PENNSYLVANIA LEGISLATIVE BLACK CAUCUS & HOUSE DEMOCRATIC POLICY COMMITTEE JOINT PUBLIC HEARING

Topic: Health Disparities
Einstein Medical Center – Philadelphia, PA
July 10, 2019

AGENDA

2:00 p.m. Welcome and Opening Remarks

2:10 p.m. Panel One:
- Theodore A. Christopher, MD, FACEP
  Director of Office of Health Equity, Immediate Past President, Pennsylvania Medical Society
- Rohit Gulati, MD, FACP, MBA, FACHE
  Executive Vice President & Chief Medical Officer, Einstein Health Care Network

2:25 p.m. Questions & Answers

2:40 p.m. Panel Two:
- Dr. Howard Lu
  Vice President and Chief Clinical Officer, Health Partners Plans
- David Saunders
  Director of Office of Health Equity, Pennsylvania Department of Health
- Raynard Washington
  Chief Epidemiologist, Philadelphia Department of Public Health

3:00 p.m. Questions & Answers

3:20 p.m. Panel Three:
- Laura Handel
  Managing Attorney with Medical Legal Partnership
- Sue Swift, RN
  President of the Saint Christopher's Hospital, and member of the Pennsylvania Association of Staff Nurses & Allied Professionals
- Carla LeCoin, RN
  Nurse for Maternal Infant Department, and member of the Pennsylvania Association of Staff Nurses & Allied Professionals

3:35 p.m. Questions & Answers

3:50 p.m. Closing Remarks

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pennsylvania
DEPARTMENT OF HEALTH
OFFICE OF HEALTH EQUITY

Representative Stephen Kinsey Hearing on Health Disparities

July 10, 2019

David Saunders, M.Ed.

Director, Office of Health Equity

Good afternoon, my name is David Saunders. I am the Director of the Office of Health Equity for the Pennsylvania Department of Health. I want to thank Representative Stephen Kinsey for inviting me here today and for all of you who took time out today to learn more about Health Disparities and solutions for addressing them. Today I am going to speak to you using our recently published Health Equity Report entitled, the State of Health Equity in Pennsylvania. I have brought a few copies, and of course it can be accessed on line.

To level set perhaps we should define health disparities. I will use the Centers for Disease Control (CDC) definition. Health disparities are differences in health outcomes and their causes among groups of people. For example, African American children are more likely to die from asthma compared to non-White children. As I am the Director of the Office of Health Equity, it might be good to define health equity: again, using the definition the CDC espouses: Health equity is when everyone has the opportunity to be as healthy as possible.

Suffice it to say there are health disparities in the state of Pennsylvania as in all states across the country and increasing health equity will go a long way into reducing these health disparities.

Demographic Snapshot

Let's dive into the report by first looking at the demographics of the state. With a population of 12.8 million people, Pennsylvania is home to an aging population. 22 percent of Pennsylvanians are over the age of 60. Largely rural, Pennsylvania has 48 rural counties---many of which have unique health equity issues. I will remind you here, health equity is not merely an issue for the urban residents of the Commonwealth, many rural counties are facing grave health issues.

Ethnically, PA is still mostly white but slowly the population is changing with the Latino population growing fast, now at 6 percent of the population. The 2010 Census reported that PA ranked #13 in population of those with Origin (834,000 people); of course, that number is higher now in 2019.

It is important to note that in the 2010 Census, 34% of persons 5 and older only spoke English at home, while 66% spoke a language other than English at home. Important for school, hospital, community systems to meet people where they are at and offer translation services and services like ESL.

Populations of color are experiencing worse health outcomes and lower life expectancy. When we analyze these health outcomes, we don't just look at the varying factors like race or socioeconomic status by themselves. It is important for us to continue looking deeper into the causes of these disparities.

Infant and Maternal Health

Infant mortality is an issue that is complex and troubling. The Centers for Disease Control and Prevention (CDC) defines infant mortality as the death of an infant before their first birthday. The infant mortality rate is the number of infant deaths for every 1,000 live births. The infant mortality rate is an important marker of the overall health of a society. Infant mortality for African American's is 3 times higher than the overall state rate and for s it is 2 times higher than the overall state average.

Maternal mortality also serves as a major indicator of the health of a state and is defined as, "the death of a woman while pregnant or within 42 days of the end of pregnancy, regardless of duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management, but not from

accidental or incidental causes." For African Americans, the maternal mortality rate for the five-year period 2011-2015 was also three times as high (27.2 per 100,000 births) compared to whites (8.7)

STI

Sexually Transmitted Infections or STI's are most prevalent in 15-24-year old's in the Population. Chlamydia ranks the highest threat of STI's for the population in PA. Data shows that in 2017 that 504.6 per 100,000 people contract Chlamydia, nearly 5,000 people (around 3,000 of them were in the 15-24-year-old age range).

Approximately three times as many males have been diagnosed with HIV disease than females. African Americans and Latinos make up 11 percent and 7 percent of the population of Pennsylvania, respectively, but account for 49 percent and 14 percent of all new diagnoses among Pennsylvania residents.

Poverty

According to the U.S. Census Bureau's 2013 Current Population Survey results, 12.4% of Pennsylvanians are living below poverty, and approximately 17.1% are living below 125% of poverty. In addition, 43.3% of Pennsylvanians in families composed of a single female householder with children are living below poverty, and 53.1% are living below 125% of poverty.

PA's median income in 2016 was $31K. Broken down by race, on average, whites made more than the median, while blacks earned almost $15K less and Latinos earned $18K less.

While nearly each race contributes the same percent of participation to the labor force (60%), there is a large wage gap, contributing to the prevalence of poverty.

A key element of SES is education, which impacts job placement, income, access to information and resources. Higher educational attainment is known to directly and indirectly improve health outcomes. There is a need for increased access high-quality pre-k programs, which in 2017, approximately only 36% of 3-4yo had access to. Early child hood education is the precursor for further educational attainment.

Blacks and Latinos are less likely to obtain a bachelor's degree or higher compared to whites or Asians. Our data shows however that those with a bachelor's degree, made more than $20K than those with a high school degree. Those with a graduate degree, the increase doubled ($40K more than those with HS).

Food Insecurity

There are a lot of people that are hungry in the state. The Healthy People 2020 definition of Food insecurity is defined as the disruption of food intake or eating patterns because of lack of money and other resources.

In 2015, about 13 percent of all households nationwide experienced food insecurity, or the inability to fulfill daily nutritional needs. In Pennsylvania, about 14 percent of households were food-insecure. That is 1.7 million people who are unable to meet their nutritional needs.

Children, the elderly and those with preexisting chronic conditions, as well as marginalized populations are at greater risk and the end results are exacerbated.

Major contributors include food deserts which I will discuss soon, financial challenges, lack of transportation can also be an issue. In the report you can see the counties that experience food insecurity and the counties that have known food deserts and see how closely they align.

Beyond the ability to afford adequate food is the problem of access. Pennsylvania has food deserts, which are low-income census tracts where several households live more than 20 miles from the nearest full-service grocery store that offers options to affordable fruits, vegetables, whole grains, low-fat milk and other foods that make up a full and healthy diet.

Built Environment

The design of communities can either hinder or foster health depending on whether they facilitate behaviors like physical activity. For example, communities that were designed with safe and complete sidewalks that are accessible to all regardless of ability are ones whose built environment promotes healthy physical activity.

Built environments influence many determinants like environmental health and food insecurity, physical activity represents a high priority for Pennsylvania. Altering existing built environments and designing new built environments with a focus on promoting health represents an effective and essential strategy for decreasing physical health disparities.

Access to Care

2010 Census- reported 19% of s were uninsured. This is only those who were captured through the Census and does not account for those who are migrant and where not in PA at the time of the Census or those who are undocumented and were not captured in the Census data. Behavior Risk Factor Surveillance Survey from 2016 found that 14% were uninsured. The Behavioral Risk RFSS is a self-reported survey and only provides a glimpse of what Pennsylvanians are experiencing.

Underserved communities (especially minority populations such as black/African American, or LGBTQ populations) transportation, culturally competent providers and language barriers were the most serious obstacles

PA has Health Professional Shortage Areas for primary, dental and behavioral health care needs in both low-income, urban and rural communities.

When assessing several measures of financial access to health care, Latinos Pennsylvanians experienced the greatest disparities

Major challenges: cost, culturally competent, structural and interpersonal discriminatory practices or experiences

Environment

PA is the 3rd largest producer of total energy in the US.

PA has several communities that fall in the top 25 for the highest levels of year-round particle pollution (soot) and include Harrisburg, Pittsburgh and Philadelphia. Philadelphia has the 22nd highest ozone level of all US Cities.

The environmental health hazards will affect everyone; however, it is Pennsylvania's most vulnerable who are most at risk--- children, the elderly, people with low mobility and income in both rural and urban settings. These are the people who will feel the exacerbated effects of poor living conditions which could lead to greater health disparities.

ACES

The Adverse Childhood Experiences (ACE) study explored this relationship between childhood trauma and adult health outcomes and found that both the prevalence and risk for smoking, severe obesity, physical inactivity, depressed mood, suicide attempts, alcoholism, illicit drug use, risky sexual behavior and all of the previously mentioned diseases and conditions all increase as exposure to ACEs increases.5 All of these negative outcomes are observed at even higher concentrations when poverty is concurrent with childhood trauma.

The percentage of African American respondents and Latino respondents who lived with a previously incarcerated individual was 233 percent and 350 percent greater than the percentage of white respondents, respectively. Not only does this ACE impact future financial health, it is also statistically linked to asthma and smoking later in life.

The chronic toxic stress resulting from ACEs such as parental incarceration and abuse often leads to behavioral problems and poor academic performance in school and is often treated as Attention Deficit Hyperactivity Disorder (ADHD) or other mental health conditions.

Education

Lastly, I will touch upon education. Education is a key element of socioeconomic status because it impacts job placement, income and access to health-related information and resources.15 Individuals with minimal education are less likely to be informed about risk. Further, these individuals are more apt to live in poor neighborhoods with limited access to recreational facilities and markets with fresh produce. Poverty and lack of education are inextricably linked in Pennsylvania, much like in other areas of the country and world. Children who are born to parents that have achieved less than a high school diploma are more likely to live in poverty and this issue is seen across all racial and ethnic groups.17

Education is not only a strong predictor of health outcomes, but it is also known to directly and indirectly improve health. People with higher educational attainment are more likely to live longer and have healthier habits, like regular exercise, routine preventive medical care, moderate drinking habits and not smoking. Those with higher educational attainment also have a better chance at maintaining consistent employment and income, which help to support healthy habits and improve outcomes.

Steps must be taken in the early years of a child's life to help them succeed in school. Paving the road to high educational attainment begins with investing in early childhood learning and well-being. Early child development programs not only prepare young children to begin school by fostering better cognitive, language and social skills, but they are also known to help kids perform better in high school and beyond. Examples of early childhood education programs include child care centers, nursery schools, day care programs, pre-kindergarten (pre-k) programs and Head Start Supplemental Assistance Programs. Unfortunately, many Pennsylvania children do not have access to high quality programs. This lack of access disproportionately impacts people of color. In 2016, more than 467,000 children 5 years old or younger were enrolled in nursery school, preschool, Kindergarten or first grade; the largest percentages of kids under 5 years-old not enrolled in school were Latino and African American children (40 percent and 37 percent, respectively).

To conclude, the State of Health Equity report clearly indicates the role of factors outside of the medical care realm, the social determinants of health---where we work, live, learn, eat, and play dictates how healthy we are.

Good afternoon, Representative Stephen Kinsey and members of the Democratic Policy Committee and the Pennsylvania Legislative Black Caucus. I am Dr. Raynard Washington, Chief Epidemiologist for the City of Philadelphia. I'm here to speak about health disparities in our region and the critical role state legislators can play addressing these persisting inequities.

Health is influenced by many factors, including social and economic conditions, the built environment, accessibility of healthy products, the behavioral choices people make, and access to and quality of the medical care system. The Robert Wood Johnson Foundation presents an index of health at the county level that assigns weights to the most important factors that impact health. In this index, which is based on extensive research and consensus of experts, the most powerful influences on a population's health are not the quality of doctors or hospitals, but instead the social and economic conditions (40 percent) and individual health behaviors (30 percent).

The CDC recommends four key health behaviors that contribute to a healthy life: no tobacco or drugs, healthy nutrition, regular exercise, and limited alcohol consumption. All of these are associated with lower risk of chronic health conditions, like heart disease, cancer, and diabetes, all major causes of death and illness in Philadelphia, the entire Southeastern region, and across the Commonwealth. Yet, many families in this region live, learn, work, shop, and play in neighborhoods that make even these four healthy behaviors difficult to achieve. And it's not just individual behavior – the environment plays an equally powerful role. As an example, in Philadelphia today – low-income neighborhoods, predominantly made up of Black and Brown people, have significantly higher density of tobacco and alcohol retailers. Not only, are there more retail outlets selling tobacco products, those same outlets are more likely to be cited for selling tobacco products to underage youth and engage in guerilla marketing practices with extensive marketing in windows and at the point of sale. Imagine this – a child in North Philadelphia walking a mere half mile to their school will have to walk by 16 retailers that sell tobacco, mostly corner stores and beer delis. A child in Chestnut Hill, a middle-class neighborhood just miles away, walking the same distance only walks by one tobacco retailer, that happens to be a cigar shop that strictly enforces age restrictions. So then, as you might imagine, adult smoking rates in North Philly are significantly higher than in the Chestnut Hill area. And while I understand the economics of supply and demand, our children deserve to live in communities that support and encourage good health. Thankfully our City Council has worked with us at the Health Department and our Board of Health to establish policies and regulations that directly address this inequity, but I use this as an example of how

structural and environment factors continue to drive poor health and as an example of where policy makers like yourselves can intervene.

Despite overall progress in recent years, Philadelphia's health continues to lag behind surrounding counties and other major U.S. cities. To the point of today's discussion, these poor outcomes are not experienced across all communities in Philadelphia. Living just a mile away can decrease life expectancy by nearly 20 years. In fact, life expectancy is directly correlated with income inequality. That is, neighborhoods with more individuals in the lowest income brackets have significantly lower life expectancy than neighborhoods with more individuals in the highest income bracket.

Key health indicators show poorer health outcomes for African Americans and Hispanics compared to other racial groups in this region. Most notably, life expectancy for African Americans is lowest compared to other groups and lowest among Black men. These disparities are not because of skin color; they persist largely because more racial/ethnic minorities are poor and live segregated in neighborhoods with poorer conditions. Like lower access to healthy affordable foods, poorer quality, unaffordable and unsafe housing, unsafe outdoor recreational spaces, and low access to clinical services, particularly those that are culturally appropriate. These same neighborhoods have higher rates of tobacco and alcohol retailers, more abandoned homes, low performing schools, and extreme community violence. This exposure to adverse environmental conditions related to poor neighborhood conditions collectively points to structural violence against our region's most vulnerable.

Further, the impact of structural racism and experience of bias in health care, law enforcement, and other human service settings has and continues to be a significant challenge for our communities. Addressing these systemic challenges are critical for improving health and achieving health equity in this region and across the state.

These problems outline for us some key action areas for public and private stakeholders. We recently released a first-ever report on the health and well-being of Black men and boys in Philadelphia. I mention this report because in it, we highlight some key strategies that should be prioritized for addressing health inequities among Black men but also apply more globally:

1. In order to start breaking the cycle of poverty, we must ensure all children, regardless of where they live, race, or income status have a healthy start in the earliest years of life – this includes

access to preventive health services, like immunizations and early intervention services; education opportunities, like high quality pre-K; a safe and healthy living space and provide supports for their caregivers.

2. Targeted efforts to strengthen the educational safety net for high risk youth – to accelerate growth in educational and economic attainment.
3. Monitor and ensure access to affordable physical and mental health care, including substance use treatment, from trusted, culturally competent providers in communities where people live.
4. Fund public health campaigns and initiatives that promote healthy living with messages designed for specific target populations.
5. Establish policy and regulations that reduce environmental deterrents to healthy living and intentionally invest in building healthy neighborhoods. Investments that are not tied to gentrification and displacement.
6. Implement comprehensive violence reduction strategies that address individual, community and environment drivers of gun violence – including enacting sensible gun legislation that protects the vulnerable and creates accountability in gun ownership. And if not that, at least pass legislation that allows jurisdictions to be responsive and responsible in the face of an epidemic of gun violence.
7. And lastly, combating structural violence and racism through polices that reduce systemic bias.

Like you, I don't think we should accept health disparities as normal or insurmountable. If we take public health approaches in how we legislate, allocate resources, and ultimately implement initiatives, experience says that, over time, we can make real progress and save lives. Thank you for the opportunity to speak here today and I would be happy to answer any questions.

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HEALTH, EDUCATION AND LEGAL ASSISTANCE PROJECT: A MEDICAL-LEGAL PARTNERSHIP (HELP: MLP) AT WIDENER UNIVERSITY - DELAWARE LAW SCHOOL

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Testimony for Public Hearing on Social Determinants of Maternal and Infant Health
House Democratic Policy Committee Hearing

Wednesday, July 10, 2019

Good afternoon. Thank you for holding this hearing, for taking up this interest in maternal and infant health and thank you for this opportunity to speak today.

My name is Laura Handel, and I am a Managing Attorney at Health, Education and Legal assistance Project: a Medical-Legal Partnership (HELP: MLP) at Widener University Delaware Law School. For the past ten years, I have provided legal services as part of an integrated medical-legal partnership (MLP) model that embeds poverty lawyers within evidence-based maternal and child health programs. I was encouraged by the Pennsylvania Department of Health's Office of Health Equity to share my insight with you as a poverty lawyer working on the front lines with pregnant women and small children in marginalized communities in southeastern Pennsylvania. Using legal intervention, HELP: MLP addresses the health-harming social and legal needs of pregnant women, mothers and families, reducing maternal stress and improving family health outcomes. I come here today not as an academic, not as a healthcare provider, not as a statistician, but as an attorney, an advocate, and a witness to the hardships and challenges that my client families face day-to-day.

A growing body of evidence strongly supports the understanding that social, economic and political determinants are greater influencers on health than biology, and it is the social determinants that are largely responsible for the alarming health inequities we see in maternal and child health outcomes. Yet, while social, economic, and political issues affect health, very few health care programs address these root causes. Resources for programs that do address social determinants of health are few and far between. And while many causes of poor health are rooted specifically in social

determinants that can also be understood as unmet legal needs, fewer than 14% of low-income families have access to an attorney.

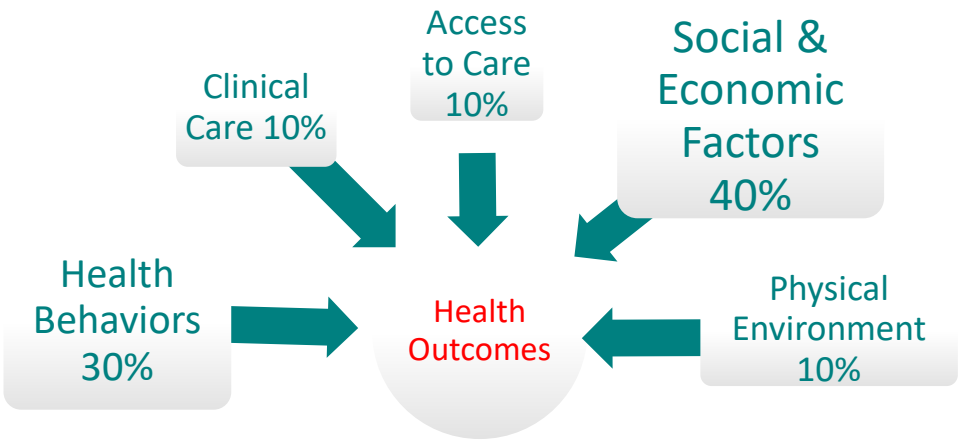

Figure 1 County Health Rankings, http://www.countyhealthrankings.org

Against this backdrop, MLPs are collaborations between lawyers and healthcare providers to meet our clients/patients at the juncture where their unmet legal and social needs are impacting health. MLPs are innovative approaches to the delivery of both health and legal services, where legal services are considered vital to health, and improving health outcomes is considered the primary goal of legal intervention.

Since 2010, HELP: MLP has partnered with The Foundation for Delaware County's Healthy Start and Nurse-Family Partnership programs to improve health with legal services for low-income mothers, babies and small children in Delaware County. In 2016, we expanded our work to Philadelphia through a partnership with Philadelphia Nurse-Family Partnership and Mabel Morris Family Home Visit Program. Our partners' essential missions are to reduce maternal and infant mortality and morbidity in Delaware and Philadelphia Counties by providing social, legal and health-related services to help underserved families thrive, and at times, to simply survive.

Over the course of the last decade, HELP: MLP has provided legal services to hundreds of client families and handled thousands of legal cases and consultations for clients. So far, in 2019, we have addressed more than 350 legal matters across our two offices. Our clients are overwhelmingly women of color, pregnant women, and babies and small children. Our clients live in deep, inter-generational poverty; live in areas where

unemployment is high and opportunities are scarce; have unstable or unsafe housing; are food-insecure; are utility-insecure; and are eligible for, but often have difficulty maintaining access to various means-tested public benefits, including Medicaid, Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance to Needy Families (TANF), Supplemental Security Income (SSI), Women, Infants and Children (WIC) and Low-Income Home Energy Assistance Program (LIHEAP). Domestic and community-based forms of violence are pervasive in clients' personal and family histories; trauma is endemic.

The majority of the cases we address are related to public benefits and housing, however, our clients experience a full range of issues that are often recurring and systemic in nature. It is common for clients to have multiple serious issues at one time in a variety of legal domains, or to have additional needs that require assistance over time. Legal services improve the economic, housing, and health stability of clients; we see this not only in our evaluation data, but on the ground every day.

What we also see on the ground, however, is ongoing need. Ongoing systemic inequities. Ongoing violations of clients' legal rights. Ongoing agency and institutional indifference to the needs and hardships of women and children. What we see on the ground is the toxic stress that results when pregnant women and parents with small children experience unlawful SNAP, Medicaid, or TANF benefit terminations; face eviction; face illegal landlord lockouts from homes and need to sleep outside; live with mold or pest infestations that landlords refuse to address; need to flee an abusive partner and cannot access emergency shelter or help with obtaining a protective order; face a utility shutoff in extreme weather; face a water shutoff; cannot decide whether to use scarce income to pay for rent, for food, or for medicine; cannot easily access healthy food while living in a food desert; worry about children's exposure to lead in the peeling paint of their homes, if they have homes; worry about getting housed, because the local housing authority's wait list for subsidized housing is years-long; worry about being unable to work because the county wait list for subsidized child care is six months long, or more; are members of minority or immigrant communities and confront daily social and institutional biases and abuses because of real or perceived identity; and the

list goes on. The stress that results from these common experiences in our clients' lives is detrimental to health, and because our clients tend to be pregnant or recently post-partum, adverse maternal and infant health outcomes can easily result without comprehensive and meaningful social and legal support. Projects like HELP: MLP bear witness to, and seek uniquely to address, the root causes of toxic stress in the lives of low-income women and families at times when health need is at its highest. Our public health evaluation results have shown, year after year, that addressing unmet social and legal needs results in reduced maternal stress and maternal risk, which are directly related to poor birth outcomes.

While the stability of our clients' lives is improved by work like ours that addresses the root social causes of poor health outcomes, funding for programs like ours, as mentioned, is scant, and usually difficult to sustain. There simply are not enough of us. Increased funding for programs that address root causes of health inequity is critical. Pregnant women, babies and families would benefit greatly from increased resources to address the harmful and systemic social determinants of health that can be routinely identified in low-income communities: lack of safe and affordable housing, lack of employment and other income supports, lack of access to high quality schools and career training programs, lack of access to nutritious food, lack of access to health insurance and physical and behavioral healthcare, lack of access to a full range of reproductive health care and education, lack of access to affordable utilities, lack of affordable childcare, lack of transportation, lack of general and special educational supports, unsafe environmental hazards, and lack of access to legal services. These are some of the social needs that must register high on the scale of legislative priorities when thinking about how to improve maternal and infant health outcomes, or when thinking about why morbidity and mortality are so high.

Understanding the connection between the health and wellbeing of mothers and babies, and social and economic justice, is critical. Poverty and its effects are detrimental to human health, but those impacts are preventable, and can be addressed through policy in addition to direct services. State policies and practices that can help improve maternal and child health outcomes should include improvements in the domains of

economic stability, housing stability, women's and children's health, public education, environmental safety, and interpersonal and community safety. My many years of experience working with underserved and at-risk mothers and children compels me to suggest prioritizing the following:

- Increasing the minimum wage and work supports that help families, like mandated predictable work scheduling and paid sick and family leave
- Increasing state funding and support to expand affordable, high-quality child care options
- Increasing support for legal and social services to help eligible families access and maintain public benefits and supports that boost household income, like SNAP, TANF, disability benefits, childcare subsidies, Earned Income Tax Credits, and Child Tax Credits
- Increasing support and oversight for services and programs that address nutritional risk and need for pregnant women, like WIC; state supplemental funding for WIC in Pennsylvania can help expand access and participation among women and children in need, and can help modernize WIC in Pennsylvania
- Increasing support for legal and social services to help families in need remain housed, in safe and sanitary conditions
- Expanding public health insurance to all children, including those who are undocumented
- Expanding prenatal and immediate post-partum public health insurance access for undocumented mothers
- Increasing the oversight of Medicaid providers to expand pre- and post-natal care usage for underserved and at-risk women, particularly women of color
- Collaborating with Medicaid Managed Care Organizations (MCOs) to find ways to use public health insurance coverage to address social determinants of health
- Collaborating with healthcare and social service providers, and schools, to increase access to birth control and reproductive health education for women and girls in need

- Ensuring that publicly-funded healthcare providers are routinely testing children under the age of three for lead exposure, and marshalling resources to preventatively test the homes of pregnant women and families with children in high-risk areas
- Increasing funding for programs that provide shelter, social and legal services to victims of domestic violence and their children, and for other initiatives that work to combat violence against women more generally

I will conclude my remarks today by saying that HELP: MLP would be happy to work with the Committee to identify deeper and more detailed policy solutions to unmet social and legal needs that influence maternal and infant health. We, and the wider advocacy community, welcome ongoing conversation and action. Thank you so much for your time.

HELP: MLP AT THE FOUNDATION FOR DELAWARE COUNTY
CLIENT IMPACT REPORT
DECEMBER 2018

PREPARED BY SHANNON MACE, JD, MPH

EXECUTIVE SUMMARY

Health, Education and Legal assistance Project: A Medical-Legal Partnership at Widener University Delaware Law School (HELP: MLP) works in partnership with The Foundation for Delaware County (TFDC) to improve the health and wellness of low-income mothers, children and families participating in TFDC's Healthy Start (HS) and Nurse-Family Partnership (NFP) programs. HELP: MLP attorneys work alongside case managers and nurses to identify and address participants' unmet legal, social, healthcare, and educational needs. To assess the project's impact on participants' stress, satisfaction, and economic stability, public health evaluation was conducted analyzing activities between October 1, 2017 to September 30, 2018. Case outcomes data were collected from the LegalServer electronic database maintained by HELP: MLP attorneys. Qualitative data were collected from participants through telephonic interviews conducted after clients' cases closed. Evaluation findings support that the MLP services result in high client satisfaction, decreased stress among clients, and improved economic stability.

Key findings include that between October 1, 2017 and September 30, 2018:

- A total of 366 legal matters were addressed through cases or consultations;
- 59 unique clients received assistance with a legal case;
- The average number of cases per client is 2.6;
- Attorneys obtained $173,793 in annual economic benefits for clients (based on available data, actual economic benefit for clients is greater);
- 92 percent of client respondents reported that the services decreased their level of stress;
- 92 percent of client respondents reported that the outcome of the legal services positively impacted their families; and
- Clients are highly satisfied with HELP: MLP services (reporting an average rating of above nine on a scale from zero to 10 in nine different satisfaction domains).

INTRODUCTION

Health, Education and Legal assistance Project: A Medical-Legal Partnership at Widener University Delaware Law School (HELP: MLP) has partnered with The Foundation for Delaware County's (TFDC) Healthy Start (HS) and Nurse-Family Partnership (NFP) programs since 2010 to improve the health of low-income mothers, children, and families. HELP: MLP attorneys, embedded within TFDC, work alongside case managers and nurse home visitors to: 1. Increase the identification of unmet legal and social needs; 2. Provide direct legal, healthcare, and educational services to clients in their homes; 3. Increase the advocacy capacity of TFDC staff to address social determinants of health; and 4. Improve community-wide outcomes through systemic advocacy and policy change.

To measure HELP: MLP's success at reaching its goals, a robust evaluation plan tracking process and impact data has been implemented. Quantitative and qualitative data collected from clients and staff and case outcomes have been analyzed to inform evaluation findings and quality improvement efforts. This evaluation report focuses on the project's impact on clients and contains three sections: process outcomes, client stress and satisfaction, and case outcomes.

PROCESS OUTCOMES

Process data were collected and analyzed to better understand the number and types of legal cases and consultations addressed by HELP: MLP attorneys at TFDC. Cases are defined as legal assistance provided directly to clients by attorneys. A case could require full representation (e.g., litigating a matter in Landlord-Tenant Court), appealing an administrative decision (e.g., denial of benefits), or providing advice and counsel to a client. Consultations are interactions where the attorney provides legal or policy guidance to the case manager or nurse home visitor. Most consultations are centered on a specific client's issue; however, consultations could also be conducted about legal or policy matters in general (e.g., understanding the eligibility requirements of a public benefit). Consultations also occur to determine whether a matter should receive more intensive legal intervention such as direct attorney representation in the form of a case. Information provided during consultations is generally passed along to clients by case managers and nurses without the attorney directly interacting with clients.

TFDC HS staff universally screen all clients for unmet legal needs when they enter the program and on an as needed basis. NFP staff identify clients for unmet legal needs on an as needed basis. Unmet legal needs are identified using the IHELP screening tool assessing for issues related to: (I) income and insurance, (H) housing and utilities, (E) education and employment, (L) legal (immigration) status, and (P) personal and family stability.

Between October 1, 2017 and September 30, 2018, there were a total of 154 client cases closed and 212 legal consultations conducted. A total of 366 matters have been addressed through a case or consultation. Fifty-nine unique clients received assistance with a case. Some clients received assistance with multiple cases and with a combination of cases and consultations. The number of cases per client ranges from one to 17. The average number of cases per client is 2.6. The most common type of issues addressed are income and insurance matters (52%) and the least common type of issues addressed are related to legal (immigration) status (0.8%). Table 1, below, details the number and type of legal cases and consultations resolved between October 2017 and September 2018.

TABLE 1. TOTAL CASES AND CONSULTATIONS BY IHELP CATEGORY

IHELP Category	Cases	Consultations	Total
Income and insurance	93	97	190
Housing and utilities	49	51	100
Education and employment	3	13	16
Legal (immigration) status	0	3	3
Personal and family stability	9	48	57
Total	**154**	**212**	**366**

HELP: MLP attorneys provide legal assistance to staff and participants from TFDC's HS and NFP programs. Between October 2017 and September 2018, 34 unique HS and 13 unique NFP participants received assistance with a legal case. Additionally, 11 clients participating in both programs (HS/NFP) received assistance with a legal case. MLP attorneys assisted one client who is participating in neither program with two legal cases. Table 2, below, details the number of unique clients and cases and consultations by program type. Consultation program type was determined by staff member unless otherwise indicated by the attorney.

TABLE 2. CASES AND CONSULTATIONS BY PROGRAM PARTICIPATION

Program	Number of Unique Clients Served	Number of Cases	Number of Consultations (by staff or client designation)
Nurse-Family Partnership (NFP)	13 (22%)	25 (16.3%)	70 (36.2%)
Healthy Start (HS)	34 (57.6%)	81 (53%)	98 (50.7%)
Participating in both programs	11 (18.6%)	47 (30.7%)	25 (13%)
Participating in neither program	1 (1.7%)	2 (1.3%)	0 (0%)
Total	59	153	193

Within each IHELP category HELP: MLP attorneys assist clients with a wide range of unmet social and legal needs that lead to improved economic, housing, and family stability. The most common types of legal issues addressed by HELP: MLP attorneys are related to Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Medicaid, homelessness, and housing conditions. Table 3, below, shows the number of cases and consultations by specific legal category.

TABLE 3. NUMBER OF CLOSED CASES AND CONSULTATIONS IN SPECIFIC LEGAL CATEGORIES

Legal category	Number of Cases	Number of Consultations	Total
Temporary Assistance for Needy Families (TANF)	35	19	54
Supplemental Nutritional Assistance Program (SNAP)	24	17	41
Homelessness	17	9	26
Medicaid	16	16	32
Eviction	9	9	18
Housing conditions/tenant rights	9	10	19

Legal category	Number of Cases	Number of Consultations	Total
Subsidized childcare	7	3	10
Supplemental Security Income (SSI)/Disability	6	11	17
Utility shut off	5	0	5
Custody	3	10	13
Domestic violence	3	5	8
WIC	3	0	3
Subsidized housing	3	7	10
Employee rights	2	3	5
Tax issue	2	2	4
Dependency/termination of parental rights	1	2	3
Consumer law matter (debtor's rights, student loans etc.)	0	11	11
Special education	0	3	3

CLIENT STRESS AND SATISFACTION

To better understand how the MLP's activities affect clients, quantitative and qualitative data were collected and analyzed. HELP: MLP clients provided consent to be contacted for a follow up interview at the time they enter into an attorney-client relationship. Participation in the interview was voluntary and did not affect the type or amount of legal services provided to clients. No incentives were offered for participation. Interview questions were developed by public health evaluators to focus on client satisfaction and the project's impact on client stress, and quality of life. The telephonic interviews were conducted in English or Spanish depending on the client's preferred language. Data were collected throughout the year by public health evaluation staff approximately one to four weeks following clients' case closures. Table 4, below, shows the frequency of clients' responses related to stress, quality of life, and impact of the outcome of legal services. Table 5, below, shows the frequency of client responses related to program satisfaction.

IMPACT ON CLIENT STRESS

To measure the impact of services on client stress, qualitative data was collected via telephonic interview with clients after their cases were closed. A total of 13 clients participated in follow up interviews for a response rate of 22 percent. Clients were asked whether they felt the legal services decreased their stress by responding to a Likert-like scale (responses: disagree, somewhat disagree, neither agree or disagree, somewhat agree, or agree). Ninety-two percent of clients who responded to this question reported that they agree the services decreased their stress. One client reported that she somewhat agreed that the services decreased her stress. Clients were asked to explain why they agreed or disagreed about whether the project decreased their stress. Clients reported:

It was stressful trying to fight the case myself and figuring it out myself. When she hopped in, it was a relief and I didn't have to worry as much.

He helped me with things that I would have never been able to understand, or where to turn to, or who to call.

Because I know if I talk to her about a situation, she'll reassure me that she'll get on it and get the answers I'm looking for. Within a couple hours if we don't touch base, she emails me instantly.

Because everything I was stressing about she took care of right then and there.

Because I feel like I got good advice and I got solutions to the problems and how to address them.

IMPACT ON QUALITY OF LIFE

In addition to inquiring about the impact the services had on stress, the evaluator asked clients to respond to whether the legal services improved their quality of life. Seventy-five percent of respondents agreed the services improved their quality of life. One respondent (8.3%) reported that she somewhat agreed the services improved her quality of life and two clients (16.6%) neither agreed or disagreed. When asked to explain their responses, clients reported:

They got me out of a bad situation that I was in that I couldn't get out of by myself.

Not only did they help, but they taught and I learned.

He helped me get money from social security for my kids.

Because if it wasn't for her I would have nothing I have. I wouldn't have it.

OUTCOME OF LEGAL SERVICES IMPACT

In addition to asking clients about the effects of services generally, evaluators asked clients about the impact the specific outcome of the legal services had on clients and their families. Respondents were asked whether they agree or disagree that the outcome of the legal issue positively impacted them or their families. Ninety two percent of clients agreed that the outcome of the legal service positively impacted them or their families. One respondent “disagreed” that the legal outcome had a positive impact on her or her family; however, she explained that she was still working the attorneys to resolve other legal issues that she has pending. Respondents were asked to explain their responses and stated:

They made it from a negative situation to a positive situation.

I was out of work when I went through all of this, so my job wasn't paying for my kids. The money he helped me get through Social Security allowed me to provide for our bills.

It helped my family out and my son is getting things that he needed.

I had an issue that was child support and she helped me out with all of that and it changed a lot. Now I'm not having those problems and we're living better now.

The one issue was a health hazard in my house. Now it is being taken care of so, that is why it is positive.

TABLE 4. PERCEIVED IMPACT OF SERVICES ON STRESS, QUALITY OF LIFE, AND FAMILY

	The legal advice or services provided decreased your level of stress. (n=12)	The legal advice or services provided improved your quality of life. (n=12)	The outcome of the legal issue positively impacted you or your family. (n=12)
% who Agree	91.7%	75%	91.7%
% who Somewhat Agree	8.3%	8.3%	0%
% who Neither Agree or Disagree	0%	16.7%	0%
% who Somewhat Disagree	0%	0%	0%
% who Disagree	0%	0%	8.3%

CLIENT SATISFACTION

Client satisfaction was assessed by asking clients to rate their satisfaction among several project domains on a scale from zero to 10. A score of zero represents "the worst" or "not at all" and a score of 10 represents "the best" or "completely." The domains assessed related to legal services satisfaction include: effort of the attorney to understand goals and interests related to the issue, experience communicating with the attorney, respectful treatment, responsiveness, level of trust, how well the attorney attempted to resolve the legal need, satisfaction with outcome related to legal issue, satisfaction with overall services, and whether they would refer the services to another person.

The average response in all 10 satisfaction domains was above a nine. In two categories, respectful treatment and responsiveness, all client respondents rated the attorneys at a 10. The percent of respondents rating the satisfaction domains as a 10, or the best, was above 90 percent in six domains. Across all domains, the percent of respondents rating the attorneys a 10 was above 65 percent. Table 5 details the average responses among clients and the percentage of clients who rated the satisfaction domain a 10 for each of the domains.

TABLE 5. CLIENT SATISFACTION RATINGS ACROSS DOMAINS (N=13)

Satisfaction domain	Average response (0-10)	% Rating "10"
1. Rate how well the legal provider put effort into understanding your goals and interests related to legal issue. (n=13)	9.85	92.3%
2. Rate your experience communicating with the legal provider. (n=13)	9.7	84.5%
3. Rate the respectful treatment by the legal provider. (n=13)	10	100%
4. Rate the responsiveness of the legal provider. (n=13)	10	100%
5. Rate your level of trust in the legal provider. (n=13)	9.7	76.9%
6. Rate how well the legal provider attempted to address your legal need. (n=13)	9.6	69.2%
7. Rate your overall satisfaction with the outcome related to your legal issue. (n=13)	9.9	92.3%
8. Rate your satisfaction with the overall services provided. (n=13)	9.9	92.3%
9. If someone had a similar issue, how likely would you be to refer a friend, relative, or someone else you know to the legal provider? (n=13)	9.9	92.3%

Clients were asked why they gave the satisfaction rating that they did. Clients reported:

They gave me more help than I expected. They were understanding. Everything was great with them.

Because the lawyers were really respectful. They were honest. They were helpful and every little bit of thing I needed done and whatever questions I had they had answered.

Jordan is really, really nice. He does his job well. If I need something he gets right on it. He doesn't make me wait forever and gets all the information I need right away. He is a really good lawyer.

They treated me really good. She actually sat there and listened to every problem I had and did everything to try to help me out. She went beyond what I needed and helped me out with other stuff. It was just good service.

She is the best lawyer I have had so far.

Because she actually contacted me back and understood what the whole situation was.

The fact that he took the time to speak with me over the phone and meet with me in person to address my legal issues.

Hopefully she keeps up the good work with somebody else and helps somebody else as much as she helped me. She provided a great service.

CASE OUTCOMES

Since the project's inception, HELP: MLP attorneys have successfully advocated for positive legal resolutions for clients resulting in improved housing conditions, eviction prevention, obtaining and preserving public benefits and income supports, preventing utility shut offs, obtaining and preserving Supplemental Security Income (SSI) benefits, and connecting clients to other organizations and attorneys through warm handoffs. Below are select examples of some of the case outcomes from October 2017 to September 2018.

PUBLIC BENEFITS

Attorneys have successfully obtained, prevented the termination of, or increased the amount of clients' public benefits in at least 71 cases. Between October 2017 and September 2018, the attorneys have assisted clients with 24 issues involving SNAP. Attorneys have successfully obtained an average of $4,161.80 in annual SNAP benefits for clients with successful cases. Attorneys have also successfully obtained or prevented termination of TANF benefits for 31 clients. Attorneys have successfully obtained an average of $3,518 in annual TANF benefits for clients. Additionally, attorneys obtained or prevented the termination of subsidized childcare in five cases.

Attorneys successfully obtained or prevented termination from the SSI program in two cases. The SSI program provides critical monthly income and Medicaid benefits to individuals who are very low-income and disabled. On average, clients who are awarded SSI receive monthly income of $750 that supports

critical basic needs. Additionally, attorneys successfully prevented the termination of or obtained Medicaid for clients and their children in 10 cases.

HOUSING AND UTILITIES

Attorneys have assisted clients with a range of housing needs including preventing eviction, improving housing conditions by asserting tenant rights, and obtaining appropriate housing for clients with disabilities. Unmet housing needs in Chester and across Delaware County are persistent and complex. Attorneys addressed 100 matters related to housing between October 2017 and September 2018. Attorneys successfully prevented eviction for at least three clients. Attorneys successfully secured safe housing for clients in 12 legal matters. Many clients in need of safe housing were homeless or living in unsafe housing conditions.

FINANCIAL IMPACT

Through the resolution of cases, consultations, and engaging in systemic policy advocacy, HELP: MLP attorneys improve clients' economic stability through a variety of ways. Calculating the monetary returns to clients for many of the services the attorneys provide is challenging. The majority of cases resolved by the HELP: MLP attorneys result in some type of immediate or long-term positive financial impact to clients. For this analysis, calculating economic benefits for clients was limited to annualized public benefits obtained or preserved, eviction judgments avoided, medical bills avoided, and resolved tax issues. An array of other legal services and outcomes were not included in the analysis but have a positive impact on clients' financial well-being, including obtaining subsidized or free child care, securing safe housing, obtaining Medicaid benefits, and obtaining educational subsidies, among others. Between October 2017 and September 2018, attorneys obtained $173,793.50 in annual economic benefits for clients, including securing public benefits, defending evictions, avoiding medical bills, and resolving tax issues. As noted above, this amount, while significant, is an underestimate of the total economic benefit of HELP: MLP services to clients due to limitations in the financial impact analysis.

OUR PROGRAMS

THE FOUNDATION FOR DELAWARE COUNTY

The programs of The Foundation for Delaware County help improve maternal and birth outcomes, maternal, child and adolescent health, parenting capacity, and family self-sufficiency among high-risk, low-income families in Delaware County. In integrated fashion these programs work to avoid duplication, and meet the critical needs of individuals and young Delaware County families, helping them to thrive and improve life prospects for all.

Healthy Start

Healthy Start care coordinators and case managers work with pregnant women to help ensure full-term and healthy pregnancies, support breastfeeding and infant care, provide parenting and child development education, and connect moms with in-house counseling and health education programs. Healthy Start serves over 600 women and children each year with added support for fathers and other family members. In addition to direct services, Healthy Start also convenes maternal and child health stakeholders through the Baby's 1st Project initiative to work collaboratively to reduce racial disparities in birth outcomes and promote health equity and wellness for all pregnant women and new parents in Delaware County. Contact Healthy Start at 610-497-7460.

Nurse-Family Partnership (NFP)

Nurse-Family Partnership (NFP) is an evidence-based nurse home visiting program with a mission to positively transform the lives of vulnerable babies, mothers and families. Nurse-Family Partnership is a nationally recognized program with proven outcomes, primarily serving, low-income first time moms throughout Delaware County. Moms enroll during pregnancy and build a relationship with a registered nurse who makes home visits during pregnancy and until the baby turns two years old. Visits focus on mom and baby's health, accessing services, positive parenting, baby's growth and development, safety, addressing substance-use, working towards self-sufficiency, building healthy relationships and more. NFP serves 165 families with 7 nurse home visitors a year. Contact NFP at 610-497-7399.

Delaware County Women, Infants and Children (WIC)

The goal of the WIC Program is to ensure healthy pregnancies and improve birth outcomes, focusing on growth and development of children. The program provides eligible pregnant, postpartum and breastfeeding women, infants, and children under age 5 with nutrition information, breastfeeding support, nutritious foods and referrals. WIC nutritionists provide nutrition education to meet family needs. The WIC program serves women, infants and children throughout Delaware County at one of three clinics located in Chester, Upper Darby and Springfield. Research shows that WIC helps to build strong, healthy families and ensure that kids enter kindergarten healthy and ready to learn. Contact WIC at 484-471-3320.

Chester Drug Free Communities (CDFC)

Chester Drug Free Communities is a program that is dedicated to reducing and preventing substance abuse among youth. The program brings awareness to issues in the community that increase the risk of substance abuse, use and misuse. For more than ten years, CDFC has helped to alter youth perception and norms, increase parental awareness and impact city policy on alcohol, tobacco and other substance related issues. Contact CDFC at 610-497-7422.

Centro de Recursos para Hispanos (Center for Hispanic Resources)

The Center for Hispanic Resources serves as a point of contact and advocates for the Spanish speaking community of Delaware County, helping to familiarize clients with services in their community. The Center assists clients in completing applications, making appointments, providing translation of documents and limited interpretation services. Staff at the Center also refer clients to other agencies that will assist with additional unmet needs. Contact the Center for Hispanic Resources at 610-497-7308.

Health Resource Center

The Health Resource Center is a confidential drop-in center located in Chester High School during the academic year (during the summer the program is located in the foundation's Chester office), where youth receive information to empower their own healthy decisions regarding sexual and reproductive health. Each year, more than 300 counseling sessions are held. Students are provided with condoms and pregnancy tests, as well as education on abstinence, pregnancy prevention, risk reduction and healthy relationships. Contact the Health Resource Center at 610-497-7422.

Cribs for Kids

The mission of Cribs for Kids® is to prevent infant sleep-related deaths by educating parents and caregivers on the importance of practicing safe sleep for their babies and by providing education and portable cribs to families who otherwise cannot afford a safe place for their babies to sleep. Each year, the foundation's Cribs for Kids program provides 125-150 cribs for families in Delaware County who face crises such as house fires, domestic violence or extreme poverty. Contact Cribs for Kids at 610-497-7344.

SPECIAL PROJECTS ACCESSIBLE TO HEALTHY START AND NFP CLIENTS

Moving Beyond Depression (MBD)

Moving Beyond Depression is an evidence-based, in-home treatment for clients with major depressive disorder. Nurses and case managers screen clients for depression during the intake period and throughout enrollment in Nurse-Family Partnership and Healthy Start. If the screen is positive, clients will be referred to an MBD therapist who will screen further for major depressive disorder. If a mom qualifies, she will receive 15 cognitive behavioral therapy sessions with the therapist and another booster session one month after treatment has ended.

Health, Education and Legal Assistance Project: A Medical-Legal Partnership (HELP: MLP)

The Health, Education and Legal Assistance Project: A Medical-Legal Partnership (HELP: MLP) is a civil legal aid program in partnership with Widener University. HELP: MLP primarily provides free legal services to clients of Healthy Start and Nurse-Family Partnership to address unmet civil legal needs while also helping to lower client's stress and can help to improve health and birth outcomes for pregnant women, babies and children.

HEALTH, EDUCATION & LEGAL ASSISTANCE PROJECT:
A MEDICAL-LEGAL PARTNERSHIP
AT WIDENER UNIVERSITY DELAWARE LAW SCHOOL

Client Impact

Escaping Domestic Violence and Building Family Stability

Tanya is a mother of two who had been chronically homeless and in a complicated abusive relationship with her ex-boyfriend, the father of her children. Having been been forced to move out of an extended family member's home, Tanya and her children were going back-and-forth between staying at friends' houses, sleeping in her car, and staying with her abusive ex-boyfriend. When Tanya came to HELP: MLP in the summer of 2017, she had just had her jaw broken by the abuser after he put her head through a wall in front of her two small children. Tanya fled his home with the children and was staying at various friends' homes. Because she and her kids were still listed as part of the abuser's household, Tanya had no income and no access to public benefits.

To attempt to stabilize Tanya's income, food assistance and health insurance for herself and her children, HELP:MLP took action to get her removed from the abuser's grant so that she could receive these benefits independently. However, because of her continued fear of becoming homeless again, Tanya initially decided to return to the abuser. Throughout this time, HELP:MLP kept in touch with Tanya, offering emotional support and other encouragement to leave.

In early 2018, Tanya was finally prepared to leave her abuser and returned to HELP: MLP for assistance in securing benefits and obtaining safe and secure housing. The attorney immediately helped Tanya obtain maximum SNAP (food stamps) benefits, Medicaid, and TANF cash assistance for herself and her two children. To obtain the full TANF cash grant, the attorney successfully argued to the Bureau of Policy of the Department of Human Services that the Tanya had a compelling case of domestic violence and that she would be unable to escape the abuser without access to a this full grant.

To obtain consistent access to housing for herself and her children, HELP: MLP connected Tanya with a local shelter agency that was willing to work with her in getting through her difficult and traumatizing situation. With safe and secure housing in place, Tanya was able to find a job, and with the assistance of the HELP: MLP attorney, she gained access to subsidized child care through the Pennsylvania Department of Human Services. Without this childcare benefit, Tanya would have had to wait months on a waiting list to receive care.

Today, Tanya's housing, income and child care circumstances are the most stable they have ever been. She is finally free from the need to return to her abuser due to housing instability or income insecurity. As Tanya progresses from a shelter to transitional housing and eventually permanent housing, HELP: MLP will continue providing her with housing and welfare benefits support.

484-557-0171

da.helpmlp@gmail.com | www.helpmlp.org

1080 N. Delaware Ave., Suite 300D, Philadelphia, PA 19125

HEALTH, EDUCATION & LEGAL ASSISTANCE PROJECT:
A MEDICAL-LEGAL PARTNERSHIP
AT WIDENER UNIVERSITY DELAWARE LAW SCHOOL

Client Impact

Gaining Independence and Preparing for a More Secure Future

Monica began began receiving assistance from HELP: MLP when she was pregnant and homeless after trying to escape an abusive ex-boyfriend. Monica was staying with a friend who had been using her food and income cash assistance benefits without her knowledge.

To address her immediate housing need, the lawyers at HELP: MLP advocated to have Monica placed in a shelter at an expedited pace. Then, using special protections given to victims of domestic violence and individuals with disabilities (Monica is diagnosed with epilepsy), the lawyers assisted her with securing the maximum welfare benefits possible, including gaining a special exemption from the work requirement for those receiving Temporary Assistance for Needy Families (TANF) cash assistance. For those facing significant hardships and disabilities, especially pregnant women and new mothers, these benefits can help reduce the barriers to obtaining a safe and secure life for themselves and their children.

In the next step towards reaching safety and stability, Monica is applying for Supplemental Security Income (SSI) benefits which provide monthly income and health insurance coverage. However, because Monica had no recent record of her disabilities, the the HELP: MLP team arranged to have a psychological and cognitive evaluation conducted that will supplement her in-progress SSI application.

As a result of the lawyer's interventions, Monica has housing, food, and financial stability for herself and her newborn. She is now on track to receive longer term housing subsidies and disability benefits. She is also finally free from abuse.

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HEALTH, EDUCATION & LEGAL ASSISTANCE PROJECT:
A MEDICAL-LEGAL PARTNERSHIP
AT WIDENER UNIVERSITY DELAWARE LAW SCHOOL

Client Impact

Finding Safety and Pursuing an Education

Brianna's Story

Brianna is a mother of three who was trying to protect herself and her family from community violence and from an abusive father to one of her children. She was living in constant fear that she would be attacked in her community by those who were seeking revenge against her brother, but with a lack of resources including no income or child support, making any changes to her situation was extremely difficult. It was in this perilous situation that Brianna began receiving assistance from the team at HELP: MLP.

After helping to situate Brianna and her children in public housing in an area where Brianna felt more safe, the HELP: MLP attorney assisted her with gaining cash assistance benefits which allowed her to focus on keeping herself and her children protected from harm.

After a few months, Brianna expressed her motivation to get her GED but feared being required to travel to places where she was at greater risk of being attacked. To address this significant barrier, the attorney was successful in getting Brianna access to income benefits and child support that allowed her to work towards a GED, including helping her enroll in a GED program near her home where she felt more safe.

Brianna is now working towards her GED while receiving the necessary income, food, and childcare benefits that allow her to take care of herself and her children. Her next goal is to go to college, and HELP: MLP is prepared to provide her with similar support throughout this endeavor.

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Nurse-Family Partnership

FACT

OVERVIEW

GENERAL INFORMATION

Nurse-Family Partnership® is an evidence-based, community health program with over 40 years of evidence showing significant improvements in the health and lives of first-time moms and their children living in poverty.

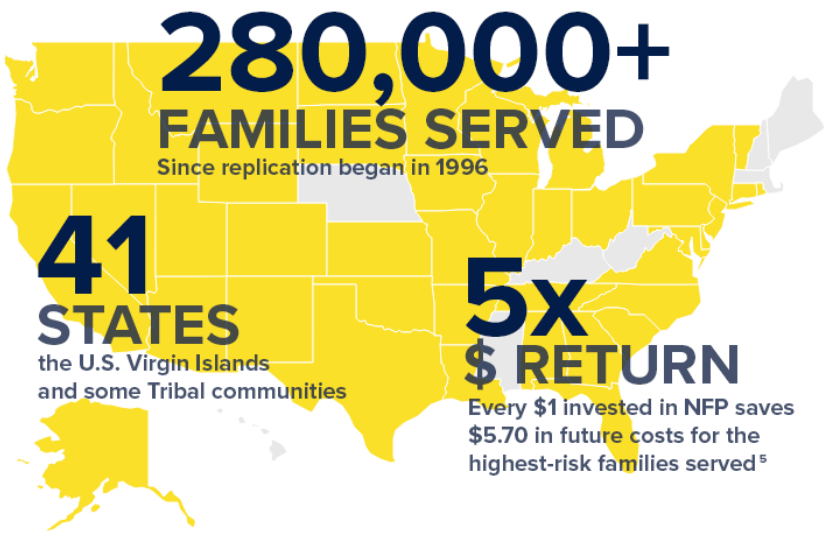
> CHILDREN'S PROGRAMS ARE SUCCESSFUL WHEN THEY LEVERAGE THE MOST DIFFICULT JOB IN THE WORLD: PARENTING
>
> NICHOLAS KRISTOF, NEW YORK TIMES COLUMNIST

Better Worlds Start with Great Mothers

Nurse-Family Partnership empowers vulnerable first-time moms to transform their lives and create better futures for themselves and their babies. Research consistently proves that Nurse-Family Partnership succeeds at its most important goals: keeping children healthy and safe and improving the lives of moms and babies.

Nurse-Family Partnership works by having specially trained nurses regularly visit young, first-time moms-to-be, starting early in the pregnancy, continuing through the child's second birthday.

The expectant moms benefit by getting the care and support they need in order to have a healthy pregnancy. At the same time, new moms develop a close relationship with a nurse who becomes a trusted resource they can rely on for advice on everything from safely caring for their child to taking steps to provide a stable, secure future for their new family. Throughout the partnership, the nurse provides new moms with the confidence and the tools they need not only to assure a healthy start for their babies, but to envision a life of stability and opportunities for success for both mom and child.



Great Nurses Strengthen Families

Our highly-trained nurses give expectant women valuable knowledge and support, enabling positive outcomes. Each Nurse-Family Partnership nurse is specially trained to deliver our unique program—the original model, developed by David Olds, Ph.D., remains at the core of the program today. The partnership between a nurse, a mom or family and the child is a winning combination, and this relationship of trust makes a measurable difference for the whole family across generations.

Nurse-Family Partnership

FACT

NURSES AND MOTHERS

TRANSFORMATIONAL RELATIONSHIP CREATING 2-GEN CHANGE

Nurse-Family Partnership® is an evidence-based health program with over 40 years of evidence showing significant improvements in the health and lives of first-time moms and their children living in poverty.

> MANY WOMEN DON'T HAVE SUPPORT. YES, I WAS YOUNG WHEN I GOT PREGNANT AND I FELT LIKE PEOPLE WERE QUICK TO JUDGE ME. NURSE STEPHANIE BEING THERE FOR ME, MADE ME FEEL LIKE I COULD DO IT.
>
> — MAHOGANY, NFP MOM

OUR MOMS

20
median age

84%
unmarried

57%
completed high school education

$9,000
annual household income (median)

*Cumulative data from 1995 - 2017

Race

51% white
29% black or African American
7% declined
6% multi-racial
3% Asian or Pacific Islander
4% American Indian or Alaska Native

Ethnicity

69% non-Hispanic
29% Hispanic
2% declined

*Cumulative data from 2010 - 2017

WHY A NURSE INTERVENTION?

The expertise and experience that registered nurses bring to this intervention is key in gaining the trust and confidence of a new mother. A nurse helps guide first-time mothers through the emotional, social and physical challenges they face as they prepare for a healthy birth. Prenatal support is the starting point, but the nurse continues to support her client after she delivers her child enhancing knowledge gains and teaching skills that foster positive growth for both the mother and child.

The original model developed by David Olds, Ph.D., remains at the core of the nurse education today. In a sense, the Nurse-Family Partnership model was developed in partnership by nurses for nurses.

NURSE-FAMILY PARTNERSHIP MOTHERS

Nurse-Family Partnership focuses on low-income, first-time mothers—a vulnerable population segment that sometimes has limited access to good parenting information or role-models. Women voluntarily enroll as early as possible with nurse home visits, ideally beginning by week 16 of pregnancy.

The transition to motherhood can be particularly challenging as many are socially isolated or are experiencing severe adversity and nurse home visits prove extremely helpful.

A RELATIONSHIP YOU CAN COUNT ON

Nurse-Family Partnership helps break the cycle of poverty — confident mothers become knowledgeable parents who are able to prepare their children for successful futures. Nurses and mothers make a two-and-one-half year commitment to each other, around 60 planned home visits, adjusting the number of visits based on the mother's needs. This intensive level of support

*all data is client self-identified

NURSES AND MOTHERS

has been proven to improve outcomes relating to:
Preventive health and prenatal practices for the mother—helping her find prenatal care from health care providers, improve her diet and reduce her use of cigarettes, alcohol, opiods and illegal substances, prepare for the arrival of the baby by educating her on the birth process and the immediate challenges of the first few weeks after delivery (e.g., breastfeeding and potential postpartum depression).

Health and development education and care for both mother and child—providing individualized parent coaching aimed at increasing awareness of specific child development milestones and behaviors by encouraging parents to provide sensitive and responsive caregiving.

Life coaching for the mother and her family—enabling economic self-sufficiency among mothers by encouraging them to develop a vision for their own futures, stay in school, find employment and plan future pregnancies. The partnership may include family members, the baby's father and friends.

THE NURSE AND MOTHER RELATIONSHIP

Client-Centered means the nurse is constantly adapting to ensure the visit and materials are relevant and valued by the parent. Supporting the client's growth and individual needs is the focus.

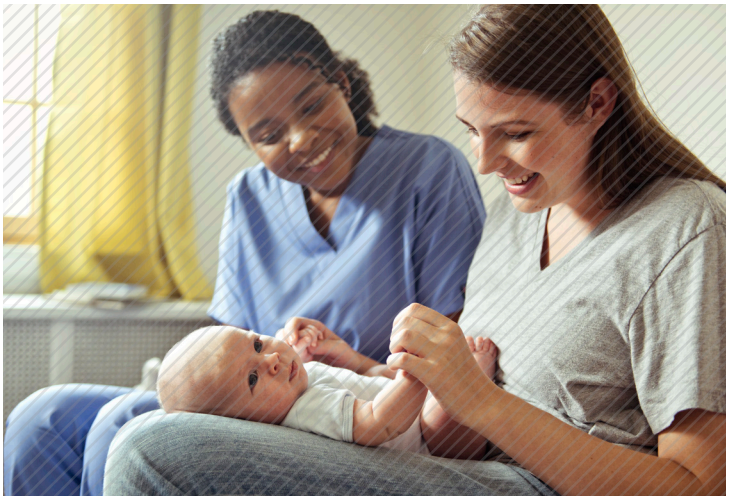
Relational means that the relationship between the nurse and the mother is the primary tool used for learning and growth in each family served.

Strengths-Based means that the intervention is based on solid adult learning and behavior change theory. Adults and adolescents make changes most successfully when they are building on their own knowledge, strengths and successes.

Multi-Dimensional means that the life of each program participant is viewed holistically and what the program offers is connected to multiple aspects of personal and family functioning: personal and environmental health, parenting, life course development, relationships with family and friends and community connections.

FIDELITY TO THE MODEL

Nurses document and enter assessments from each visit into a web-based data collection system. The data is monitored to ensure that the program is being implemented with fidelity to the model as tested in the original randomized, controlled trials, so that comparable results are achieved. The Nurse-Family Partnership Model Elements are supported by evidence of effectiveness based on research, expert opinion and field lessons and/or theoretical rationales.



Nurse-Family Partnership
Helping First-Time Parents Succeed®

1900 Grant Street, 4th Floor
Denver, Colorado 80203
NurseFamilyPartnership.org
866.864.5226

"AS A NURSE HOME VISITOR, I GET TO BE THE BEST CLIENT ADVOCATE I CAN BE BY SUPPORTING FOLKS NAVIGATING THE HEALTH CARE SYSTEM AND PROMOTING THEIR RIGHT TO SEEK CARE THEY DESERVE WITH RESPECT, DIGNITY, COMPASSION AND EVIDENCE-BASED INFORMATION THAT MEETS THEIR NEEDS AND CONSIDERS THEIR VALUES FREE OF JUDGEMENT.

— REBECCA DUNCAN, NFP NURSE

OVERVIEW

We Are The Gold Standard

More than 40 years of scientific studies have consistently proven that we succeed at our most important goals of keeping children healthy and safe, and improving the lives of moms and babies.

48% REDUCTION IN CHILD ABUSE AND NEGLECT [1]

67% LESS BEHAVIORAL AND INTELLECTUAL PROBLEMS IN CHILDREN AT AGE 6 [2]

72% FEWER CONVICTIONS OF MOTHERS (MEASURED WHEN CHILD IS 15) [1]

82% INCREASE IN MONTHS EMPLOYED [3]

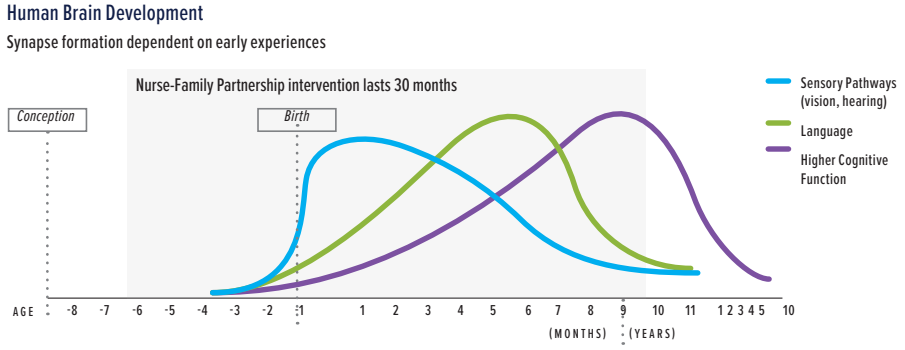
35% FEWER HYPERTENSIVE DISORDERS OF PREGNANCY [4]

Nurse-Family Partnership Goals

1. Improve pregnancy outcomes by helping women engage in good preventive health practices, including thorough prenatal care from their healthcare providers, improving their diets and reducing their use of cigarettes, alcohol and illegal substances;
2. Improve child health and development by helping parents provide responsible and competent care; and
3. Improve the economic self-sufficiency of the family by helping parents develop a vision for their own future, plan future pregnancies, continue their education and find work.

Proven Results

The Nurse-Family Partnership program has been independently reviewed and evaluated, and is ranked as the Gold Standard of home visiting programs. A report from the Center on the Developing Child at Harvard University shows the extent to which very early childhood experiences influence later learning, behavior and health.



Source: Nelson, C.A., In Neurons to Neighborhoods (2000).

This Harvard report shows, during the first 30 months of a child's life, basic brain functions related to vision, hearing and language development. It is during this window of opportunity that the early and intensive support by a Nurse-Family Partnership nurse can have a huge impact on the future of both mother and child.

> "THERE IS A MAGIC WINDOW DURING PREGNANCY… A TIME WHEN THE DESIRE TO BE A GOOD MOTHER AND RAISE A HEALTHY, HAPPY CHILD CREATES MOTIVATION TO OVERCOME INCREDIBLE OBSTACLES INCLUDING POVERTY WITH THE HELP OF A WELL-TRAINED NURSE."
>
> **DAVID OLDS, PHD, FOUNDER OF NURSE-FAMILY PARTNERSHIP, PROFESSOR OF PEDIATRICS AT UNIVERSITY OF COLORADO**

Nurse-Family Partnership

1900 Grant Street, 4th Floor
Denver, Colorado 80203
NurseFamilyPartnership.org
866.864.5226

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Nurse-Family Partnership
REDUCES MATERNAL AND CHILD MORTALITY

FACT

HEALTH OUTCOMES

Nurse-Family Partnership® is an evidence-based health program with nearly 40 years of evidence showing significant improvements in the health and lives of first-time moms and their children living in poverty.

ACCORDING TO THE CENTERS FOR DISEASE CONTROL & PREVENTION, IN THE U.S. AN ESTIMATED 700 WOMEN DIE EACH YEAR DURING PREGNANCY, CHILDBIRTH OR DURING THE FIRST YEAR FOLLOWING BIRTH WITH LEADING CAUSES BEING CARDIOVASCULAR DISEASE, HYPERTENSIVE DISORDERS, HEMORRHAGE AND INFECTION.

BLACK MOTHERS FACE EVEN STEEPER ODDS. THE CDC REPORTS THAT BLACK MOTHERS IN THE U.S. DIE FROM ALL CAUSES RELATED TO PREGNANCY AND CHILDBIRTH AT A RATE MORE THAN 3 TIMES HIGHER THAN WHITE MOTHERS.[4]

THE CENTERS FOR DISEASE CONTROL & PREVENTION

MATERNAL MORTALITY

3x Mothers who did not receive nurse home visits were nearly **3 times more likely to die** from all causes of death than nurse visited mothers (3.7% versus 1.3%)[1]

8x Mothers that did not receive nurse home visits were **8 times more likely to die** from external causes – including unintentional injuries, suicide, drug overdose and homicide – than nurse visited mothers (1.7% versus 0.2%)[1]

Nurse-Family Partnership Improves Pregnancy and Birth Outcomes

Nurse-Family Partnership is on the front lines of prevention efforts aimed at reducing maternal and child mortality and promoting healthier pregnancies and birth outcomes. NFP nurses use their skill and expertise in 2-generation assessments to detect early warning signs of health problems during pregnancy, post-partum, infancy and early childhood that can lead to adverse outcomes—even death. In addition to monitoring for risk factors, NFP nurses support mothers to bravely and boldly advocate for themselves and their children as they interact with the health care system.

Research on pregnancy-related mortality data has consistently concluded:

- The pregnancy-related mortality ratio in the U.S. has increased over the recent decades while health care costs continue to rise.[2]
- Significant disparities exist in pregnancy and birth outcomes according to race, ethnicity, age, income and health insurance status.[2]
- Approximately half of maternal deaths in the U.S. are preventable.[2]

NFP nurses ensure that women and children experiencing signs of possible health complications are seen by the appropriate health care provider and that appropriate follow-up care is completed. Nursing is the most trusted profession for 17 years running, according to Gallup, positioning nurses to be highly effective in supporting family health through building strong relationships with caregivers.[3]

HEALTH OUTCOMES

BACKED BY GOLD STANDARD EVIDENCE

MEMPHIS TRIAL BEGAN: 1990
MORTALITY STUDY FOLLOW-UP: 1990-2011
POPULATION: LOW-INCOME AFRICAN-AMERICAN
ENVIRONMENT: DISADVANTAGED, URBAN AREA

Beginning in 1990, the second randomized, controlled trial was conducted in Memphis, TN to study the effects of Nurse-Family Partnership on low-income, primarily African-American mothers living in disadvantaged, urban neighborhoods.

In July of 2014, JAMA Pediatrics published a study that found for participants in Nurse-Family Partnership there were lower rates of preventable causes of death among children and all causes of death among mothers.[1]

CHILD MORTALITY

- Among Nurse-Family Partnership participants, there were **lower rates of preventable child mortality** from birth until age 20.[1]
- 1.6% of the children not receiving nurse home visits died from preventable causes – including sudden infant death syndrome, unintentional injuries and homicide – while none of the nurse visited children died from these causes.[1]

Additional Maternal and Child Health Outcomes

Maternal Health Outcomes

35% fewer cases of pregnancy-induced hypertension[5]

18% fewer preterm births[6]

79% reduction in preterm delivery among women who smoke cigarettes[7]

31% reduction in very closely spaced (<6 months) subsequent pregnancies[8]

Child Health Outcomes

48% reduction in child abuse and neglect[9]

39% fewer health care encounters for injuries or ingestions in the first 2 years of life among children born to mothers with low psychological resources[10]

67% less behavioral and intellectual problems in children at age 6[11]

56% fewer emergency room visits for accidents and poisonings through age 2[12]

Next Steps

Nurse-Family Partnership is actively exploring opportunities for policymakers to better invest in improvements to address maternal and child mortality. We are encouraged by recent reforms to several federal funding streams to better address this issue and seek to better understand and harness the role of Nurse-Family Partnership in these conversations.

> "DEATH AMONG MOTHERS AND CHILDREN IN THESE AGE RANGES IN THE U.S. GENERAL POPULATION IS RARE, BUT OF ENORMOUS CONSEQUENCE. THE HIGH RATES OF DEATH IN THE CONTROL GROUP REFLECT THE TOXIC CONDITIONS FACED BY TOO MANY LOW-INCOME PARENTS AND CHILDREN IN OUR SOCIETY. THE LOWER MORTALITY RATE FOUND AMONG NURSE VISITED MOTHERS AND CHILDREN LIKELY REFLECT THE NURSES' SUPPORT OF MOTHERS' BASIC HUMAN DRIVES TO PROTECT THEIR CHILDREN AND THEMSELVES."
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> FOUNDER OF NURSE-FAMILY PARTNERSHIP
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Helping First-Time Parents Succeed®

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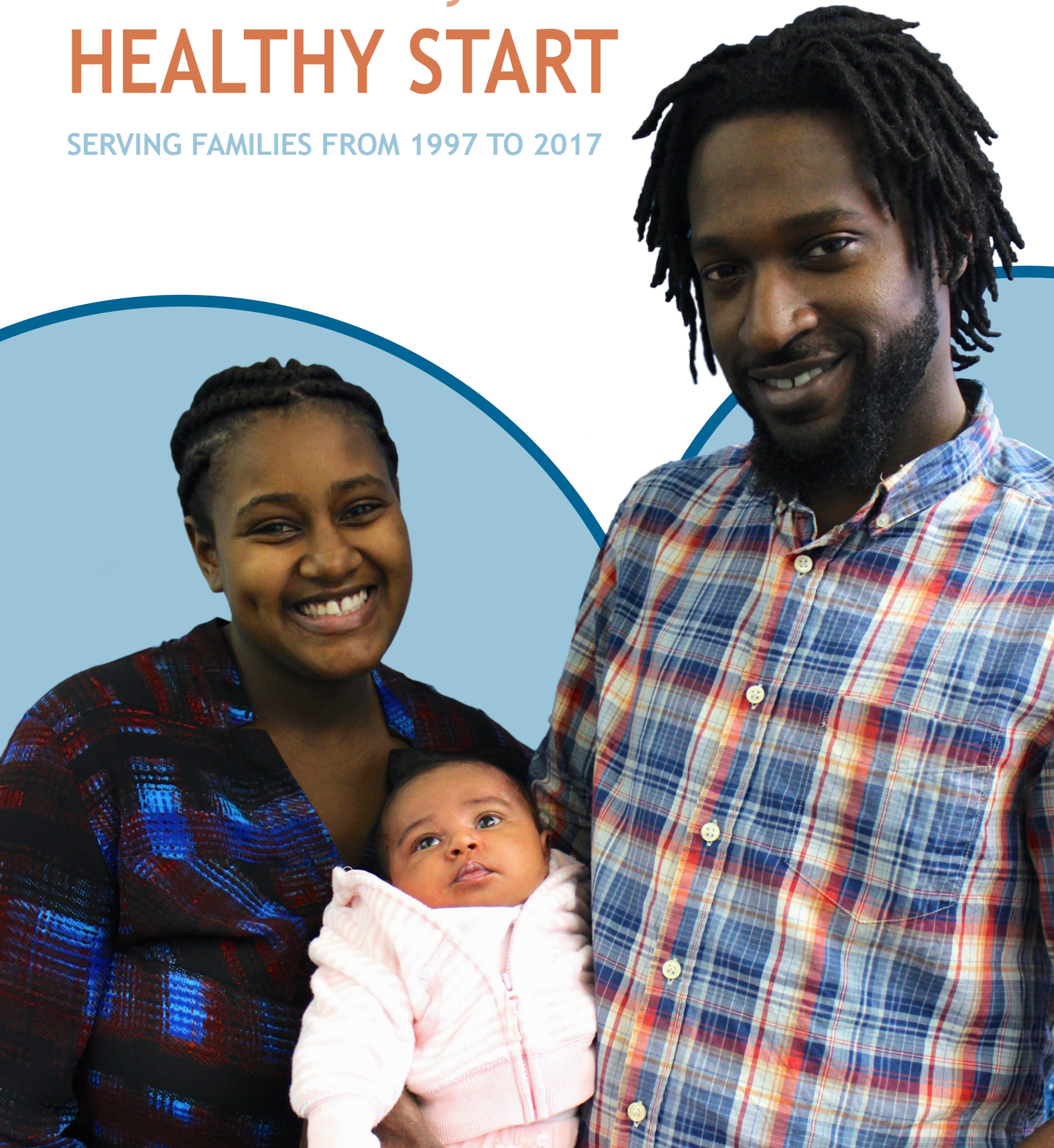
20 YEARS
of Crozer-Keystone
HEALTHY START

SERVING FAMILIES FROM 1997 TO 2017

CROZER-KEYSTONE COMMUNITY FOUNDATION



A MESSAGE FROM JOANNE CRAIG

VICE PRESIDENT FOR PROGRAMS, CROZER-KEYSTONE COMMUNITY FOUNDATION

Developing, implementing, and championing Healthy Start has been a labor of love over these 20 years. Professionally practicing what I personally believe in has been incredibly rewarding. Our work with families and the outcomes we have helped them to achieve has been tremendous, an accomplishment of which I am most proud. The relationships we have built with our colleagues who have collaborated and partnered with us have contributed to our success, creating a village to raise the children of the families we serve. Crozer-Keystone Healthy Start has grown into an indispensable program.

Healthy Start is successful in large part because of teamwork and the incredible individuals that I've had the pleasure of working with over the years. Each staff person was handpicked to join our team, and they have been creative, committed, diligent, awe-inspiring, empathetic, passionate, flexible, relentless, and so much more. Each one of them cares; listens to the tough and often sad stories; offers a strong shoulder to lean on; wipes away tears; gives encouragement; won't take "no" for an answer; keeps calling when no one answers or misses an appointment. It is because of the team of staff doing this hard work that the project stands strong today. They are each super heroes and I am proud to lead the charge! In this report, you'll learn about how – over 20 years – Healthy Start's services, partnerships, and collaborations support families and help them thrive and grow.

A MESSAGE FROM FRANCES SHEEHAN

PRESIDENT OF CROZER-KEYSTONE COMMUNITY FOUNDATION

The Crozer-Keystone Community Foundation is brand new, but the programs we inherited from the Crozer-Keystone Health System are celebrating over 20 years of impact and progress for thousands of vulnerable families in Delaware County. Our board and staff are honored to carry on the legacy of those who believed in the survival of these invaluable programs. Our founders had the vision to recognize that being part of a community foundation serving the entire county could give Healthy Start and its sister programs the opportunity to be even more impactful in the future. Since the foundation's creation, the talented staff in our programs have been integrated across four sites, and our board of directors is beginning to envision how a larger grantmaking program to assist other non-profits in Delaware County can build on the success of Women's and Children's Health Services. Those of us who have been active in philanthropy know that real impact on our nation's toughest problems requires focus and staying power, both of which have been hallmarks of these programs.

This report describes the work of our dedicated staff with gratitude to our committed funders and the many community partners willing to collaborate and wrap around to help our youngest citizens get off to the best possible start in life. All who have played a part can be proud that you made a difference. We hope you will read this report with respect for those we serve because they are our neighbors who struggle with challenges most of us cannot even begin to imagine. We hope you will be as grateful as we are that Delaware County has such talented people working and volunteering to change lives every single day. Let's join together to take all that's been learned in the past 20 years and build a healthy Delaware County for all of our residents — from the beginning.

SUPPORTING FAMILIES FOR 20 YEARS.

In Healthy Start's early years, the Chester community was frustrated with the flux of programming. "Many years ago, when I first came to Chester, I attended a community meeting where residents complained about organizations coming to Chester and using them to get grants and then leaving without really helping anyone," explained Joanne Craig, Vice President for Programs. "I made a promise to myself that Healthy Start would not be like those organizations."

Now, through 20 years of supporting the Chester community, Healthy Start is honored to deliver on that promise. Craig said, "I am proud that Healthy Start has successfully been funded for twenty years and continues to deliver exceptional services to now a second generation of Chester area families. I am delighted that Healthy Start has built strong collaborative relationships with other service providers."

1997

Crozer-Keystone Healthy Start begins

1998

Healthy Start begins enrolling program participants

1998

Formal collaboration with the Delaware County Family Center

1998

First Jumpstart Newsletter is published

Since the project's inception in 1997, Crozer-Keystone Healthy Start has served more than 3,100 families. Nearly 300 families were served in 2016.

Over the past 20 years, Healthy Start has continually expanded its services and reach in the community. Healthy Start offers case management, care coordination, home visitation, advocacy, mental health assessments, family planning, interpretation and translation services, resource linkage, health education, and transportation coordination. Every day, case managers' top priority is to ensure women have successful pregnancy outcomes; babies are healthy throughout their time in the program and beyond; and families gain the skills and abilities necessary to create opportunities for overall self-improvement and self-sufficiency.

1998

Healthy Start makes its first referral to WIC

2001

Healthy Start is awarded 4 more years of funding

2001

Healthy Start's service area expands

2004

citymatch
The National Organization of Urban MCH Leaders

City MatCH develops the Perinatal Periods of Risk framework, a data-to-action tool

The success of Healthy Start is built on the passion, commitment, knowledge, and experience of its staff. Helping vulnerable families birth healthy babies and improving maternal and birth outcomes is hard work. The challenges are pervasive; the solutions are not often easy or simple. It takes a team of special people to stay the course, maintain their commitment, overcome barriers, and help families realize their goals.

Over the past two decades, the dedicated Healthy Start staff have built the foundation for dynamic family services. Many Healthy Start staff are native to Chester, a quality that makes them especially empathetic to clients. Some staff members have had the same or similar life experiences as Healthy Start clients. Some found their way to Healthy Start through other professions; while others, new to the area, bring fresh ideas and perspectives to the team. Healthy Start staff members have varied degrees, credentials, and life experiences. Staff are experts on various topics, including breastfeeding, reproductive life planning, fetal alcohol spectrum disorders, trauma-informed care, postpartum depression, and much more. No matter their background or specialty, all Healthy Start staff are alike in that they use their knowledge, expertise, and compassion to help change lives and support families in Chester and surrounding communities through high quality service delivery.

"I didn't have this when I was coming up. I'm from Chester too, and I was a teen mom. Just because I missed it, I want to make sure that everyone else can get it too. It warms my heart that a lot of our clients don't want to leave the program. We go way beyond our call of duty. We've had a great impact on the community. We wear superhero capes on our backs and we don't even realize it."

ERICA DAVIS, INTAKE SPECIALIST/CASE MANAGER

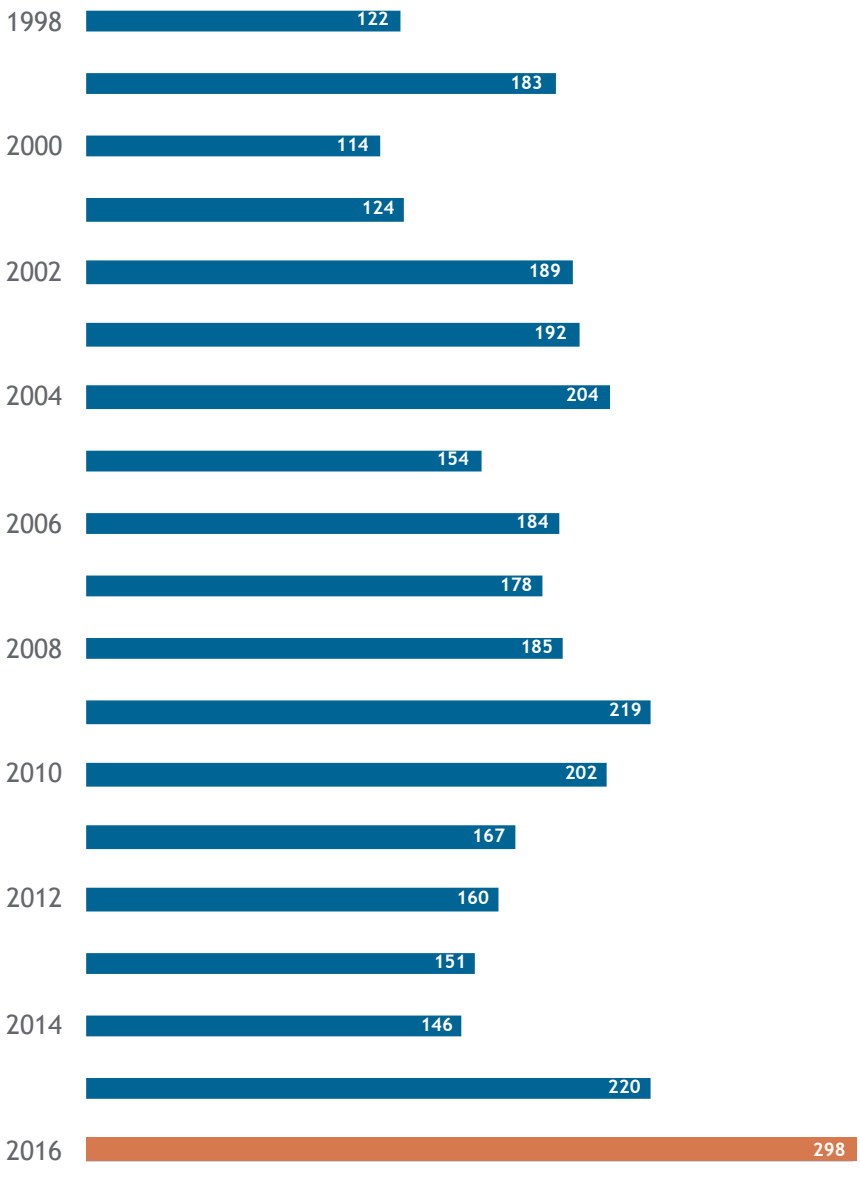
2004
Healthy Start staff co-founded the Teen Pregnancy Coalition

2004
Learn the Signs. Act Early. campaign is launched

2005
Healthy Start is awarded 4 more years of funding

Healthy Start has Served an Increasing Number of Families Each Year

Last year, the program served the highest number of enrollees since its inception.



2006

Bed Sharing Practices and Attitudes of Mothers with Newborn Infants Healthy Start IRB Study begins

2006

Delaware County Cribs for Kids is launched

OUTREACH

Outreach and engagement promotes Healthy Start in the service area to ensure that potential participants, community partners, and other referral sources are aware of Healthy Start services and eligibility criteria. Through intensive outreach, engagement, and recruitment, we build upon and improve our connections with community members and organizations. In addition to canvassing in the community and participating in local events, outreach and engagement efforts have evolved as we have expanded the types of venues where we promote our services and have developed a more robust social media presence to better connect with others.

CASE MANAGEMENT

Case managers create a support system for Healthy Start participants, providing a guiding voice and helping hand through the obstacles and stressors in their lives. Case management helps women navigate health and social services to ensure the best and most needed services are reached. Staff empower women during their time in the program, helping them develop skills and confidence to thrive on their own. Over the past 20 years, the program tripled its case management staff and has become a tiered system, matching clients to one of two levels of service based on their need. Since 2009, case managers conducted over 6,200 home visits.

EDUCATION

Healthy Start's education division provides staff and participants with supplemental education on a wide variety of life skills and health topics. The education division provides toolkits, flyers, talking points for frontline staff, and events in order to fill health literacy and education gaps and to provide up-to-date, best practices for participants, families, and staff. Most recently, Healthy Start's education component has focused on life skills and breastfeeding support. Over the past three years, Healthy Start has engaged almost 1,300 people through educational events.

EVALUATION

Evaluation specialists from Public Health Management Corporation's (PHMC's) Research & Evaluation Group collaborate with program staff to provide technical assistance, outcome and process evaluation, and research to support the work of Healthy Start. The evaluators work closely with Healthy Start to identify and prioritize research questions, to use evaluation methods for quality improvement, and to assess local and national trends in maternal and child health. Data and analysis are used to help inform program decisions, improve the quality of services, identify barriers and successes, and support collective impact and its initiatives. PHMC's Research & Evaluation Group has been Healthy Start's local evaluator for 20 years.

MEDICAL-LEGAL PARTNERSHIP

The Health, Education and Legal Assistance Project: A Medical-Legal Partnership (HELP: MLP) is a civil legal aid program sponsored by Widener University that addresses the social determinants of health affecting low income communities. Because of inadequate funding in the United States, it's estimated that more than 80 percent of the civil legal needs of people who are poor go unmet. HELP: MLP attorneys provide holistic legal services to its partners and their clients. Since partnering with Healthy Start in 2010, HELP: MLP has resolved over 1000 legal issues through direct representation and partner consultation in Chester and surrounding communities.

EL CENTRO

The Center is a hub of services connecting Spanish-speaking program participants to case management, advocacy, translation, appointment scheduling, health education, application assistance, and referrals. The success of the program stems from community support and buy-in from surrounding programs, including Healthy Start. In coordination with the Center, Healthy Start has bilingual case managers who are certified medical interpreters and can provide translation and interpretation support to Spanish-speaking participants. Last year, the Center provided services for 395 clients.

CRIBS FOR KIDS

Increasing safe sleep practices and educating the community on safe sleeping environments are key to ensuring infants thrive throughout their first year. Cribs for Kids aims to prevent sleep-related deaths by educating parents and caregivers on safe sleep practices for their babies, as well as by providing portable cribs to families who otherwise cannot afford a safe place for their babies to sleep. Cribs for Kids serves an average of approximately 125 families each year in Delaware County.

STORK'S NEST

Stork's Nest encourages women to make and keep prenatal care appointments and to participate in prenatal education classes. Getting early and regular prenatal care and learning about healthy pregnancy choices are significant contributors to helping women have healthy pregnancies and healthy babies. The program — a formal collaboration with Zeta Phi Beta Sorority, Inc., Rho Chi Zeta Chapter and the March of Dimes — is an incentive-based, prenatal health promotion program for low-income pregnant women across the county. In the past year, 15 moms graduated from Stork's Nest.

NURSE-FAMILY PARTNERSHIP

Nurse-Family Partnership (NFP) supports a particularly vulnerable population: low-income, first-time moms. NFP provides education and support through home visiting throughout pregnancy and the baby's second birthday. When families enroll in both NFP and Healthy Start, case managers from Healthy Start ensure that new families are connected to needed services while their nurse-home visitor addresses the physical and emotional health of both mothers and babies. So far this year, 138 families have received 1,015 visits from our nurse-home visitors in Delaware County.

ONE STOP SHOP.

When Morgan, a 26-year-old pregnant mother of two children, enrolled in Healthy Start, she was depressed, living in unsafe housing, and uncertain of where to get food. She had a prior preterm birth and had not yet started prenatal care. Healthy Start welcomed her into their system of caring staff and personalized programming. Morgan was referred to Medical-Legal Partnership (MLP) to address her housing concerns and to enroll her in public benefits. Her Healthy Start case manager referred her to WIC and provided information on local food banks. Morgan's depression screening led to her enrollment in short-term counseling. No longer consumed with these stressors, Morgan could now focus on having a healthy pregnancy.

Crozer-Keystone Healthy Start was Morgan's "One Stop Shop" for delivering a healthy baby. Morgan's story is not unique among the women and families Healthy Start serves. Healthy Start believes that families are most resilient when all of their needs, challenges and skills are addressed so they can break through barriers preventing their development and success. At Healthy Start, women are seen as individuals — each with their own life stories, ambitions, and values. The program understands the importance of tailoring case management for each

2007
WIC food package is revised

2008
Nurse-Family Partnership
Helping First-Time Parents Succeed®
Nurse-Family Partnership begins

2009

Healthy Start's First-Time Motherhood Preconception Care Program (I Decide) grant begins

2009
Healthy Start is awarded 5 more years of funding

"As a parent and grandparent, I know how important it is for every new mother to have a circle of support. For hundreds of mothers in our community, that circle has included the encouraging and compassionate staff of Healthy Start."

— Cheryl Cunningham, Executive Director of Chester Education Foundation

woman and of meeting women where they are. "Whether she is interested in getting her GED or a four-year degree, renting her first apartment or buying her first home, having her first or her fifth child, and everything in between, we are dedicated to making sure that women have every opportunity to support their dreams and aspirations for themselves and their families," said Akesha Gainer, Healthy Start Case Management Coordinator.

Being a One Stop Shop means working closely with all of the services and resources available in the community so that every participant receives the right support. Case managers are routinely located at WIC, in OB/GYN practices, and in ChesPenn Health Services (a local Federally Qualified Health Center), which strengthens relationships with providers and increases early enrollment in Healthy Start. Being a One Stop Shop also refers to the comprehensive array of services Healthy Start offers, ranging from care coordination to home visitation to interpretation and translation services. Clients are receptive to case managers' support, in part because staff are deeply connected to the culture of the community in which they work. Case managers regularly participate in community events and activities, and their relationships with clients and agencies are long-standing and strong. "Our goal," explains Gainer, "is to provide clients with wrap-around services from multiple sectors, to ensure that all basic needs are being met and that babies are thriving — through their second birthday and beyond."

Johnetta,
Healthy Start Participant

When I first got involved in the program, I was 16 years old and pregnant with my first son. When I came and met with Ms. Powell, it was like, "They are very friendly!" We just clicked.

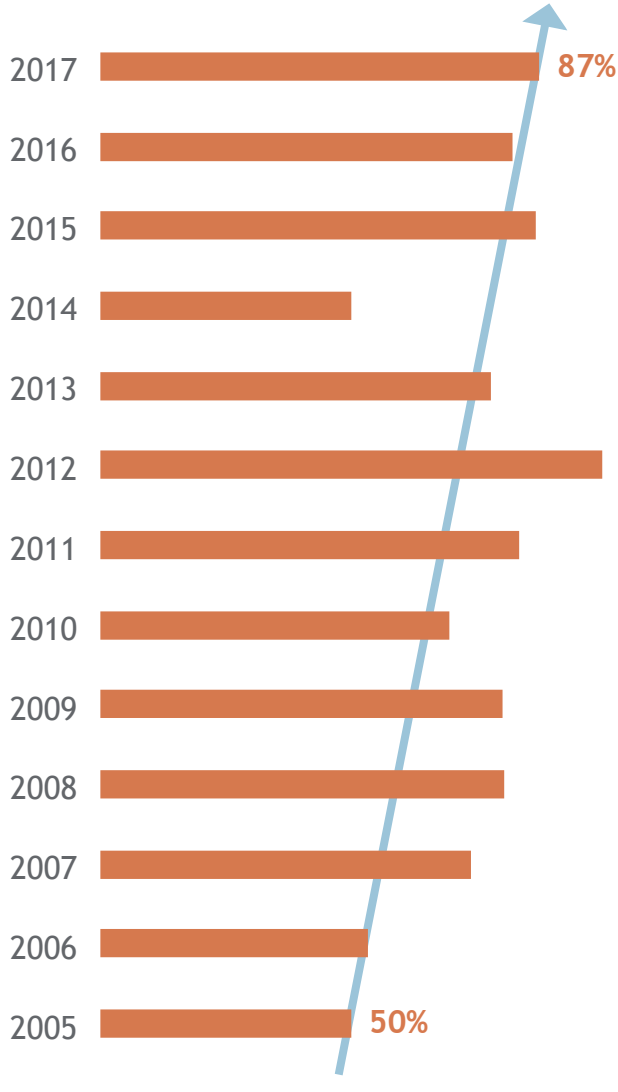
She asked me, "Do you need help with getting some things for the baby?" She told me what they did as far as helping teen moms with their babies, getting them the stuff they needed, taking them to their appointments, and things of that sort. Joining Healthy Start let me know that I had people there that can actually help me, with me being a first-time parent and a teenager.

I went to the program four times because I have four boys, and I loved going through the program every time. I don't care how many times you get pregnant if you want to go through Healthy Start, go through Healthy Start because they are willing to help you and they're a shoulder you can cry on and someone you can talk to. Whatever is bothering you, they will answer your question the best way they know how.

My proudest moments in the program are with me and my case manager, Ms. Powell. Even though I'm not in the program anymore, I still can call her and get information on certain things. It has been very helpful for me. They are very open and honest with you and you can come to them with basically anything you want to ask them and they will be willing to help you. If they don't know the answer, they are going to find the answer for you. So I got a couple things out of Healthy Start. I got an additional family to the one that I have.

The Percent of Healthy Start Participants Receiving Adequate Prenatal Care Grew

from 50% in 2005 to 87% in 2017.



2010

Medical-Legal Partnership is added to Healthy Start

2010

Affordable Care Act passes

"For a lot of our clients, when somebody shuts the door in their face, they feel it's over. And a lot of them have had a lot of doors shut in their faces. I can encourage them that you don't just stop because the door was shut. We can help them see whatever avenues are still open. They feel it's over, but I want them to know it's not over. Keep pushing. We'll see the end of this tunnel. That's where I come in."

ELLA POWELL, CASE MANAGER

"What motivates me? The families. When people are able to connect to other resources that are going to work for them, it can transform outcomes and impact health. The social justice heart of Healthy Start and the greater movement for health equity — that every individual has a right to attain the highest level of health and that every baby should start life on an even playing field — I admire that Healthy Start is active in that fight."

KATIE KENYON, COMMUNITY DEVELOPMENT COORDINATOR

100%
of teen participants receive pregnancy prevention education.

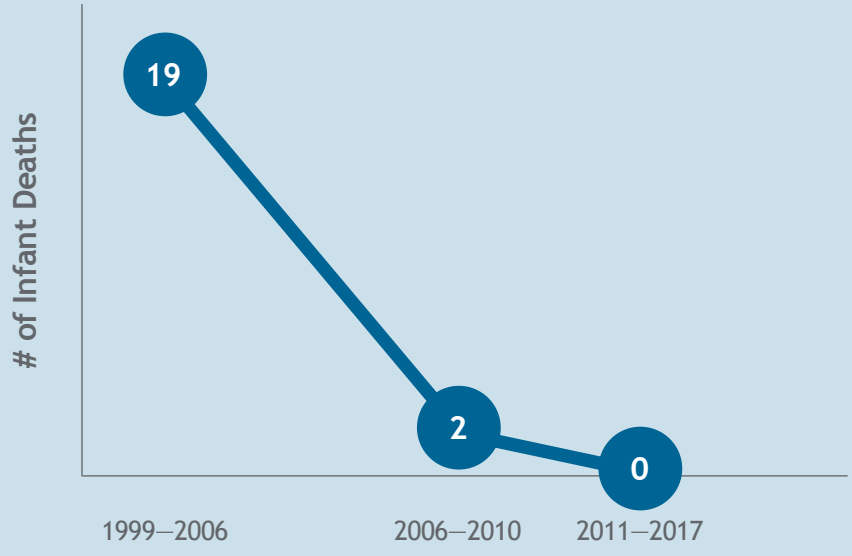
100%
of participants receive mental health screenings.

100%
of Healthy Start babies receive their vaccinations.

100%
of Healthy Start participants have a medical home.

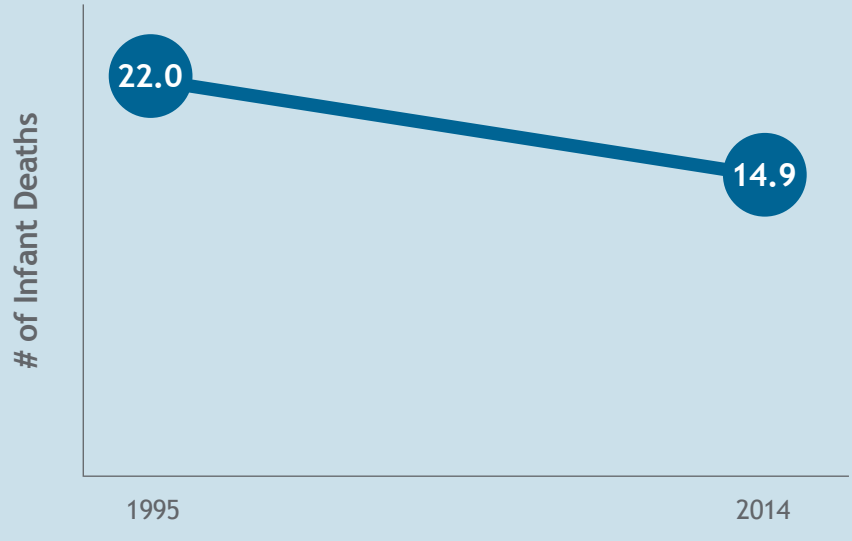
Nationally, only **81%** of adults ages 18-24 have a medical home (2008; Healthy People 2020)

There have been No Infant Deaths among Healthy Start Participants Since 2011



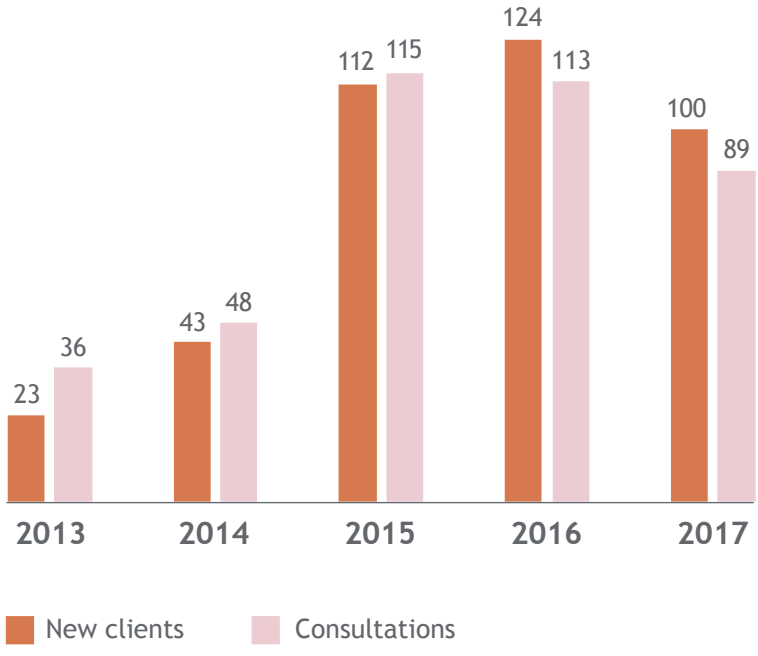
Chester's Infant Death Rate has Also Decreased

from 22 deaths per 1000 births to 15 deaths per 1000 births



HELP: MLP served 100 new Healthy Start clients this year.

In the past five years, HELP: MLP served 402 new Healthy Start clients.



zero

maternal deaths among Healthy Start participants over the past 10 years.

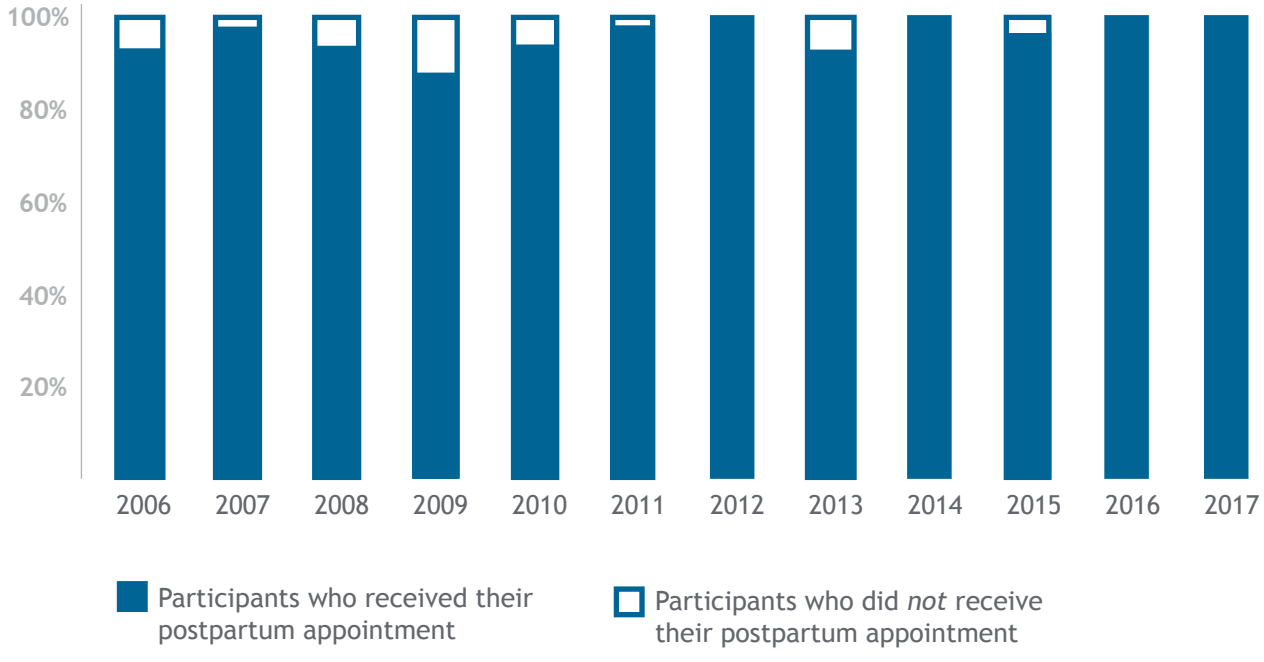
In the past decade, Healthy Start has provided over 19,600 hours of **CASE MANAGEMENT**.

Healthy Start made 1,052 **REFERRALS** in the last five years, and more than 2,060 in the last 10 years.

Case managers conducted 6,285 **HOME VISITS** since 2009 and over 580 just last year.

Between 2006 and 2017, Only 4 Percent of Healthy Start Participants Missed their Postpartum Appointment

(of the participants with scheduled postpartum appointments)



"Working with Healthy Start has truly expanded my understanding of what 'healthy' means for individuals as well as the community. Never has my work felt more meaningful and fulfilling than with this collaborative, community-focused, foundational work in support of babies and families being done through Healthy Start. I love that Healthy Start is of the community, for the community."

— Dr. Darcy Hayes, Crozer-Keystone Pediatrics Hospital and Emergency Medicine

"I have a degree that allows me to do something very special. I can use the law to speak on behalf of people and hopefully help them to a better position. I'm very proud of every time that I can find someone shelter, or help someone get into suitable housing, or help someone get out of a bad housing situation with a little money and a little dignity."

JORDAN CASEY, MEDICAL-LEGAL PARTNERSHIP LAWYER

"Chester is my hometown so I have a vested interest. I want to see it thrive again and the individuals that we work with are part of the framework of the community. We want them to be all that they can be so that they can raise healthy children who will be good participants in the community."

ADRIANNE SELBY, ADMINISTRATIVE ASSISTANT

IT TAKES A VILLAGE.

It takes a village to help a mother birth a healthy baby. The best possible start in life is to be born to a mother who is holistically healthy herself: physically, spiritually, and emotionally. A mom who has plenty of support — from her biological family members, as well as her chosen families, her partners, her neighbors, her community at her place of worship, and whomever else is within her circle — to help mitigate the stressors that arise. "Where her inner circle of support falls short," explains Katie Kenyon, Community Development Coordinator, "the rest of us pick up."

Indeed, from 2000 to 2013, the infant and maternal mortality rates in the United States decreased by 13 percent across the board. However, babies born to black mothers are two to three times more likely to die before their first birthday than babies born to white mothers, and such is the case in Delaware County. "We have a great deal of work to do to help every mother have a healthy baby, and we bear a duty to mend the systems that allow these racial disparities to continue," says Kenyon.

2014

Healthy Start is awarded 5 more years of funding

2014

Number of case managers nearly triples since Healthy Start's inception (from 3 to 8 case managers)

2014

Collective Impact begins

2014

Case managers begin co-location in OB/GYN practices and ChesPenn Health Services, Inc.

Through collaboration, improvement in access and quality of care, streamlining wrap-around supports to pregnant women, and placing the voice and leadership of mothers at the heart of the work, some states have been able to reduce the infant mortality disparity between black and white mothers by almost 25 percent. "In Delaware County, we are ready for a movement where every mom, dad, family member, neighbor, business owner, philanthropist, health provider, educator, and social service provider recognizes the critical importance and lifelong impact of a healthy start for babies and the families that welcome them into the world," says Kenyon.

In 2015, Baby's 1st Project, Partners for Perinatal Health in Delaware County, was born. Formed from a 2014 Healthy Start grant and many long-term community relationships, Baby's 1st Project is a collective impact initiative to improve birth outcomes and help more babies celebrate their first birthday. Collective Impact is a framework for moving the needle on a complex social problem and relies on fostering collaborations to mobilize a movement. (Continue on next page).

Shavon,
Healthy Start Participant

I was still in high school, I lost my parents, and my grandma was pretty much trying to take care of a teenage young lady with a daughter. Me and Ms. Denise [my Healthy Start case manager], we met and — long story short — she helped me out a lot. Ms. Denise did so much for me to keep me strong, and there were some times that I would buckle down because I lost both parents. But through the hardest time, she was there for everything. She's a doll and she's a fighter. Ms. Denise is a second mother. Even when Denise told me that she wasn't working, she would still help me by coming by.

There was a time when I almost lost my place and I was pregnant with my third child, and she came to Chester Housing with me. She helped me keep a roof over my head. She came with me and sat with me and fought with me to get my unit and keep my subsidized housing.

My proudest moment in the program is getting my son into early intervention because there was times that he did things that would scare me as a mother. I told her, "Ms. Denise, I don't know what to do." She started me out with that early intervention. Now, he graduated from the charter middle school this year. I had two graduates and two proms this year!

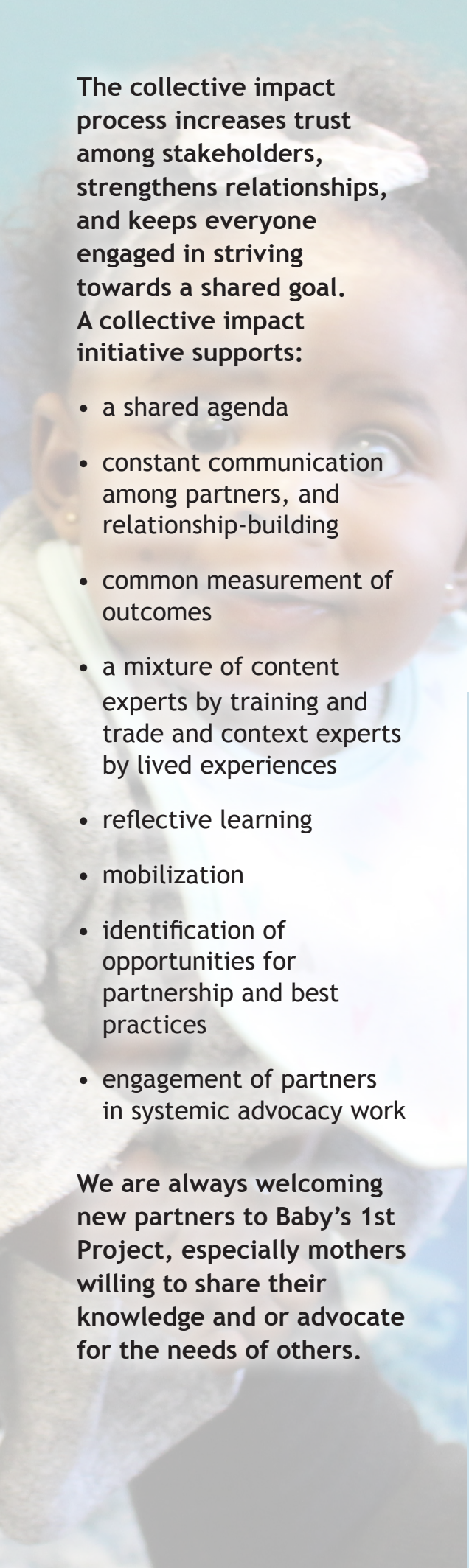
I tell a lot of women that if you do enter this program, stick with Healthy Start and your case manager because honestly, they do really help you. I was spoiled. In Healthy Start, I started growing and grasping that I found my own way, and Ms. Denise did enough nurturing for me to do that, which I positively — knock on wood — am still doing right now.

2014

Navigator Program begins, a program to help the uninsured obtain health insurance through certified application counselors

2015

Delaware County PPOR project begins



The collective impact process increases trust among stakeholders, strengthens relationships, and keeps everyone engaged in striving towards a shared goal. A collective impact initiative supports:

- a shared agenda
- constant communication among partners, and relationship-building
- common measurement of outcomes
- a mixture of content experts by training and trade and context experts by lived experiences
- reflective learning
- mobilization
- identification of opportunities for partnership and best practices
- engagement of partners in systemic advocacy work

We are always welcoming new partners to Baby's 1st Project, especially mothers willing to share their knowledge and or advocate for the needs of others.

(Continued from previous page). Under the Baby's 1st Project umbrella, the Delaware County Breastfeeding Coalition is working to increase support and education for breastfeeding mothers. Through the Perinatal Periods of Risk study, a formal subcommittee of the Delaware County Child Death Review Team, we have learned more about the unique reasons why babies die in Delaware County and have formalized a community action plan based on the Perinatal Periods of Risk study. Baby's 1st Project is also addressing the ongoing family support needed after a baby is born exposed to opioids.

There's another proverb that says, "If you want to go fast, go alone. If you want to go far, go together." The

Baby's 1st Project — a cross-sector group of community partners working to improve the feto-infant mortality rate in Delaware County — conducted a Perinatal Periods of Risk (PPOR) study to guide and inform its work. PPOR is an analytical framework that uses vital records data to study and reduce fetal and infant mortality racial disparities in a specific community.

PPOR helps communities understand where their fetal and infant mortality risk is greatest. Fetal and infant deaths are categorized based on birthweight and age at death into 1 of 4 periods of risk: Maternal Health and Prematurity, Maternal Care, Newborn Care, and Infant Health. These categories correspond to specific risk factors.

work to improve birth outcomes is long-term work that could never be accomplished by just the healthcare field or any individual sector. The exciting news is that the work can be done and is being done. In a recent study, researchers calculated that 18 states would be on track for equity in birth outcomes by 2050. While Pennsylvania was not one of those states, this research shows that equity in birth outcomes is within reach.

Success will not immediately manifest as changes in health outcomes, but we can see some successes now, already, in the trust, collegiality, and innovation of partners dedicated to a single cause. Success shows in other promising indicators too, such as increases in breastfeeding rates, in the number of moms with a medical home, in families with increased birth spacing, and in housing and food security. The day-to-day beauty of this work is what happens when all the right people come into the room and want to work together. Together, we make the village.

Perinatal Periods of Risk Study

The PPOR analysis showed that in Delaware County, between 2008 and 2012, there were a total of **21.5 fetal and infant deaths** per 1,000 births among black or African American women. This rate is **3 times higher** than the rate among white women.

The majority of this **racial disparity** in the feto-infant mortality rate is due to babies being born too small. Black or African American babies were **3 times more likely to be born very low birthweight.**

Further analysis of vital records and key informant interviews uncovered **protective factors** that could reduce the likelihood of having a very small baby:

- improvements in chronic health conditions
- participation in WIC
- longer pregnancy intervals
- outreach for women with prior poor birth outcomes
- increases in social support and mental health services
- changes to the health and mental health care systems
- increases in safe and affordable housing

Baby's 1st Project used the PPOR findings to develop its 5 year Community Action Plan which focuses on health care and social service delivery, provider capacity, programs for targeted populations, community support, and housing.

We are proud of what Crozer-Keystone Community Foundation's Healthy Start has accomplished in Delaware County in 20 years. The results show not only in the data, but also in the strong relationships, the longevity of our staff, and the steadfast resolve to continuously improve our services. Looking forward, Healthy Start will continue its commitment to helping families thrive: to assess need, advocate, coordinate care, support and connect families with medical homes and resources, and provide health education. Healthy Start's goals haven't changed over the years — we will continue to improve maternal and birth outcomes, increase breastfeeding rates, and strengthen parenting skills and early literacy. While much has been achieved, there is still much work to do.

We are lucky to have a wonderful cohort of maternal and child health partners in Delaware County, including long-standing champions who support families every day. This is an exciting time to work together with the Baby's 1st Project, where we can continue to build strong networks of cross-sector partners and community members to address health inequity. The Baby's 1st Project Community Action Plan, developed by our partners and based on the Perinatal Periods of Risk study, is guiding us forward. Over the next five years, we will implement strategies that improve health care and social service delivery, build provider capacity, bolster community-based support, develop programs for targeted populations, and improve access to quality housing — building a civic movement to prevent babies from dying, mitigate stressors on parents, and strive for health equity.

2016

CROZER-KEYSTONE COMMUNITY FOUNDATION

Healthy Start joins the Crozer-Keystone Community Foundation

"I have seen the positive impact that we have on families and that makes me feel happy and purposeful. My proudest moments are when I have the chance to interact with participants who value our programs and rave about their experiences with us. It makes me feel like we are really making a difference in our community."

CHERYEA WOMACK, OUTREACH & ENGAGEMENT SPECIALIST

"My proudest moment is any time a client is able to conquer a problem. Even if it's not an immediate solution, they're able to talk with us and start seeing different ways of handling what they're going through. You see that pressure coming off of them. They don't feel alone anymore. As much as we love them, my hope for all of our clients is that they don't need to come back. We want them to become their own advocate."

DAISY ARTILES, BILINGUAL SERVICES SPECIALIST/CASE MANAGER

CROZER-KEYSTONE COMMUNITY FOUNDATION

To learn more about
Crozer-Keystone Healthy Start
visit **ckcommunityfoundation.org**

This report was prepared by the
Research & Evaluation Group at
Public Health Management Corporation.
www.PHMCresearch.org

RESEARCH & EVALUATION GROUP
at PHMC

The State of Health Equity in Pennsylvania

Office of Health Equity

January 2019

pennsylvania
DEPARTMENT OF HEALTH

Office of Health Equity
Pennsylvania Department of Health
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Harrisburg, PA 17102
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Contents

Message from the Secretary of Health

Living healthy and the opportunity to do so where you live, is a fundamental human right. The health of our communities is reflected not just in disease prevalence, but in our economic development, educational growth and overall stability.

Health equity is the bedrock of good public health. **Health equity** means that every resident can live healthy no matter their race, location, education or income level.

In order to better understand health equity in Pennsylvania, we need to illuminate health inequities and highlight the social determinants of health that drive these preventable gaps. By establishing where these gaps exist, we can begin to help all residents achieve their optimal health outcomes … the impact of which will be felt in every community.

There is no greater responsibility than ensuring our fellow citizens are safe and healthy. Please join us as we work to embody a state that ensures every citizen has the same opportunity to live a healthy life, regardless of their race, ethnicity, gender, sexual orientation, gender identity and expression, religion, geographic location or ability. As Martin Luther King Jr. said many years ago, “Of all the forms of inequality, injustice in health care is the most shocking and inhumane.”

Sincerely,

Rachel Levine, MD
Secretary of Health

Message from the Deputy for Health Promotion and Disease Prevention

Health equity is the bedrock of public health. Our task is to help those who are in need achieve optimal health, no matter one's race, color, creed, religion, physical and/or mental ability, sexual orientation, sexual identity, sexual preference or any difference that may exist.

The State of Health Equity in Pennsylvania Report provides a snapshot, a glimpse at a moment in time, of the health landscape for all Pennsylvanians, specifically as it relates to the social determinants of health. Beyond one's genetic code, the factors within someone's zip code can impact the health of individuals and populations.

In the introduction to this report, you will learn more about the social determinants of health. Please use this information to learn more about where the most help is needed to improve health across the commonwealth. As a department, we look forward to partnering with individuals, organizations, clinics, hospitals and communities as we continue our mission to promote healthy lifestyles, prevent injury and disease and assure the safe delivery of quality health care for all commonwealth citizens.

Sincerely,

Loren Robinson, MD, MSHP, FAAP
Deputy Secretary for Health Promotion and Disease Prevention

Message from Director Office of Health Equity

We have seen significant change to the health landscape both nationally and within Pennsylvania. Within the commonwealth, we continue to grapple with the opioid epidemic, Lyme disease and other afflictions.

Amid an ever-changing political landscape, health disparities persist throughout Pennsylvania and the nation. For many years, residents in rural and urban areas across the state have been dying prematurely and living with a poor quality of life due to social, economic and environmental factors (social determinants of health).

This State of Health Equity in Pennsylvania Report will reveal the ways in which a myriad of factors contributes to the superior health outcomes of some communities and poor health outcomes suffered by others. The mechanisms through which housing, education, transportation, poverty and recreation influence health will be examined. The critical role of the environments in which we live, learn, work and play will be highlighted to show their impact on life expectancy.

This report is intended to be a clarion call to those who aspire for Pennsylvania to be something to be proud of; a state in which everyone has the same right to achieve the highest level of health and quality of life. Increasing health equity and reducing health disparities will not be easy, but nothing worthwhile and lasting ever is. We hope this report will be a catalyst for change, dialogue and most of all action.

With much appreciation to everyone who helped make this report a reality!

David Saunders
Director, Office of Health Equity

Executive Summary: Health Equity, Health Disparities and Social Determinants of Health

The Commonwealth of Pennsylvania is the fifth most populous state in America with 12.8 million residents. Within our boundaries, there are major metropolitan areas like Philadelphia and Pittsburgh and extreme rural areas like Elk and Forest counties. In many parts of the state, the citizens thrive – children attend good schools; parents have good paying jobs; the air, water and land are clean; crime is rarely seen and residents live a long, quality life. However, there are other areas in Pennsylvania where residents are more vulnerable. These residents' health is at risk because they don't have the same access to health care, education, jobs, clean environment and safety. Given Pennsylvania's unique geography and population distribution, this reality affects many: urban and rural populations; racial and ethnic minorities; gender and sexual minorities; the young and old and many more.

The goal of *The State of Health Equity in Pennsylvania Report* is to illuminate these common threads outside of the health care setting that determine the quality of one's health.

What is Health Equity?
Many organizations have provided different definitions for the term "health equity."

- **The American Public Health Association** defines health equity as everyone having the opportunity to attain their highest level of health.

- The **Center for Disease Control and Prevention** (CDC) says that health equity is achieved when every person has the opportunity to "attain his or her full health potential" and no one is "disadvantaged from achieving this potential because of social position or other socially determined circumstances."

- **Robert Wood Johnson Foundation** (RWJF) provides the following definition: "Health equity means that everyone has a fair and just opportunity to be healthier. This requires removing obstacles to health such as poverty, discrimination and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments and health care."

Health equity, in its simplest terms, involves providing every person, regardless of location, religion, race, ethnicity, sexual orientation or gender identity and expression, the same opportunity to live their healthiest life and reach their full potential.

It is important to note that equity is not the same as equality. To "level the playing field," those with worse health and fewer resources need more efforts expended to improve their health and systematic barriers to be removed. This also means that those with more resources may have their resources re-allocated to improve the conditions for those with less.

What are health disparities?
A lack of health equity contributes to health disparities. Health disparities happen when some communities have better health outcomes than others. They are preventable differences in health outcomes in one population that are worse compared to others. In Pennsylvania, we know there are significant health disparities because:

- Approximately 1.7 million Pennsylvanians, or 14 percent, experienced food insecurity in 2015;
- Blacks/African Americans and Hispanics/Latinos made about $15,000 to $18,000, respectively, less than whites in 2016;
- Pennsylvanians living in rural areas have limited access to health care oftentimes because they don't have transportation to get to a doctor who may be 20-30 miles away;
- Based on 2012-2016 data, blacks/African Americans had a death rate from heart disease nearly 21 percent higher than white Pennsylvanians (213.6 versus 177.1 per 100,000 people);
- LGBTQ teens are significantly more likely to experience bullying and sexual violence than their heterosexual peers; two in five LGBTQ teens experience bullying compared to one in five heterosexual teens; and
- The black/African American community accounts for a disproportionate number of homicides and suicides in Pennsylvania.

What are the Social Determinants of Health?
Health disparities arise when people do not have the same opportunity to attain their highest level of health. Health equity exists when social determinants of health, or the factors that affect where people live, learn, work and play, are favorable for all citizens. The choices people make, such as whether they smoke or eat a healthy diet, are dictated by what resources are available to them, what they can afford and how they are marketed. The chances of living a fruitful life are mostly predicted by the social conditions under which people live.

Social determinants of health include:

- Socioeconomic status;
- Education;
- Racism and discrimination;
- Food security and nutrition;
- Housing;
- Built environment;
- Access to health care;
- Environmental hazards; and
- Safety.

Reaching our full potential
Multiple factors need to be addressed for **all** Pennsylvanians to reach their full health potential. The unfair and avoidable differences seen in health status across the state make it important to highlight and analyze the available health-related data to develop strategic plans to address these inequalities. In addition to the health data, underlying social, economic and environmental information was analyzed because these conditions contribute to the health and inequities for Pennsylvanians and their

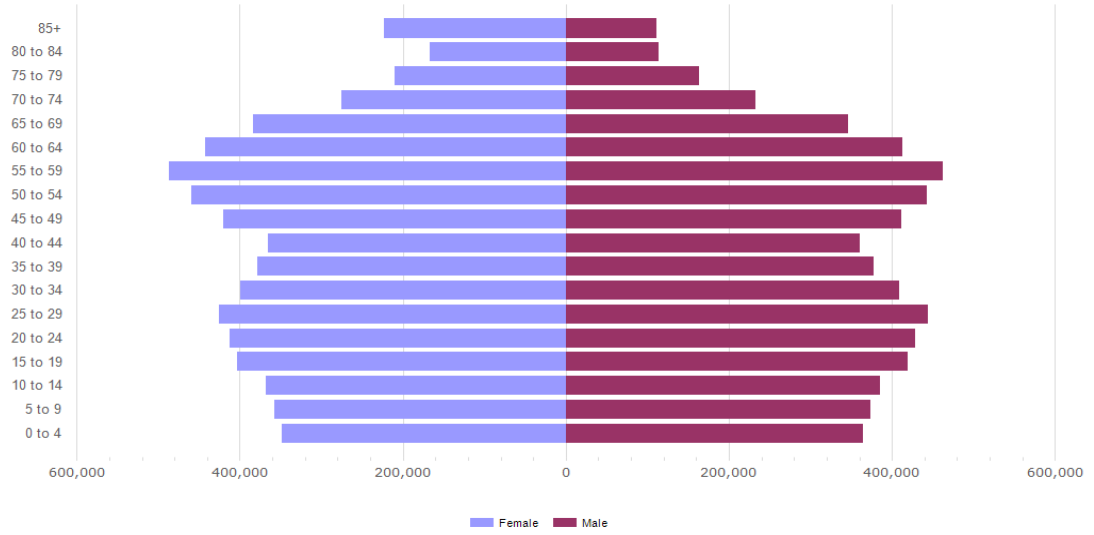
communities. The information provided in this report serves as a benchmark to inform current strategic plans with an overall goal of eliminating these issues from Pennsylvania completely. Key recommendations include:

- Provide commonwealth-wide leadership to advance health equity;
- Formalize and maintain community relationships and mutual partnerships to advance health equity across existing and emerging communities;
- Invest in the collection, analysis, meaningful use, secure sharing and accessible translation of data to advance health equity;
- Continuously raise awareness of existing and emerging health disparities;
- Address and remediate structural inequities that have resulted from discriminatory policies and practices;
- Improve living conditions where people live, learn, work and play;
- Advance health equity across sectors;
- Establish the Office of Health Equity by statute; and
- Expand current health equity initiatives.

Who Are Pennsylvanians and Where Do They Live?

Pennsylvania's Enterprise Data Dissemination Informatics Exchange (EDDIE) reports the commonwealth has a population of 12,784,227 who reside on 44,743 square miles of land. Across Pennsylvania the population is aging, as illustrated by Figure 1. Twenty-two percent of Pennsylvanians are over the age of 60. Pennsylvania's fertility rate, like much of America, is dropping, further contributing to the commonwealth's aging population.

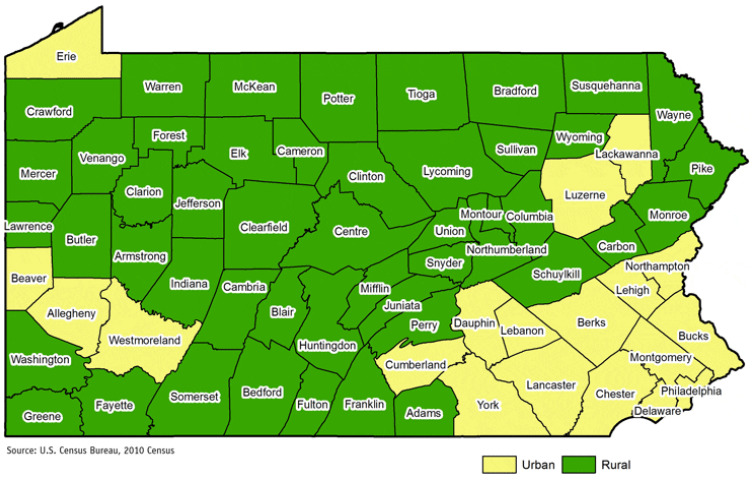
Figure 1. Population Age Distribution, Pennsylvania, 2016 Estimates.



Source: Enterprise Data Dissemination Informatics Exchange (EDDIE).Data adopted from U.S. Bureau of Census for 1990, 2000 and 2010 and Pennsylvania State Data Center at Penn State Harrisburg for non-census years.

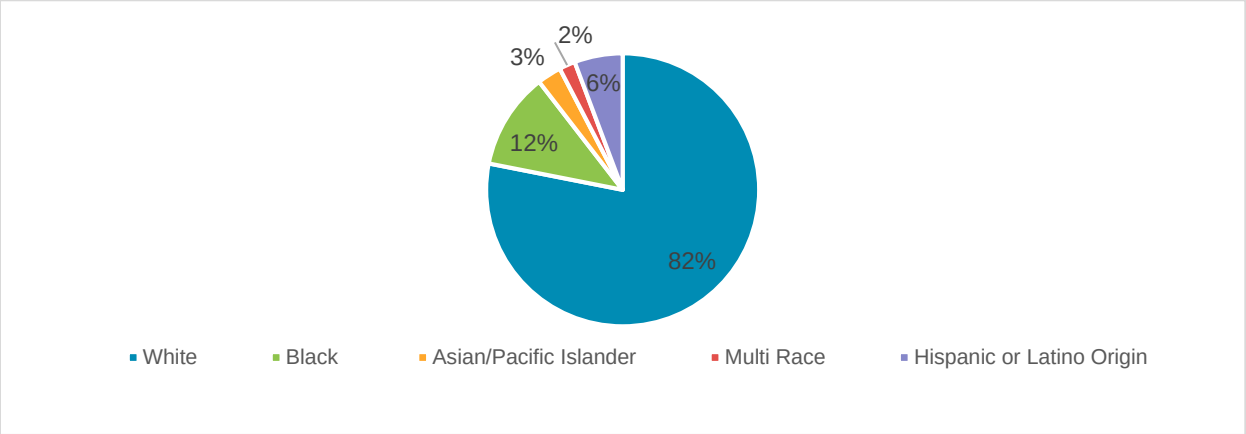
Pennsylvania also has a large rural population represented by 48 rural counties (of the state's total 67 counties), which are home to almost a third of the state's residents. The remainder live within the 19 urban counties (Figure 2). [1]

Figure 2. Rural and Urban Counties, Pennsylvania, 2010



Most of Pennsylvania's population is white, not Hispanic or Latino (Figure 3) and yet blacks/African Americans are experiencing worse health outcomes, have lower life expectancy and are dying at higher rates, including both infant and maternal mortality, as compared to the white population (Table 1).

Figure 3. Racial and Ethnic Makeup, Pennsylvania, 2017



Source: US Census Quick Facts, 2017.

Table 1. Birth and Death Rates by Race, Pennsylvania, 2016

	Number of Live Births	***Population***	***Crude/Age-Specific Birth Rate (per 100,000 population)***
All Races	139,356	6,523,033	*21.4*
White	97,939	5,359,724	*18.3*
Black/African American	19,033	778,468	*24.4*
Asian/Pacific Islander	6,467	234,754	*27.5*
Multi-Race	4,410	127,120	*34.7*
Hispanic Origin	15,323	441,507	*34.7*

	Number of Deaths	***Population***	***Age-Adjusted Death Rate (per 100,000 population)***
All Races	132,724	12,784,227	768.4
White	116,528	10,531,113	748.6

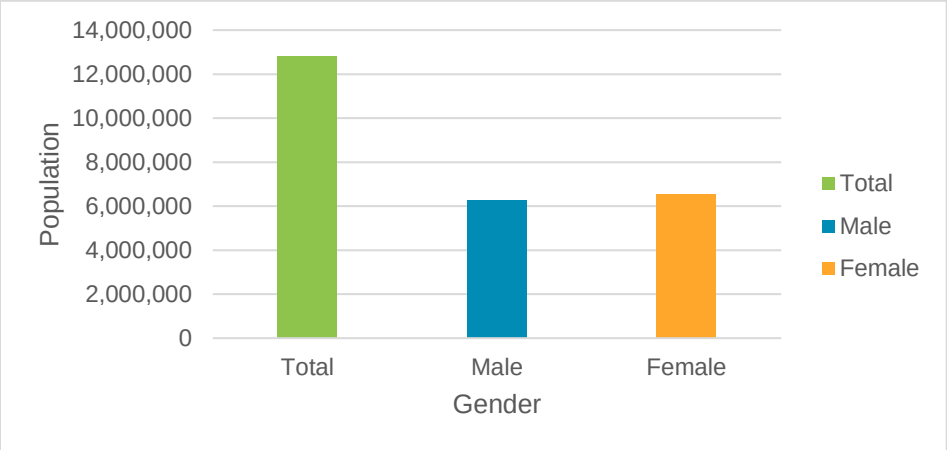
Black/African American	12,656	1,505,204	932.8
Asian/Pacific Islander	976	451,917	323.4
Multi-Race	429	249,223	466.2
Hispanic Origin	2,583	900,814	546.7

	Number of Infant Deaths	***Number of Live Births***	***Age-Adjusted Infant Death Rate (per 1,000 live births)***
All Races	856	139,356	6.1
White	447	97,939	4.6
Black/African American	277	19,033	14.6
Asian/Pacific Islander	15	6,467	2.3
Hispanic Origin	114	15,323	7.4

Source: PA Vital Statistics, 2016

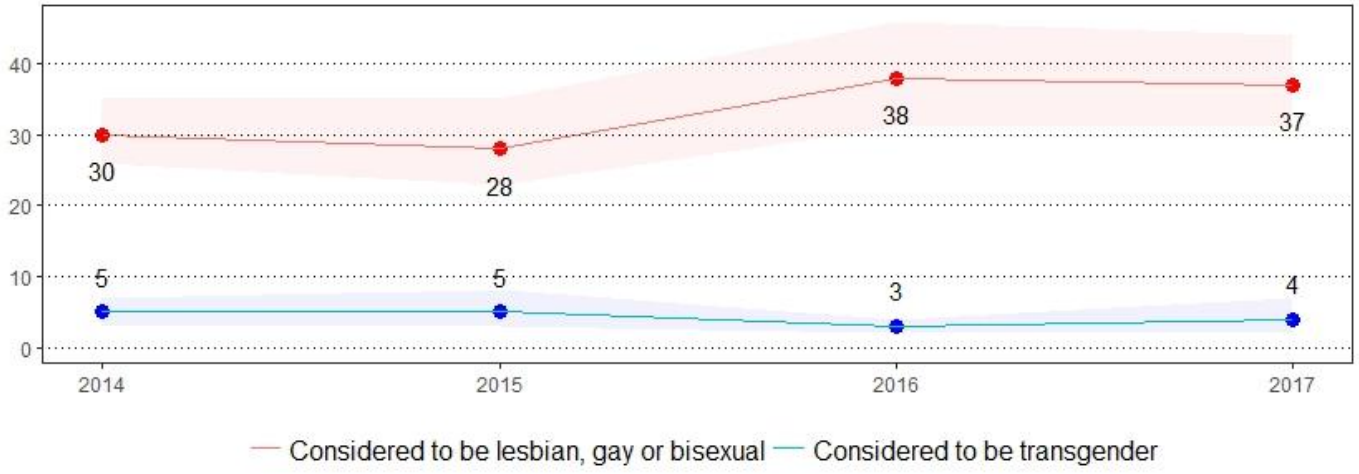
Pennsylvania's population is made up of nearly 48 percent of people who identify as male and 51 percent of people who identify as female (Figure 4). Four percent of the population identify as lesbian, gay, bisexual or transgender (Figure 5).

Figure 4: Population and Gender, Pennsylvania, 2017



Source: U.S. Census Quick Facts, 2017.

Figure 5. Sexual Orientation and Gender Identity and Expression Prevalence per 1,000 Pennsylvania Population, Pennsylvania Adults, 2014-2017



Source: BRFSS, 2017.

Health Impacts Pennsylvanians Face

Infant and Maternal Mortality

The Centers for Disease Control and Prevention (CDC) defines infant mortality as the death of an infant before their first birthday. The infant mortality rate is the number of infant deaths for every 1,000 live births. The infant mortality rate is an important marker of the overall health of a society. In 2016, the infant mortality rate in the United States was 5.9 deaths per 1,000 live births. [2] The incidence of infant death overall in Pennsylvania is 6 percent (Figure 6), while black/African American population in the state is 15 percent, notably higher than that of other races. The Hispanic/Latino population experiences infant mortality at nearly double that of the white population.

Maternal mortality also serves as a major indicator of the health of a state [3] and is defined as, "the death of a woman while pregnant or within 42 days of the end of pregnancy, regardless of duration and site of the pregnancy, from any cause related to or aggravated by pregnancy or its management, but not from accidental or incidental causes." [4] For black/African Americans, the maternal mortality rate for the five-year period 2011-2015 was also three times as high (27.2 per 100,000 births) compared to whites (8.7) [5], shown in Figure 6.

Figure 6: Infant and Maternal Health Statistics, Pennsylvania, 2011-2016

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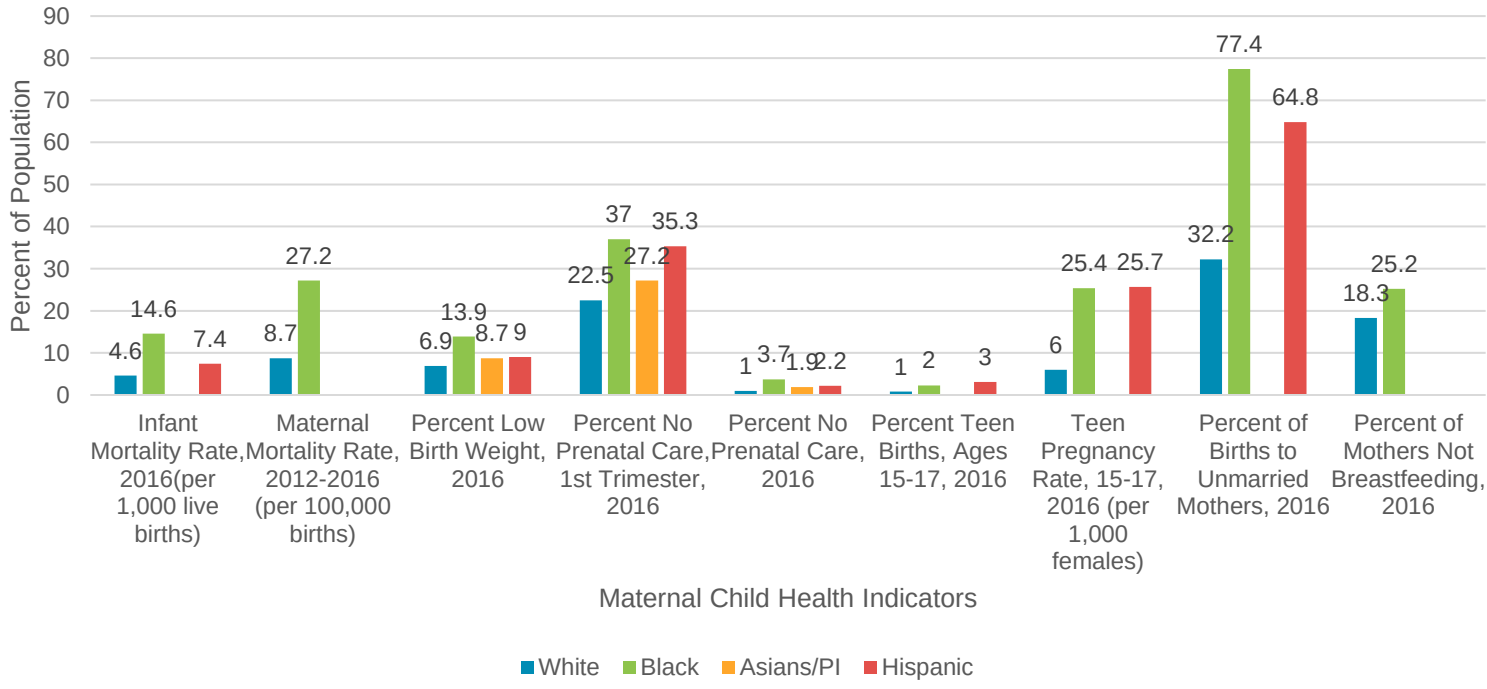
Source: Pennsylvania Department of Health, 2016. Data adopted from Pennsylvania Certificates of Birth and Certificates of Death. Illustrates maternal child health outcomes derived from status indicators for this population.



Disease Prevalence in Pennsylvania

Disease prevalence is defined as the proportion of the population who have a particular disease or attribute at a specified point in time or for a specified duration. Incidence refers to the occurrence of new cases of disease or injury in a population over a specified time. [6] Table 2 is a chart of the rate of incidence of the most common chronic diseases in Pennsylvania.

Table 2. Chronic Disease Incidence Rates, Pennsylvania, 2016

Disease	*Incidence Rate*
COPD/Emphysema/Chronic Bronchitis	7%
Skin Cancer	6%
Other Cancer	7%
Chronic Kidney Disease	2%
Cardiovascular Disease	13%
Diabetes	11%
High Blood Pressure (2015)	33%

Source: Pennsylvania Department of Health ,2016.

Many of these diseases contribute to the most common causes of death in Pennsylvania, as shown below in the top 10 causes of death:

Table 3. Top 10 Causes of Death, Pennsylvania

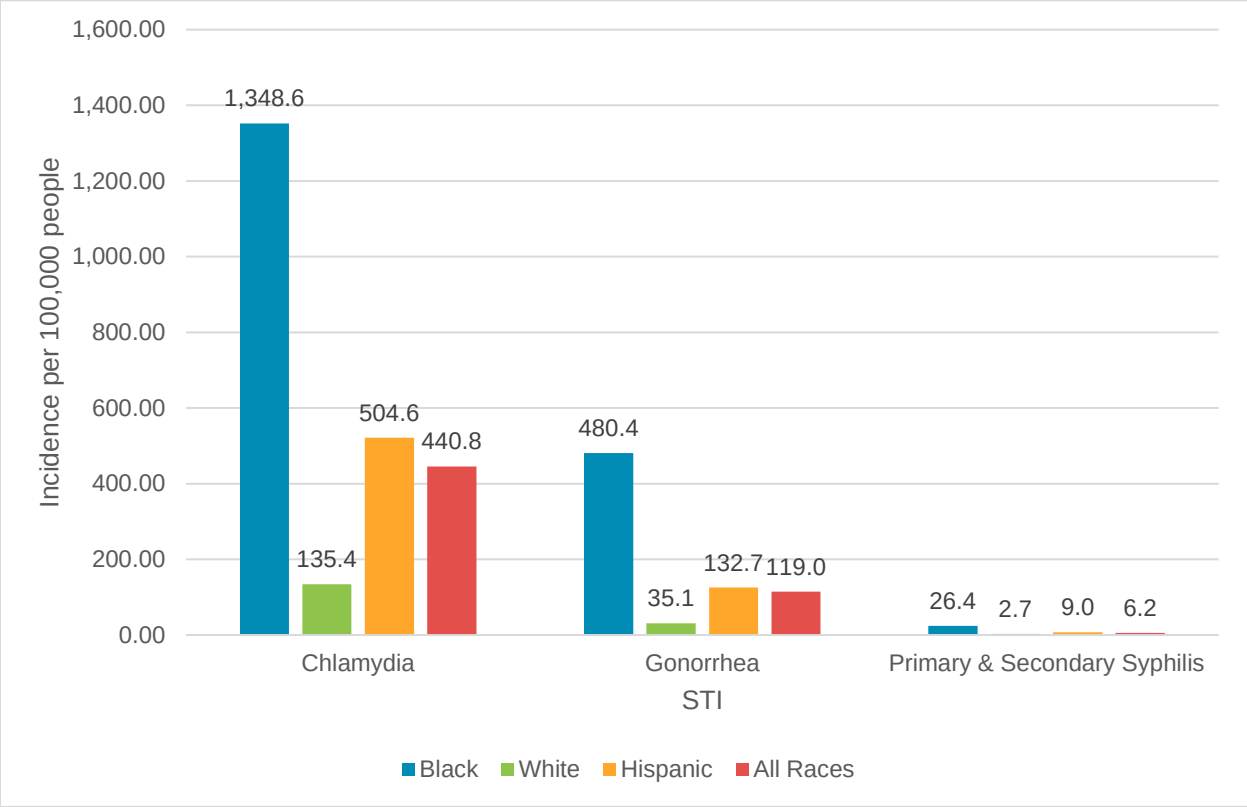
Cause of Death	*Number of Deaths*	*Percent of All Deaths*
Heart Disease	31899	24.03%
Cancer	28363	21.37%
Non-transportation Accidents	6986	5.26%
Cerebrovascular Disease	6694	5.04%
Chronic Lower Respiratory Disease	6503	4.90%
Septicemia	4178	3.15%
Diabetes Mellitus	3537	2.66%
Kidney Disease	2808	2.12%
Influenza/Pneumonia	2468	1.86%
Alzheimer's Disease	2350	1.77%

Source: Pennsylvania Department of Health, 2016.

Sexual Transmitted Infections

Sexually transmitted infections (STIs) also contribute to disease burden and significant morbidity in Pennsylvania. They are another area wherein disparities are easily identified. STIs are more prevalent in communities of color as compared to all races, as seen in Figure 7.

Figure 7. Incidence of STI's Compared across Races, Pennsylvania



Source: *Pennsylvania Department of Health, 2017.*

HIV/AIDS

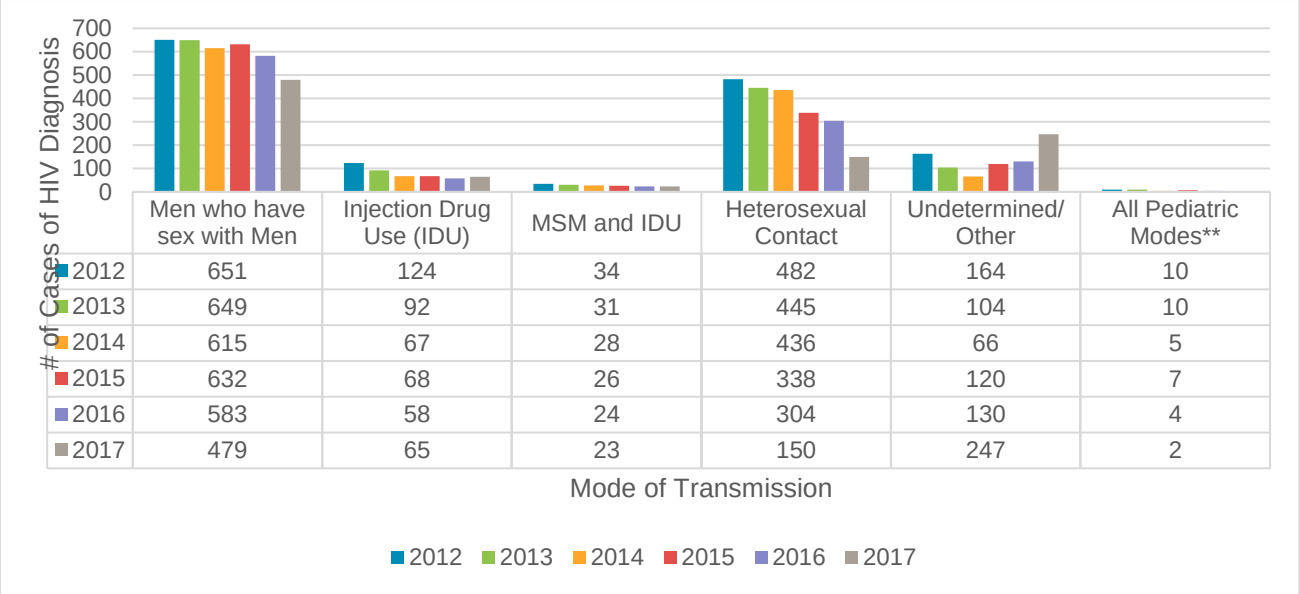
Human immunodeficiency virus (HIV) weakens a person's immune system by destroying cells that are important to fighting infection. HIV can lead to acquired immunodeficiency syndrome (AIDS) and can be transmitted by exposure to body fluids or tissue from an infected individual. The most common methods of transmission are sex between men, heterosexual sex and injection drug use. [7] Identified through retrospective review, the first cases of AIDS were described in 1981 and confirmed cases in Pennsylvania date back to 1980. [8]

The following is based on data collected by the Pennsylvania Department of Health for cases diagnosed by the end of 2017 but reported through March 31, 2018. Since 1981, more than 61,000 Pennsylvania residents have been diagnosed with HIV disease. Approximately 25,000 of these persons have died and an estimated 36,000 are currently living with the disease. There has been a steady decline in the proportion of HIV disease since the mid-1990s. Although cases have been diagnosed and people are living with HIV disease in nearly every county in Pennsylvania, HIV disease has had a disproportionate impact on blacks/African American and is more common in large population centers. [8]

The number of new diagnoses peaked in the early to mid-1990s when almost 3,000 new diagnoses were reported annually. In 2017, less than 1,000 new diagnoses were reported. It is important to note there was a decrease in cases of disease in the population of men who have sex with men, a population experiencing the highest rates of HIV prevalence and incidence in Pennsylvania. [8]

Approximately three times as many males have been diagnosed with HIV disease than females. Blacks/African Americans and Hispanics/Latinos make up 11 percent and 7 percent of the population of Pennsylvania, respectively, but account for 49 percent and 14 percent of all new diagnoses among Pennsylvania residents. Although a person can be infected at any age, most of new diagnoses occur in persons who are between the ages of 20 and 49 years. [8]

Figure 8: Number of Cases of HIV Disease by Mode of Transmission and Year of Diagnosis, Pennsylvania, 2012-2017



	Men who have sex with Men	Injection Drug Use (IDU)	MSM and IDU	Heterosexual Contact	Undetermined/ Other	All Pediatric Modes**
2012	651	124	34	482	164	10
2013	649	92	31	445	104	10
2014	615	67	28	436	66	5
2015	632	68	26	338	120	7
2016	583	58	24	304	130	4
2017	479	65	23	150	247	2

Source: Pennsylvania Department of Health, Division of HIV, 2017.
Report Note: Figure does not include the number of coagulation disorder or transfusion received transmissions, as there were zero reported between 2012-2017

Figure 8 provides a summary of all reported HIV disease among Pennsylvania residents from 2012-2017, by the most likely mode of transmission of the virus. During this period the most common means of transmission is men who have sex with men, heterosexual sex and injection drug use. Men who have sex with men have had the most accounts of transmission over the past five years and account for about 50 percent of transmission, followed by heterosexual contact.

Social Determinants of Health

There are many factors that contribute to the social determinants of health for an individual and the communities in which people live, work, play and learn. Social, economic and environmental circumstances contribute to shaping one's health status. The World Health Organization (WHO) explains there are a wider set of forces and systems that help to shape the conditions of everyday life, which include but are not limited to: economic policies and systems; social norms and political systems.[1] Additionally, WHO illustrates that the social determinates of heath are mostly responsible for health inequalities.[2]

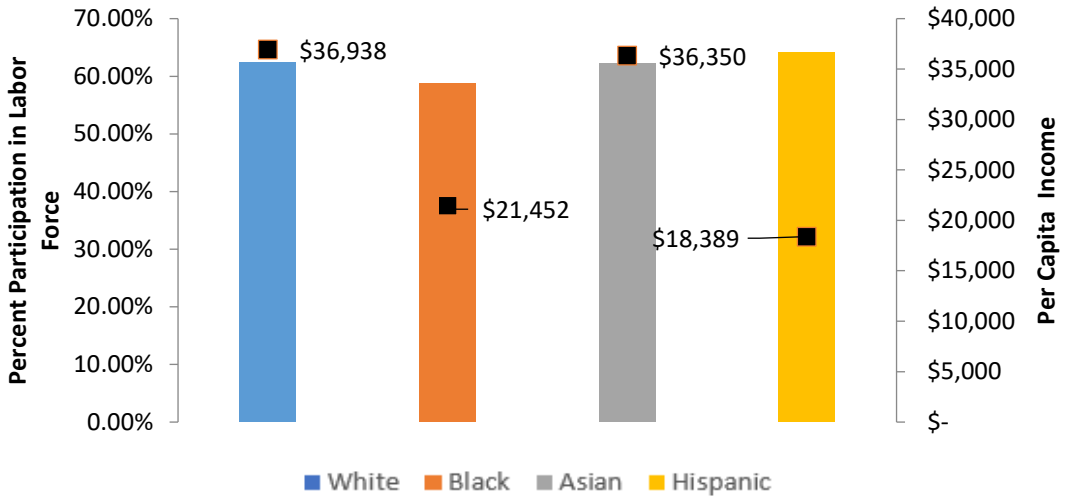
Socioeconomic Status

Socioeconomic status is broadly defined as an individual's ability to access financial, social, cultural and human capital resources. Family income, parental educational attainment and parental occupational status are key measures, however household, neighborhood and school resources are among several additional variables.[2] Financial resources are a major contributor to health disparities, as research reveals that those with lower income experience worse health outcomes when compared to the wealthier population.[3] Poverty can be quantified and measured under the construct of socioeconomic status. There are proxies, such as the free and reduced lunch program eligibility and the use of federal assistance for food through the Supplemental Nutrition Assistance Program (SNAP), that give an indication of one's ability to pay for necessities.[4,5,6]

Low socioeconomic status has also been linked to risky behaviors such as tobacco use,[7] sedentary lifestyles,[8] poor dietary habits,[9] unintentional and intentional injuries,[10] risky sexual practices resulting in unintended pregnancy,[11] alcohol use[12] and drug use.[13] Similarly, it has been associated with a variety of adverse health outcomes including low birth weight, childhood asthma, deaths resulting from firearms, cardiovascular disease, breast cancer mortality and osteoporosis.[14]

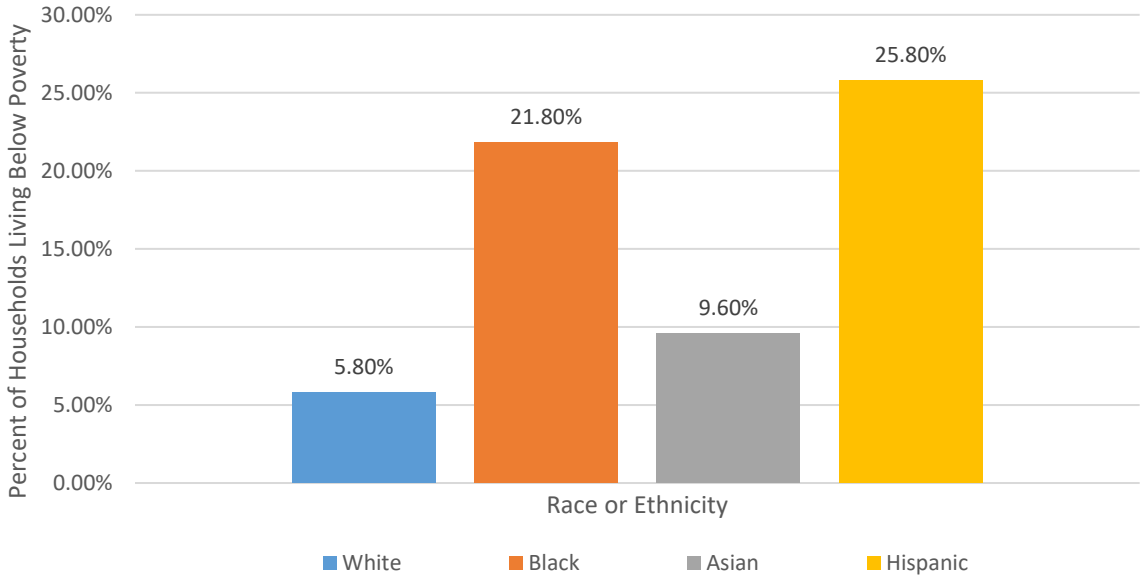
While employment is a main contributing factor to a person's income, access to other economic assets like a bank account and home equity give a person greater economic freedom and life stability. With financial resources, people can choose to live in safe neighborhoods with good schools and access to healthy lifestyle choices like eating nutritious foods, getting routine preventive care and safe spaces to be active and exercise. In 2016, Pennsylvania's per capita, or average, income was approximately $31,272.[1] Across race populations, studies show a similar percentage of people are participating in the labor force (i.e. a proxy to employment rates) however, whites earned above the statewide average income, while blacks/African Americans earned almost $15,000 less than the statewide income. Hispanics/Latinos earned nearly $18,400 less than their white counterparts (Figure 9). Additionally, compared to whites, a greater percentage of blacks/African Americans and Hispanics/Latinos lived below the poverty level (Figure 10), which was about $24,000 for a four-person family in 2016.[2] The threshold used to measure poverty is defined as the cost of a minimum food diet per year, accounting for the different compositions of a family unit. Without the ability to secure the necessities of life, Pennsylvania's minority populations are more vulnerable to poor health outcomes, creating the wide health disparities and inequities outlined in this report.

Figure 9. Percent participation in the labor force and per capita income in the past 12 months by race, Pennsylvania, 2016



Source: US Census Bureau, 2016.
Percent participation in labor force determined by the ratio of participants in labor force to total racial or ethnic population. Bars indicate labor force participation rate and square dots indicate per capita income (adjusted for the 2016 inflation rate).

Figure 10. Percentage of households living below the poverty level by race, Pennsylvania, 2016



Source: US Census Bureau, 2016.

While black/African Americans and Hispanic/Latinos, provide nearly an equal percentage of participation to the labor force (Figure 9), these populations largely face poverty, four times the rate of their white counterparts (Figure 10). Additionally, figures 9 and 10 highlight that the annual per capita income correlates with the prevalence of poverty.

Education

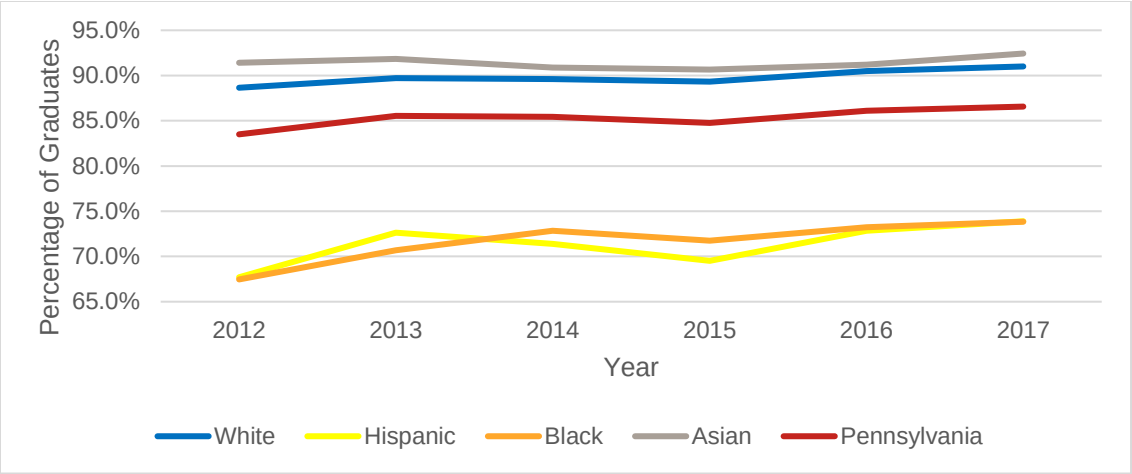
Education is a key element of socioeconomic status because it impacts job placement, income and access to health-related information and resources.[15] Individuals with minimal education are less likely to be informed about risk. Further, these individuals are more apt to live in poor neighborhoods with limited access to recreational facilities and markets with fresh produce. Poverty and lack of education are inextricably linked in Pennsylvania, much like in other areas of the country and world. Children who are born to parents that have achieved less than a high school diploma are more likely to live in poverty and this issue is seen across all racial and ethnic groups.[17]

Education is not only a strong predictor of health outcomes, but it is also known to directly and indirectly improve health.[1] People with higher educational attainment are more likely to live longer and have healthier habits, like regular exercise, routine preventive medical care, moderate drinking habits and not smoking.[2] Those with higher educational attainment also have a better chance at maintaining consistent employment and income, which help to support healthy habits and improve outcomes.

Steps must be taken in the early years of a child's life to help them succeed in school. Paving the road to high educational attainment begins with investing in early childhood learning and well-being. Early child development programs not only prepare young children to begin school by fostering better cognitive, language and social skills, but they are also known to help kids perform better in high school and beyond. Examples of early childhood education programs include child care centers, nursery schools, day care programs, pre-kindergarten (pre-k) programs and Head Start Supplemental Assistance Programs. [3] Unfortunately, many Pennsylvania children do not have access to high quality programs. This lack of access disproportionately impacts people of color. In 2016, more than 467,000 children 5 years old or younger were enrolled in nursery school, preschool, Kindergarten or first grade; the largest percentages of kids under 5 years-old not enrolled in school were Hispanic/Latino and black/African American children (40 percent and 37 percent, respectively). Additionally, in 2017, approximately 36 percent of children ages 3 to 4 in Pennsylvania had access to, what is considered, high-quality pre-K programs.[4]

The racial discrepancy in access to early childhood education programs is later reflected in high school graduation rates. Though graduation rates have been steadily increasing over the last five years, black/African American and Hispanic/Latino students are still completing high school at lower rates than their white and Asian classmates (Figure 14). This gap is also reflected in higher education attainment rates, where black/African American and Hispanic/Latino adults 25 years or older (17 percent and 15 percent, respectively) are less likely to obtain a bachelor's degree or higher compared to white and Asian adults (30 percent and 54 percent, respectively). Students who graduate on time are more likely to pursue postsecondary education and training, which leads to greater employment opportunities, opening up more choices in adulthood. In 2016, those who had a bachelor's degree made more than $20,000 greater on average than those who stopped their formal education after earning a high school diploma. Those with a graduate or professional degree made more than $40,000 greater on average than those with high school diplomas.[5]

Figure 14. Graduation Rates by Race, Pennsylvania, 2012-2017



Source: Pennsylvania Department of Education, 2012 – 2017.

The chart shows the graduation rates among each race from 2012 to 2017 in comparison with the Pennsylvania average. The rates were calculated by dividing the number of students who graduated by the number of students who entered high school in ninth grade.

While high quality education starting in early childhood is a priority in Pennsylvania, the resources needed to accomplish this are not equally available to all families. To give a child the best chance at success, parents and guardians need the resources to provide their family with a safe and healthy home life. This includes housing stability, food security, health insurance, access to preventive health care and activities that stimulate healthy emotional and cognitive development. When parents are unable to be productive or are limited by under-paying jobs, the support parents can give their children is compromised, increasing the inequality gap in educational opportunities for income-insecure families.

Poor physical and emotional health in childhood can also be influenced by a child's environment and can have significant effects on health and wellbeing outcomes later in life. For example, early exposures to racial prejudice and discrimination can severely dampen a student's sense of self-efficacy and lead to thinking that working hard in school is not worth it.[6] Kids residing in areas of higher poverty often experience poor-performing schools, higher rates of crime and violence, higher rates of teen births and barriers to job opportunities, making it difficult for them to achieve success.

Individuals with more education are likely to live longer and experience better health outcomes than individuals with less education. In fact, the gap in life expectancy between those with a formal education and those without has been widening since the 1960's.[7] Americans with lower educational attainment are more likely to have major diseases, like heart disease and diabetes – two of the top ten leading causes of death. Taking steps to decrease the prevalence of educational disparities will drastically improve the health and well-being of residents throughout the state. Healthier residents with more opportunities means a healthier, more successful commonwealth.

Racism, Discrimination and Geographic Isolation

Nationally and throughout Pennsylvania, racism and discrimination has perpetually contributed to income disparities for people of color and between genders.[18] These disparities affect many influential factors, including education, employment opportunities, residential location and occupational differences.[19] Undeniably, socioeconomic status and education contribute to health disparities. Generally, those who have a higher income have access to more choices for nutritious food, physical activity and quality preventive care. However, racism and discrimination lead to the creation of systematic policies, the effects of which can still be felt today. Federal housing policies and individual practices instituted in the 1930s increased the separation between whites and blacks/African Americans.[20] Practices such as redlining, restrictive covenants and discrimination in the rental and sale of housing not only led to residential segregation by race, but also consequently affected health and health access for generations.[21]

Despite the judicial and legislative victories of the civil rights movement like the landmark *Brown v. Board of Education of Topeka* case, the *Kansas* Supreme Court case, the Civil Rights Act of 1964, the Voting Rights Act of 1965 and the Fair Housing Act of 1968, residential segregation persists because of the legacy of entrenched, unfair historical policies embedded into American society. In fact, because of the tendency of both wealth and poverty to accumulate, segregation has grown in many cases, creating de facto school re-segregation in major urban settings.[16,21]

In rural Pennsylvania, geographical isolation contributes to disparities in health outcomes. Low primary care physician and healthcare provider numbers and even lower numbers of specialists are a major contributing factor. Dental care is sparse, while obesity and tobacco use are high. As is the case in pockets of urban environs, unemployment and poverty plague the rural citizens of the state due to traditional industries of coal and steel being phased out, along with the jobs associated with these previously booming enterprises.

Access to Food and Nutrition

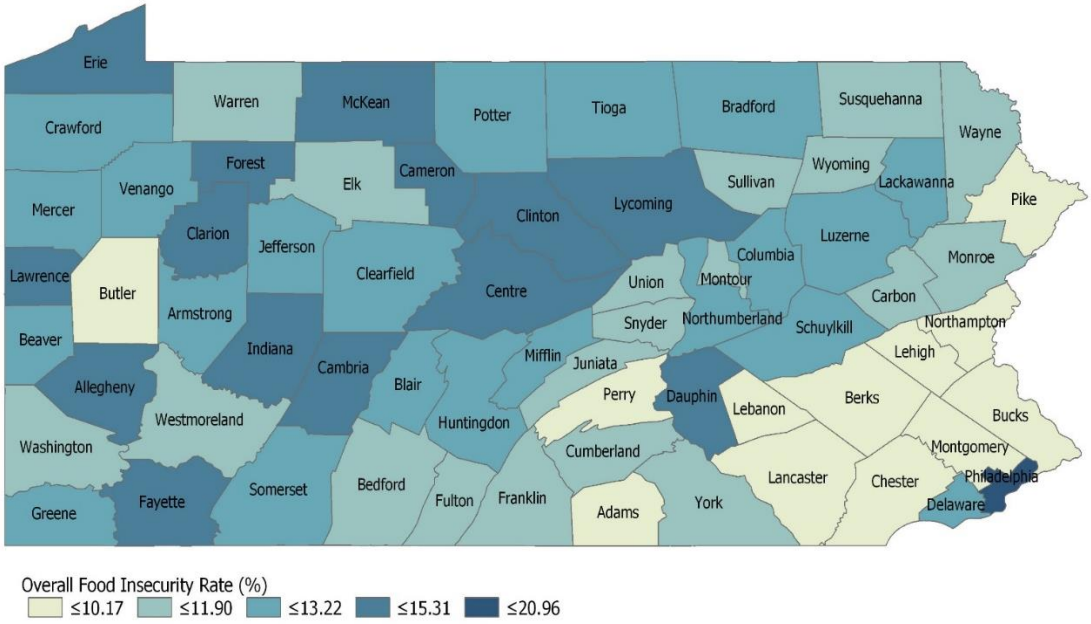
Access and ability to obtain adequate nutritious food every day are foundational to achieving health. Chronic hunger and malnourishment can have serious health consequences. Globally they are the most common risk factor for illness and death.[1] This is especially true for children, who are most vulnerable to lower nutrient intake[2] and general health,[2] mental health issues,[3] behavioral problems,[4] and oral health problems.[5]

Malnourishment is not an uncommon issue, although it stems from a relatively simple and seemingly easily curable problem: people not consuming enough fruits and vegetables. Adults are recommended to have at least 2 ½ cups of vegetables and 2 cups of fruits per day.[6] In 2013, a national survey found that in every state most adults consume too few fruits and vegetables.[7] In Pennsylvania, only 15 percent of adults consume five or more servings of fruit and/or vegetables per day.[7] Unfortunately, solutions to this problem are not as obvious as they may seem and understanding the reasons why people are not consuming enough fruits and vegetables is a prerequisite to forming a sustainable solution. As previously stated, this a complex issue, but in Pennsylvania some of the most relevant factors include lack of access to affordable, nutritious foods and its consequences.

In 2015, about 13 percent of all households nationwide experienced food insecurity, or the inability to fulfill daily nutritional needs. In Pennsylvania, about 14 percent of households were food-insecure in

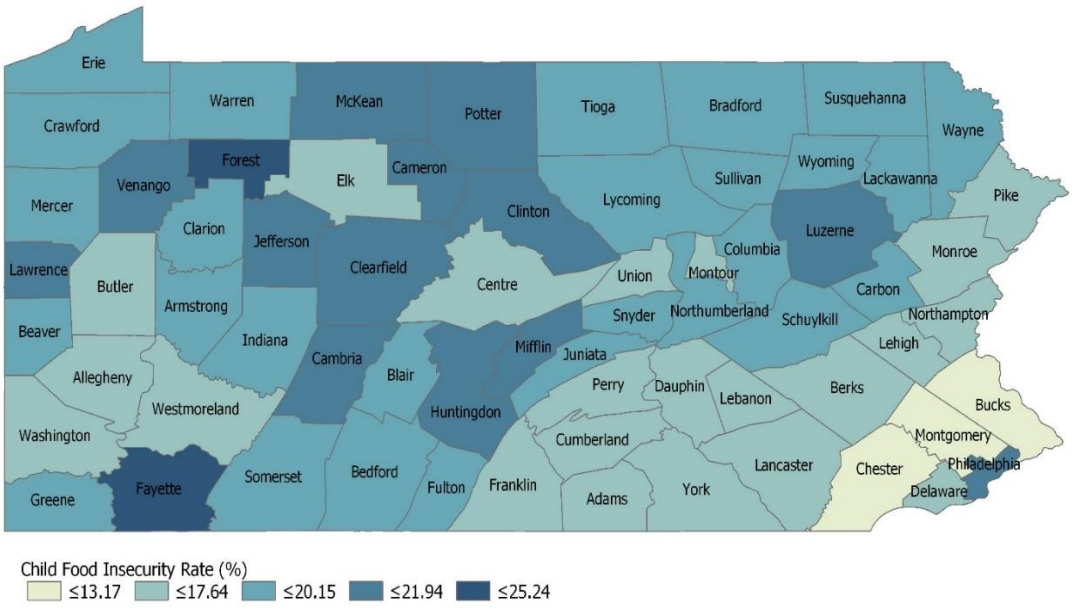
2015– that's 1.7 million people who were unable to meet their nutritional needs in a state known as a world leader in agricultural production.[8]

Figure 11. Percentage of adults and children who experience food insecurity by County, Pennsylvania, 2016



Source: FeedingAmerica.org, 2016.[9]
Percentages are calculated by dividing the estimated number of food insecure individuals per county (based on income) by county population.

Figure 12. Percentage of children ages 0 to 18 who experience food insecurity by county, Pennsylvania, 2016

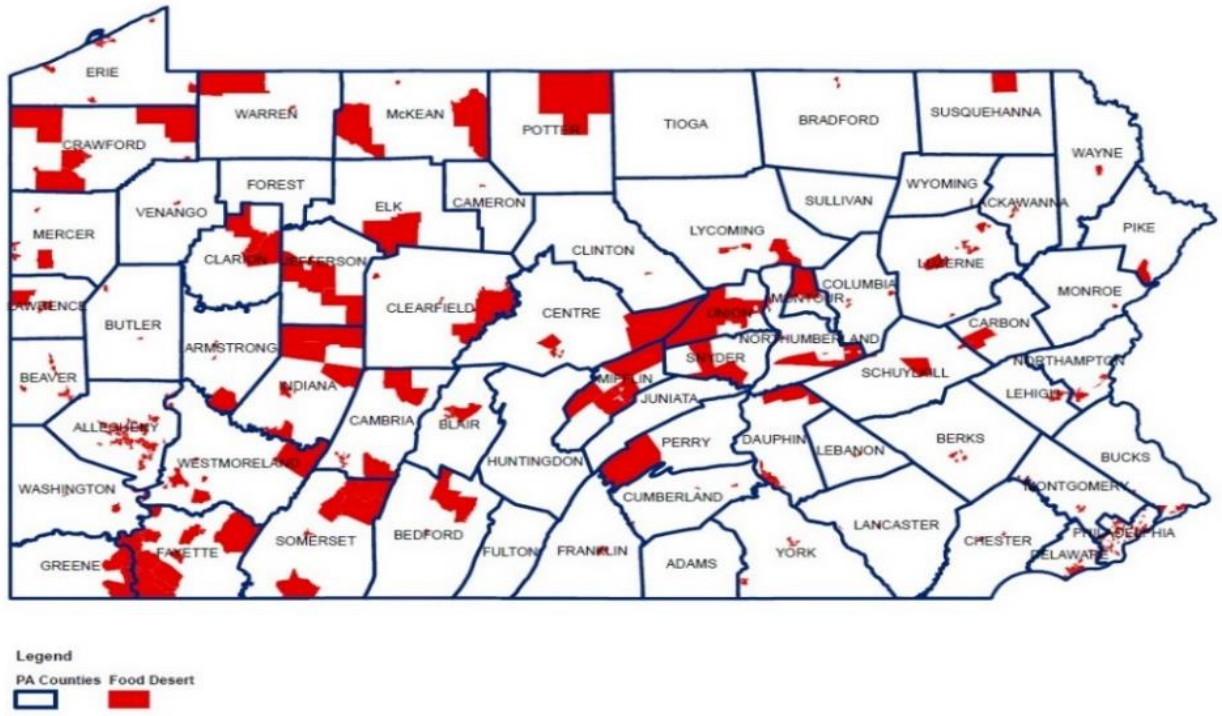


Source: FeedingAmerica.org, 2016.[9]

Percentages are calculated by dividing the estimated number of food insecure individuals per county (based on income) by county population.

Major contributors to food insecurity are food deserts, which are defined as low-income census tracts where several households live more than 20 miles from the nearest full-service grocery store that offers options to affordable fruits, vegetables, whole grains, low-fat milk and other foods that make up a full and healthy diet.[10] However, it is important to note that living within 20 miles of a grocery store does not guarantee access to nutritious foods. Lack of transportation and grocery stores not aligning with public transportation stops can present prohibitive barriers in locations that do not meet this definition of a food desert.

Figure 13. Food Deserts by County, Pennsylvania, 2014



Source: U.S. Department of Agriculture (USDA), 2014.

In these areas and for those with transportation or financial challenges, people must rely on what is available and affordable. For many, that means relying on convenience or small neighborhood stores for groceries, which may offer fewer healthy food options, if any. Consequently, it is difficult for people in these situations to get their daily recommended servings of fruits and vegetables. The options that are available and affordable often contain enormous amounts of added sugar. The primary source of sugar added to the average American diet comes from sugar-sweetened beverages.[11] Consumption of sugar in an adult diet can lead to obesity,[12] poor nutrition and cardiovascular disease.[13]

Understanding that Pennsylvania has the resources to achieve full food security, Governor Tom Wolf issued an executive order in September 2015 to eliminate food insecurity in Pennsylvania. The administration created the Governor's Food Security Partnership, a group of private and public-sector leaders that are responsible for providing nutrition and food assistance to the commonwealth. This

involves a collaboration with Pennsylvania departments of Aging, Agriculture, Community and Economic Development, Education, Health and Human Services. Together, the partnership created the report, "Setting the Table: A Blueprint for a Hunger-Free PA," with a list of nine goals to pursue and eliminate hunger in Pennsylvania by 2020.

Pennsylvania's Department of Health is also home to the federally funded Pennsylvania Special Supplemental Nutrition Program for Women, Infant and Children (WIC). This program serves pregnant women, infants and children under 5 years-old living in low-income households, providing nutrition services and healthy foods for the commonwealth's most vulnerable families.

To target the food deserts in the state, Pennsylvania created the Pennsylvania Healthy Corner Store Initiative. This program brought healthy foods into the corner stores where many families buy their groceries. Using Philadelphia's Healthy Corner Store Initiative as a model, the state replicated this idea in more than 50 corner stores across the commonwealth, with the goal of providing easily accessible healthy food choices. To expand upon this work, Pennsylvania moved toward the Pennsylvania Healthy Pantry Initiative, hoping to increase access to healthy foods and beverages through food banks and food pantries.

Housing

Poor quality, unaffordable or inaccessible housing can have a wide range of negative impacts on both physical and mental health. However, stable, safe and affordable housing not only protects families from the adverse impacts of poor housing, it provides families with a safe, reliable place to practice healthy habits. From offering a place to sleep that is sheltered from the environment, to providing a space to cook nutritious meals and allowing an area for medication to be stored, housing is integral to helping Pennsylvanians live healthy lives.

In a state where more than 15,000 people are experiencing homelessness and the number of homeless residents increases by approximately 5 percent each year, increasing access to homes would improve health for many residents.[1] With a place to live, Pennsylvanians who are currently homeless would have access to more sanitary conditions and places to safely store medication. Furthermore, people with homes report less stress and better mental health than those with unstable housing. Living in a house also means having an address, which makes it easier for people to apply for jobs, use various social services and maintain continuity of health care.[2]

Given the strong ties between housing and health, the rising rate of homelessness across Pennsylvania endangers the health of many residents. Without shelter, people are exposed to dangerous weather and extreme temperatures. Temporary shelters are often crowded, which allows infectious disease to spread more quickly. Homeless children experience higher rates of mental health problems than children living in stable housing. By working to ensure access to housing and decreasing the rate of homelessness, Pennsylvania can improve these health outcomes.[1] Seeing the challenges associated with homelessness, the Pennsylvania Department of Human Services has developed a five-year housing strategy that seeks to increase the availability of housing to low income residents among other tactics.[2]

For housing to truly serve as a foundation on which to build a healthy lifestyle, it needs to be affordable. Housing is considered affordable when the cost of living quarters and utilities is 30 percent or less of a family's income. Nearly 47 percent of Pennsylvanians pay more than 30 percent of their income toward housing, which means almost half of the state lives in unaffordable housing.[2] People who identify as an

ethnic minority are more likely to live in unaffordable housing which means they are also more likely to face the associated health challenges.[3]

When compared to those living in affordable housing, people living in unaffordable housing have higher rates of fair or poor health, stress and depression. They also reported more instances of being unable to fill prescriptions or follow healthcare treatment recommendations because they could not afford to pay. People living in unaffordable housing also spend a smaller proportion of their income on food and healthcare. Access to nutritious food and necessary healthcare is essential to living a healthy life.[2]

Some of the people who would benefit the most from affordable housing encounter additional barriers in accessing it when compared to the population of Pennsylvania as a whole. People who have recently been released from prison and survivors of domestic violence face many specific health challenges. Affordable, accessible housing is key to helping them stay healthy as they start a fresh chapter of their lives.

Among the incarcerated population, more than half have a mental health condition, half have a chronic illness and 20 percent have had an infectious disease during their incarceration.[7] With rates of chronic illness and mental health conditions much higher than the general population, continuity of care following release from prison is essential to living a healthy life.[7] However, former inmates across Pennsylvania struggle to find affordable housing that would allow them to afford health care and provide a safe place to store medication. Prisons across the state are partnering with community reentry programs to develop and support housing for recently released inmates. However, finding long-term, affordable housing is difficult. In a study by Drexel University, researchers found that recently released inmates often had a hard time finding affordable housing especially after they were no longer able to use post incarceration temporary housing.[8] Despite the presence of many community-based housing programs, only a few counties referred recently released formerly incarcerated individuals to these housing services. Recently released formerly incarcerated individuals in urban areas also struggle because there are less housing programs per 10,000 people in urban areas than elsewhere in the state.[9] With such competitive housing, the stigma associated with a criminal record can make it difficult for former prisoners to find housing. However, access to housing reduces recidivism rates and improves continuity of care, which also reduces recidivism.[10]

Every year, thousands of people across Pennsylvania, mostly women and children, experience domestic violence.[4] This violence causes damage to both mental and physical health. As they try to escape the violence, many survivors seek shelter that provides them with a place to live and protection from the abuser. However, this shelter is only temporary and affordable housing can be difficult to find for a survivor who has lost the support of income from the abuser and may be independently supporting children. Housing provides safety and security that can help survivors recover physically and emotionally. Without access to affordable housing, victims of domestic abuse may become homeless or return to the abuser.[2] Affordable housing is the number one unmet need among domestic abuse survivors.[5] This problem is especially severe in rural Pennsylvania where housing vouchers and transitional housing are less likely to be offered.[6] By making housing more affordable, domestic abuse survivors and their children can find a safe space to recover and heal.

Accessible, affordable housing must also ensure the safety of its residents. Housing structures need to be structurally sound and have appropriate safety precautions like smoke detectors to decrease injuries in the home. About 40 percent of Pennsylvania homes have higher levels of radon than what the EPA

considers safe.[11] Over time, exposure to radon can cause cancer. Radon detection kits can be purchased and if the results show radon levels are too high, a radon mitigation system can be installed. However, many Pennsylvania residents are unaware of the danger radon poses and radon levels remain high across the state.[12]

Another threat to many residents is lead. Many homes in Pennsylvania were built before lead paint was banned, so Pennsylvanians living in these houses may be at risk of lead exposure if the lead paint was not painted over or if the walls are deteriorating. Residents are also at a greater risk of developing asthma and infectious diseases when a home isn't well-ventilated, clean and pest-free. In Pennsylvania, living in old homes can put children at increased risk for asthma due to the frequent presence of asthma triggers like mold, mildew and mites. The Pennsylvania Safe and Healthy Homes Program is working to educate Pennsylvanians, so residents can make sure their houses are the safest they can be.[12]

As Pennsylvania residents age, they often require modifications to their homes to make them safe. Without such modifications, which can be expensive for residents to pay for out of pocket, many Pennsylvanians need to move to facilities that offer assisted living or nursing services.[2] For some residents, these facilities are necessary and beneficial, but studies have shown that "aging in place," in one's home saves money in the long term and leads to happier, healthier lives for older Pennsylvanians. In fact, the annual cost of care for an elderly resident living in independent living is half that of a resident living in a nursing home.[1]

Housing is a basic need that affects every Pennsylvanian throughout life. Access to affordable, safe housing is essential to helping people live healthy lives. The home is a place where nutritious meals can be cooked, a good night's sleep can be found and healthy habits can be formed. By making sure Pennsylvanians have access to affordable, safe homes, negative health impacts caused by homelessness and unaffordability can be prevented and people can be provided with a foundation to use healthy habits to build a healthy life.

Built Environment

The influence of built environments, or all human-made physical surroundings, on behavior is so ubiquitous that it is only too easy for its impact to go unnoticed. However, the built environment where people live, learn, work and play, has a direct impact on the health of communities. The design of communities can either hinder or foster health depending on whether they facilitate behaviors like physical activity. For example, communities that were designed with safe and complete sidewalks that are accessible to all regardless of ability are ones whose built environment promotes healthy physical activity. The Robert Wood Johnson Foundation Commission recommends that, "to improve the health of all Americans, communities be created 'that foster health-promoting behaviors'."[1] Built environments can contribute to or detract from health in complicated ways. They affect peoples' ability to maintain a healthy diet and engage in physical activity and thus prevent obesity. Poor street connectivity and a higher fast-food restaurants ratio is associated with higher obesity risk.[2] Lack of access to safe sidewalks, biking or walking trails, green spaces and lack of access to safe environments in general is associated with lower physical activity.[2] Though built environments influence many determinants like environmental health and food insecurity, physical activity represents a high priority for Pennsylvania.

Engaging in regular physical activity is foundational to achieving optimal health. To maintain a healthy weight and good cardiovascular health, the American Heart Association recommends that adults exercise 30 minutes a day, five days a week. However, in 2015, only half of adults in Pennsylvania met

the recommendation of 150 minutes of exercise per week.[3] Lack of physical activity is a contributing factor to Pennsylvania's growing number of residents who meet the definition of obesity. According the CDC, obesity is "weight that is higher than what is considered as a healthy weight for a given height is described as overweight or obese. Body Mass Index, or BMI, is used as a screening tool for overweight or obesity".[4] Obesity is a complex health status linked with many health problems. It can impact peoples' physical, mental and social health. Obesity is associated with certain types of cancers, type 2 diabetes, hypertension, stroke, cardio vascular disease, asthma, musculoskeletal problems, pulmonary embolisms, disability and premature death.[5] Obesity can result in low self-esteem, mood disorders, eating problems, impaired body image, interpersonal communication problems, sexual health problems and lower quality of life.[6] Obese individuals can experience significant prejudice and discrimination.[6]

The Pennsylvania State Health Assessment found that since 2011, the percentage of Pennsylvania adults categorized as obese increased from 29 to 30 percent. Between 2013 and 2015, 65 percent of adults were either overweight or obese.[7] According to a 2007 National Survey of Children's Health, Pennsylvania ranked 26th out of 50 states in prevalence of overweight or obese youth.[7] Nearly 30 percent of Pennsylvania youth grades nine through 12, in 2015, were either overweight or obese, increasing from nearly 28 percent in 2009.

Developing complete built environments that promote healthy habits is an effective way to intervene in increasing obesity rates and other chronic illness outcomes. Existing environments can be altered and adapted to promote health. Increasing community walkability and access to trails and green spaces have been shown to be effective for improving the health of residents.

The Pennsylvania Department of Health's State Health Improvement Plan includes obesity as one of the top health priorities to address with an objective of decreasing the percentage of Pennsylvania adults who engage in no leisure-time physical activity from 26 percent in 2013 to 23 percent by 2020.[8] To accomplish this objective, the department seeks to provide affordable and accessible opportunities for physical activity. Perhaps the simplest way to promote a physically active lifestyle is to increase community walkability. WalkWorks is an initiative implemented through a partnership with the department and the University of Pittsburgh Graduate School of Public Health Center for Public Health Practice.[9] This initiative is designed to increase physical activity by identifying and promoting safe walking routes, offering social support through guided, community-based walking groups, helping schools to develop walk-to-school programs and addressing local policies to increase safe walking routes. The goal of these efforts it to create fun, fact-filled, community-based walking routes and walking groups.

One example of how this works is a collaboration between the Indiana County Office of Planning and Development, a community-based partner, and WalkWorks to increase opportunities for physical activity by designating safe and fun walking routes and creating walking groups to provide social support, behavioral and policy changes. The agency worked with Livable Indiana Neighborhood Connections (LINC), an organization comprised of private-sector representatives whose vision is to create "...a more livable community by promoting healthy lifestyles and neighborhoods through increased bicycling and walking." LINC's goal is "to improve the quality of life for all residents by fostering the development of a more livable, connected community." Together Indiana County, WalkWorks and LINC provided 14 boroughs and townships with a comprehensive plan including WalkWorks brochures and maps of suggested walking routes for their community.

Despite programs like WalkWorks, there are still many barriers to walkability in Pennsylvania. Unsafe streets, which includes disconnected and incomplete sidewalks, lack of pedestrian crosswalks and signals, warning signals, signs and paved shoulders serve as walkability barriers.[10] Even in affluent areas, many of Pennsylvania's towns are simply not designed for walking, with complete lack of sidewalks in several key areas. These barriers are also problematic for bike riders. While recreational bike trails cover large swaths of Pennsylvania, in many parts of the state there are no specific bike paths that follow major roadways. This makes it difficult for people to commute within their towns via bike, which would otherwise be an easy way to build exercise into the daily routine of residents.

Lack of walkability and access to bike trails is also closely linked with lack of access to green spaces. [10] Proximity to parks and lack of infrastructure serve as the top two obstacles that limit walkability to parks and ultimately options for affordable locations for physical activity. Research shows that people who have access to parks are 47 percent more likely to meet the recommended daily amount of exercise than those who do not have easy access. However, when the distance from a park doubles, the likelihood of park uses decreases by nearly 50 percent. Disparities in access to green spaces like parks exist across the country in both urban and rural areas.

In addition to proximity, lack of infrastructure presents another barrier to access. Unsafe streets, which includes disconnected and incomplete sidewalks, lack of pedestrian crosswalks and signals, warning signals, signs and paved shoulders, serve as walkability barriers.[11] In order to be considered a safe route to a park, the route must provide comfort, convenience, safety and accessible design.

Taking steps to increasing community walkability and access to trails and green spaces could tremendously help improve the physical health of Pennsylvania residents. Altering existing built environments and designing new built environments with a focus on promoting health represents an effective and essential strategy for decreasing physical health disparities.

Access to Quality Health Care

Access to quality health care is imperative to helping individuals establish and maintain good health, but many Pennsylvanians still face difficulties in getting quality medical care and preventive care services. Consequently, primary care and preventive services are the top two priority issues in the State Health Improvement Plan.

When discussing perceptions of health care access through a brief survey in 2017, various public health stakeholders throughout the state echoed concerns of disparities in provider accessibility and availability, with the majority identifying limited insurance coverage as the greatest access challenge. Respondents serving rural communities described a lack of providers, especially primary care, dental care and behavioral health care. For those working with other underserved communities (especially minority populations such as black/African American, Hispanic or LGBTQ populations) transportation, culturally competent providers and language barriers were the most serious obstacles.

The number of providers available to a patient population can either encourage or discourage people from seeking medical care. Health Professional Shortage Areas are defined by the critical shortage of primary care physicians, dentists and/or mental health providers in distinct geographic areas or population groups within a geographic area (such as the population under 200 percent of the poverty line). These shortages are found throughout Pennsylvania, with primary and dental care shortages mostly affecting the low-income in both urban and rural communities. These communities often must

visit clinics far from home or have limited access to public or personal transportation. They have difficulties getting appointments because of providers treating over their capacity. Additionally, if a clinic has limited hours (i.e. closed after regular business hours, like nights and weekends), those who don't get paid sick leave are putting their jobs at risk to be seen by a provider.

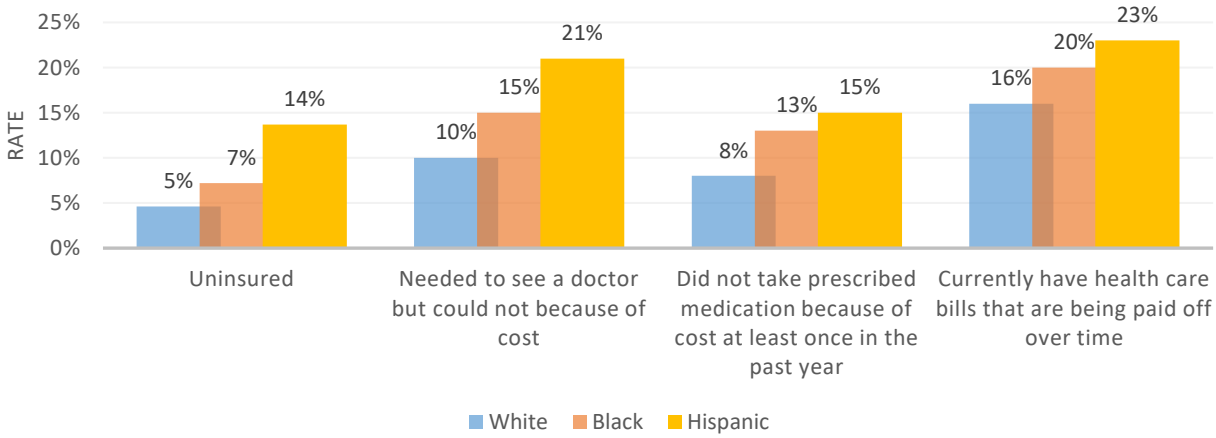
A 2014 report showed that rural counties have less physicians than urban counties, where there was one physician for every 586 residents in rural Pennsylvania and one physician for every 266 residents in urban Pennsylvania.[1] In 2015, rural counties have less dentists than urban counties, where there was one dentist for every 2,440 rural residents and one dentist for every 1,486 urban residents. Though access to medical care does not guarantee good health, the ability to see a provider when needed is critical for these communities' well-being.

Another barrier to health care access is the inability to pay for health services. Health insurance helps to financially cover the services needed to be and stay healthy. However, some do not have the means to afford health insurance premiums or extra out-of-pocket expenses for co-pays, deductibles or co-insurance. Moreover, navigating the health care and health insurance systems continuously get more difficult. Without good health insurance coverage or the financial and support system to understand how to pay for health care needs, it is harder to pay for services such as doctor's appointments, prescribed medications or accumulated health care bills.

Fortunately, the commonwealth's rate of uninsured people fell from 10 percent in 2010 to nearly 6 percent in 2016, the state's lowest rate on record.[2] This is largely due to Pennsylvania's implementation of the Affordable Care Act (ACA), with the health insurance Marketplace opening in January 2014 and Medicaid expansion in January 2015. The ACA is a health care reform law that addresses health insurance coverage and preventive care, with provisions to encourage the decrease of health disparities by expanding grants for medically-underserved areas, research in health inequities and funding health professionals of diverse backgrounds, among many other initiatives.

Year after year, the prevalence of uninsured estimates is higher for Pennsylvania's ethnic or racial groups, especially Hispanic/Latinos.[3] When assessing several measures of financial access to health care, Hispanic/Latinos Pennsylvanians experienced the greatest disparities (Figure 15).

Figure 15. Racial Disparities in Ability to Pay for Health Care, Pennsylvania, 2016



Source: Uninsured rates from 2016 American Community Survey[4]; rates for other variables from 2016 Pennsylvania Behavioral Risk Factor Surveillance Survey. Data for other races are unreliable.

Minority populations often experience disparities in health care access due to cost as illustrated in Figure 15, which stresses the importance of culturally responsible and respectful (sometimes known as culturally competent) care. Structural and interpersonal discrimination can seriously decrease the quality of care, which affects how and when someone seeks care. People who experience discrimination in the health care setting are less likely to seek medical help when necessary or follow provider recommendations on lifestyle changes, medications or follow-up appointments.[5] Many studies about perceptions of racial and ethnic discrimination have shown associations with poor physical and mental health status.[6] In one study, those who spoke a language other than English, in particular, were more likely to report discrimination, regardless of race or ethnicity.[7] Moreover, a study from the National Center of Transgender Equality has shown that the majority of transgender people have faced discrimination and/or violence in healthcare settings.[8]

One strategy being used to address the shortage of health workers and access to health clinics is the use of community health workers, or "lay members of communities who work either for pay or as volunteers in association with local physical health and/or mental health care systems in rural environments and usually share ethnicity, language, socio-economic status and life experience with the community members they serve."[9] Some core activities of community health workers include patient advocacy, social support and health education. To better understand the use of community health workers in rural Pennsylvania, researchers from Lock Haven University of Pennsylvania conducted surveys, focus groups and interviews with various organizations in 37 rural PA counties.[10] Several health agencies reported better health outcomes, lower readmission rates, better quality of service and independence for seniors because of using community health workers . Both researchers and health agencies suggest the expansion of their usage by the development of more community health workers programs and a professional certification in Pennsylvania.

Environmental Health Hazards

Environmental health plays an essential role in caring for the physical health and wellbeing of Pennsylvanians. Communities cannot be safe and healthy if the relationship between people and their environment is not adequately addressed. Hazards to air, water, food, shelter and security represent serious public health risks and there are several direct and indirect pathways through which environmental health hazards negatively impact health and wellbeing.

Air particle pollution causes an increase in asthma, chronic obstructive pulmonary disease (COPD) and other upper respiratory issues because increased matter in the air harms the respiratory system. It is associated to greater risk for asthma attacks, heart attacks and strokes. According to the CDC, particle pollution can even cause lung cancer.[1] Those who are most susceptible to the negative effects of increasing air pollution include infants, children, adults with chronic upper respiratory diseases or heart diseases and people who are economically disadvantaged.

Extreme temperatures can cause heat stroke and dehydration and can affect the cardiovascular and nervous systems.[2] The accompanying increase in ground-level ozone, which further exacerbates respiratory issues, can increase length and severity of the pollen, or allergy, season.[3] Ticks, which can carry Lyme disease, are more active in warmer weather, as well as the types of mosquitoes that can carry viruses like West Nile and Zika.

The risk of mental health problems, like depression, post-traumatic stress disorder, anxiety disorders, other chronic stress disorders and suicidality skyrocket after catastrophic events caused by these extreme temperature changes.[4] There are numerous environmental health hazards; climate change, air pollution and water hazards are particularly concerning in Pennsylvania.

Climate change is known as the widespread and long-term change in weather patterns that can be directly or indirectly accredited to evident human activity.[5] The most significant cause of climate change is industrial activity, which releases greenhouse gases (GHGs) into the atmosphere.[6] Greenhouse gases trap heat, increasing the temperature in the atmosphere and ocean. Most greenhouse gas emissions result from human activity, like burning of fossil fuels (e.g. the coal, gas and oil used in homes and cars), deforestation, waste in landfills and manure management for livestock. Earth's rising temperatures can cause extreme heat and severe weather, which leads to pollution and can devastate our agricultural systems.

As the third largest producer of total energy in the U.S.,[7] Pennsylvania is ranked:

- No. 1 for electricity exports;
- No. 2 for electric generation;
- No. 2 for natural gas productions;
- No. 4 for coal production;
- No. 2 for nuclear generation;
- No. 12 for solar capacity;
- No. 16 for total wind capacities installed; and
- No. 3 for carbon dioxide emissions.

As is evident from these rankings, Pennsylvania is taking steps towards adopting environmentally responsible energy practices, but still has a long way to go. Some of these steps are outlined in the climate change reports produced with the Pennsylvania Department of Environmental Protection (DEP). Climate change cannot be tackled without addressing social determinants of health. Socioeconomic status, access to healthcare, employment opportunities, safe housing and social support systems are essential to building an infrastructure resilient to the disasters that come from the effects of environmental hazards and climate change.

One way the excess heat produced by climate change affects health is through increased air pollution. Two of the most harmful types of air pollution are ground-level ozone (smog) and particle pollution (soot). In Pennsylvania, Philadelphia has the 22nd highest ozone level of all U.S. cities.[8] Those cities that rank in the top 25 for highest levels of year-round particle pollution include Pittsburgh (No. 8), Philadelphia (No. 11), Johnstown-Somerset (No. 13), Altoona (No. 18), Lancaster (No. 20), Harrisburg (No. 22), and Erie-Meadville (No. 25).

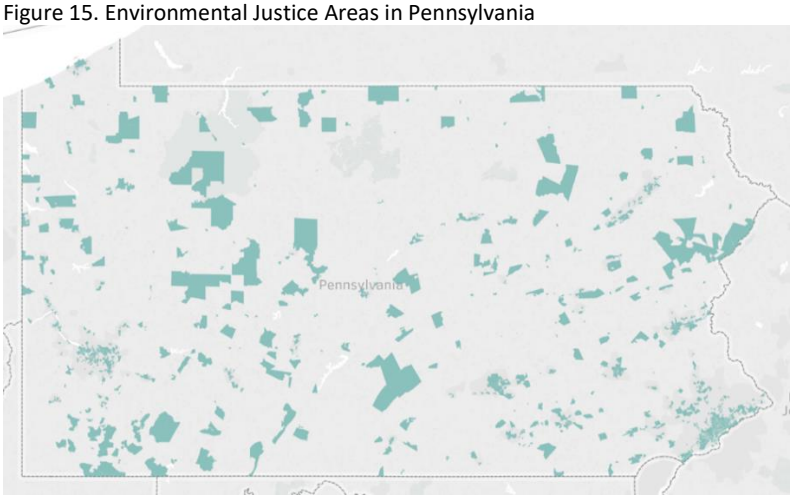
The constant change in weather patterns resulting from climate change has not only disrupted people's lives, but it has also brought rates of heavy rains and flooding higher than Pennsylvania's historical averages.[7] Flooding from hurricanes can contaminate water supplies with untreated sewage and chemicals. It can also increase water-borne diseases due to the higher levels of microbial contamination that flourish with warmer temperatures. Heavy rains can lead to more runoff, more nutrient runoff and more waterborne pathogens and harmful algal blooms. Pennsylvania has seen a 10 percent increase in annual precipitation over the last century as well as an increase in events of extreme precipitation. Consequently, the Chesapeake Bay, now contains more unhealthy nitrogen, phosphorus and sediment.

In rural areas, when this extreme weather results in power outages, it affects the water systems.[7] Electricity is used to power water systems and produce clean drinking water. If the power is out for a long time, people lose access to clean drinking water and may end up consuming contaminated water. Flooding can also wipe out crop production.

Sea levels have also risen due to climate and change, and impacted communities and cities in the Delaware River Basin, including Philadelphia.[7] Additionally, aging infrastructure lowers the water quality in both rural and urban communities.

While everyone's health is impacted by environmental health hazards, the health of Pennsylvania's vulnerable communities is most at risk. This is especially true for children, the elderly, people of color, people with low mobility and income, and rural communities. More drastic changes in the environment often exacerbate the poor living conditions, leading to even larger health disparities. People of color and those living in poverty are more likely to have less access to secure housing, healthy foods and clean water, and are more likely to live with chronic exposure to air pollutants. Hazardous waste sites and chemical facilities are more likely to be in low-income communities, so risk for exposure to toxins is greater. By comparing the two maps below (Figures 15 and 16), it is apparent that DEP's Captive Hazardous Waste Operations (responsible for regulating the generation, storage, transportation, treatment and disposal of hazardous waste) are localized in or around areas designated as "Environmental Justice Areas." These are defined as any census tract where 20 percent or more individuals live in poverty and/or 30 percent or more of the population is a racial minority.

Figure 15. Environmental Justice Areas in Pennsylvania



Source: Pennsylvania Department of Environmental Protection, 2017.

Figure 16. Captive hazardous waste operations and environmental justice areas in Pennsylvania

Source: Pennsylvania Department of Environmental Protection, 2017.

When disasters strike, people living in environmental justice areas and those who are undocumented often have no resources and little recourse for figuring out how to make ends meet and how to rebuild their lives.

Safety and Trauma

Trauma is one of the most under-addressed social determinants of health and can impact anyone at any stage of life. According to The National Workforce Centre for Child Mental Health, a traumatic event is a deeply distressing or disturbing experience and can happen directly to a person or it can be something they have witnessed.[1] Trauma involves a loss of life or a threat to life, a loss of liberty or a threat to liberty, abuse, including physical, sexual, emotional and neglect and physical harm or a threat of harm.[1] The impact of trauma on mental and behavioral health is well-known and WHO attests that physical health is impossible to achieve if emotional needs are not met.[2] However, mounting research shows that not only can trauma have a devastating effect on mental health, it impacts physical health directly. The field of epigenetics has uncovered a biological mechanism through which people experience a causal relationship between trauma and poor health outcomes. Trauma activates the hypothalamic pituitary adrenal (HPA) axis, which is tied to immune function and inflammatory response.[3] Traumatic activation of the HPA axis can result in chronic toxic stress, which can lead to ischemic heart disease, cancer, diabetes, chronic pulmonary disease (COPD, Pulmonary fibrosis), skeletal fractures, liver disease, malignancies and migraines.[4,5] In order to fully understand the many ways trauma influences health and well-being, it is helpful to discuss it from a lifespan perspective.

In 2016, the Department of Human Service's Child Protective Services identified 6,486 substantiated reports of child abuse, with 48 percent of those reports concerning sexual abuse and 30 percent consisting of physical abuse and bodily injury.[6] Childhood maltreatment is particularly devastating because early traumatic HPA response results in chronic alterations in the HPA axis resulting in decreased resilience in the face of further trauma.[3] Maltreatment and trauma-history exert a major impact on childhood health care utilization. Youth in the foster care system with a history of trauma cost Medicaid $3,588 more per capita over the course of a year than children who have not experienced trauma.[7] Researchers have concluded that, "early traumatic experiences evoke a cascade of system-wide changes that persist into adulthood and are associated with both deleterious psychological and physical health outcomes."[3]

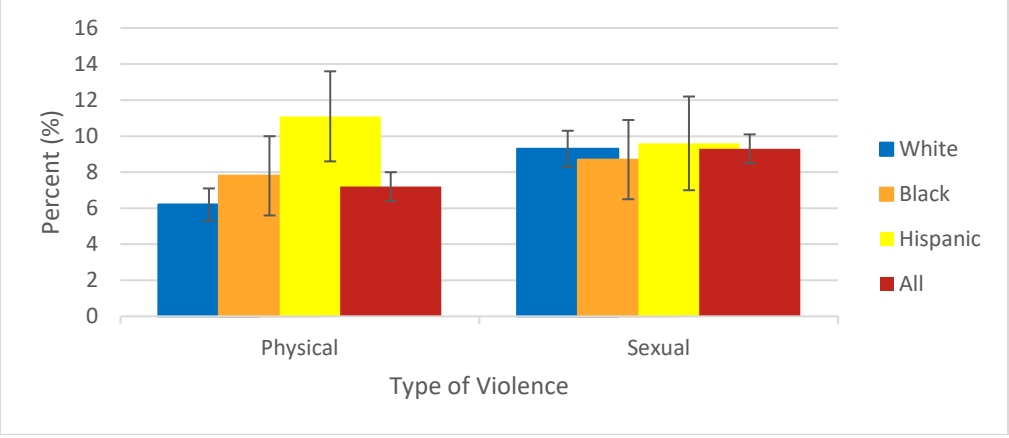
The Adverse Childhood Experiences (ACE) study explored this relationship between childhood trauma and adult health outcomes and found that both the prevalence and risk for smoking, severe obesity, physical inactivity, depressed mood, suicide attempts, alcoholism, illicit drug use, risky sexual behavior and all of the previously mentioned diseases and conditions all increase as exposure to ACEs increases.[5] All of these negative outcomes are observed at even higher concentrations when poverty is concurrent with childhood trauma.[8]

In Pennsylvania, an ACE of concern is parental incarceration, which disproportionately affects poorer households and racial minorities. According to the Pennsylvania 2016 Behavioral Risk Factor Surveillance Survey, 15 percent of respondents with a household income of less than $15,000 lived with someone who served time or was sentenced to serve time in a prison, jail or other correctional facility compared to the three percent of respondents with a household income of $75,000 or more, a rate statistically significantly lower than that of those who made less than $15,000.[4] Additionally, the percentage of black/African American respondents and Hispanic/Latino respondents who lived with a previously incarcerated individual was 233 percent and 350 percent greater than the percentage of white respondents, respectively. Not only does this ACE impact future financial health, it is also statistically linked to asthma and smoking later in life.

The chronic toxic stress resulting from ACEs such as parental incarceration and abuse often leads to behavioral problems and poor academic performance in school and is often treated as Attention Deficit Hyperactivity Disorder (ADHD) or other mental health conditions.[9] This misinformed approach fails to address the root cause of the problem, can cause further distress and thus leaves children vulnerable to all of the far-reaching consequences of low educational attainment.

During adolescence peer violence, and its consequences, becomes a common source of trauma. Abusive sexual/romantic interactions, bullying including cyber bullying and suicidality are of concern. The research shows that marginalized groups including LGBTQ teens and teens of color disproportionately experience these types of trauma. LGBTQ teens are significantly more likely to experience sexual violence and are also more likely than their heterosexual peers to experience either electronic or physical bullying, with nearly two in five LGB teens experiencing bullying as compared to one in five heterosexual teens.[10] While rates of sexual violence hover around 10 percent for teens of all races, Hispanic/Latino and black/African American teens experience higher rates of physical violence. [10] The below chart (Figure 18) highlights the prevalence of physical and sexual violence among racial groups.

Figure 18. Dating Violence Experienced by Teens, Pennsylvania, 2015



Source: Pennsylvania Youth Risk Behavior Survey, 2015.

Sexuality and race-based stratification is also observed in suicidality. LGBTQ and Hispanic/Latino teens experienced a statistically significantly higher risk of physical harm through a suicide attempt, with LGBTQ teens four times more likely than heterosexual teens and Hispanic/Latino teens nearly three times more likely than white teens to attempt suicide resulting in an injury requiring medical intervention. [10]

Sexual violence continues to be a main source of trauma in adulthood along with firearm homicides and suicides. Experiencing such adverse events can lead to multiple physical and mental health disorders and too often, death. Regardless of gender, many indicate experiencing adverse health effects following a history of sexual assault, particularly significant difficulty sleeping and heightened levels of limitations on activities.[11] Female Pennsylvanians also report that they have a significant number of headaches and chronic pain.

Although it is often thought of as an urban problem, sexual and domestic violence is prevalent in rural areas as well, where victims experience greater stigma in their small communities and fewer, poorly funded resources.[12] Consequently, domestic violence related death rates in rural areas are similar to those in urban areas; nine deaths per million people in designated rural counties and eight deaths per million people in urban Pennsylvania. This type of trauma is especially deadly because of its relationship with gun violence. Firearms are often used to intimidate, control and kill victims of abuse. Since 2007, firearms have been used in most of domestic violence related homicides almost every year, ranging from 46 to 59 percent.[13]

Gun violence also plays a significant role in homicide and suicide-related violence. In 2016, firearm homicides comprised 75 percent of total homicides and nearly 50 percent of total suicides. The black/African American community shoulders a disproportionate burden of these homicides and suicides. Age adjusted death rates for homicide for blacks were nearly 27 percent versus 2 percent for white and 6 percent for Hispanic. [14]

Trauma represents a significant and costly public health concern. Fortunately, research has found several trauma-informed interventions to be both effective and economical. Successful trauma interventions in childhood and adolescence have been shown to improve school behavior and performance, which leads to decreased demand for professional services and less involvement in and lower costs for child welfare, juvenile justice and other social services.[15] The research shows that for every dollar spent on evidence-based therapy for delinquent adolescents, a $7-$31 return in savings is observed over their lifetimes.[15] Schoolwide interventions like the Healthy Environments and Response to Trauma in Schools, which introduced trauma-informed practices and policies to the San Francisco Unified School District, have proven to be promising. Improved teacher and staff knowledge and skills, increased student attendance and performance and a significant drop in disciplinary office referrals and suspensions all resulted from this intervention as well as decreased trauma-symptomology in students.[16]

Trauma-informed practices and policies are beginning to be adopted in many fields and institutions like health care, policing and the justice system.[17,18] Developing and implementing trauma-informed practices and policies needs to be an ongoing priority for Pennsylvania so that all commonwealth residents have an opportunity to achieve their highest level of health regardless of trauma.

Addressing Health Equity in Pennsylvania: The Office of Health Equity

Health equity is a complicated and intricate issue in Pennsylvania. To focus resources and develop solutions, the Office of Health Equity was formally integrated into the department under the leadership of former Health Secretary Dr. Calvin B. Johnson and Governor Ed Rendell through an Executive Order signed in May 2007. Its role is to:

- Provide leadership to increase public awareness of health disparities in Pennsylvania;
- Advocate for the development of programs to address health disparities;
- Work with policy makers, insurers, health care providers and communities to implement policies and programs that result in a measurable and sustained improvement in health status of underserved and disparate populations; and
- Collaborate with state agencies, academic institutions, community-based organizations, health partners, providers and others in the public and private sectors to eliminate health disparities in Pennsylvania.

Community partners are critical to the success of the Office of Health Equity. In 2007, an advisory committee was formed of community members to help increase public awareness; identify public/private funding and resources to address health inequities; assist in strategic planning; create, review and/or update a multi-year strategic work plan that promotes health equity through the reduction or elimination of health inequities; and recommend ways to improve Pennsylvanian's health regardless of location, socio-economic status, disability status, age, gender, gender identity, race, ethnicity, religion, immigrant or refugee status, sexual orientation or other differences that create barriers in access to health care servies.

Public Health 3.0
Despite public health's increasing focus on how environments impact health, a person's ZIP code remains a more accurate determinant of health than his or her genetic code. As a public health principle, there is a collective responsibility to create conditions that allow all members of all communities to live healthy lives. The department holds regional events across the commonwealth to bring together different sectors (e.g. business, education, housing, transportation, local government, etc.) to plan and implement strategies to create conditions that allow all members of Pennsylvania's communities to live healthy lives.

Culturally Linguistic Appropriate Services (CLAS) Task Force
The Culturally Linguistic Appropriate Services Task Force provides training to senior leadership, developed a training video and administered several assessments.

Pennsylvania Interagency Health Equity Team (PIHET)
In February 2017, the OHE initiated the Pennsylvania Interagency Health Equity Team (PIHET). PIHET is a replication of the Federal Interagency Health Equity Team and is a component of the Office of Minority Health. The vision, mission and overarching goals are to bring commonwealth leaders together to end health disparities through equitable policies and programs, as well as strategic partnerships.

Health Equity by 2030: Action Plan

The following recommendations were developed, ratified and approved by the Office of Health Equity Advisory Committee for the Department of Health.

Provide Commonwealth-wide leadership to advance health equity.
The Department of Health should catalyze eliminating health disparities by 2030 and establish specific milestones to be achieved by 2020 and 2025 through policy implementation and the engagement of new and existing partnerships to infuse the concept of ongoing shared responsibility for the health of all Pennsylvanians. Mechanisms will be enacted to ensure the continued prioritization of health equity across commonwealth agencies.

Formalize and maintain community relationships and mutual partnerships to advance health equity across current and emerging communities.
The learned experiences of community members must be incorporated into planning processes. Therefore, the department will develop and implement a sustainable process for working with the community. Genuine efforts to reach out to community members for advice, support and engagement will help accelerate health equity efforts.

Invest in the collection, analysis, meaningful use, secure sharing and accessible translation of data to advance health equity.
Health equity and health disparity data must be defined, measured and understood. These data must then be used to assess the impact of programs, policies, practices and products. Interdisciplinary partnerships and collaborations will be established to realize this effort. Data and the stories behind the data, must drive progress. Continuously monitoring progress and making timely adjustments will help to ensure goal attainment. Data, particularly data gathered with the help of communities, will be distributed and disseminated to those communities to promote community engagement and empowerment.

Continuously raise awareness of current and emerging health disparities.
Health disparities and their impact must be highlighted and best practices that reduce them must be shared widely. Educational efforts will be made to help inform relevant parties such as physicians, healthcare organizations, hospitals, managed care organizations, health insurers, etc., of the relationship between the social determinants of health and their impact on health outcomes.

Address and remediate structural inequities that have resulted from discriminatory policies and practices.
Historical impediments, like racism, homophobia and discrimination, that place entire populations at a systematic disadvantage, must be acknowledged and remediation enacted, to address health disparities. Educational outreach will be conducted to help inform relevant parties as listed above of the relationship between historical policies and practices and the present day structural inequities they engendered.

Improving living conditions where people live, learn, work and play.
The most vulnerable areas of the state, both urban and rural environments, need improvements to basic living conditions. The Advisory Committee recommends targeting several social determinants of health

including, but not limited to: education; nutrition; healthcare services; environmental health; housing; safety; economic and occupational health.

Advance health equity across sectors.

Using a policy approach, Pennsylvania will need to take a broader outlook at what drives health and bring together many different sectors to achieve equity. From state government, local government and community-based organizations, resources should go where the need is greatest.

Establish OHE by statute.

To fully achieve health equity, resources and influence should be given to the OHE. To accomplish this, legislation to enact the office by statute should be considered.

Expand current health equity initiatives.

- Fully fund the Office of Health Equity commensurate with the size of the state and what other states provide;
- Expand upon current program offerings with proven success;
- Fully engage academia---go from research to action; and
- Engage with community groups currently working to impact social determinants of health.

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