robert Wood Johnson Foundation, InCK Marks was asked to summarize its core findings and their implications for continued work to build a culture of health, align health systems, transform health care, and advance racial equity. Drawing upon its network of 45 leading child health research, policy, practice, and advocacy organizations and its own syntheses of the state of the child health field with respect to its framework for child health transformation (practice, finance, metrics, and culture), InCK Marks produced three core recommendations for optimizing the health system's role and responsibility to improve population health and rectify racial inequities:

1. **PRIORITIZE CHILDREN**. The health system must play a core role in advancing racial equity and population health. This requires a priority focus upon optimal healthy child development.
2. **BUILD ON WHAT WORKS**. A broad, deep, and interdisciplinary body of research shows the efficacy of child primary care transformation and well-resourced and supported community health workers. To move to effectiveness requires diffusion to a new standard of care.
3. **INVEST IN VALUE**. Public sector investments are essential. This requires an investment and diffusion approach in (a) primary child health care, and in (b) community health.[82]

InCK Marks Child Health Transformation Framework



Medicaid's (and CHIP's) Necessary Leadership Role in Advancing Change. For primary child health care, this means broadening insurance coverage to pay for CHWs' services as part of primary health care practice. Most centrally, this means incorporate such coverage under Medicaid (and to a lesser extent, CHIP[83]). Medicaid is by far the main source of health coverage for low-income children and BIPOC children, populations most likely to benefit from CHWs' services as part of primary practices.[84] While most private insurance coverage of children's care is based upon an adult health medical model, Medicaid recognizes that children are not "little adults" and that they and their caregivers require more preventive and developmental services. Medicaid authorizes such services under its longstanding and unique Early, Periodic, Screening, Diagnostic, and Treatment (EPSDT) benefit.[85]

At the same time, however, payment rates established by states for primary care generally are very low, even below Medicare rates, and at best allow practices to provide only identification, care and treatment of medical conditions.[86] States are expanding their use of preventive services and care coordination to include CHWs as providers, but these expansions tend to be defined around medical diagnoses, often focused upon medically complex adults, and limit the support they can offer for the work of CHWs in responding to concerns about social determinants of health.[87]

The above factors led a consortium of national organizations in the child health field to advocate for greatly enhanced Medicaid reimbursement for primary and preventive care services that provide enriched responses to children's needs. The consortium calls for high-performing medical homes and enhanced relational care coordination, both of which generally deploy CHWs as frontline staff for engaging children and families, at least in poor and underserved communities. These changes include providing greater reimbursement for higher value primary care within value-based payment systems.[88] While such reimbursements can be applied within either fee-for-service or a managed-care systems, managed care offers generally greater flexibility. This effort calls for states to make such expectations and requirements part of their contracts with providers. To date, states are

only beginning to establish specific provisions within their Medicaid managed care contracts that address child health and recognize the key role that preventive services, and CHWs, can play in doing this.[89] Broadly expanding the use of Medicaid to incorporate CHWs into primary care services for children requires both federal and state actions, especially the former to provide enhanced federal financial participation (FFP) for enhanced or high performing medical homes.[90]

The Opportunity and Imperative Ahead: From Advocacy to Impact. The literature on diffusion of innovation identifies several stages in an innovation moving to become a new standard of care. First, the innovators themselves develop more effective responses. Then, early adopters build the base of support and leaders in the profession recognize the innovation's value. Then, the innovation becomes broadly diffused to early and later majorities in the field. Finally, it becomes accepted as the minimum standard of care.[91] The third InCK Marks recommendation – to invest in value – requires major new public investments directed to the early majority of practices for them to incorporate core frontline CHWs as part of child medical homes and as part of community health systems.

The transition from advocacy to impact requires both policy education and advocacy. Over the last two decades, child advocates and child health advocates have focused on expanding health insurance coverage and enrolling children, particularly under Medicaid and the Child Health Insurance Program (CHIP). While all children are not yet enrolled, great progress has been made.[92] Leadership within the health care community is now pressing for enhancing the primary health care services that children need.[93] Leadership among those supporting a community health workforce is also pressing for greater investments there.[94] The next imperative, through philanthropic and other investments, is to establish a nexus of support within and across states to build momentum and secure both federal and state investments to support broad implementation.[95]

For the first time in this country's history – largely because of historic and current inequities in opportunity and support – children in the United States overall face the prospect of growing up less healthy, living shorter lives, and being less equipped to compete and lead in the world economy.

Unless we act now.

The health care system alone cannot rectify the racial and other inequities that produce this sobering prospect, but it must be a core contributor to doing so. The Biden Administration and key members of Congress have proposed investing in CHWs at a level that, if focused significantly on children and on recognizing CHWs as transformation agents within primary care and public health, can do so.[96] States are moving forward to cover CHWs as part of their Medicaid programs and public health responses, with an increasing focus on their role in advancing child health.[97]

The challenge and opportunity now is for leaders in child health, child advocacy, health transformation, and community health to insist on such investments – and to ensure that their design and implementation build upon the knowledge base of effective practice.

To do so can truly transform health care, improve population health, and rectify health inequities. To fail to do so – given all we know and the staggering costs of doing nothing – would be a tragedy.

End Notes

[1] This document seeks to provide a succinct description in the text on the science, evidence, and information that makes the case to invest in CHWs as part of an overall transformation of primary child health care and community health to optimize its contribution to advancing population health and rectifying racial inequities. The footnotes seek to provide more detail on the actual science, evidence, and information behind the text descriptions. This includes much prior work to review and understand research, evidence, and information by the author, so there are disproportionate references to works authored or co-authored by him. In most instances, however, these works also include references to a body of research on the topic from many other child health researchers, practitioners, policy makers, and advocates. The report might best be read first without reference to the footnotes, to gather the overall narrative. Then, the footnotes can be reviewed for going deeper into points about which the reader would like more detail and information. This approach is based upon much of the communications literature from the Frameworks Institute, the Communications Consortium, Community Catalyst, and others. In particular, the footnotes and their references to resources are designed to show that there is a deep and compelling research and evidence base and that we know enough to act – and to invest accordingly – in a much-enriched response to children and families from the health system.

[2] This is the first provision in the Constitution of the World Health Organization signed by sixty-one countries on July 22, 1946. The Constitution is retrievable at: https://www.who.int/about/governance/constitution

[3] The seminal study, used for many others' descriptions of the impact of medical care on health, estimated that 20 percent of health was due to genetics, 10 percent to medical care, 20 percent to environment, and 50 percent to healthy behaviors (the latter including meeting basic needs for nutrition, housing, and economic security). The Wisconsin Center for Poverty, in producing county health rankings for the Robert Wood Johnson Foundation, adapted from this model by excluding those elements (genetics and biology) as not subject to change and estimating the factors that contribute to health as 20 percent medical care, 30 percent health behaviors, 40 percent social and economic factors, and 10 percent physical environment. Both of these formulations, shown in insert 1, are widely referenced in the literature. For a review of the literature and the apportionment of factors contributing to health, see: Booske B, Athens K, Kindig D, Park H, and Remington P (2010). *Different Perspectives for Assigning Weights to Determinants of Health.* County Health Rankings Working Paper. Retrievable at: https://www.countyhealthrankings.org/sites/default/files/differentPerspectivesForAssigningWeightsToDeterminantsOfHealth.pdf.

[4] People differ on whether or not lifestyle issues are a consequence of social conditions and factors and should be treated as social determinants. The World Health Organization's seminal report on social determinants of health, *Social Determinants of Health: The Solid Facts,* includes stress, the social gradient, and addiction among social determinants of health, including addiction because "individuals turn to alcohol, drugs, and tobacco and suffer from their use, but use is influenced by the wider social setting." (p. 24). Wilkinson R, and Marmot, M (eds.) (2004). *Social Determinants of Health: The Solid Facts.* World Health Organization. Whether considered lifestyle or a social/economic factor, however, treating the condition generally requires a supportive social environment.

[5] *ibid.* The WHO website page on social determinants of health has a different enumeration of examples of social determinants of health than the initial study and suggests they account for between 30 and 55 percent of health, exceeding the contributions of the health sector. The examples on the webpage are: income and social protection; education; unemployment and job insecurity; working life conditions; food insecurity; housing, basic amenities and the environment; early childhood development; social inclusion and non-discrimination; structural conflict; and access to affordable health services of decent quality. The webpage can be accessed at: https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1

[6] The Centers for Disease Control and Prevention and Healthy People 2030 describe social determinants of health as "conditions in the places where people live, learn, work, and play that affect a wide range of health outcomes" and outline five key areas for them: healthcare access and quality, education access and quality, social and community context, economic stability, and neighborhood and the build environment. This description is found on the CDC webpage "Social Determinants of Health: Know What Affects Health," retrievable at: https://www.cdc.gov/socialdeterminants/about.html

[7] According to a recent *Health Affairs* report based upon 2009-2011 data, 8.5 percent of all U.S. health care spending went to persons in their last year of life (which represent about .7 percent of the population), averaging $80,000 in expenditures. French E et. al. (2017). End-of-Life Medical Spending in Last Twelve Months of Life is Lower Than Reported. *Health Affairs* Vol 36. No. 7. Retrieved at: https://www.healthaffairs.org/doi/10.1377/hlthaff.2017.0174

[8] Almost 50 years ago, Ivan Illych's *Medical Nemesis: The Expropriation of Health,* made the case that "the medical system has become a major threat to health," by maximizing medical treatments and producing a variety of iatrogenic effects while neglecting the factors that lead to health – and particularly in fetishizing the dying process, at huge expenses in questionable technologies. Illych I (1974). *Medical Nemesis.* Pantheon. Some research on providing palliative care for certain diseases, as opposed to regimens of medical treatment and therapy, show that may not only improve the quality of life, but also extend life expectancy. Certainly, from a value perspective, maximum medical treatments for advanced-stage diseases, often with very significant side effects, can be very questionable in terms of their value to promoting health, as well as to their relative value within a value-based payment system.

[9] The majority of OECD countries have per capital expenditures less than half the United States (including Australia, Canada, Japan, and the United Kingdom). The OECD's webpage can be accessed at: https://data.oecd.org/healthres/health-spending.htm

[10] The Medical Expenditure Panel Survey (MEPS) database provides information on spending by age and by persons and by different levels of per person expenditure. In 2019, the 5 percent of people with the highest health costs accounted for about half of all costs, average $61,000 in health care expenses. Meanwhile, the half of the population with median or below average costs accounted for only 3 percent of spending. By age, those 65 and over, representing 17 percent of the population, accounted for 35 percent of all costs. Children (18 and under), meanwhile, representing 24 percent of the population, accounted for only 9 percent of the costs and the lowest per capita expenses of any age group. Per capita expenditures are five and one-half times higher for seniors than for children. Summary and updated information from the MEPS can be found at: https://www.healthsystemtracker.org/chart-collection/health-expenditures-vary-across-population/#Share%20of%20total%20health%20spending,%202019.

[11] The Center for Medicare and Medicaid Services maintains a Fact Sheet on National Health Expenditures as a webpage and shows health care spending in 2020 at $4.1 trillion, or 19.7 percent of the gross domestic product, the slightly more than half paid for by federal (36.3 percent) or state and local government (14.3 percent). The webpage can be found at: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet

[12] The Commonwealth Fund's report, *U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes?*, shows this in comparing the United States to other high income countries with respect to life expectancy, suicide rates, chronic disease burden, and obesity, among other health indicators. That report can be accessed at: https://www.commonwealthfund.org/publications/issue-briefs/2020/jan/us-health-care-global-perspective-2019 This also holds for infant mortality rates. The United States ranks 34th on infant mortality rates among OECD countries, ahead of only Chile, China, Costa Rica, Turkey, Brazil, Mexico, Colombia, Indonesia, South Africa, and India. The OECD data can be accessed at: https://data.oecd.org/healthstat/infant-mortality-rates.htm

[13] A National Center for Service Integration report, *Clinical Health Care Practice and Community Building: Addressing Racial Disparities in Healthy Child Development,* originally prepared for and presented to the Office of Minority Health, includes a broad list of available measures of child health broken out by race and ethnicity and showing those disparities. Bruner C, and Schor E (2010). *Clinical Health Care Practice and Community Building.* NCSI. A version is retrievable at: https://www.ncbi.nlm.nih.gov/books/NBK215345/

[14] The Integrated Care for Kids-InCK Marks describes four distinct reasons for emphasizing child health to address racial inequities: (1) children are the most diverse age group in society, with half of all children of color compared with 24 percent of persons sixty-five and older; (2) children are the age group most likely to live in poverty and to live in poor and underserved communities and therefore in greatest vulnerability for poor health outcomes; (3) children have the greatest part of their life ahead (69 years for children, compared with 12 years for seniors) and therefore impacts on health from actions are the greatest, and (4) the opportunities to impact health behaviors are greatest as children's brains and behaviors are developing and most malleable in the context of their experiences. These points are made on Slide 10 of the InCK Marks' Child Health Transformation and Community Health Workers' April, 2022 webinar, available on the InCK Marks website on the home page, www.inckmarks.org

[15] For the particular need to address child health and development, see: Bruner C, Hayes M, Houshyar S, Johnson, and Walker-Harding, L (May 2021). *Dismantling Racism: 10 Compelling Reasons for Investing in a Relational/Community Health Workforce for Young Children and Their Families.* InCK Marks Initiative Discussion Brief. Retrievable at: https://www.inckmarks.org/docs/newresources/InCKDiscussionBriefDismantingRacismMay20.pdf

[16] At $11.4 billion in endowment, the Robert Wood Johnson Foundation is the largest health philanthropy and the sixth largest philanthropy in the United States (behind the Gates Foundation, the Open Society Foundation, the Lilly Foundation, the Ford Foundation, and the Silicon Valley Community Foundation). It has a long-standing commitment to "building a culture of health" and, in particular, advancing racial equity. Its webpage on focus areas states: "We are working to help achieve health equity and expand opportunity to pursue the best health possible, through investments in four broad areas: health systems, healthy communities, healthy children and families, and leadership for better health." The webpage can be accessed at: https://www.rwjf.org/en/our-focus-areas.html The Robert Wood Johnson Foundation provided support to the BUILD Initiative and the Child and Family Policy Center to develop a "Health Equity and Young Children Collaborative" (led by Charles Bruner for the CFPC) and then built on that work and funding by supporting BrunerChildEquity LLC in establishing the InCK Marks Initiative. RWJF then provided funding to the Center for Health Care Strategies (CHCS) for Accelerating Child Health Transformation (ACHT) , building upon the work and findings of InCK Marks and identifying and working with practice leaders in the field. CHCS's framework for ACHT emphasizes three themes: (1) Adopting anti-racist practices and policies to advance health equity; (2) Co-creating equitable partnerships with patients, families and providers; and (3) Identifying family strengths and addressing health-related social needs to promote resilience. This framework intentionally was aligned with the practice, metric, financing, and culture framework for InCK Marks. Se: Gears H, Casau A, Buck L, and Yard R (2021). Accelerating Child Health Care Transformation: Key Opportunities for Improving Pediatric Care. Center for Health Care Strategies. Retrievable at: https://www.chcs.org/media/Report-Accelerating-Child-Health-Care-Transformation-Key-Opportunities-for-Improving-Pediatric-Care_8.24.21.pdf

[17] The "triple aim" often has been applied as directing health care reforms to simultaneously achieving all three, but the article itself emphasizes that this is not the case with respect to primary and preventive care, as the excerpt below shows: "Improving the U.S. health care system requires simultaneous pursuit of three aims: improving the experience of care, improving the health of populations, and reducing per capita costs of health care. … The components of the Triple Aim are not independent of each other. Changes pursuing any one goal can affect the other two, sometimes negatively and sometimes positively. … The situation is made more complex by time delays among the effects of changes. Good preventive care may take years to yield returns in cost or population health. … Pursuit of the Triple Aim is an exercise in balance. … Any effective integrator will strengthen primary care for the population. The expanded role includes establishing long term relations between patients and their primary care team; developing shared plans of care; coordinating care; and providing innovative access to services through improved scheduling, connection to community resources, and new means of communication among individuals, families, and the primary care team." Berwick D, Nolan T, Whittington J (2008). The triple aim: Care, health, and cost. *Health Affairs*. 2008;27(3):759-769.

[18] The vast share of the funding to CMMI has gone for innovations in serving adults and persons with medical complexities and high costs, as the requirements are to achieve cost savings. After a request for information (RFI) regarding child health financing, CMMI established an Integrated Care for Kids initiative, but it also required demonstrating cost-savings and was primarily directed to high-cost children. Many of those commenting on the CMMI RFI emphasized the importance of viewing child health from a developmental and investment perspective. InCK Marks' collected and summarized comments to the CMMI RFI from a number of organizations, including many members of the InCK Marks' network. Bruner C, Counts, N. *CMMI RFI Synthesis of Key Themes*. Child and Family Policy Center, Des Moines, IA, 2017.

[19] The United Hospital Fund and the Schuyler Center for Analysis and Advocacy, in work that was a prelude to New York's policy work on the First Thousand Days in Medicaid, commissioned one of the first efforts to focus attention on primary and preventive services for children in the context of managed and accountable care from a leader in developing value-based payment systems. Bailit Health produced a report that stressed the value of investing https://www.inckmarks.org/docs/keyissues/ALTPAYMENTMODELSjointMHAHMGCFPC.pdf rather than an investment framework. See: Bailit M and Houy M (2016). *Value-Based Payment Models for Medicaid Child Health Services*. Bailit Health. Retrieved at: http://www.bailit-health.com/articles/2016-0713-Bailit-vbf-final.pdf

[20] There are savings that can be achieved in child health, particularly around children with complex medical conditions and needs (primarily in averting episodes of high-cost hospitalizations and these, in fact, gave rise to home and community-based waivers under Medicaid, initiated by Julie Beckett's leadership in securing support from Senator Chuck Grassley in advancing that waiver for her child, Katie Beckett. To the extent that CMMI financed innovations under its different federal funding opportunities for children, these generally involved children with special health conditions, particularly asthma, where emergency room visits and hospitalizations are needed for specific episodes – which often can be prevented or reduced by changing the child's environment and exposure to contaminants. At the same time, however, when children with special health care needs (such as asthma) or in foster care are separated from the Medicaid population (constituting ten percent of children on Medicaid) are taken out of the mix, annual Medicaid expenditures for those who remain are only $1500, which covers all office visits, vaccinations, and treatments for illness or injury (author's analysis of MACPAC data). There is very little to secure in cost offsets and savings from this population. For one analysis of how child health needs, to be treated differently in developing value-based payment systems, see: Bruner C, Dworkin P, and Counts N (2017). *Alternative Payment Models for Pediatrics: Operatlonalizing Value-Based Care Over the Life Course.* Child and Family Policy Center, Help Me Grow National Center, Mental Health America, and Center for the Study of Social Policy. Retrieved at: https://www.inckmarks.org/docs/keyissues/ALTPAYMENTMODELSjointMHAHMGCFPC.pdfhttps://www.inckmarks.org/docs/keyissues/ALTPAYMENTMODELSjointMHAHMGCFPC.pdf

[21] James Heckman, in part because he is a Nobel Laureate in economics (but not for his work in early childhood), is frequently cited by those promoting early childhood education for his analysis of early childhood education programs and his emphasis that, in terms of human capital development, the highest returns accrue to interventions in the earliest years of life. His website, the Heckman equation, presents much of his work. Although drawing primarily from early childhood education programs, he also concludes that it is not the impact of these programs on IQ, but rather on development of noncognitive skills (social and emotional development), that has enduring impacts upon children that produce those high returns. In particular the Perry Preschool Program and the Abecedarian Project have been subject to his analysis, as they tracked children in those programs (and the control group) into adulthood and estimated returns on investment based upon adult use of services. There is not a similar body of long-term studies of preventive and developmental health interventions to do equivalent ROI modelling. See: www.heckmanequity.org. For a review of the ROI and "cost of bad outcomes" literature that preceded the work of James Heckman, see: Bruner, C. (2002) *A Stitch in Time: Calculating the Costs of School Unreadiness*. Washington, DC: The Finance Project.

[22] The first of the eight educational goals adopted by then-President George H. Bush and the nation's Governors was that: "By the year 2000, all children will start school ready to learn," with three objectives for achieving that goal: (1) Children will receive the nutrition, physical activity experiences, and health care needed to arrive at school with healthy minds and bodies, and to maintain the mental alertness necessary to be prepared to learn, and the number of low-birthweight babies will be significantly reduced through enhanced prenatal health systems;(2) Every parent in the United States will be a child's first teacher and devote time each day to helping such parent's preschool child learn, and parents will have access to the training and support parents need; and (3) All children will have access to high-quality and developmentally appropriate preschool programs that help prepare children for school. A technical panel then described the five domains related to school readiness. Although not updated since 2002, some of the work of the National Goals Panel is still available and can be accessed at: https://govinfo.library.unt.edu/negp/index-1.htm.

[23] The disparities in investment in education and development between pre-school aged and school-aged children are most pronounced in the birth-to-three population. For an analysis on investments by child age, see: Bruner C (2013). *Early Learning Left Out: Building an Early Learning System to Secure America's Future*. 4th Edition. BUILD Initiative. Retrieved at: https://www.buildinitiative.org/Portals/0/Uploads/Documents/Early%20Learning%20Left%20Out.pdf. Both First Focus and the Urban Institute produce annual reports on federal spending on children, with the Urban Institute reports including spending by child age, showing similar results. The Urban Institute's annual report, *Kids Share*, provides this emphasis, but only for federal spending. Information is retrievable from the Urban Institute's Kids Share webpage: https://www.urban.org/research/publication/kids-share-2021-report-federal-expenditures-children-through-2020-and-future-projections The National Institute for Early Education Research (NIEER) tracks the overall investments in early education, including child care and preschool, by state and its annual data book

shows the dramatic growth in investments by states in preschool over the last fifteen years. See; https://nieer.org/state-preschool-yearbooks

[24] The American Academy of Family Physicians, the American Academy of Pediatricians, the American College of Physicians, and the American Osteopathic Society established joint principles for a medical home in 2007, which can be accessed at: https://www.aafp.org/dam/AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf. The National Resource Center for a Patient- Family-Centered Medical Home emphasizes that the medical home should be: accessible, family-centered, continuous, comprehensive, coordinated, compassionate, and culturally-effective. The Resource Center and these characteristics can be accessed at: https://medicalhomeinfo.aap.org/overview/Pages/Whatisthemedicalhome.aspx. The American Academy of Pediatrics introduced the concept of a medical home in 1967.

[25] The Affordable Care Act established *Bright Futures* as the standard for primary and preventive health care, and *Bright Futures* provided detailed guidelines for the content of well-child visits and their periodicity schedule. The 4th edition of *Bright Futures* added substantially to the responsibility to identify and respond to social determinants of health, but from the outset *Bright Futures* has taken a very broad view of healthy development and the child health primary care practice responding to social as well as biomedical issues that impact child health. Hagan, J, Shaw, J, Duncan, P (2018). *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*, 4th Edition. Elk Grove, IL: American Academy of Pediatrics.

[26] The American Academy of Pediatrics established a Task Force, led by Dr. Ed Schor, on "Family Pediatrics," which issued its report in 2003. The report recognized the central role that parents play in children's health and therefore the attention that must be given to engaging parents and supporting parenting in pediatric care. American Academy of Pediatrics (2003). Family Pediatrics: Report of the Task Force on the Family. *Pediatrics.* Vol. 111, No. 6. Retrieved at: file:///C:/Users/brune/Downloads/TaskForceontheFamilyReport.pdf. While at the Commonwealth Fund, Dr. Schor led work on the decade-long Assuring Better Child Development (ABCD) Initiative (2000 to 2010), furthering the concept of pediatric practice to respond early to children around their healthy development. During that period, Dr. Schor produced one of the seminal statements in the field on the role of pediatrics in supporting healthy development. See: Schor E (2004). Rethinking Well-Child Care. *Pediatrics*, Volume 114, p. 210-216. A recent overview of Schor's continuing work and thinking that builds upon this formulation can be found in: Schor E, and Bergman D (2021). Pediatric Preventive Care: Population Health and Individualized Care. *Pediatrics.* Vol. 148, Issue 3.

[27] In 2016, under the direction of then-American Academy of Pediatrics President Benard Dryer, the AAP issued a policy statement on poverty and child health – which called for multiple actions to address child poverty, including strengthening the family-centered medical home. The AAP is in the process of updating that report. Council of Community Practices (2016). Poverty and Child Health in the United States. *Pediatrics.* Vol. 136. Issue 4. Retrievable at: https://publications.aap.org/pediatrics/article/137/4/e20160339/81482/Poverty-and-Child-Health-in-the-United-States .

[28] Jack Shonkoff has built upon the adverse childhood experience literature (see note 34) by describing the stresses that ACEs cause, with an emphasis upon distinguishing among positive stress, tolerable stress, and toxic (prolonged or extreme) stress, with the latter the cause of many adverse childhood outcomes. Shonkoff and the Center on the Developing Child have popularized the use of the term "toxic stress" and the importance of moving beyond counting ACEs in identifying causative factors for compromised children development to addressing underlying issues and concerns with stress. See: Shonkoff J, Garner A. Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood, Adoption, and Dependent Care; Section on Developmental and Behavioral Pediatrics (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 129 (1:e232-46. doi:10.1542/peds.2011- 2663. One of the most recent and comprehensive overviews of the state of the field prepared by the Center on the Developing Child is: *Center on the Developing Child at Harvard University (2010). The Foundations of Lifelong Health Are Built in Early Childhood.* Pages 19 and 20 speak to some challenges in incorporating this into pediatric primary care that traditionally have been raised – but do not reference any of the literature cited here-in that seek to answer them. Retrievable at: https://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf

The American Academy of Pediatrics recently issued a policy statement that stresses the importance of building upon strengths even as interventions seek to address and stress. See: Garner, A and Yogman, M (2021). Preventing Childhood Toxic Stress: Partnering with Families and Communities to Promote Relational Health. Policy

Statement. *Pediatrics.* Vol. 148. Issue 2. Retrievable at: https://publications.aap.org/pediatrics/article/148/2/e2021052582/179805/Preventing-Childhood-Toxic-Stress-Partnering-With.

[29] The National Academy of Science and Medicine has issued several detailed reports that speak to early childhood and the importance of strengthening families to support healthy development. While not singling out as a category specific pediatric program interventions, many, including Reach Out and Read and HealthySteps, are referenced as exemplary and evidenced-based programs. See: National Academies of Sciences, Engineering, and Medicine. (2015). *Strategies for Scaling Tested and Effective Family-Focused Preventive Interventions to Promote Children's Cognitive, Affective, and Behavioral Health*. Washington, DC: The National Academies Press. See also: National Academies of Sciences, Engineering, and Medicine. (2019). *Fostering Healthy Mental, Emotional, and Behavioral Development in Children and Youth: A National Agenda*. Washington, DC: The National Academies Press. https://doi.org/10.17226/25201. See also: National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. doi: 10.17226/21868.

[30] The Collaborative on Effective Parenting in Primary Care includes over 150 leaders in the field and has conducted quarterly calls for the last three years to share opportunities for advancing parenting within a child health medical home. Funded by the Robert Wood Johnson Foundation and others, NASEM is conducting another in its series of reports that speak to the health care system's role in advancing healthy child development. Former American Academy of Pediatrics President Jim Perrin is a leading member of the work group developing the report. See: Coker T, Perrin J (2022). The NASEM Report on Implementing High-Quality Primary Care-Implications for Pediatrics. *JAMA Pediatr*. 2022 Mar 1;176(3):221-222. doi: 10.1001/jamapediatrics.2021.4594. PMID: 34779838. Perrin has been a leading voice in the field on child health transformation, with a particular emphasis upon children with special health care needs. For further resources, see: https://www.massgeneral.org/children/research/james-perrin

[31] Six foundations, the Einhorn Collaborative, the Perigee Fund, the W.K. Kellogg Foundation, the David and Lucile Packard Foundation, the Conrad N. Hilton Foundation, and the Overdeck Family Foundation launched the Pediatrics Supporting Parents initiative in 2017 with a commitment to transform primary child health practice through: (1) leveraging a universal access point, (2) elevating the well-child visit moment, (3) driving measurable outcomes, (4) partnering with families, and (5) centering on racial equity and community. Further information is available on the Pediatrics Supporting Parents website: https://www.pediatricssupportingparents.org/. Much of basis for the establishment of this Initiative is based upon the report: Einhorn Family Charitable Trust, Ariadne Labs, and National Institute for Child Health Quality (2016). *Promoting Young Children's (0-3) Socioemotional Development in Primary Care*. Available at: https://www.nichq.org/resource/promoting-young-childrens-ages-0-3-socioemotional-development-primary-care.

[32] Information about Healthy People 2030 and all its objectives can be accessed at: https://health.gov/healthypeople/objectives-and-data.

[33] Under Nadine Burke-Harris' leadership as California's first Surgeon General and building upon her work at the Center for Youth Wellness in Oakland, California enacted legislation financing ACE's screening as part of its Medi-Cal program. The report itself is Bhushan D, Kotz K, McCall J, Wirtz S, Gilgoff R, Dube SR, Powers C, Olson-Morgan J, Galeste M, Patterson K, Harris L, Mills A, Bethell C, Burke Harris N, Office of the California Surgeon General. *Roadmap for Resilience: The California Surgeon General's Report on Adverse Childhood Experiences, Toxic Stress, and Health*. Office of the California Surgeon General. Although the word "resilience" is in the reports title, however, there are limited actual references to much of the resilience literature cited in the footnotes here, as the guiding emphasis of the report is on ACEs. Report is retrievable at: https://osg.ca.gov/wp-content/uploads/sites/266/2020/12/Roadmap-For-Resilience_CA-Surgeon-Generals-Report-on-ACEs-Toxic-Stress-and-Health_12092020.pdf

[34] The adverse childhood experiences (ACEs) movement began as research into the association of a set of adverse experiences during childhood with a variety of adult diseases. The research showed strong associations, particularly for persons who experienced multiple ACEs, with many adult diseases – and not just ones related to social and emotional issues and concerns. For the seminal study, see: Felitti, V.J., Anda, R.F., Nordenberg, D., et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*. 14(4):245–258.

[35] A comprehensive report on nurturing is found in: World Health Organization, United Nations Children's Fund, World Bank Group (2018). *Nurturing Care for Early Childhood Development: A Framework for Helping Children Survive and Thrive to Transform Health and Human Potential*. Geneva: World Health Organization. Retrieved at: https://apps.who.int/iris/bitstream/handle/10665/272603/9789241514064-eng.pdf

[36] Bonnie Bernard, Mark Friedman, and others at Resiliency in Action were pioneers in describing resiliency in the context of individual, family, school, and community resiliency and recognizing that strengthening it at any or all levels benefits child development. See: Henderson N, Benard B, and Sharp-Light N (eds.) (1999). *Resiliency in Action: Practical Ideas for Overcoming Risks and Building Strengths in Youth, Families, and Communities*. San Diego: Resiliency in Action, Inc. For a very recent review of the literature, see: Morris A, Hays-Grudo J, Kerr K, and Beasley, L (2021). The heart of the matter: Developing the whole child through community resources and caregiver relationships. *Development and psychopathology*, *33*(2), 533–544. Retrievable at: https://doi.org/10.1017/S0954579420001595. See also: Masten A, and Barnes A (2018) Resilience in children: Developmental perspectives. *Children*. 5, 98; doi:10.3390/children5070098.

[37] Risk and protective factors have a long history, starting in the juvenile justice literature by Catalano and Hawkins. Under a grant from the Doris Duke Foundation to the Center for the Study of Social Policy, Carol Hinton reviewed the literature to identify five protective factors related specifically to young children and child abuse prevention: parental resilience, social connections, knowledge of parenting and child development, concrete supports in times of need. This protective factors framework has been adopted by many working in the early childhood system, including in primary child health care. See: Horton C (2003). *Protective Factors Literature Review: Early Care and Education Programs and the Prevention of Child Abuse and Neglect*. Washington, DC: Center for the Study of Social Policy. Metzler, M. (2007). The CSSP webpage and information about the framework can be accessed at: https://cssp.org/our-work/projects/protective-factors-framework/ .

[38] David Willis, now a Senior Fellow at the Center for the Study of Social Policy, has led in developing the concept of early relational health as key to overall healthy child development. CSSP's webpage about relational health and their national hub can be accessed at: https://cssp.org/our-work/project/advancing-early-relational-health/. Willis also provides a lead commentary in an InCK Marks Working paper on a relational health workforce. Bruner C, with commentaries from Willis D, Hayes M, Bethell C, Dworkin P, Houshyar S and Gallion J, Johnson, K and Bailey, M (March 2021). *Building A Relational Health Workforce for Young Children: A Framework for Improving Child Well-Being*. InCK Marks Working Paper Series. No. 7. Retrievable at: https://www.inckmarks.org/rsrcs/RelationalHealthWorkforceWP7.pdf

[39] Christy Bethell, through the Child and Adolescent Health Measurement Initiative (CAHMI) has pioneered work on measuring children's health and getting beyond clinical diagnoses related to behavioral or physical health and to risk factors to those that support optimal (flourishing) development. For mindfulness, see: Bethell C, Gombojav N, Solloway M, and Wissow L (2016). Adverse childhood experiences, resilience and mindfulness-based approaches: common denominator issues for children with emotional, mental, or behavioral problems. *Child and Adolescent Psychiatric Clinics*, 25(2), pp.139-156. For flourishing, see: Bethell C, Gombojav N, Whitaker R (2019). Family Resilience And Connection Promote Flourishing Among US Children, Even Amid Adversity. *Health Affairs* 2019 May;38(5):729-737. See also: Bethell C, Carle A, Hudziak J, Gombojav N, Powers K, Wade R, Braveman P. Methods to Assess Adverse Childhood Experiences of Children and Families: Toward Approaches to Promote Child Well-being in Policy and Practice. *Academic Pediatrics*. 2017 Sep-Oct;17(7S):S51-S69. Bethell's work also includes developing a family-driven "Well Visit Planner" (WVP) as part of a cycle of engagement of families in their children's nurturing and development. While the WVP is a self-administered screening tool, it also is part of a process for engaging and giving voice to parents – and can be a part of the repertoire for CHWs in their work with families and their children. See: https://www.wellvisitplanner.org/.

[40] The Children's Hope Scale is a six-item scale for use directly with children 8-16, but could be adapted for use with younger children (or their parents reporting about them). See: https://www.k12.wa.us/sites/default/files/public/ossi/k12supports/healthyyouthsurvey/pubdocs/HopeScale_HYS.pdf Robert Sege, who established the DULCE program, has emphasized the role positive relationships play in child development, using the acronym HOPE (healing opportunities through positive experiences). See: Sege R, and Harper Browne C. (2017). Responding to ACEs with HOPE: Health outcomes from positive experiences. *Academic Pediatrics*. 17(7S):S79-S85. See also: Sege R, Linkenbach J. (2014). Essentials for childhood: promoting healthy outcomes from positive experiences. *Pediatrics*. 133(6): e1489-e1491.

[41] People, and particularly children, grow and develop by exerting effort, developing new skills and talents, and using those to contribute to others. Mutual assistance and self-help or patient support groups often produce gains in terms of heightened senses of self-efficacy through sharing and contributing and not just pursuing their own enjoyment. This generally extends beyond what can be achieved in a dyadic specialist-patient relationship. There are multiple literatures which focus upon the power of mutual assistance, self-help, patient-support groups, and affiliational networking in advancing change both for those who are members of the groups and the community in which they live. This further is expressed in the reciprocity literature and in the social capital literature as "bonding." *Wise Counsel* includes articles on such work in welfare reform (Herr), co-production (Cahn), self-help (Reissman and Gartner), and community-building (Trevino). See: Bruner C, Cahn E, Gartner A, Giloth R, Herr T, Kinney J, Nittoli J, Reissman F, Trent M, Trevino Y, and Wagner, S (1998). *Wise Counsel: Redefining the Role of Consumers, Professionals, and Community Workers in the Helping Process*. National Center for Service Integration Resource Brief 8. For its use in the social capital literature, see: Patulny R and Svensen G (2007). Exploring the social capital grid: bonding, bridging, qualitative, quantitative. *International Journal of Sociology and Social Policy.* Vol. 27, No 1-2. Retrieved at: https://www.researchgate.net/profile/Gunnar-Svendsen/publication/272767507_Exploring_the_Social_Capital_Grid_Bonding_Bridging_Qualitative_Quantitative/links/0a85e530de60a29976000000/Exploring-the-Social-Capital-Grid-Bonding-Bridging-Qualitative-Quantitative.pdf

[42] Carl Dunst from the Puckett Institute has been a leading researcher in the field of family support for over four decades, the characteristics that lead to healthy child development in the context of family and community, and program attributes that contribute to strengthening and supporting parents. One of his more recent surveys of the literature examined family hardiness as a factor in healthy child development. Dunst, C (2021). Family Hardiness and Parent and Family Functioning in Households with Children Experiencing Adverse Life Conditions: a Meta-Analysis. *International Journal of Psychological Research.* 14:2.

[43] See: Morris, A, Hays-Grudo, J, Kerr, K, & Beasley, L (2021). The Heart of the Matter: Developing the Whole Child through Community Resources and Caregiver Relationships. *Development and psychopathology*, *33*(2), 533–544. https://doi.org/10.1017/S0954579420001595

[44] Family Support America (formerly the Family Resource Coalition) developed principles of family support, based upon the experiences and insights from over 2000 family support and parenting education programs. These principles are very similar to the attributes of successful programs that Lisbeth Schorr identified in a variety of exemplary programs serving children. The Family Support Resource Network provides the 1996 principles on its frameworks page, https://www.nationalfamilysupportnetwork.org/frameworks. The principles themselves can be accessed at: https://8c49defa-92cd-4bf1-ac5b-91471683def4.filesusr.com/ugd/20e556_b0b0888c5e5743fb81eb36f4ec92168f.pdf. For Lisbeth Schorr's work, see: Schorr L, with Schorr D (1988). *Within our Reach: Breaking the Cycles of Disadvantage*. Random House: New York, NY. Also see: Schorr, L.; Both, D.; Copple, C. (eds). (1991*). Effective Services for Young Children: Report of a Workshop*. Washington, DC: National Academy Press, pp. 31-35. For a description of the theoretical and empirical underpinnings of such principles of practice, as well as an Appendix enumerating their expression in reform efforts in education, mental health, early intervention, juvenile justice, and other systems, see: Kinney, J, Strand K, Hagerup M, and Bruner C (1994). *Beyond the Buzzwords: Key Principles in Effective Frontline Practice*. National Center for Service Integration and National Resource Center for Family Support Programs. For a summary of this literature in the context of developing evaluation systems for such programs and practices, see: Bruner, C. (2006). Developing an outcome-evaluation framework for use by family support programs," in Dolan P, Canavan J, and Pinkerton J (eds.). *Family Support as Reflective Practice*. Jessica Kingsley Publishers: London, UK.

[45] Almost three decades ago, two national pediatric leaders, Barry Brazelton and Barry Zuckerman, emphasized parent engagement and education as core to advancing healthy child development in primary care. They wrote, "Programs that involve parents as partners have been the most effective. … Structural components of programs need to build on three fundamental strategies. First, strategies need to be based upon an understanding of the principles of human development. Second, infants are important to parents, and the best way to reach parents is through their children. Third, relationships are important: growth and change are more likely to occur in the context of relationships between clinician and parent, parent and child, and clinician and child." Zuckerman, B, and Brazelton B (1994). Strategies for a family-supportive child health system. In Kagan S, and Weissbourd B (eds.) *Putting Families First: America's Family Support Movement and the Challenge of Change*. P. 73-92, citation from p.

74. For a more extended discussion of the topic from a leading researcher in the family support field, see: Dunst, C et. al (2021). Meta-analysis of the Relationship Between Family Strengths and Parent, Family, and Child Well-Being. *European Journal of Applied Positive Psychology*. 5:5. Most recently, this these has been presented forcefully in: Willis, D. W., Paradis, N., & Johnson, K. (2022). The paradigm shift to early relational health: A network movement. *ZERO TO THREE Journal, 42*(4), 22–30. https://www.zerotothree.org/resources/4420-the-paradigm-shift-to-early-relational-health-a-network-movement

[46] There are a number of different models and approaches to parenting education. There are evidenced-based models that incorporate child development and parent education as a service within primary care, such as HealthySteps and Triple P, often with a defined curricula. There are evidenced-based home visiting models, such a Nurse Parent Partnerships, Parents as Teachers, and Healthy Families that do so in the family's home. These range from broad-based and nearly universal models like Family Connects to intensive responses in very high need families, such as Child First. There also are free-standing family resource centers and parenting education programs, often also serving as places of congregation, where there are opportunities for mutual assistance. Group-based responses have been developed as patient-support groups, peer networks, and affinity groups around specific health or other family-related concerns (parents of children with autism, grandparents raising grandchildren) including DIGMAs. Facilitated groups, particularly those that focus upon group members in providing support and mutual assistance also provide avenues for reciprocity, collective advocacy, and community building. As with CHWs, there is evidence of the effectiveness of such parenting education programs, provided they are well-resourced, staffed by those skilled in both subject matter and building relationships, and valued within the organizations in which they operate.

[47] Wendy Ellis at the Center for Community Resilience developed this "pair of ACEs" to reflect the need to focus upon neighborhood. See: Ellis, W. R., & Dietz, W. H. (2017). A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience Model. *Academic Pediatrics*, 17(7S), S86–S93. https://doi.org/10.1016/j.acap.2016.12.011

[48] Some aspects of child development and the support they need from their community to do so are universal, but different cultures have different views of other aspects of child development. This includes the importance of separation and independence and competition versus attachment and interconnectivity and cooperation, the role of grandparents and other family members and members of the community in raising children, and the emphasis upon achievement and material success versus spirituality. A working group of the BUILD Initiative developed a living document describing some of these differences and how early childhood systems building should respond. See: BUILD Initiative and Child and Family Policy Center. *Young Children's Healthy Development and Learning in a Diverse Society: An Outline for Designing a Culturally and Linguistically Relevant, Responsive, and Competent Early Childhood System*. Retrieved at: file:///C:/Users/brune/Downloads/Young%20Child%20Development%20and%20Learning%20in%20a%20Diverse%20Society%20Living%20Document.pdf. Sharon Lynn Kagan has looked cross-nationally at how different counties view school readiness and found that, while the five domains established by the National Educational Goals Panel were generally accepted, nations also identified other aspects they sought to see incorporated, such as spirituality, hospitality, and creativity. For a discussion of these points and a sixth domain for the United States, civic identity, see: Bruner C (2016) *A Sixth Domain of School Readiness.* Retrieved at: https://www.childequity.org/typing-out-loud.

[49] Strengthening families and particular emphasis upon protective factors.

[50] The report argues that upwards of 3 in 10 infants can be identified as at risk of medical, social, or relational complexities that lead to compromised health, but only one in fifteen can be identified due to a medical issue or developmental disability. See: Bruner, C (October 2021). *Scope and Scale: Developing a Risk/Opportunity Strategy for Young Children and Their Families to Achieve Population Health*. InCK Marks Working Paper Series. No. 9. Retrieved at: https://www.inckmarks.org/docs/newresources/Oct2021/WP9ScopeandScale.pdf For a more detailed description of specific metrics to use related to social determinants, see: Bruner C, and Bethell, C (January 2021). *Child Health Care Transformation, Nurturing, and Resilience: Developing Transformed Metrics for Young Children*. InCK Marks Working Paper Series. No. 6. InCK Marks Initiative. Retrieved at: https://www.inckmarks.org/docs/newresources/InCKWP6MetricsTransformation.pdf

[51] At the extreme, neglect and absence of nurturing in the earliest years has profound consequences, including reactive attachment disorder and withdrawal. See: Karr-Morse R, and Wiley M (1997). *Ghosts in the Nursery:*

Tracing the Roots of Violence. Gove/Atlantic. Cold and impersonal home environments, even in the absence of any abuse and specific incidents of adversity, do harm, as neglectful orphanages have cruelly demonstrated and the literature on reactive attachment disorder shows.

[52] For one of the classic and most-cited references, see: Bronfenbrenner U. Ecology of the family in a context for human development: research perspectives. *Developmental Psychology*. 1986;22:723–774.

[53] The systems reform literature sometimes has called for a paradigm shift in moving from treating individuals and families as "recipients" of service to "participants" in their own growth and development. A further paradigm shift, however, may be more important, to viewing them as "contributors" to their and others' growth in the community. This is reflected in the literature on mutual assistance and self-help referenced in note 41. For two further ways of describing this, see: Bruner, C (2011). *Thirst to Contribute: Fostering Personal Growth, Building Social Capital, and Strengthening Community Through Public Policy*. Child and Family Policy Center. Report to the Annie E. Casey Foundation. The article by Nittoli and Giloth in *Wise Counsel, op. cit*. traces the history of the use of paraprofessional as part of eliciting these contributions, in a series of essays. A report on Ford Foundation's *Fair Start for Children* in the 1980s provided an indepth assessment of both the strengths and limiitations of hiring paraprofessionals from the community in this respect. See: Larner M, Halpern R, and Harkavy O (1992). *Fair Start for Children: Lessons Learned from Seven Demonstration Projects.* Its findings are excerpted in Appendix 6-7 of a Community Collaboration Guidebook that also includes excerpts of the experiences in implementing the Healthy Start program (Appendix 6-12) and other resources related to citizen and community engagement. See: Bruner C, and Chavez M. *Getting to the Grassroots: Neighborhood Organizing and Mobilization.* A Matter of Commitment Community Collaboration Guidebook Series from Child and Family Policy Center, Center for the Study of Social Policy, and Family Resource Coalition of America.

[54] The Centers for Disease Control and Prevention has established a "social vulnerability index" to identify geographic communities that are most likely to need additional attention in times of pandemics and other health crises. The SVI is available at both the county and the census tract level, but the greatest variations and identification of the places of greatest need for attention are at the census tract (or aggregation of census tract to a neighborhood level) and not at the county level. For a guide to using the SVI data (which is available on the CDC/ATSDR webpage – https://www.atsdr.cdc.gov/placeandhealth/svi/index.html), see: Bruner C (2021). *Practical Guide to the SVI.* InCK Marks Initiative. Retrieved at: https://www.inckmarks.org/docs/newresources/PRACTICALGUIDEFORSVI.pdf

[55] Dolores Aceveda-Garcia at Rutgers University has developed an opportunity index related to children that goes to the tract level. See: Acevedo-Garcia D, Hardy E, McArdle N, Crisan U, Romano B, Norris D, Baek M, Reece, J. (2016). *The Child Opportunity Index: Measuring and Mapping Neighborhood-Based Opportunities for Children*. Waltham, MA, and Columbus, OH. This is highly correlated with the SVI but contains much more relevant data on overall social determinants of health.

[56] A Technical Working Group of the Child and Adolescent Measurement Initiative described the state-of-the-field in screening for social determinants of health and emphasized the importance of identifying strengths in developing strategies and engaging families. See: Bruner C, Johnson K, Bethell C, *et al*. (2018) *Next Steps in Family-Focused Screening to Address Social Determinants of Health for Young Children in Primary Care*. Report of the Social Determinants of Health Technical Working Group of the Maternal and Child Health Measurement Research Network. Child and Adolescent Health Measurement Initiative, Johns Hopkins Bloomberg School of Public Health. Retrieved at: https://action.cahmi.org/docs/defaultsource/mch-mrn/sdoh_twg_consensus_mch-mrn_designv2_072618.pdf?sfvrsn=9dc95b17_2 The Center for Health Care Strategies produced a report on the experiences of practitioners in California in conducting ACEs screening that reinforced the conclusions from the CAHMI report. See: Gears H, and Schulman M (2022). *Integrating Adverse Childhood Experiences Into Clinical Practice: Insights from California Providers.* Retrievable at: https://www.chcs.org/media/Integrating-ACEs-Screening-into-Clinical-Practice-Insights-from-California-Providers_031722.pdf.

[57] Kay Johnson has been a leader in advancing the concept of a "high performing medical home," which includes an enhanced relational care coordination component and its staffing and support, particularly for young children. This moves much beyond the current emphasis in most care coordination efforts of simply referring/linking children and their families with other programs and services. See: Johnson, K, and Bruner, C (2018). *A Sourcebook on Medicaid's Role in Early Childhood: Advancing High Performing Medical Homes and Improving Lifelong Health*. Child and Family Policy Center. Retrievable at:

https://www.inckmarks.org/docs/pdfs_for_Medicaid_and_EPSDT_page/SourcebookMEDICAIDYOUNGCHILDRENALL.pdf.

[58] By whatever measure, high poverty/social vulnerability/opportunity neighborhoods (using census tract data and the American Community Survey information) are very different from the country as a whole in terms of their education, wealth, housing, income, and family structure. They also are rich in young children, with one quarter more children per capita (and one-third fewer seniors) than the country as a whole. Further, they are segregated racially and home to a very disproportionate share of the country's black, indigent, and other persons of color (BIPOC) populations. InCK Marks has made use of the Centers for Disease Control and Prevention "social vulnerability index" in demonstrating this at the national level and for select states (California, Washington, Mississippi, and Texas). See: www.inckmarks.org. Two earlier analyses provide more indepth examination of the implications to policy making, drawing upon somewhat different indicators from the American Community Survey. For the analysis which includes urban and rural comparisons and the presence of absence of young men compared with young women, see: Bruner C. et. al. (2007). *Village Building and School Readiness: Closing Opportunity Gaps in a Diverse Society*. State Early Childhood Policy Technical Assistance Network. Des Moines, IA. Chapter Two. Retrievable at: https://www.childequity.org/levers-for-change

[59] This does not mean, however, that the positions do not require specific skills and aptitudes. Denise Smith at the National Association for Community Health Workers and Shreya Kangovi at the Penn Center for Community Health Workers have both led efforts to describe not only the value and work that CHWs can do but also to delineate the recruitment, selection, support, supervision, and retention and development activities that are necessary for developing and sustaining a high performing community health workforce. Subsequent footnotes cite much of this work. Information is also available on their websites (https://nachw.org/ and https://chw.upenn.edu/ respectively).

[60] See earlier footnotes, particularly those referencing *Wise Counsel* and the Ford Foundation's Fair Start for Children. This does not mean that this is easy, however. In his landmark book, *School Power*, James Comer stresses that one of the greatest challenges to achieving success in high vulnerability neighborhoods is reducing the distance between the culture of the school and its professionals and the culture of the community. See: Comer J (1980). *School Power: Implications of an Intervention Project.* Free Press. One of the keys is resolving power differentials and recognizing the value of community wisdom. For a discussion of this issue in the context of addressing poverty through community building in poor neighborhoods, see: Bruner C (2009). *Reshaping the Advocacy Direction on Poverty Reduction: Bridging Individual and Community Strategies*. Policy Matters Series of the Northwest Area Foundation. Retrievable at: file:///C:/Users/brune/Downloads/PolicyMatters_NWAF%20final.pdf A further iteration can be found in: Bruner C (2010) *Maximum Feasible Self-Reflection: An Argument for a New Round of Comprehensive Community Initiatives.* Published in the Aspen Institute Roundtable on *Voices from the Field* series. Retrievable at: file:///C:/Users/brune/Downloads/Voices%20from%20the%20Field%20-%20Maximum%20Feasible%20Self-Reflection%20(1).pdf

[61] Healthy Steps is an evidenced-based program that brings this child development expertise and direct services to children and family of parenting, and Triple P is an evidenced-based program model for doing so – but there are many others.

[62] Child development and parenting education expertise is essential in early identification of developmental and behavioral issues and in responding to and treating specific presenting conditions that require expertise (such as autism spectral disorder) and the additional demands they place upon parents. Some of this requires professional knowledge and expertise that goes beyond what can be expected from CHWs. CHWs can benefit from access to child development and parenting education expertise as they confront particular children and families. At the same time, CHWs have knowledge of the community and its context and are more likely to have opportunities for extra time and engagement of families around their needs. Child development experts can benefit from this family and community knowledge in responding to children with special developmental issues. The emphasis in medical homes on team base care really extends to those with specific medical expertise, child development and family systems expertise, and community expertise.

[63] The editorial accompanying eleven articles in a 2021 *Health Research Policy and Systems* supplement, draws these conclusions. The articles overall affirm the efficacy of community health workers and highlight the challenges of large-scale diffusion and ways to address them. See: Zulu J, and Perry H (2021) Editorial: Community Health https://health-policy-systems.biomedcentral.com/articles/10.1186/s12961-021-00761-7

[64] See, in particular: National Advisory Team (2020). *Young Child Health Transformation: What Practice Tells Us.* InCK Marks Working Paper. Retrievable at: https://www.inckmarks.org/webinars/InCKMarksPracticeTransformationComponentfinalpdf.pdfhttps://www.inckmarks.org/webinars/InCKMarksPracticeTransformationComponentfinalpdf.pdf This paper summarizes different syntheses of effective and evidenced-based programs in early childhood relating specifically to pediatric practice by NICHQ, CSSP, NASEM, RAND, HERWJ, and HE&YC and the practice principles noted in these summaries that undergird them.

[65] See, in particular: Centers for Disease Control and Prevention. Community Health Worker Resources webpage. Public Health Professionals Gateway webpage. Retrieved at: CDC - Community Health Worker Resources - STLT Gateway

[66] These are not necessarily specific to children and often focus upon chronic adult health conditions. See, for instance: Lloyd J, Moses K, and Davis R (2020*). Recognizing and Sustaining the Value of Community Health Workers and Promotores.* Center for Health Care Strategies. Retrievable at: https://www.chcs.org/media/CHCS-CHCF-CHWP-Brief_010920_FINAL.pdf. The Community-Based Workforce Alliance was established in 2020 and includes key organizations working on advancing community health workers. Its initial work has been to review the value and need for community health workers in the context of COVID-19 and responses to pandemics and other health emergencies. See: Community-Based Workforce Alliance (2021). *Community-Based Workforce Principles for Pandemic Response and Resilience.* Retrievable at: https://healthbegins.org/community-based-workforce-principles/

[67] Two such research studies are: Vasan et. al. (2020). Effects of a standardized community health worker intervention on hospitalization among disadvantaged patients with multiple chronic conditions: A pooled analysis of three clinical trials. *Health Services Research* and Sangovi, et.al. (2020) Evidenced-Based Community Health Worker Program Addressed Unmet Social Needs and Generates Positive Returns on Investment. *Health Affairs.*

[68] For a good overall review, see: Lohr AM, Ingram M, Nuñez AV, Reinschmidt KM, Carvajal SC. Community–clinical linkages with community health workers in the United States: a scoping review. *Health Promotion Practice.* 2018 May;19(3):349-60.Retrieved at: Community–Clinical Linkages With Community Health Workers in the United States: A Scoping Review (nachw.org).

[69] This has been an undergirding theme of the work of InCK Marks and the Center for Health Care Strategies, among others, and highlighted in their works. See also: Shannon, C et. al. (2014). Community Health Workers as an Integral Strategy in the REACH U.S. Program to Eliminate Health Inequities. *Health Promotion Practices.*

[70] Hartzler, A.L., Tuzzio, L., Hsu, C. and Wagner, E.H., (2018). Roles and functions of community health workers in primary care. *The Annals of Family Medicine*, *16*(3), pp.240-245.

[71] National Committee for Quality Assurance and Penn Center for Community Health Workers (2021). *Critical Inputs for Successful Community Health Worker Programs: A White Paper.*

[72] A very recent and detailed articulation of the competencies required by family support professionals, and particularly those providing home visiting to families with young children, is found in: Institute for the Advancement of Family Support Professionals (2022). *National Family Support Competency Framework.* Retrieved at: file:///C:/Users/brune/OneDrive/Pictures/Saved%20Pictures/FSP%20Competencies_Complete_3.11.2022.pdf. This is important, as one of the foci of attention to improving healthy child development is through home visiting, with federal support from the federal Maternal, *Infant and Early Childhood* Home Visiting (MIECHEV) block grant, which can be workers from the community (but some may be precluded because of credentialling requirements). The particular alignment is strongest in terms of relational skills, community outreach and engagement, and partnering and advocacy with the families served.

[73] See, for instance, the National Parenting Education Network and its parenting educator and paraprofessional competencies documents. https://npen.org/competencies See also Parents Forum (www.parentsforum.org), which provides curriculum and resources to organizations invested in community. The National Family Support Network is a member network of 39 state networks representing more than 3,000 family support and strengthening organizations, to "work with families in a multi-generational, strengths-based, family-centered approach to enhance parenting skills," with standards of quality to advance diversity, equity, and inclusion, very similar to and aligned with those for CHWs. See: https://www.nationalfamilysupportnetwork.org/standards-of-quality

[74]Garfield, C and Kangovi, S (2019). Integrating community health workers into health care teams without coopting them. *Health Affairs* Blog, May 10, 2019. Retrieved at: Critical-Inputs-for-Successful-CHW-Programs-White-Paper-November2021.pdf (ncqa.org)https://www.healthaffairs.org/do/10.1377/forefront.20190507.746358.

[75] This opportunity is powerfully expressed in: Rabbani R, Abdullah H, Ritchie D, Marlin K, and Wiggins N (forthcoming, 2022). *A Strategy to Address Racism and Violence in Public Health: Community Health Workers Advancing Racial Equity & Violence Prevention.* American Public Health Association Policy Statement. *https://apha.org/-/media/Files/PDF/Policy/C1_2022_CHW_Strategy_Address_Racism_Violence.ashx.* It also is the subject of an upcoming report by a CSSP, a social policy organization that has led in advancing racial equity both through its work and through its own organization: Center for the Study of Social Policy (forthcoming 2022). *Anti-racist Approaches in Health Care: Community Health Workers as Disrupters of Health Systems.*

[76] In April, 2022, InCK Marks conducted a special webinar on "Racial Equity Truths: Health Care Imperatives," that included an overview by Charles Bruner and kick-off commentaries by Rahil Briggs and Mayra Alvarez and concluding comments and synthesis by Maxine Hayes and Kay Johnson. The slides, with narrative and summary, as well as the webinar video, are available on the InCK Marks home page under *Racial Equity and Child Health Summative Video and Slides*. Retrievable at: www.inckmarks.org.

[77] See: Bruner C, Hayes M, Houshyar S, Johnson K, and Walker-Harding, L (May 2021). *Dismantling Racism: 10 Compelling Reasons for Investing in a Relational/Community Health Workforce for Young Children and Their Families*. InCK Marks Initiative Discussion Brief. Retrievable at: https://www.inckmarks.org/docs/newresources/InCKDiscussionBriefDismantingRacismMay20.pdf The Children's Partnership in California has been a leader in presenting the evidence and showing the need for CHWs specifically in responding to children and their families. See: Barbosa G, and Alvarez M (2021). *Community Health Workers Advancing Child Health Racial Equity.* The Children's Partnership is actively involved in making this case with California lawmakers and their new investments in CHWs. Retrievable at: https://childrenspartnership.org/wp-content/uploads/2021/07/TCP-Community-Health-Workers-Final-Single-Pages-1.pdf

[78] Oregon state uses the designation, traditional health worker (THW) as "an umbrella term for frontline public health workers who work in a community or clinic under the direction of a licensed health provider. There are five specialty types of THWs: birth doulas, community health workers, personal health navigators, peer support specialists, and peer wellness specialists (including family support specialists and youth support specialists)." Retrievable at: https://www.oregon.gov/dhs/SENIORS-DISABILITIES/HCC/PSW-HCW/Pages/Traditional-Health-Worker.aspx

[79] Boston Medical Center and the Pediatrics of the Future Initiative, one of the leading members of the Center for Health Care Strategies Accelerating Child Health Transformation, uses this particular designation. See: Center for Health Care Strategies (2022). *Center for the Urban Child and Healthy Family at Boston Medical Center: A New Pediatric Care Model to Help Children and Families Thrive*. Retrievable at: https://www.chcs.org/resource/center-for-the-urban-child-and-healthy-family-at-boston-medical-center-a-new-pediatric-care-model-to-help-children-and-families-thrive/

[80] See: Office of Disease Prevention and Health Promotion (2022). Healthy People 2030 Website. https://health.gov/healthypeople/objectives-and-data/browse-objectives/children

[81] Christy Bethell and her colleagues used the National Survey of Children's Health data to describe three types of health complexities – social risks, medical risks, and relational risks – and to show their independent impacts upon optimal child health. Social risks largely refer to economic factors. Relational risks – around nurturing and family interactions – have particularly strong and independent impacts upon reported measures of child well-being in the NSCH. See: Bethell C, Blackwell C, Garner A, Davis M, and Bruner C (2021). Creating high value, integrated approaches to mitigate children's complex medical, social, and relational health risks: Validation and national findings on the whole child complexity index. *Health Services Research.* Abstract retrievable at: https://onlinelibrary.wiley.com/doi/epdf/10.1111/1475-6773.13837

[82] The slides and text from the overall presentation of these points are available on the InCK Marks' website, along with a summary of the commentary provided by many practitioner leaders and researchers in the field. The slides with notes, a summary of the commentaries, and the video presentation itself can be assessed at www.inckmarks.org under the paragraph heading, Racial Equity and Child Health Summative Video and Slides.

[83] In January, 2022, 40.1 million children were reported enrolled in Medicaid or CHIP (there are approximately 74 million children 0-17 in the United States). CHIP was established in 1990 and has been expanded substantially since

then, to expand publicly-financed health coverage for children in lower-income and moderate-income families and reduce the percentage of children who are uninsured. In that respect, CHIP has been a great success. Since 1990, the percentage of children who are uninsured has declined from over 10 percent to less than 5 per cent, at the same time that employer-based coverage of children (much do to the cost of doing so) has declined substantially. At the same time, the children covered under CHIP tend to be older and are higher income than those covered by Medicaid. In terms of proportions, 80 percent of children covered by Medicaid or CHIP are those covered under the state's Medicaid program and 20 percent are covered under CHIP as a program distinct from Medicaid. CHIP has been very successful in reducing the proportion of children who are uninsured, but most of the children who can most benefit from enhanced primary care services and CHWs are within Medicaid. See the Centers for Medicare and Medicaid Services' Medicaid and CHIP Enrollment Trends Snapshot, retrieved at: https://www.medicaid.gov/medicaid/national-medicaid-chip-program-information/downloads/dec-2021-jan-2022-medicaid-chip-enrollment-trend-snapshot.pdf.

[84] Two ways to estimate the proportion of children covered by Medicaid have been employed, and both show a very substantial proportion of all children covered under Medicaid. One is from parental reporting of coverage, as is done in the American Community Survey and the National Survey on Children's Health. The second is done from state reporting on the number of children covered by Medicaid (available by age on 416 reporting forms) contrasted with population information from the U.S. Census. In terms of young children (birth to 3), the former provides an estimate of around 40 percent of all children, the latter an estimate of around 55 percent. For either, a much greater share of BIPOC children (because of their higher rates of poverty and low-income). While half of all young children (birth to three) are BIPOC, for instance, 65 percent of all children on Medicaid are BIPOC. For a discussion of these methodologies: see: Bruner C & Johnson K (2018). *Federal Spending on Prenatal to Three: Developing a Public Response to Improving Developmental Trajectories and Preventing Inequities*. Appendix C: Estimating Medicaid Enrollment and Expenditures for Very Young Children and for Maternity and Newborn Care. Center for the Study of Social Policy. pp. 40-41. Available at: https://cssp.org/wp-content/uploads/2018/08/CSSP-Prenatal-to-Three.pdf Currently, there are approximately 74 million children (birth to 17) in the United States, so given that 40.1 million are enrolled in Medicaid or CHIP, these programs cover well over half of all children in the United States.

[85] For a description and discussion of the EPSDT benefit in the context of developing enriched primary care through high performing medical homes, see: Johnson K, and Bruner C. (2018). *A Sourcebook on Medicaid's Role in Early Childhood: Advancing High Performing Medical Homes and Improving Lifelong Health*. Child & Family Policy Center.

[86] One feature of the Affordable Care Act was a two-year provision to reimburse primary and preventive services at Medicare payment rates, which tended to be 25 percent higher than state payment rates, with the federal government picking up the cost. When the federal enhance payment was discontinued, most states reduced their payments back to well below Medicare rates. See Academy for State Health Policy for further information.

[87] A growing number of states are covering CHWs as eligible providers of preventive services, usually being paid on a 15 or 30 minute unit of service basis and often directed specifically toward a discrete medical diagnosis. Rhode Island, California, and Washington are among states seeking to broaden the definition, particularly for children, and to "de-medicalize" CHWs as a service. CHWs also can be reimbursed as case management or targeted case management, sometimes on a per-member-per month basis. A discussion of these is in draft by Charles Bruner for the Center for Health Care Strategies. According to the National Academy for State Health Policy, 15 states now provide some coverage for CHWs directly under Medicaid, 10 states do so through managed care, and 27 states do not do so. NASHP's "State Community Health Worker Models" page provides a map and brief descriptions of each state's approach. See: https://www.nashp.org/state-community-health-worker-models/

[88] See the consensus statement from this group, facilitated by the National Institute for Children's Health Quality: Consensus Statement (2019). *Opportunities for Medicaid to Transform Pediatric Care for Young Children To Promote Health, Development, and Health Equity*. Ascend at the Aspen Institute, BrunerChildEquity, Center for Health Care Strategies, Center for the Study of Social Policy, Georgetown University Center for Children, Johnson Group Consulting, National Institute for Children's Health Quality, and Zero to Three.

[89] InCK Marks contracted with Sara Rosenbaum and her colleagues at George Washington University to review all state Medicaid managed care contracts for their specific provisions related to children. The report from that review showed very few special provisions to direct managed-care provider attention and response to children. See: Johnson K, Bruner C. (January 2021). *Medicaid Managed Care: Transformation to Accelerate Use of High*

Performing Medical Homes for Young Children. InCK Marks Working Paper Series. No. 5. InCK Marks Initiative: Des Moines, IA.

[90] One way for the federal government to take a leadership role is to provide for an enhanced FFP for state Medicaid programs that provide differential and value-based reimbursement for either CHWs or "high performing medical homes" or enriched perinatal care. This was one of the recommendations to the Biden administration by InCK Marks and a number of leading child health professionals. See: Sign-On Letter to President-Elect Joe Biden (December, 2020), retrievable at: https://www.inckmarks.org/docs/INCKSIGNON.pdf. The recommendation for an enhanced match is in point 2 of "Federal Opportunities to Advance Child Health Transformation" that accompanies the sign-on letter and reads: "Provide incentives to states: (1) Enhanced federal financial participation under Medicaid for well-child visit reimbursements which are provided to practices meeting standards as advanced, high performing medical homes and (2) Enhanced federal financial participation under Medicaid for care coordination/ case management for children which address social as well as medical determinants of health, including staffing that is diverse and responsive to and representative of the communities served." An enhanced FFP for perinatal care (prenatal to age 1) for women was incorporated into the Senate mark-up of Build Back Better, which could be used to finance CHWs (e.g. doulas) or other enhanced services.

[91] See: Rogers E (2003) *Diffusion of Innovations. 5th Edition.* Free Press. The first edition was published in 1962. The diffusion of innovation also has been applied to the policy world, with states often innovating and copying one another to build a base of recognition to then inform federal policy to further promote a new standard of practice and provide incentives or use the power of the purse-strings for further adoption across all states.

[92] The Robert Wood Johnson Foundation provided substantial initial support to states and their advocacy organizations to make use of CHIP funding in the states to advance child health. The David and Lucile Packard Foundation, with the Georgetown Center for Children and Families, then supported a "Finish Line" project working with states to expand Medicaid and CHIP to move toward universal coverage of children. These Initiatives invested in the child advocacy field to advance this work and created additional staffing and expertise within those organizations that also, if resourced to do so, can serve as a base for further advocacy around healthy child development.

[93] First Focus and the Children's Defense Fund at the federal level, and the Partnership for America's Children at the state and community levels, have led work to advance child health coverage, with support from such national policy organizations as the Georgetown Center for Children and Families and the Center on Budget and Policy Priorities, among others. While these organizations all have limited band-with to take on new issues, there is emerging recognition and readiness to work on the content of child health and, in particular, strengthen preventive and primary care to respond to social determinants of health. See: InCK Marks (2020). Takeaway Messages from National Resource Partner Brainstorming Sessions on Child Health Transformation. Retrievable at: https://www.inckmarks.org/docs/newresources/ThemesforCHCTandNextAdminstration.pdf. See also the results from a survey of and meetings with Partnership for America's Children members: Bruner C, Stein D, Johnson K. (July 2020). *Opportunities for State Advocacy on Child Health Transformation: Results from a Partnership for America's Children Member Survey*. InCK Marks Working Paper Series No. 4.

[94] This includes the National Association for Community Health Workers, the Penn Center for Community Health Workers, and the National Alliance for a Community-Based Workforce, but it also includes federal policy leaders calling for federal investments in tripling the size of the community health workforce and upgrading their compensation, other resourcing, recognition, and support. For a summary of these efforts, see: InCK Marks (2022). Child Health Transformation, Relational Health, Family Engagement, and Race Equity: Building a Community Health Workforce. April 26 Webinar Slides. Retrievable at: https://www.inckmarks.org/docs/new/April26introductorypowerpoint.pdf . Video recording also is available at www.inckmarks.org

[95] In the collective impact literature, this involves some "backbone" entity networking with others in the field to engage in the policy maker education and advocacy to elevate these issues to priorities on federal, state, and community agendas. For an overall discussion of the need for philanthropy to invest in evidenced-based child advocacy as a key lever for producing change, see: Bruner C (2009). *Philanthropy, Advocacy, Vulnerable Children, and Federal Policy: Three Essays on a New Era of Opportunity.* NCSI Clearinghouse and Child and Family Policy Center. The first essay represents an extended version of a report prepared for Grantmakers for Children, Youth, and Families in preparation for possible federal action within a new Administration, describing the history of philanthropy from 1992 through 2008 in informing federal policy. That essay has been updated, with specific

reference to child health in a summary of the landscape of recent initiatives produced by InCK Marks. See: InCk Marks (2020). *Health Care Transformation for Young Children: A Landscape of Federal and Foundation Initiatives and Model Demonstration Efforts.* Author. Retrieved at: https://www.inckmarks.org/docs/LANDSCAPEOFFEDERALFNDTNINTITIVESJULY2020.pdf The third essay in the 2009 report emphasizes the critical importance of investing in state-based advocacy and increasing the band-with of existing child advocacy organizations to leverage what are truly needed to ensure the future of the next generation.

[96] During his campaign for President, Joe Biden produced the Biden Plan for Mobilizing American Talent and Heart to Create a 21st Century Caregiving and Education Workforce, with a specific call for a $6.5 billion investment in 150,000 additional community health workers, described as follows:

Improve caregiving and health outcomes in our nation's most underserved communities by adding 150,000 community health workers. Addressing our nation's caregiving challenges also requires investing more in communities that suffer from significant racial health disparities driven by chronic underfunding and systemic racial discrimination. Biden will more than triple the number community health workers – often workers of color serving the communities where they live – who are part of a national effort to both prevent and treat chronic conditions in underserved, economically-disadvantaged urban and rural communities. He will do this by providing direct grant funding, as well as adding community health worker services as an optional benefit for states under Medicaid.

The American Rescue Plan Act initiated significant new investments in CHWs. At the Congressional level, Senator Murray, Senator Gillibrand, and Senator Casey all have introduced legislation to expand the public health workforce and CHWs within that workforce by similar amounts. In 2020, 141 members of Congress signed onto a statement led by Senator Warren and Representative Khanna to Congressional leadership to expand the public health workforce by 250,000 additional workers, with a specific focus upon community health workers in poor and underserved communities.

The Biden Plan is retrievable at: https://joebiden.com/caregiving/. The Warren-Khanna letter is retrievable at: https://www.warren.senate.gov/imo/media/doc/2020.04.27%20Letter%20to%20SenateHouse%20leadership%20on%20Essential%20Workers%20Bill%20of%20Rights.pdf

While the calls for expanding CHWs are very programmatic, they are at a scale – if used within public health and primary health care and place some priority upon children – to be catalytic in broader changes and responsiveness of health systems to the needs of children and families.

[97] There are increasing state actions to advance CHWs, with Washington state appropriating specific funding for CHWs for the child population, with a task force to review how to incorporate that Medicaid. More recent proposals to HHS to cover CHWs under state plan amendments, such as Rhode Island's, have emphasized the integrative and community-building role workers assume and moved away from a medical model of CHWs as adjuncts to health practitioners in treating medical conditions. The author's forthcoming paper for the Center for Health Care Strategies provides information related to ensuring the Medicaid coverage of CHWs realizes its potential in its response to children and their families.