

17

Promoting the Health of Communities for Long-Term Benefits

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(Note: This essay includes three introductory stories with common characteristics of socioeconomic conditions facing students at an Atlanta elementary school that have both educational achievement and economic implications. Though the characteristics are common, the events, circumstances, and people within the stories are all fictitious.)

Looking sheepishly out of the corner of his eyes, Michael, a fourth-grade student at Tuskegee Airmen Global Academy, pauses between reciting sight words. His mentor, a physiology professor at Morehouse School of Medicine, sits silently as Michael gathers himself and tries to sound out the word. An empty silence ensues. Then patience gives way to frustration.

“That word’s too hard,” Michael says impatiently. “I can’t do it.” His mentor smiles. He sees himself in Michael. Four decades ago, he too was a fourth-grade student at a Title 1 elementary school raised by a single parent.

“It’s OK,” the mentor says in a reassuring voice. “We’ll work on it, and you’ll get it. But you must work hard, pay attention in class, and believe in your ability to learn. Because you can, and you will do it. And one day, you’ll also be a scientist.”

The mentor shakes Michael’s hand as if to close a formal agreement. Michael makes eye contact and slowly begins to sit up in his chair with a renewed sense of safety. Aware of the time, the mentor brings the session to a close, looks down at the notecard, and circles the sight word: “that.”

INTRODUCTION

It is more than a moral obligation to address the fact that millions of children in the United States are not learning the basic reading skills needed to enter and advance in the labor market. As research and practice continue to link health, education, and workforce outcomes, the need for closer attention to literacy issues is particularly acute in low-income communities of color. Effective programs and practices will improve the well-being and success of children in K–12 education and will facilitate stronger labor market outcomes for both workers and employers.

In many ways, reading is the gateway to success. In turn, there is a relationship between lack of literacy and incarceration. Those in prison are less likely to have completed high school than the general population (Wolf Harlow 2015), and the majority of people in prison have basic or below basic levels of literacy (Greenberg, Dunleavy, and Kutner 2007). Ninety-five percent of incarcerated individuals are released and reintegrated into their communities (Hughes and Wilson 2002), and research shows that inmates who receive education while in prison are significantly less likely to return to prison (Davis et al. 2013). The link between academic failure and delinquency, violence, and crime is welded to reading failure.

Reading proficiency is what we call in academic medicine “a social determinant of health.” That is, it affects a wide range of health, functioning, and quality-of-life outcomes and risks. Being a proficient reader by third grade is largely a function of a child’s environment before, during, and after birth. Did the mother smoke or drink during pregnancy? Did she have adequate prenatal care? Was the baby born prematurely? Can the parents read? Did the child receive early childhood education? Is the home environment conducive to learning?

Many of these environmental conditions are related to a family’s socioeconomic status, and research shows that poverty increases the likelihood that children will perform poorly in school (Lacour and Tissington 2011). Poor children are more likely to be born prematurely, have delayed cognitive development, and have reading deficiencies (Brumberg and Shah 2015), as well as drop out of high school, be poor as adults, and be incarcerated as adults (Rumberger 2013). Poverty

entraps poor children at birth in a generational gulf that is almost impossible to escape.

In 2016, 13.3 million children in the United States lived in poverty, representing roughly 18 percent of the population under 18 years old. Children made up one-third of the people in poverty but only 23 percent of the population (Semega, Fontenot, and Kollar 2017). Just over one-third of African American children and 28 percent of Latino children live below the federal poverty line, compared to 12 percent of white children (KIDS COUNT data center 2016). Consequently, the fate of poor children is largely written before they are born.

HEALTH EQUITY

The academic medical community—including the National Institutes of Health and its associated National Center on Minority Health and Health Disparities¹—affirms what research has shown: disparities in health disproportionately affect populations who systematically have experienced greater social and economic obstacles based on race or ethnicity, religion, socioeconomic status, gender, age, mental health status, and a host of other determinants (Dankwa-Mullan et al. 2010). These disparities are not new. Owing to the long and violent history of enslavement and racial injustice in the United States, African Americans have been continuously and severely crippled by socioeconomic, educational, and health disparities, leading to violence and premature deaths each year.

In 2010, the concept of “health equity” emerged, which Braveman (2014, p. 6) defines as “the principle underlying a commitment to reduce—and, ultimately, eliminate—disparities in health and its determinants, including social determinants. Pursuing health equity means striving for the highest possible standard of health for all people and giving special attention to the needs of those at greatest risk of poor health, based on social conditions.”

Morehouse School of Medicine (MSM) recognized years ago that health was a cradle-to-grave continuum heavily framed by one’s early physical, social, emotional, and intellectual foundation and success. In response, in 2014, we adopted an inner-city public elementary school

in alignment with our mission and vision to advance health equity. Though still an evolving partnership, we believe that evidence-based investments in youth and parents within vulnerable communities provide immediate and downstream benefits to both the American labor market and local, state, and national economies.

OUR PARTNERSHIP

The Tuskegee Airmen Global (TAG) Academy—named after the famed African American pilots in World War II—is located just blocks from Morehouse School of Medicine in an economically depressed community. It enrolls more than 700 students, 98 percent of whom are African American; all qualify for free or reduced-price lunch. The student mobility rate is about 44 percent, which means new students enroll and others withdraw consistently throughout the school year. As of 2017, less than a quarter of third-grade students at TAG read at or above grade level, and about 15 percent of all students had proficient scores in the state math assessment. Tuskegee Airmen Global Academy’s overall school performance is higher than just 14 percent of all schools in the state of Georgia. MSM has more work to do, given these numbers, and the fact that the school’s reading and math scores are significantly below its school district’s average (Governor’s Office of Student Achievement 2018).

Three years ago, Morehouse School of Medicine launched a partnership with the Atlanta Public School District, TAG Academy, and Atlanta CARES, an affiliate of the National CARES Mentoring Movement. Armed with decades of data on the causes of health disparities in the United States, we embarked on a vision to create health equity in the lives of the children and families of TAG Academy. In the first year, we built a STEAM lab (science, technology, engineering, arts, and mathematics) for the students, purchased back-to-school supplies and winter coats, held our first parent leadership session, and sponsored several academic enrichment field trips. As president and dean of Morehouse School of Medicine, I also challenged our 1,000-plus faculty and staff to commit to mentoring a student for at least one hour a month during work hours.

Today, our partnership with TAG Academy is becoming part of our institutional DNA. It is core to our ability to translate what we know into practice and impact health in the communities we serve. The partnership, fortified by a memorandum of understanding, now includes nearly 100 MSM mentors and nearly 200 TAG student mentees that often meet two times a month; a robust STEAM program designed to build and sustain interest in future STEAM careers; a tutoring program led by a class of public health master's and medical students; financial literacy for third-graders; a six-week health training program to mobilize teachers to lead student groups in changing health behavior, improving environmental health, and influencing practices that support healthier schools; an eight-week workshop with parents to train them to lead parenting education sessions that will transform parenting culture and provide communal social support; and a Safe Routes to School program to ensure students make it to and from school safely. MSM is currently discussing developing a comprehensive family resource center and school-based health clinic at the school.

Our big goals are to ensure that every child that MSM and partners work with at TAG Academy graduates from high school, and that every parent has a secure job in order to end intergenerational poverty and the wastelands that follow. It's no small feat, but it's the good fight. If health equity is to exist, it must begin with children and grow organically in the communal and social networks that support them. Using big data and analytics, innovations in learning and technology, and strategic public-private partnerships, we are committed to finding evidence-based interventions that work and scale them up.

Our still-evolving TAG Academy partnership has already earned four local community awards, including the "Partner of the Year Award" by the Atlanta Public School District. Other medical schools with "pipeline" programs have inquired about it. The program's success has led to expanded partnerships with hotels, cultural arts centers, banks, and local businesses. We also have been fortunate to receive philanthropic support from entities that understand the power and infinite value of human capital. And between the 2014–15 and 2016–17 academic school years, TAG Academy's overall statewide College and Career Ready Performance Index (CCRPI) increased by close to 8 percentage points (Governor's Office of Student Achievement 2018), a result, we believe, of the comprehensive approach being applied by the school, MSM, and other partners.

Consistent and sustained success, however, depends on the village. It depends on the support of organizations both near and far, particularly from the business and philanthropic communities. We cannot afford to do nothing. The costs of education and health disparities are too great, and the loss of human capital too daunting and inhumane. Pipeline initiatives like ours offer a unique example of leveraging unconventional partnerships to address systemic and structural barriers to upward mobility for children.

THE HIGH COST OF DISPARITIES IN EDUCATION AND HEALTH

A single mother of five, Michael's mom, Sheila, has faced disappointments since dropping out of high school at age 15. That's when she had her first child and quickly realized the demands of motherhood. Raised by her grandmother, Sheila never met her father, and her mother suffered from mental illness that led to homelessness and hospitalization. Sheila was the product of two generations in poverty.

Notwithstanding, she did her best to care for her son. As a teenager, however, she made mistakes. One mistake led to another, and she quickly found herself in her mid-20s with four kids, a sketchy work history, no high school diploma, and no trade skill.

Her oldest son Michael is now a fourth grader, and Sheila has difficulty helping him with homework because of her own academic deficiencies. Her children cannot participate in after-school activities like sports, cheerleading, or the school chess club because she needs the older kids home to take care of the younger ones.

At night, when her children are in bed, Sheila often cries herself to sleep as she contemplates the challenges that lie ahead for her children. They're the same challenges she faced. She wants more, but limited experiences and countless setbacks have dimmed her vision. This is all she knows.

Millions of students in inner-city public schools have mothers like Sheila. Gripped by circumstances at birth, low-income children are faced with systemic generational poverty that research suggests feeds

on itself and has far-reaching immediate and long-term economic and societal implications. These implications undermine our nation's economic strength and sense of societal consciousness.

While the national high school graduation rate is at an all-time high, roughly one in five high school students do not earn a high school diploma in four years (National Center for Education Statistics 2017). And although graduation rates for students of color and low-income students have increased over time, we must be mindful that there are still significant gaps for historically underserved students, which translate into lost potential for our communities and our country.

Let's consider the economic implications of not completing high school. Over their lifetime, high school dropouts will cost the country billions. Full-time workers age 25 and older without a high school diploma had median weekly earnings of \$520 in 2017. That compares with a median of \$712 for high school graduates who never attended college, \$836 for workers with an associate's degree, and \$1,173 for workers with a bachelor's degree (U.S. Bureau of Labor Statistics 2018).

Beyond wage differences, high school dropouts tend to have higher rates of poverty and more incidences in the criminal justice system (Alliance for Excellent Education, n.d.). According to the U.S. Department of Education, one-fifth of young adults between the ages of 18 and 24 who dropped out of school were more than twice as likely as college graduates to live in poverty. This compares to 24 percent with a high school diploma and 14 percent with a bachelor's degree or more (National Center for Education Statistics 2011). Another study shows that 1 out of 10 young males who did not complete high school were in juvenile detention or jail, compared to 1 in 35 young male high school graduates (Sum, Khatiwada, and McLaughlin 2009). Lack of high school education only fuels America's annual \$80 billion prison system, which costs taxpayers about \$260 per resident annually (Kearney 2014).²

Other studies show that high school dropouts tend to have more chronic health problems (Vaughn, Salas-Wright, and Maynard 2014) and higher mortality rates (Krueger et al. 2015). In fact, the nation would save \$7.3 billion in Medicaid spending if the number of high school dropouts was cut in half, according to a 2013 Alliance for Excellent Education report. After including improved productivity at work, reduced needs for acute-care services, and the elimination

of pain caused by illness and disease into this calculation, the report shows that benefits increase even more: “\$12 billion in heart disease-related savings; \$11.9 billion in obesity-related savings; \$6.4 billion in alcoholism-related savings; and \$8.9 billion in smoking-related savings.” Good education is associated with good health.

Ensuring that all students graduate from high school with the knowledge and skills they need to succeed in college and future jobs would provide widespread benefits for today’s economy. An increased high school graduation rate would produce more employable graduates and more engaged students for future growth of society. Just one year of a high school class with a 90 percent graduation rate could generate up to 65,700 new jobs, \$16.8 billion and \$877 million in home and automobile sales, respectively, and \$1.3 billion more in annual federal and state tax revenues (Alliance for Excellent Education, n.d.).

ADDRESSING SOCIAL DETERMINANTS OF HEALTH

It’s October, and Michael has already missed the equivalent of three weeks of school. When he does attend, he’s often late. Typically, his homework is not done, and he isn’t prepared for class. Notes home to his mother Sheila go unanswered.

Absenteeism and tardiness have been a consistent problem for Michael since first grade. Sheila says the reasons vary from year to year: from Michael’s “bad” asthma to lack of transportation when he and his siblings miss the bus to Sheila’s sometimes late-night work schedule. Sheila says she’s trying but lacks a support system she can trust.

The cumulative effects of missing so much classroom instruction and other environmental obstacles at home are apparent. Michael is barely reading on a first-grade level, and his behavior has worsened. Since first grade, the school nurse has suggested Michael get his eyes checked and tested for ADHD, but Sheila assumes she cannot afford it.

With the assistance of the school administration and faculty, Michael’s mentor is trying to help. Michael now receives after-noon tutoring, and Sheila recently enrolled in the parenting lead-

ership workshop led by Morehouse School of Medicine. The timing couldn't be better—in two years, Michael enters middle school.

Absenteeism is an obstacle at inner-city, low-income schools, according to experts. It is not only a sign of potential concerns at home but also results in children missing foundational classroom instruction necessary to advance from one grade to the next.

Improving the conditions in which children live, learn, work, and play, and the quality of their relationships, addresses some of the causes of absenteeism and creates a healthier population, society, and workforce. By working to establish policies that positively influence social and economic conditions, we can improve education and health for large numbers of people in ways that can be sustained over time.

Recent studies examining ways to effectively curtail the influence of family disadvantages on student achievement suggest “a holistic approach that simultaneously attempts to strengthen both home and school influences in disadvantaged communities” (Egalite 2016). One such successful program cited by researchers is the “Promise Neighborhoods” initiative funded by a grant program of the U.S. Department of Education.³ Founded in the Harlem community in New York City, Promise Neighborhood programs address social determinants of health, provide wraparound services for both students and parents, and emphasize public-private partnerships. Morehouse School of Medicine was a Promise Neighborhoods planning grant recipient in the mid-2000s, and we are using a similar approach in our TAG Academy initiative.

Other policy recommendations around early student achievement tend to align with the framework of our comprehensive partnership with TAG Academy. To address the emotional, social, and cognitive development of students, these recommendations include building outside networks that expand the opportunities to both students and their parents. For our TAG partnership, we are expanding and/or building networks with banks, cultural arts centers, city and state governments, private enterprise, philanthropic foundations, other colleges and universities, nonprofits, and more.

In a KIDS COUNT report, the Annie E. Casey Foundation provided four recommendations essential to addressing and increasing reading proficiency of children. Included in the recommendations were developing an early care and education system, strengthening parents’

roles in their children's educations, supporting initiatives to improve low-performing schools, and implementing scalable solutions to chronic absenteeism and summer learning loss (Fiester 2010). We support the recommendations, as they address the social determinants that impact child development.

Getting our children on the path to reading success is the way to success. Creating health equity requires investments upstream—in both students and their parents—to break the cycle of generational poverty. By addressing the social determinants of health at the structural level for low-income elementary children, we in turn help ensure reading proficiency by third grade and home environments with stable working parents. In so doing, we provide immediate and downstream benefits to both the American labor market and local, state, and national economies.

Notes

1. The origins of the National Center on Minority Health and Health Disparities can be traced back to the 1990 creation of the Office of Research on Minority Health within the Office of the Director of the National Institutes of Health (NIH). This office emerged based on the strong interest in Congress and the community for a more targeted NIH focus on research on minority health and health disparities.
2. A 2016 U.S. Department of Education report suggests that increasing investments in education—from early childhood through college—could improve skills, opportunities, and career outcomes for at-risk children and youth, particularly if the additional funds are focused on high-poverty schools. Investing more in school success for disadvantaged children and youth could reduce disciplinary issues and reverse the school-to-prison pipeline. In addition, educational programs for incarcerated youth and adults could reduce recidivism and crime by developing skills and providing opportunities. For more information see Stullich, Morgan, and Schak 2016.
3. For more information on Promise Neighborhoods, visit <https://www2.ed.gov/programs/promiseneighborhoods/index.html> (accessed September 4, 2018).

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