THE PROMISE OF PREVENTING POVERTY'S ADVERSE EFFECTS ON CHILD DEVELOPMENT

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Children raised in poverty experience higher rates of a multitude of problems, including school failure, antisocial behavior and delinquency, early pregnancy, drug addiction, and depression.[1] Recent evidence further shows that a child raised in poverty has a 30 to 60 percent higher likelihood of heart disease as an adult, as well as asthma and autoimmune disorders—even if he or she has transcended poverty by adulthood.[2] The enormity of the economic burden on society for such problems, including the cost of the most common problems for all youth, such as violence, drug abuse, high-risk sexual behavior, poor academic achievement, dropping out of high school, and suicide attempts, totals nearly $500 billion annually (estimated in 2014). And these estimates do not include the compounding costs of later problems in adulthood, from unemployment and incarceration to serious physical health issues and mental illness.

POVERTY'S EFFECTS ON CHILD DEVELOPMENT

Poverty and its associated conditions (e.g., poor parenting skills, family dysfunction, neighborhood disorder and decay, discrimination, health disparities, malnutrition, inadequately equipped schools) are well known to compromise the ability of children to reach developmental milestones. Poverty acts on child outcomes by adversely influencing the development of the brain, manifesting in academic failure, poor self-regulation, negative social relationships, and risky behaviors such as violence and drug abuse. The concomitants of poverty, such as disrupted parenting, low access to quality preschools and childcare, and poor housing, can affect child development detrimentally in a cumulative manner. The social, emotional, behavioral, and physical health of impoverished children, in turn, strongly predicts many later outcomes in adolescence and adulthood, such as mental health status (e.g., depression and suicide), substance abuse, high school graduation, employment, delinquency and criminality, the quality of partner and family relationships, obesity, and major health problems (e.g., cardiovascular disease, diabetes, and cancer).[3] Exposure to deleterious environmental conditions, or the absence of effective interventions when conditions warrant, significantly increases risks for poor outcomes in all of these domains among impoverished children.

A top priority is to reduce exposure to poverty in the first place; however, strategies also exist that have been shown to prevent the adverse consequences for children who are exposed. Because child development in general, and brain development

specifically, is exquisitely sensitive to environmental inputs, there are many windows of opportunity to intervene where the provision of supportive services can improve functioning of the brain and chances for children to thrive.[4] Critically, well-established preventive interventions have the potential to break the cycle of poverty by instilling the cognitive and social competency skills that underlie self-regulation and academic success, enabling children to eventually enter into the workforce and social relationships with greater efficacy. The fiscal soundness of evidence-based prevention strategies has been well documented in terms of return on investment.[5]

High-quality early childhood education is but one prevention strategy that can help the Unites States face the many challenges to the health and well-being of children. There are many other prevention strategies that can be implemented in the context of family, school, neighborhood, and community. The healthy development of children is a top goal of society that can benefit from policies and solutions derived from many sources, including prevention science. A comprehensive report by the Institute of Medicine (now the National Academy of Medicine), titled Preventing Mental, Emotional, and Behavioral Disorders among Young People: Progress and Possibilities, makes a cogent case for the critical role that prevention science needs to play in healthy child development.[6]

In general, revitalizing impoverished neighborhoods, providing healthy opportunities and experiences for children, and supporting families are significant ways to have long-lasting effects on child development. Coordinating services in the community to provide children with these proven positive experiences can create a new generation that is ready to learn, able to self-regulate emotion, and able to exhibit prosocial behavior. Tailoring the environment to make sure every child has access to proven programming and resources at the neighborhood, school, and family levels improves conditions for the entire community. Selecting evidence-based programs and other strategies is necessary but not sufficient because policymakers also need to ensure high-quality implementation for such strategies to have the intended full impact.[7]

THE POTENTIAL OF PREVENTION SCIENCE

Efforts to combat poverty have primarily focused on increasing family income. However, programs and policies that improve family income will not necessarily ameliorate established patterns of conflict that may have resulted from the stresses

of living in poverty. Interventions are needed that support the ability of families and schools to effectively nurture our children and build their social and academic skills. Prevention science has reached a point at which all U.S. communities can ensure that young people reach adulthood with the skills, values, and health habits needed to lead productive lives in caring relationships with others. The 2009 Institute of Medicine report mentioned above identified numerous tested and effective programs, policies, and practices that can prevent the most common and costly problems of youth.[8] Some interventions can directly affect the economic well-being of those in poverty or vulnerable to falling into poverty. Others do not directly or immediately affect economic standing but ameliorate the negative effects of poverty, such as academic failure, delinquency, depression, and adolescent parenthood. Of course, alleviating some of these effects can very well improve later economic well-being, for example by decreasing school dropout rates and improving academic performance. Many of these interventions can also help to prevent intergenerational poverty. The value of an evidence-based prevention science approach is that it invests only in proven programs; precious resources are not wasted and problems are prevented before they develop or accelerate, rather than after they have become entrenched. If a national initiative ensues that widely implements these effective interventions, not only will impoverished children and their families measurably benefit, but so will entire communities.

Effective preventive interventions save money over time, in part because they decrease the need for governmental services to address serious but preventable problems. In addition, those no longer in poverty are more productive and able to actively contribute to the economy, bolstering the government's ability to fund other pressing needs, such as community rejuvenation and rebuilding the nation's crumbling infrastructure. This scenario is certainly preferable for all involved, from those directly impacted by poverty to those affected by the exorbitant costs of poverty, such as threats to public safety and the need for more specialized (that is, more costly) educational, mental health, and juvenile justice services.

BUILDING A COMPREHENSIVE NATIONAL PREVENTION SYSTEM

The United States can demonstrably impact poverty and improve the chances for success among our youth by implementing tested and effective programs, policies, and practices. This would be a significant undertaking that requires years of concerted

effort, but if we unite everyone around a common understanding of what is needed, we can build a system to support child and adolescent development and prevent problems to a degree never before seen.[9]

A comprehensive and effective prevention system would have four facets: (1) implementation of a large-scale and sustainable system of family supports, (2) infrastructure for positive behavioral reinforcements and social competency skill building for children in schools, (3) ongoing public education about the importance of building environments conducive to healthy child and adolescent development, and (4) a data-driven system for monitoring the well-being of children and adolescents. A realistic plan for this system can be created if all the agencies and organizations designated to address health and well-being (e.g., education, juvenile justice, healthcare, etc.) coordinate their efforts.

A solid body of evidence shows that community, school-based, and family-based interventions, when properly implemented, can substantially prevent the development of most of the problems cited above. Findings from neuroscience further suggest that provision of needed programs and services may reverse some of the damage from poverty and assist children in eventually escaping from it, with the potential to eventually break the intergenerational cycle of poverty. From the prenatal period through adolescence, there are programs that can help families nurture their children's social, emotional, cognitive, and physical development. For example, there are tested programs which show parents how to reduce conflict in the home and how to help their children develop key skills for social and academic success. Such programs can prevent impoverished children from failing in school and from developing patterns of aggressive or disruptive behavior that would otherwise lead to delinquency, substance abuse, early pregnancy, and continued poverty.

A 2013 report by Sawhill and Karpilow at the Brookings Institution analyzed the potential impact of four prototype strategies involving improvements to the job market by lowering the unemployment rate, making work pay, increasing educational attainment, and strengthening families.[10] If these strategies were systematically implemented on a large scale, they could close by 70 percent the gap between more and less advantaged children in their ability to enter the middle class by midlife. And as they do so, the result would be substantial savings to taxpayers that increase over time.

One of the key characteristics of prevention science is the adoption of a public health perspective to benefit large segments of the population, including but not limited to children and families experiencing adverse conditions associated with poverty. Prevention efforts that avoid stigma and engage the whole community have a better chance of acceptance and impact, building on a community-wide contagion effect. The use of car seats; the elimination of secondhand smoke in public settings; and the availability of high-quality, low-cost childcare are all examples of whole-community efforts that serve the needs of all children, including those living in poverty. With respect to evidence-based parenting and family support, community-wide prevention can reduce problems that disproportionately affect children in poverty, such as child abuse,[11] low school readiness,[12] and dropping out of school.[13] Furthermore, these kinds of prevention strategies are known be economically beneficial in terms of return on investment, as documented by the Washington State Institute for Public Policy.[14]

In addition to prevention programs, prevention-oriented policies also show the promise of reducing poverty and addressing its effects on children, families, and communities. One possible bipartisan means of large-scale implementation is via "social impact" or "pay-for success" bonds,[15] which draw in private money to help implement and sustain programs. This mechanism is growing in popularity on both sides of the aisle in various states, and now in bills introduced into the U.S. Congress. In addition to these sources, some of the policy recommendations on poverty that follow have been excerpted and slightly revised from three prominent organizations (see the reports by the Brookings Institution and American Enterprise Institute[16] and by the American Academy of Pediatrics[17]).

RECOMMENDATIONS

There is a need to identify government efforts relevant to prevention without restricting the focus to any one domain (e.g., substance abuse), since all aspects of behavioral, mental, and physical health are amenable to prevention through programs and policies that make young people's environments more nurturing.[18] A set of activities that can move the nation forward is delineated below:

1. **Increase the availability of evidence-based supports for child and family well-being.** States need to be encouraged to assess how well they are reaching beneficiary

families and provide requisite programming to improve outcomes. Programs that support poor women during their first pregnancy and the first few years of the child's life have been shown to prevent child abuse and the development of mental health and behavioral problems, and at the same time, improve families' economic well-being. Importantly, making the healthy development of young children a national priority while addressing the social determinants of health helps families and communities build a foundation for lifelong health. States should be encouraged to gradually increase the proportion of families that are being reached with such programs.

2. **Upgrade educational systems, curricula, and teaching practices in low-income neighborhoods.** States should be encouraged to increase public investment in two underfunded stages of education: preschool and postsecondary. Funding early childhood programs can have a significant financial return on investment for both society and individuals and families. Training teachers to recognize the signs of traumatic stress will provide positive tools for addressing the behavioral problems of children exposed to adversity. A focus on the whole child in the classroom will promote socio-emotional and character development as well as academic skills. Also, a program focus on young, less-educated individuals will improve their skills and enable them to obtain well-paying jobs.

3. **Strengthen the system for supporting prosocial behavior in schools.** This effort is already underway in many states thanks to the growing adoption of evidence-based school programs. We need to encourage states to develop systems to monitor how well schools are supporting prosocial behavior through evidence-based interventions.

4. **Design and implement an effective data gathering and survey system.** We cannot assume that these programs will work without careful implementation, evaluation, and tracking. Sound public policy requires that we set up systems to monitor their impact, regardless of their pedigree. Communities need to know what proportion of children and adolescents are developing successfully. More resources are needed for the collection, analysis, and reporting of the data to the public. Furthermore, the federal government (and expert contractors) should develop an automated clearinghouse that will provide comprehensive information regarding evidence-based programs and policies (EBPs) to users such

as researchers (who can populate the database); policymakers (who need to know what to legislate and fund); and community organizations, practitioners, and government agencies (that need to identify best practices). The data populating this clearinghouse will provide the parameters needed to readily map available EBPs to existing needs, whether it be to identify best violence prevention practices for any given community or to determine which policies to fund to reduce poverty. Also needed is flexibility to include in the database, denoted by their stage of development and need for further study, innovative or promising programs that have yet to be subjected to rigorous evaluation.

5. **Support a comprehensive research agenda to improve understanding of the effects of poverty on children and to identify and refine interventions that improve child health outcomes.** Research is needed to identify better ways to measure how poverty affects children, what works to help families in poverty, and how to translate the information gained into real solutions for the poor.

6. **Promote the coordination and alignment of adult- and child-focused programs, policies, and systems.**

7. **Educate the general public.** Researchers and practitioners need to educate citizens and state and local policymakers about all of the programs and policies that are available to prevent the most common and costly problems of youth. We need to engage the media to report responsibly about the long-term consequences of our actions for children's development and outcomes. These efforts will not only generate support for the policies and programs that are needed but also enhance support for policymakers to implement these policies.

ENDNOTES

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