



We definitely struggle ... The worry is always there.

Improving the health of people living in deep poverty

December 2020



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Executive Summary

Being in deep poverty means that someone's income is half of the federal poverty level or less (< 50% FPL). The U.S. government recognizes a family of three as being in poverty if the household's income is at or below \$1,777 per month; if it falls below \$888 per month they are in deep poverty. For a single adult without children, poverty is having income of \$1,034 per month; deep poverty is below \$517 per month.

Deep poverty results when people are unable to work or when the work available to them is inadequate to move them out of poverty. For many people in deep poverty both those fundamental challenges co-exist in their lives. People are unable to work when they have serious health problems or disabilities; when someone in their household has those conditions and needs significant care; when jobs are unavailable; or when key resources to make work possible, such as transportation, are unavailable. Working can fail to move people out of poverty when jobs do not offer consistent hours; wages are too low; benefits available to higher paid workers are unavailable for lower paid workers; and jobs are not permanent. Some people are in deep poverty for long periods of time. Others move between deep poverty, poverty and low-income status as circumstances in their lives continually change.

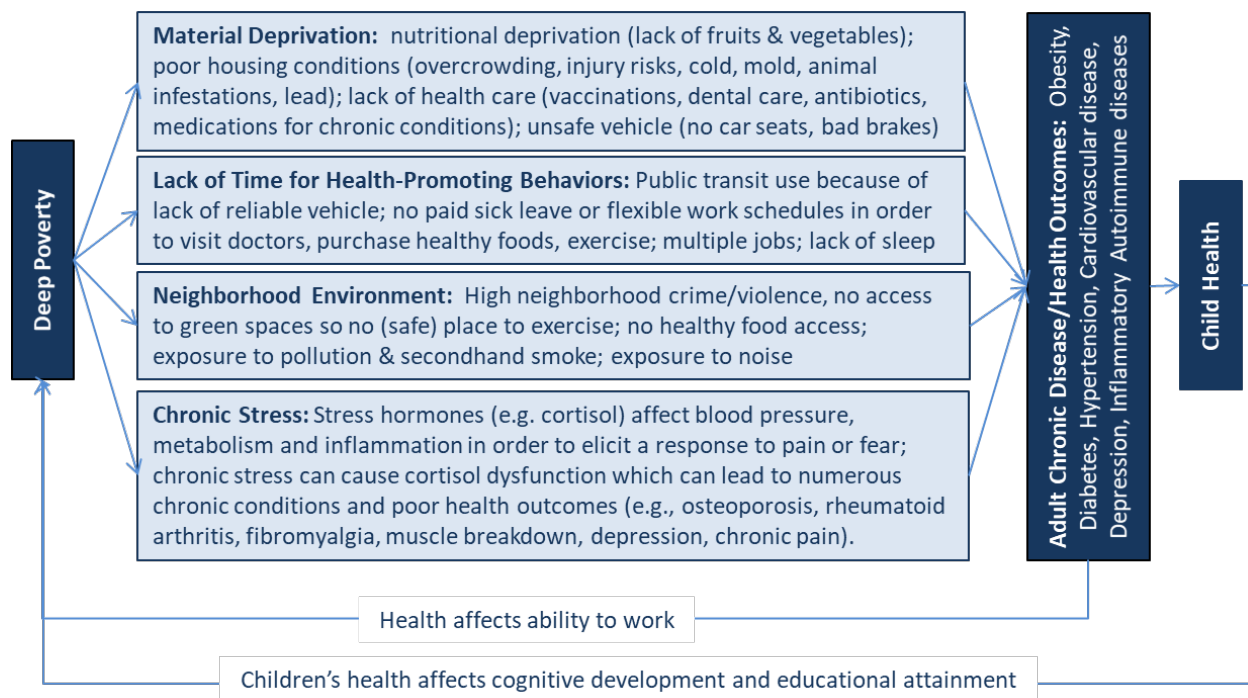
This report investigates how living in deep poverty can lead to poor health. It also looks at opportunities to address deep poverty and to improve health outcomes. It recognizes the state's existing programs as a foundation and looks at how they could more effectively help move people out of deep poverty. This is the work of the Minnesota Department of Human Services, with expertise provided by Minnesota's Department of Revenue and Department of Health. The report drew on three sources of expert information:

- People living in deep poverty,
- Health care and social services providers, and
- Published research.

The stress of being poor results in higher rates of chronic health conditions

Extensive research documents the ways that deep poverty leads to poor health. This includes the material deprivation that results from deep poverty; the lack of time people have to engage in health-promoting behaviors; the food deserts and unsafe environments where many people in deep poverty live; and the impact that chronic stress and exposure to the hormone cortisol has on people's health.

Figure 1: How does poverty affect health?



Minnesotans who live in deep poverty experience significantly poorer health than do those with even a slightly higher income. An analysis of Minnesota Medicaid enrollees found the following:

Adults [in deep poverty] have higher rates of every chronic condition measured in this study, including a mortality rate two times higher than adults who are not as poor. They experience 40 percent more preventable emergency department visits, and 23 percent more preventable hospitalizations than those who are not as poor. Children living in deep poverty have a mortality rate that is two times higher and a PTSD prevalence rate that is higher than children who are not as poor (MN DHS, 2018, p. 6).

Parents talk about living in deep poverty

This report is interwoven with stories of parents living in or just above deep poverty. Many of their experiences were similar. They encounter many barriers as they try to meet their own and their children's needs. Most reported a near-constant worry about how they will afford basic necessities. For some, this worry results in sleeplessness, inability to focus and other symptoms that not only produce physical and emotional hardship, but also hinder their attempts to move out of poverty. Parents talked about the impacts poverty has on their children's physical and mental health. The following are three parents talking about what it is like to live in deep poverty and the impact income support programs can have on them and their children.



Alice has a baby and a school-age daughter.¹ She works part-time, but her hours are getting cut because business is slow. Her earnings plus cash and food assistance put her income at 75% of the federal poverty level (FPL). Alice describes receiving a tax refund of more than \$1,000:

"I literally cried. Because I was struggling at the time, I was about to lose my apartment, I was barely able to keep a phone and to keep my bills up and stuff. Just struggling to make ends meet... But with employment, [the refund] increases the money that you get. It pays to work, pretty much. I know I wouldn't have been able to, without the tax money, I wouldn't have been able to take care of the things that I needed to. [Does it impact your health?] ... [It] takes a lot of stress off mentally and emotionally... And it makes me a better parent, because I'm a lot calmer at home and I'm not so stressed out with my kids. When I'm being a good mom, and I'm taking care of myself, emotionally it puts me in a good place."

Alison lives with her boyfriend, who has a disability but is not receiving benefits for it, and their two young children. She stays home to care for them, so they live on \$523 in Minnesota Family Investment Program (MFIP) benefits, which brings their income to 25% FPL. They live with a family/friend and pay \$300 in rent. They receive about \$400 in SNAP benefits.

"I still struggle on a monthly basis, rent, utilities and phone. We don't have TV or internet, because that's an extra bill we can't afford. We use phone providers that take minute cards because it's the cheapest, not fancy Verizon. With having to travel 20 miles either way to go to whatever town you need to go to for a small errand, like getting milk, that's gas money. We get our necessities, what the kids need, have a little bit extra money to put gas in the van so I can go out and do job searching and stay on this program [MFIP]. By the time the third... week gets in, we're broke again... It helps a lot, because if we weren't getting this, we'd struggle to pay rent, we wouldn't have gas money to be on the program to do the job search."



¹ All names are pseudonyms, and photos are stock photos.

Christine was working in a retail job, earning about 150% FPL for herself and her three children. She expected to receive paid maternity leave and only found out two weeks before she delivered that she would not.



“So I had to really scramble trying to find out how I was going to pay my rent, make ends meet. Because I wasn’t on MFIP before having my son, so I had to figure out how I was going to pay rent, buy food and still maintain after I had him, because I had to take the six weeks off... When I did get approved, I was already two months behind in rent. And before that I didn’t qualify because of my income. When I went to the landlord and tried to give him what I had for MFIP, they wouldn’t

take it by that time ... So I ended up getting evicted. So that’s why I’m here [in a shelter].”

Recommendations

People living in deep poverty need access to quality health care, but this is insufficient to ensure that they have the same opportunities to be healthy as do people with higher incomes. This report finds that deep poverty itself negatively impacts people’s health, and therefore, needs to be addressed if people are to have a real opportunity to thrive. It also demonstrates how structural racism is tied to disparities in health among African-American and American Indian people in Minnesota as compared to their White counterparts. The following are the workgroup’s recommendations.

Improve access and reduce gaps in DHS programs

Minnesota Family Investment Program (MFIP)

- Redesign how income is calculated in order to provide more predictable levels of assistance and to counter the income volatility that low wage workers experience:
 - Discontinue using income from two months earlier to set monthly benefits. Instead, use income anticipated in the benefit month for the benefits delivered in that month.
 - No longer require families with outside income to have their benefits recalculated every month as earnings move slightly up or down. Instead, set a six-month eligibility period to match federal SNAP policy and provide families with much-needed stability in their household budgets.

- Stop reducing MFIP assistance to families when their child is temporarily removed from the home because it makes it difficult for families to regain custody of their children. The family needs the full grant amount to maintain housing and other necessities if they are to satisfy child protection requirements and regain custody of their child.
- Advocate to have the federal government replace the federal measure which assesses compliance with the program, but which fails to measure family economic progress. Minnesota is well poised to replace that measure with one that tracks whether families are getting jobs and improving their income. This will focus the system on services that make a difference instead of activities that count in the process measure.
- Adjust the cash benefits annually for inflation, as do SNAP, Social Security and other federal programs.
- Introduce additional increases to the benefits outside a cost-of-living adjustment to account for inflation in the past 30 years when there was no increase and to get children and their families out of deep poverty.

General Assistance

- Set a 90-day window for people with disabilities who receive General Assistance to apply for Social Security disability benefits and meet with a Social Security Administration worker. The waitlist to meet with a Social Security Administration worker prevents people from meeting the current 30-day window.

Supplemental Nutrition Assistance Program (SNAP)

- Find a reliable way for county workers to assess whether a SNAP applicant is capable of working and thus is appropriately subject to a three-month time limit for SNAP benefits.

Enrollment across programs

- Create the means for county and tribal workers to use verified SNAP or MFIP data to verify eligibility for Medical Assistance and Minnesota Care and vice versa.
- Collaborate with counties and tribal nations to find ways to make it easier for Minnesotans to enroll in both health care and cash and food programs.

Community engagement

- Work with community leaders to address structural racism within DHS policies and programs. These conversations can be even more effective if done while we use tools such as a racial equity toolkit to help us see inequities among the populations we serve, and how state policies can exacerbate these inequities. We also need to work with other state agencies to address larger inequities that affect our clients.

Create a plan to move Minnesotans out of deep poverty

The above recommendations start the work necessary to help get people out of deep poverty, but they alone will not accomplish that goal. In addition to these recommendations, the state must set a goal of ending deep poverty in Minnesota. This requires significant time to design a comprehensive plan and implement that plan, probably in phases. Together with a plan to work with communities to address structural racism, these initiatives would move Minnesota towards a path of ensuring that all Minnesotans have enough to eat, a stable and safe place to live and an opportunity to thrive.

I. Introduction

This report is results from a two-year collaboration between DHS and other state agencies that concluded in the spring of 2020, just before the 2019 novel coronavirus began to impact Minnesota and before the killing of George Floyd. These events will continue to transform our communities and the lives of Minnesotans in important ways. These changes will benefit from and align with a public discussion on deep poverty, its consequences for people's lives and health, and the options the state has for supplementing people's income in ways that offers them better chances to thrive in their work, community and personal lives. We begin by describing what it means to live in deep poverty.

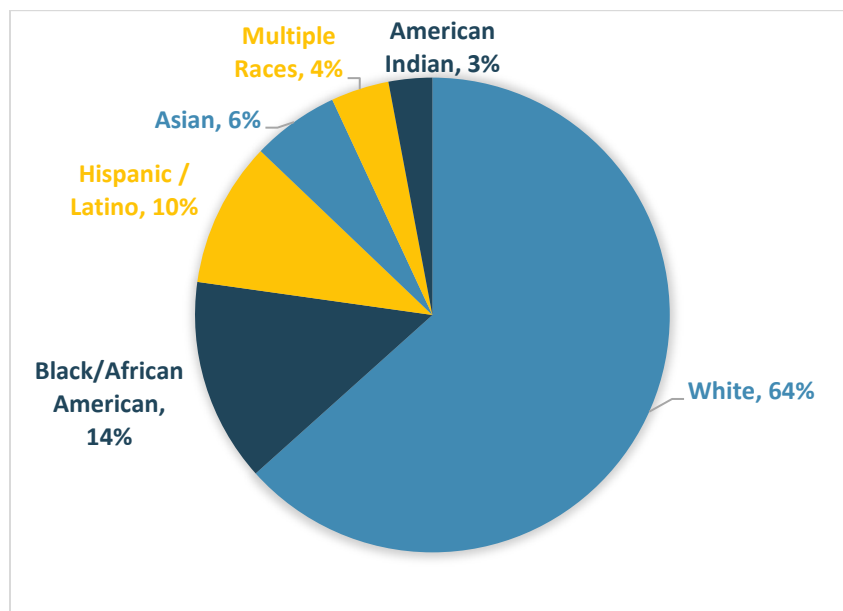
The link between deep poverty and health

Among the people who receive health coverage through Medical Assistance in Minnesota, those living in deep poverty stand out for their poor health outcomes and the higher health care expenditures related to treating them. In an extensive review of the physical and mental health of people on Medical Assistance or MinnesotaCare, the research team found the following:

Adults [in deep poverty] have higher rates of every chronic condition measured in this study, including a mortality rate two times higher than adults who are not as poor. They experience 40 percent more preventable emergency department visits, and 23 percent more preventable hospitalizations than those who are not as poor. Children living in deep poverty have a mortality rate that is two times higher and a [post-traumatic stress disorder] (PTSD) prevalence rate that is higher than children who are not as poor (MN DHS, 2018, p. 6).

The US Census Bureau (2017) estimates that 5.5% of Minnesota children and 4.2% of Minnesota adults have income that is at or below 50% of poverty, what we call deep poverty. Most Minnesotans in deep poverty are White, as shown in Figure 2, though Whites have the lowest *rate* of deep poverty.

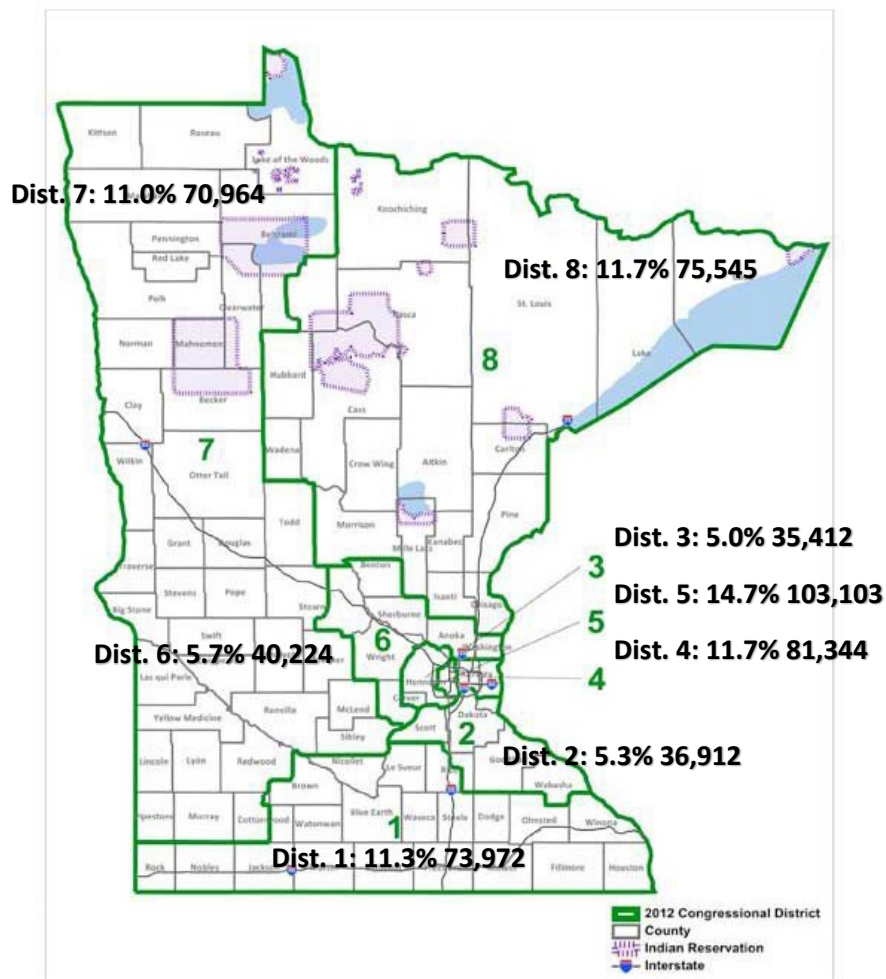
Figure 2: Minnesotans living in deep poverty, by race/ethnicity.



While most Minnesotans in deep poverty are White (primarily because they make up nearly 80 percent of Minnesotans), Whites have the lowest *rate* of living in deep poverty: 3.3 percent. In contrast, 16 percent of American Indians and 13 percent of Blacks live in deep poverty; the highest rates of any racial group in Minnesota. Nine percent of Hispanics and six percent of Asians live in deep poverty.

Deep poverty is experienced by Minnesotans all over the state, as is poverty. The figure below shows the rate and number of people in poverty by congressional district. We use poverty here as the Census Bureau does not estimate the rate of deep poverty by congressional district.

Figure 3: Poverty rate and number of people living in poverty, by Minnesota congressional district. 2017.

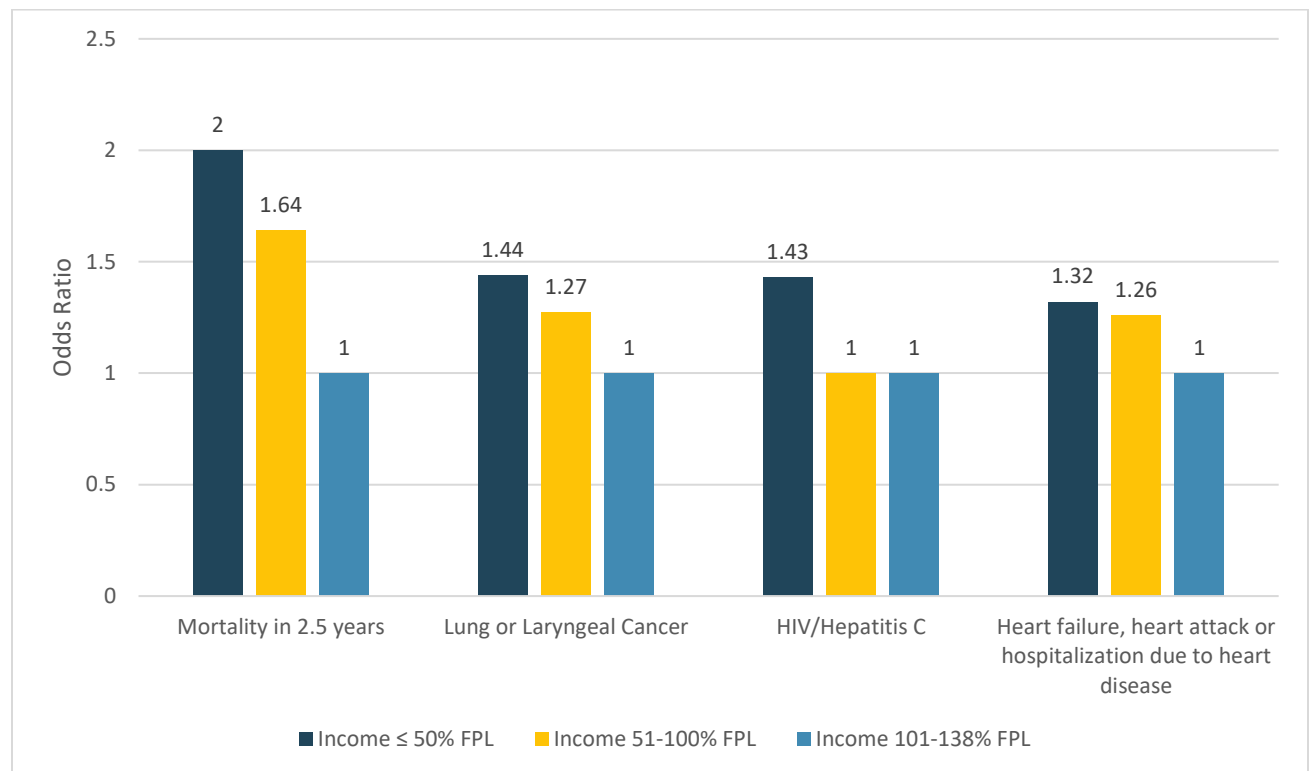


Source: Number and Percent of People below Poverty by Congressional District, 2017. Food Research and Action Center.

This report describes some of the ways that this level of material deprivation sabotages people's efforts to maintain physical and mental health not only while they are in deep poverty but for years to come. There is evidence of these effects on adults as well as their children.

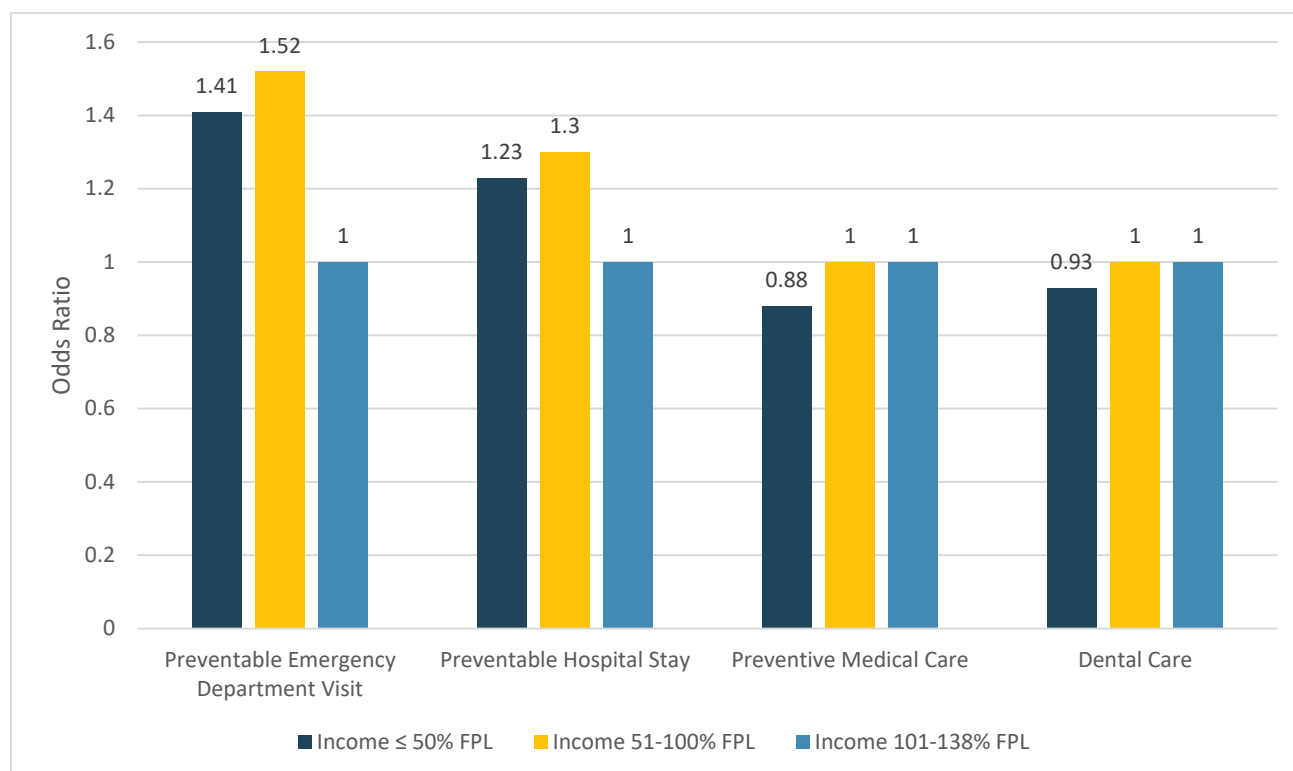
The next three graphs show health disparities by income for Minnesota Medicaid enrollees. They compare people living in deep poverty (<50% FPL) with those with a little higher income (50–100% FPL) with those earning a little over 100% FPL. This last group's outcomes are set at 1.00 (the index). These statistical comparisons show how much worse the health outcomes of people in deep poverty are. For example, adults in deep poverty are twice as likely to die within 2.5 years. All analyses control for enrollees' demographics, racial/cultural group, geography, and other social risk factors (e.g., homelessness). Even at these very low levels of income, having slightly more income is strongly associated with better health outcomes.

Figure 4: Prevalence of Chronic Conditions among Minnesota Medical Assistance Adult Enrollees, by Income Category



Adult Medicaid enrollees in deep poverty also have significant preventable, high-cost health care utilization, such as potentially preventable hospitalizations (Figure 5). They are 12% less likely to receive preventive medical care and 7% less likely to receive dental care than recipients with slightly higher income. This suggests there may be an opportunity to improve the health of people in deep poverty by helping them access primary care and prevent more serious conditions that require more expensive care later on.

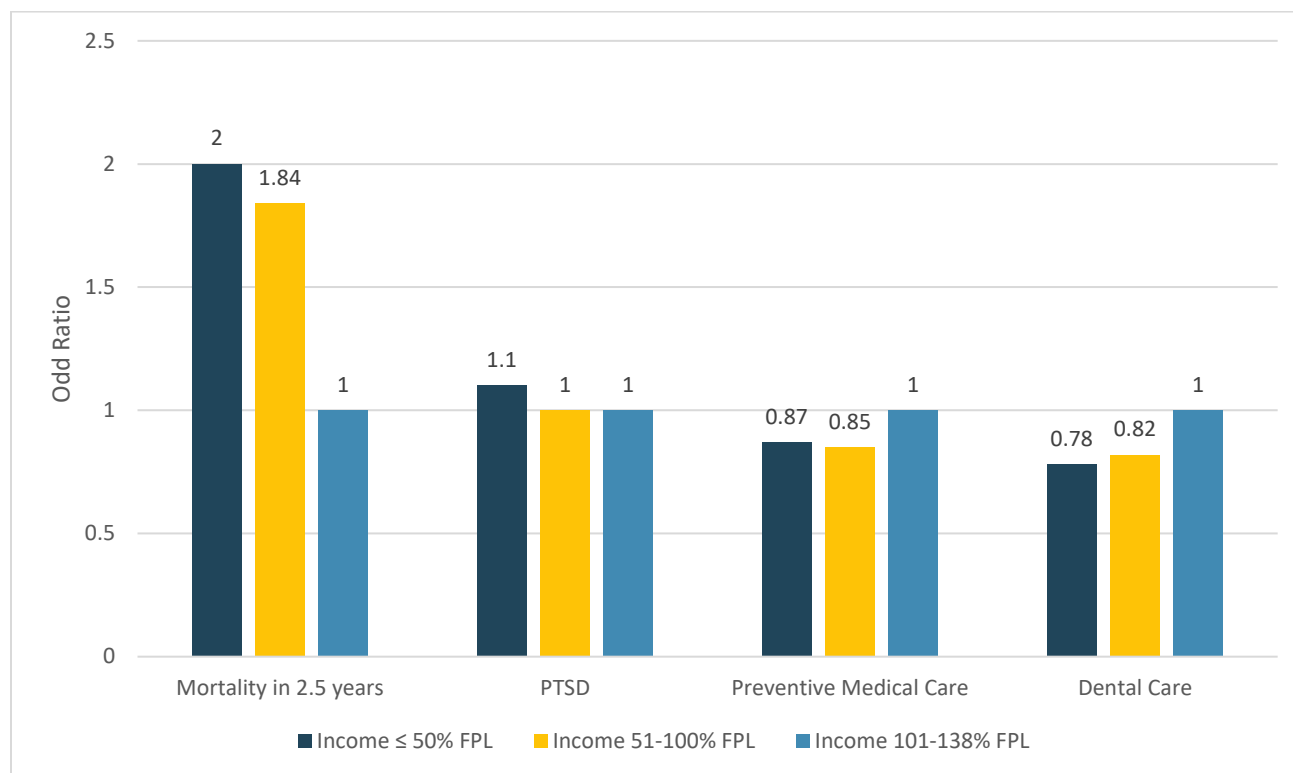
Figure 5: Health Care Utilization of Minnesota Medicaid Adult Enrollees by Income²



Children enrolled in Medicaid exhibit similar patterns. Children living in deep poverty have a mortality rate that is twice as high as children living just above the poverty line. They are also 10% more likely to have PTSD than those living above the poverty level. Children in deep poverty are less likely than those above the poverty line to receive regular, preventive medical care (13% less likely) or dental care (22% less likely).

² The preventable emergency department visits algorithm, sometimes referred to as the 'Billings algorithm', is described here: <https://wagner.nyu.edu/faculty/billings/nyued-background#>. The preventable hospital stay measure is from the Agency for Healthcare Research and Quality's 'Prevention Quality Overall Composite' (PQI #90), which can be found here: <https://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V45/TechSpecs/PQI%2090%20Prevention%20Quality%20Overall%20Composite.pdf>

Figure 6: Health Risks and Health Care Utilization of Minnesota Medical Assistance Child Enrollees by Income Category

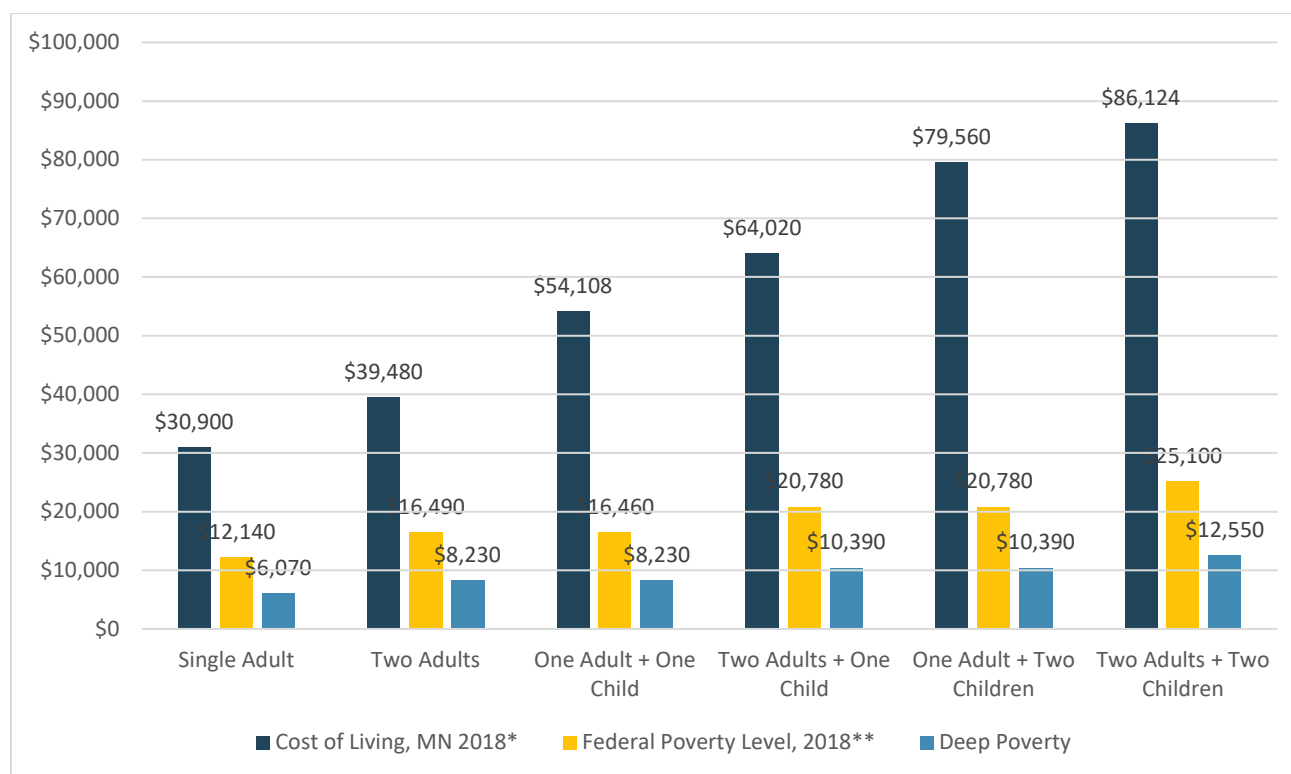


These disparities are not surprising given the stark realities of living in deep poverty in Minnesota.

The U.S. government recognizes a family of three as being in poverty if the household's income is at or below \$21,330 a year (\$1,777 a month). If that household's income falls below \$10,666 (\$888 a month), they are in deep poverty. For a single adult without children, poverty is having an income of \$12,409 a year (\$1,034 per month). If a childless adult's income falls below \$6,205 per year (\$517 per month), he or she is in deep poverty.

Figure 7 gives a picture of how much a person or family goes without while living in poverty. The left-most bars in dark blue indicate the cost of living to cover basic needs in Minnesota, as calculated by the Minnesota Department of Employment and Economic Development (DEED). This analysis of the cost of living is designed to represent neither a middle-class nor a poverty-level living—but a simple living that meets basic needs for health and safety for a variety of household sizes (Employment and Economic Development, n.d.). The analysis finds that the Federal Poverty Level (FPL)—the middle bars in gold—is well below the actual cost of living.

Figure 7: Annual Income Standards by Family Size



Sources: *<https://mn.gov/deed/data/data-tools/col/> **<https://aspe.hhs.gov/poverty-guidelines>

This report focuses on the right-most bars, in light blue. These are households with income that is at or below half of the poverty level (50% FPL).

Deep poverty results when people are unable to work or when the work available to them is inadequate to meet even their most basic needs. For many people in deep poverty both those fundamental challenges can co-exist in their lives. People are unable to work when they have serious health problems or disabilities; when someone in their household has those conditions and needs significant care; when jobs are unavailable; or when key resources to make work possible, such as transportation, are unavailable. Work can fail to move people out of poverty when jobs do not offer consistent hours; when wages are too low; when benefits available to higher paid workers are not available for lower paid workers; and when jobs are not permanent. Some people are in deep poverty for long periods of time. Others move between deep poverty, poverty and low income status as circumstances in their lives continually change.

This report results from collaboration between policy and research staff from the Health Care Administration and the Economic Assistance and Employment Supports Division in the Department of Human Services, and by University of Minnesota Economist Angela Fertig, PhD. Assistance was also provided by the Minnesota Department of Revenue and the Department of Health. It is the continuation of a legislative mandate to address health disparities in the public health programs. We investigate research-based interventions that could respond effectively to the conditions correlated with poor

health outcomes, specifically those designed to improve the income of people in deep poverty. This report relies on published research; data analysis by the Department of Human Services; findings of evidence-based interventions; and interviews with health care providers, county eligibility staff and tax specialists. All of this information provides quantitative and qualitative evidence of how chronic stress and material deprivation of living in deep poverty can impact individuals' health and well-being.

The authors of this report interviewed 30 Minnesotans living in deep poverty to get a sense for how they make ends meet and how poverty impacts their health and well-being. Interviewees described being homeless or staying with others. We interviewed parents and caregivers of children under age 18, as this is a core population served by many programs at DHS. The appendix has more information about our methodology.

Parents in deep poverty report skipping meals to ensure their children have enough to eat. They struggle getting to jobs or critical appointments because they do not have reliable access to transportation. People described the many barriers they face trying to meet their own and their children's needs. Some described how living in deep poverty makes it very difficult to engage in healthy behaviors. Most reported experiencing a near-constant worry about how they might afford basic necessities. Some reported that this worry resulted in sleeplessness, inability to focus and other symptoms that not only are hard on them physically and emotionally, but which make moving out of poverty that much more difficult. Parents talk about the impact poverty has on their children's physical and mental health. The following is just one example.

Mike³ works full-time as a roofer and his female partner works full time at a fast-food restaurant. They have four children under the age of 10 and live in an extended stay motel because they cannot find stable housing. Their usual monthly income is about \$1,400, which puts their income at 50% FPL. Mike's partner and children also receive food support (SNAP and WIC), and both partners receive tax refunds.

A cold weather spell occurred just before the day of the interview, and Mike has been unable to work all his hours. They are scrambling to find a place to stay since they do not have enough money to pay for the next week in the motel, which is due tonight.

Sometimes Mike eats less so that his children can have enough, and he says his weight has dropped below where it should be as a result. This can have an effect on his physical health and, he eloquently describes, his mental health:

I'm worried about where my kids are gonna sleep. It makes me feel like I'm not doing what I need to be doing for my kids. As a father, I think I should be doing more for my kids. It just, it just hurts, you know what I mean, to know that my kids don't know what's going on. It hurts emotionally... [How does the housing situation impact your children?] I mean right now, they're too young to know. They think we're on

³ All names of interviewees are pseudonyms.

vacation... I don't like to show my emotions, I don't like to show my feelings, to let people see that I'm down. I don't let my kids see that. I let them see that dad's happy, that everything's okay. Dad's gonna protect and help them. Deep down inside I know that not everything's all right, right now.

First-hand accounts such as this are woven into the evidence-based literature reviews and descriptions of income supplementing programs throughout this report. In the next chapter, we review research literature to better understand from biological and social perspectives how deep poverty impacts people's physical and mental health.

II. Research on how poverty impacts health

This chapter provides an overview of how poverty impacts health, offers examples from parents living in poverty and providers who serve them, summarizes the historical context of racial discrimination as an additional stressor for many people living in deep poverty, and highlights current challenges in Minnesota related to low wage work and affordable housing. We begin with a review of the literature, focusing on what chronic stress does to people's physical and mental health.

The stress of poverty interferes with cognitive and biological functioning, resulting in higher rates of chronic health conditions

Subject Matter Experts: Joshua Griffiths, Catherine Wright, Jeffrey Schiff, and Nathan Chomilo⁴

Research documents that poverty affects health in many different ways. The U.S Centers for Disease Control and Prevention indicates that people in poverty, including those in deep poverty, are more likely to have diabetes, have elevated levels of lead in their blood stream, progress from chronic renal disease to end-stage renal disease; and suffer injury and trauma from intimate partner violence and sexual violence. County health rankings data reveal that social and economic factors— even more than health behavior, clinical care and physical environment— have the strongest association with avoidable deaths caused by cardiovascular disease (Public Health Records, 2016). Higher rates of antibiotic resistant staph infections are related to poverty (Clinic Infectious Diseases, 2017). Adults aged 26 and older in poverty are more likely to have serious mental illness (MN DHS, 2016).

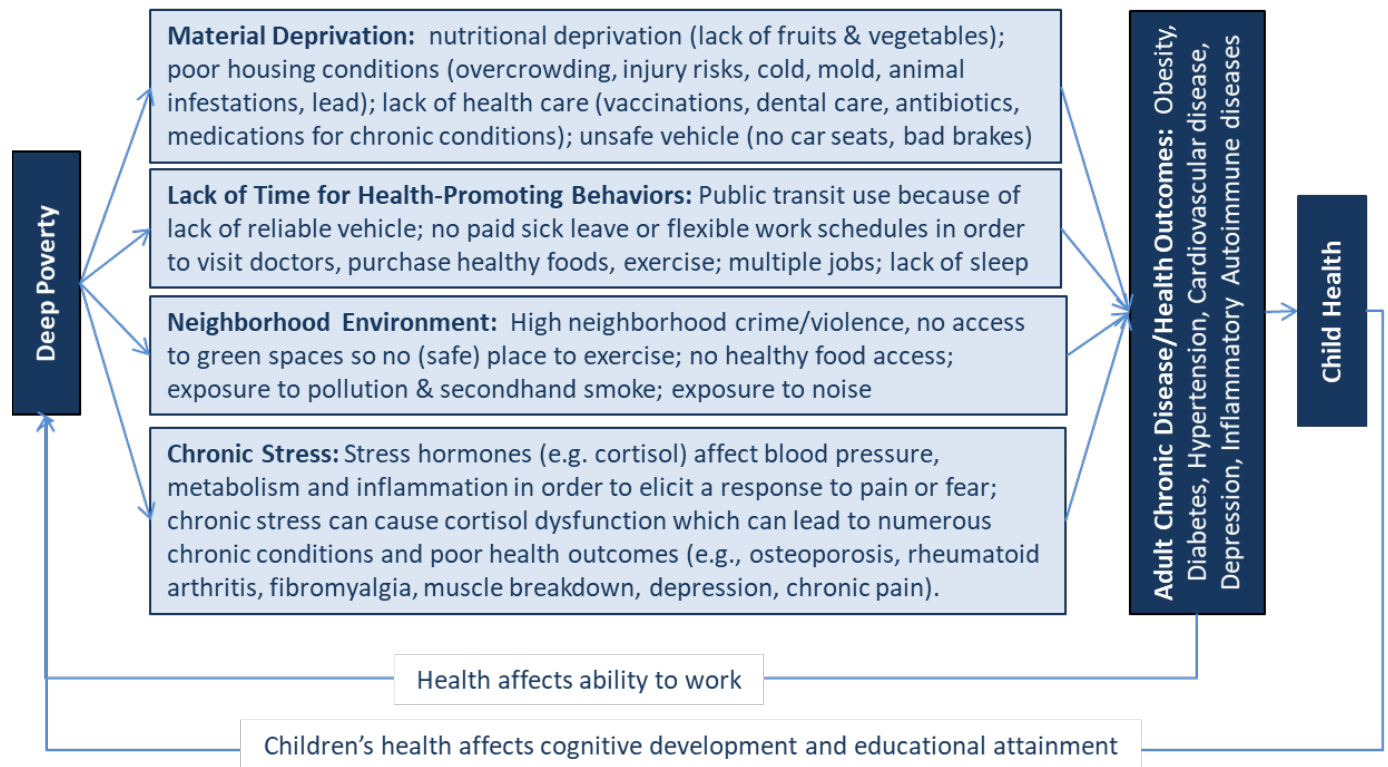
While the correlations between these lower health outcomes and poverty are strong and convincing, it is difficult to prove causality because researchers cannot randomize people into poverty. However, there have been natural experiments that allowed researchers to study the changes in people who received an increase in income. Most prominently, numerous studies have shown that when Tribal Nations opened casinos and spread the income across tribe members, the prevalence of many health problems fell: psychiatric disorders (Jane et al., 2010); anxiety, smoking, heavy drinking, hypertension and diabetes (Wolfe et al., 2012); and obesity (Jones-Smith et al., 2014).

Multiple research articles document the connections between poverty and poor health. Figure 8 outlines the four major pathways between poverty and health identified through research. These pathways are described in more detail in the next sections of this report. We focus most on the last

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pathway, which may be less intuitive than the others: how the stress hormone cortisol can compromise physical and mental functioning.

Figure 8: How does poverty affect health?



Material deprivation makes it difficult to participate in healthy behaviors and environments

The most obvious connection between deep poverty and health is material deprivation. Fruit and vegetable consumption is associated with reduced risk of obesity, diabetes, heart disease and some cancers (Steinmetz and Potter, 1996; Slavin and Lloyd 2012; Ness and Powles, 1997; Fulton et al, 2016). However, cost is a well-known barrier to consuming fruits and vegetables among low-income populations (Drewnowski and Darmon, 2005; Cassady and Culp, 2007). Poor housing conditions often involve lead, mold and allergen exposures, poor insulation, overcrowding and pest infestations, which are associated with everything from stunted physical and cognitive development to exacerbated asthma (Brown, P., 1995; Lanphear et al., 2001). Finally, one of the safety hazards of being low-income is having an unsafe vehicle. Young adults from low economic status are at higher risk of car crash-related hospitalizations (Chen et al., 2010), and children from economically disadvantaged households are more likely to be injured because they are less likely to have child restraint systems or car seats (Birken and Macarthur, 2004).

Spending a greater portion of time meeting basic needs makes it harder to engage in health-promoting behaviors

Families in deep poverty often lack reliable transportation to get to and from work (Klein and Smart, 2017; Litman, T., 2017). Using public transit takes twice as long as driving on average (Maciag, 2017). It also restricts the amount one can carry, thereby increasing the frequency of grocery shopping trips. All of these transportation factors reduce the amount of time available for health-promoting activities like exercise and sleep (Xiao and Hale, 2018; Sallis, J., 2006).

In addition, the types of jobs that low-income workers have typically do not provide paid sick leave or flexible work schedules, making managing any needed medical care for chronic conditions more difficult (Winston, 2014). National survey data demonstrate that employees without paid sick leave delayed seeking care or were unable to obtain medical care for a family member. Workers with paid sick leave, on the other hand, are more likely to have routine cancer screenings than those without (1- MDH 2015).

Food deserts, lack of green spaces, and unsafe environments make it difficult to engage in healthy behaviors

Families in deep poverty often live in socioeconomically disadvantaged neighborhoods that make health-promoting behaviors like physical exercise and healthy-eating difficult (Boone-Heinonen et al., 2011). Food deserts are areas without access to affordable foods needed for a healthy diet and are by definition located in low income areas (CDC, 2017). Often, low income areas also lack green spaces that provide numerous health benefits to residents: higher air quality from trees, improved cardiovascular health, lower mortality and reduced obesity (Jennings and Gaither, 2015). Low income neighborhoods tend to be located near highways or factories that emit carcinogenic, respiratory and neurological air quality hazards (Reid, 2019; Ciaccio et al., 2014), and have high levels of noise pollution, which has been linked to stress (Bilger and Carrier, 2013). Finally, low income areas experience higher exposure to crime and violence, which increases stress and poses health dangers in itself (Wilkinson et al., 1998; Wolf, Gray and Fazel, 2014). Prevalence of violent crime in particular has been shown to lower the use of neighborhood parks (Marquet et. al., 2019).

Chronic financial stress leads to extended exposure to the ‘stress’ hormone cortisol, which compromises functioning in multiple body systems

There is a large and growing research literature that chronic stress associated with living in poverty leads to or exacerbates multiple health problems. Elevated levels of cortisol affect blood pressure, metabolism and other body functions in ways that can help a person respond to an imminent, short-term threat. However, if stress is chronic, then the hormone continues to be secreted at elevated levels, and this can lead to numerous negative health problems. The next four paragraphs provide a relatively easy introduction to how this hormone works. This is followed by a brief synopsis of physical and mental health conditions that are much more common among people with chronic exposure to high levels of cortisol.

Cortisol is what is referred to as a systemic hormone, meaning that it has the ability to travel throughout the body and has effects on many different body parts. Systemic hormones serve the purpose of adjusting the way that many organs function simultaneously in order to achieve a specific goal for the body as a whole. Other examples of systemic hormones are thyroid hormone, vitamin D and sex hormones like testosterone, estrogen and progesterone. Much like changing the settings on an engine or computer, systemic hormones help optimize bodily functions for specific tasks, turning up the dial on needed aspects of function while turning down less needed ones.

In the case of cortisol, it mobilizes body resources to respond to stress, specifically any situation which threatens life or limb of the person or his/her family or close friends. Because of this, the release of cortisol is controlled by the brain and its perceptions of threats in the environment. It does so through a network of organs known as the Hypothalamic-Pituitary-Adrenal axis (HPA axis.) When a person is stressed, the HPA axis kicks into high gear to help the body better attend to and mitigate the threat. The HPA axis is part of what is often referred to as the “fight-or-flight” response. Adrenaline is the hormone that helps the body respond to threat within seconds, whereas cortisol takes longer to work and helps the body anticipate future threats which may be bundled together with the initial threat or threats which may persist for hours or days (Bear, Barry and Paradiso, 2007).

The effect of cortisol on the body is much like turning cruise control off of an automobile engine to allow it to run faster in the short term. Cruise control automatically adjusts for environmental considerations such as hills in order to maintain a constant speed. In this analogy, removing the cruise control can allow the engine to run faster in the short term. However, in the long term, this lead to greater wear and tear on the engine and inefficient use of fuel. In other words, taking the cruise control off might be useful if trying to win a short race but is not a good way for the engine to run for day-to day function. Similarly, cortisol prepares the body to respond to stress and mobilizes energy and resources in order to promote survival in the short-term. However, it does so at the expense of long-term function. If such a stress response is short-lived, then these long-term effects are less significant and well worth the benefits of avoiding danger or making it through a stressful event unharmed.

For people who have a limited number of severe stressors in their lives, the short-term benefits of cortisol outweigh the long-term risk. However, just like the athlete who takes steroids over the years to try to boost performance incurs long-term health consequences, overproduction of cortisol over time in response to chronic stress can lead to many long-term health consequences. These health consequences really begin taking their toll on the chronically stressed person’s body as cortisol levels remain elevated over months to years.

While numerous scientific studies link mental and emotional stress to elevated cortisol levels, a body of scientific research also specifically ties deep poverty and financial stress to increased cortisol levels and poor health outcomes (Field et al., 2012; Karb et al., 2012, Steptoe et al., 2005; McKewen and Gianaros, 2010). Financial stress is thought to be particularly potent in producing a chronic cortisol stress response because of its ever-present, unrelenting threat to the well-being of an individual and his or her close family. Financial strain has the capacity to chronically elevate cortisol for a longer duration than other stressors because of its “subacute” nature. Put another way, financial stress is not so intense as to exhaust the body’s ability to mount stress response resulting in a rapid decline in cortisol, while at the

same time it is just threatening enough to keep someone in a state of constant mid-level worry. This mid-level worry keeps cortisol levels elevated even when engaging in behaviors that are intended to be restful or relaxing. This hypothesis is supported by physiologic studies showing that it is not the *peak* levels of cortisol that are affected by chronic stress but the *baseline* levels. This type of stress also may require more time for cortisol levels to return to normal after being acutely stressed. In other words, chronic financial stress may raise the average amount of cortisol in someone's body at any given time, even when they are not otherwise acutely stressed.

In the next section, the negative impacts of prolonged exposure to elevated levels of cortisol are discussed in reference to the body systems they impact. Some of what is known about the chronic effects of elevated cortisol comes from studying a syndrome developed in those with elevated cortisol for a variety of reasons, such as taking cortisol-like medications chronically for a medical condition or those with a cortisol-secreting tumor. These individuals as well as those with chronically elevated cortisol due to stress, often suffer from a group of symptoms known as Cushing Syndrome (Andreoli et al., 2010).

Compromised heart and metabolic functions

The negative effects of chronically elevated cortisol on the heart and metabolism are perhaps the most well studied, most pervasive and most damaging to overall health. In short, cortisol effects the way the body stores and uses energy. Chronic elevations of cortisol can lead to serious derangements in the body's energy storage and utilization systems. This is frequently compounded by the abundance of energy dense, low-quality food that is often much cheaper and more abundant in areas of deep poverty. Cortisol can also act on the brain to generate more cravings for unhealthy foods (Macedo, Marques and Diez-Garcia, 2014; Ventura et al., 2014).

Those with Cushing Syndrome develop increased fat deposits in the areas surrounding their organs due to inappropriate metabolism of sugar and fat. This phenomenon is referred to as central obesity. Central obesity has been directly linked to increased risk of cardiovascular disease including heart attack, stroke and atherosclerosis (the clogging of arteries by fatty deposits). Both central obesity and elevated cortisol have been found to be significant contributors to the development of Type 2 Diabetes, another chronic medical condition which is overrepresented among those in deep poverty (Van Gall et al., 2006). All of this leads to elevations of sugar and fat molecules in the blood stream, which over extended periods of time cause damage to both small and large blood vessels. Such damage contributes to disease of the large blood vessels leading to heart attack and stroke as well as disease of the smaller vessels which can cause nerve damage, dementia, kidney failure and even blindness (Beckman, Creager and Libby, 2002; Hossain et al., 2009).

In the 30 interviews workgroup members did with parents living in poverty, most of whom were living in deep poverty, financial stress and the high cost of healthy food were major themes. Theresa, for example, talked about needing to buy less expensive but also less healthy food. She lives with her husband, four children, and one of her parents who has mobility constraints, and her husband's employment income is about \$1,600 per month (which brings them to 50% FPL). She stays home to care for the young children and her parent.

I worry because sometimes I have money to pay the rent and the bills, but when I pay the rent and bills I don't have too much money for the groceries. So, one month I pay the bills and the rent and the next month I use to... trade off. I do not feel good because I have to make it stretch.

Theresa has type 2 diabetes but given their income constraints, she will forego eating healthy so her children can. When she does this, she notices an impact on her health, including a blood sugar reading well above normal (250-300) and symptoms such as headaches, dizziness and overall not feeling well. Her story illustrates the relatively common co-occurrence of consuming cheap, unhealthy food while under chronic financial stress, which given the impact of cortisol can be a double-whammy for the health of the heart and metabolic system. The high price of healthy food and the role of public programs are discussed further in the SNAP chapter.

Minnesota's Medicaid program tracks chronic conditions such as type 2 diabetes, hypertension, and heart disease among adult MHCP⁵ enrollees. We find that those living in deep poverty have higher rates of these heart and metabolic conditions, compared with enrollees living above the poverty line (rates are 58%, 74%, and 147% higher respectively) (HMA 2017, p. 66).

Of course, some of the prevalence of heart and metabolic disease is due to other factors that can be more common among people living in deep poverty, such as having a substance use disorder (SUD). For that reason, we conducted analyses that controlled for enrollees' demographics, geography as well as other risk factors (e.g., SUD). In these more nuanced analyses, enrollees living in deep poverty were still 4% more likely to have type 2 diabetes, 10% more likely to have hypertension, and 33% more likely to have much more serious heart disease or a heart attack that resulted in a hospitalization.

Reductions in bone calcium

Those with Cushing Syndrome also have a weakening of their bones. Cortisol signals specialized cells in the bones to break down the bone's calcium so it can be used for other purposes in the blood stream. They also decrease the amount of new bone created by bone-producing cells (Canalis, E., 2003). While this breakdown doesn't happen all at once, those with elevated cortisol on a long-term basis have a greater incidence of osteoporosis and broken bones that would not have occurred in those with normal bone health (also referred to as "pathologic fractures") (Licata, 1992).

This may not seem like a major or life-threatening consequence. However, as people age, pathologic fractures can be a cause of significant physical impairment, immobilization and even death. For those with premature aging due to chronic poverty and chronic stress, broken or fractured bones can mean the difference between being able to stay in one's home independently and having to live in a nursing

⁵ Medical Assistance (Medicaid) and MinnesotaCare, collectively referred to as Minnesota Health Care Programs (MHCP), are the public health care programs in Minnesota.

home or rehabilitation center. In addition to contributing to poor quality of life, pathologic fractures increase healthcare costs. In the elderly, broken bones often result in premature death.

Inhibited learning and memory

Elevated cortisol has been found to shrink parts of the brain involved in learning and laying down of new memories. Additionally, those with chronically elevated cortisol have been demonstrated to have poorer cognitive performance, even when controlling for age, education level and socio-economic status (Österberg, Kalson and Hansen, 2009; Bohnen et al., 1990).

Financial and other types of worry are common and can distract people. When those worries are persistent and linked to real concerns for health and safety, they trigger elevated cortisol levels that impair cognitive functioning. One study found that when people living in poverty are asked to think about a large unexpected financial expenditure, such as a \$1,500 car repair, the difference in their scores on a cognitive test relative to their baseline scores resembled the decline similar to that caused by losing a full night of sleep.

Another of the parents we interviewed, Bonnie, was living at the poverty level. She is going back to school to improve her family's financial well-being. She reports that financial stress interferes with her success.

Yes, I worry about [making ends meet] all the time. That's why I'm in school trying to better myself so I can make more money. [Does stress affect you?] Yeah. It worries me. If I have a lot going on and I'm at school I won't be able to concentrate, 'cause I'm worried about how am I going to pay my rent, or how am I going to get food for the house or whatever. Some days I leave early because I can't even concentrate. So it does stress me.

Bonnie's financial worry makes it harder for her to focus on her education. In addition, the stress that Bonnie experiences may also be impacting her cortisol levels, especially since she reports worrying "all the time."

The implications of this for educational outcomes may be even more significant for children. Many children living in poverty have inadequate food, unstable housing, and many other stressors associated with being poor. If their parents are unable to insulate them from the chronic stress, these children may experience an additional barrier to learning in the form of their own brain chemistry.

Accelerated aging

Cortisol can be toxic to cells in the long term. Each cell in the body has a limited number of times it can divide before it is no longer viable. The degree of viability of a cell can be measured by looking at the length of a part of a cell called the telomere. The telomere is a cap that goes on the end of each cell's DNA to keep it wound up and usable. The shorter the telomere, the older the cell and the fewer times it will be able to divide before it no longer remains viable. Short telomeres are used by scientists who study aging to examine the effects of certain conditions on how fast a person and their cells age. Studies have demonstrated that elevated cortisol levels lead to faster-aging cells with shorter telomeres. In

other words, cortisol effectively accelerates the aging process over the long-term (Wolkowitz et al., 2010).

This physiological reaction to cortisol and sustained stress likely contributes to the wide variation in life expectancy among people from neighboring zip codes. Those areas with more residents living in deep poverty have more people experiencing chronic stress and the potential of chronically elevated cortisol levels (Robert Wood Johnson Foundation, 2013).

Suppressed immune system

Cortisol is a potent anti-inflammatory agent. For this reason, physicians often use steroid medications like cortisol to suppress the immune system in certain situations. This effect is thought to be useful in situations of acute stress in order to decrease inflammation and the energy cost of running the immune system during times of danger or deprivation. However, in the long term, immune suppression leads to increased infections (Graham and Tucker, 1984; Cohen et al., 1997; Glacier et al., 1985). Additionally, some tissues in the body acclimate to the effects of cortisol and other anti-inflammatory chemicals causing inflammation to go unchecked in certain parts of the body (Aulinas et al., 2015; Cohen et al., 2012; Miller, Cohen and Ritchey, 2002).

We met Lisa at a food shelf where she told us that she had strep throat three months ago, and is now recovering from pneumonia. That is unusual in a healthy adult, and might suggest stress-related dysfunction of the immune system. She lives with her husband, three children, and mother-in-law. Her husband's restaurant server income and her customer service retail income together bring their family income to \$1,400 per month (50% FPL). She said that financial stress definitely impacts her, and her recent illnesses may attest to that.

Disrupted sleep

In healthy individuals, cortisol is released in a diurnal pattern, or in other words, a pattern that responds to changing light levels during the day and at night. Levels of cortisol are generally higher in the morning and lower at night. Thus, cortisol is part of the body's natural circadian rhythm.

When cortisol is chronically elevated by stress, it disrupts these circadian rhythms, leading to poorer sleep (Kumari et al., 2009; Melamed et al., 1999; Born et al., 1986). Sleep quality is an important contributor to overall health and has been associated with numerous aspects of health including mood, cognition and cardiovascular fitness (Dew et al., 2003).

A few interviewed parents described difficulty with sleeping due to stress. Their descriptions included both difficulty sleeping and what might be depression or anxiety (of which sleep difficulties can be a symptom).

[Does the worry affect you?] Yeah! 'Cause if I don't have the money I'm trying to figure out how the hell I'm going to buy some diapers... Am I going to be able to get the things I need? Like, these are all things that flood my mind at night. [Like racing thoughts?] Oh, all the time. (Sara)

Elevated cortisol levels at night, which can be a signal to their body it is time to be awake, can make it even harder to quiet worried self-talk and fall asleep.

Greater levels of depression and anxiety

Those with long-term elevated cortisol levels are more likely to suffer from depression (Belmaker and Galila, 2008). This kind of depression is also less likely to respond to traditional antidepressant medications (Gillespie and Nemeroff, 2005; Strickland et al., 2002). Additionally, chronically elevated cortisol can shrink parts of the brain that act as a braking mechanism on anxiety (Vythilingam et al., 2004). This, in turn, likely leads to poorer control of anxiety, depression and stress in the long-term (Murray et al., 2008).

Seven of the 30 parents we talked to said that financial worry impacts their health. They experience this in their physical well-being, such as migraines or irregular heartbeat. However, the most common way they feel it is on their mental health, especially in the forms of depression and anxiety. For example, Alison is caring for her boyfriend, who has a significant physical limitation, and their two children on a family income of \$623 per month.

I've come to the point where depression and anxiety has set in; I've started getting panic attacks. I get worried about extra money for gas, how am I going to do job search, pay rent, and get the girls what they need for the month... [Are the anxiety and depression, are they being treated? Medication?] No...

Diane and her two children stay in a homeless shelter since she lost her housing after taking a leave from work to address mental health issues and couldn't pay her rent. She is back at work now and looking for housing, though the stress seems to continue to impact her mental health.

[How do you think the financial stress affects you?] I can't sleep at night, then I'm at work, stressing about it, sometimes I don't even want to comb my hair. I don't even want to put on clothes. I get very irritated.

Deep poverty can lead to or exacerbate depression through many pathways; elevated cortisol is just one. Among adult MHCP enrollees, those living in deep poverty have twice the rate of depression (which here includes any depressive disorder except Major Depressive Disorder) compared with enrollees living above the poverty line. Even when demographic, geographic, and other social risk factors are controlled for, enrollees living in deep poverty are 22% more likely to have depression than are those with income above the poverty line.

Parental stress and depression can impact a young child's developing brain

Not only does stress impact parents and children directly, parental stress also impacts children because of parents' compromised ability to parent. This appears to have an especially strong impact on very young children.

A number of studies have found that infants between the ages of six and 18 months are most sensitive to maternal depression. Exposure to maternal depression during this time leads to both emotional and

cognitive difficulties during the preschool and elementary school years (Sheridan and Nelson, 2009). Studies also show that children exposed to maternal depression during infancy experience higher levels of glucocorticoids (one type of steroid hormone related to cortisol) three years later when maternal depression is no longer occurring (reviewed in Gunnar, 2003). These studies suggest that from birth until age two – regarded as a “sensitive period” – children's brains and hormonal mechanisms are being permanently formed to fit the needs of their environment, and a high stress environment encourages a brain structure that produces stress hormones even when they are not needed.

Deep poverty, therefore, can have particularly detrimental effects on the cortisol responses of children during important periods of development, and these children may carry those effects with them into adulthood or long after their economic status has improved (Johnson et al., 2005, Lupien et al., 2001).

The literature also shows an impact on brain functioning across multiple generations. Researchers are finding evidence that high amounts of stress experienced prenatally or postnatally may change a developing child's brain architecture by "altering the structure of the genes" (Harvard University, 2010). Early prenatal and postnatal experiences can negatively impact how the child responds to stress as an adult. Certain gene expressions, such as a predisposition to experiencing anxiety and depressive symptoms, can be 'turned on' by negative experiences in these developmental periods. Conversely, positive experiences, such as reading or singing in the lap of a loving, caring adult, can buffer the deleterious effects of negative stress.

Additionally, as the structure of a young child's genes can be changed due to stress, those changes can be passed on to future generations through the now-altered DNA (National Scientific Council on the Developing Child, 2010).

Therefore, deep poverty not only exposes children to elevated levels of stress, but it blunts their parents' and caregivers' capacity to offer the stable, safe and nurturing relationships known to provide children with better opportunities for health and success, and may even compromise their children's children.

Brain development in young children coincides with families' restricted access to income support programs

A child's “sensitive period” happens during the first two years of life, which often coincides with the time when their families receive the least economic support. As University of Minnesota economist Aaron Sojourner noted, “We ask the most of our families when they have the least.” Babies and toddlers have the best outcomes when their parents have the capacity to be attentive and are not unduly stressed by poverty and other things beyond their control. However, low-wage workers have few options to avoid poverty during their children's early years.

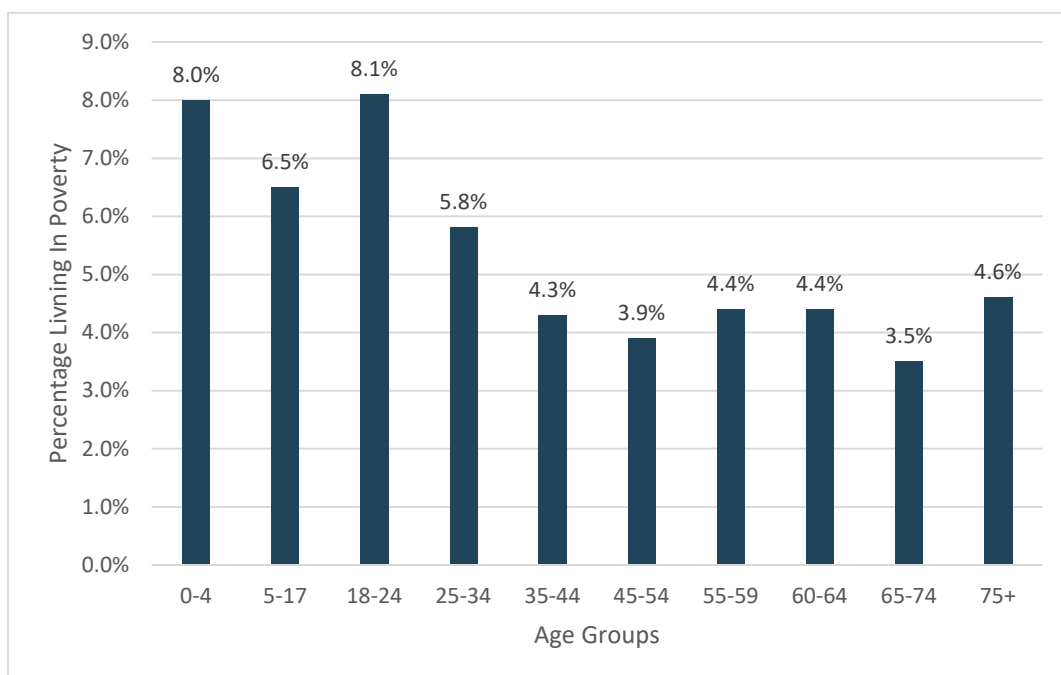
There are no programs in Minnesota that supplement their income enough to raise them out of poverty while a parent takes needed time for the birth and to care for the baby after it is born. Most low-wage workers do not have access to paid family leave, which could allow them to afford to stay home and care for the child (US Bureau of Labor Statistics, 2016). Access to paid parental leave has been shown to improve the health of infants and mothers and decrease infant deaths (Minnesota Department of

Health, 2015). Child care assistance is not widely available and market-rate childcare is very expensive. Most families headed by low-wage workers lack adequate savings to live on when a parent is out of work. They also have less access to tax credits if they have no earnings while they are out of work during the first months of the child's life.

During the interviews with parents, the workgroup was struck by the amount of talk about diapers and baby wipes and worries about being able to afford them. This drew our attention to the prevalence of families with very young children. We interviewed parents receiving services at county or tribal agencies where they could apply for public income support programs, such as MFIP. We also interviewed 17 people receiving services at non-profits where people could receive free goods or services. These non-profit sites included two food shelves, a free dental clinic, and a homeless shelter. Of the parents we interviewed at these sites, a striking 47% were either pregnant or caring for a baby (one was pregnant, five had babies 13 months old or younger, and two said they have a 'baby' and we didn't ask for the baby's age). Most of these families with very young children had older children, too. However, the number of children in other age brackets (e.g., preschool, grade school, teenage years), was much smaller than the number in the pregnancy to 13 months category.

The U.S. Census Bureau confirms the high rate of poverty among families with young children. The following graph shows the percentage of each age group who are living in deep poverty. The two highest rates of deep poverty across all residents are for very young children (age 0-4) and young adults (age 18-24). Both groups have a striking rate of 8% of everyone in that age group. The next highest group is children age 5-17, of whom 6.5% are living in deep poverty.

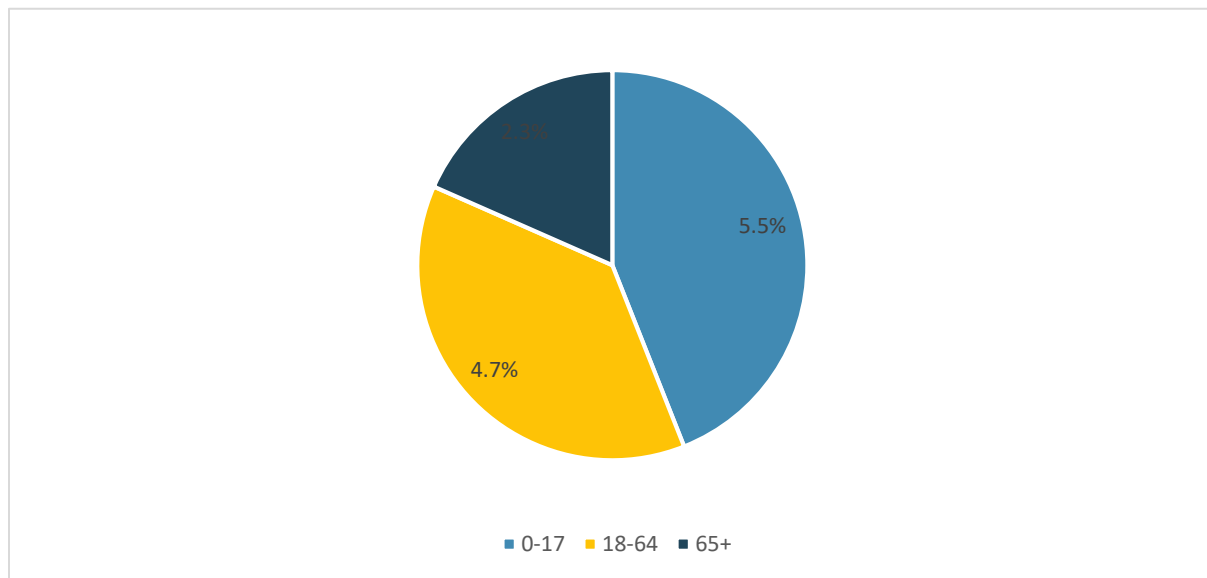
Figure 9: Percentage of people in the U.S. living in deep poverty by age group



Source: U.S. Census Bureau, Current Population Survey, 2019 Annual Social and Economic Supplement.

The next graph shows data specific to Minnesota, with a similar trend but the more nuanced age breakdown of data by age group found in the national Census information is unavailable. The U.S. Census Bureau reports that the deep poverty rate from 2013-17 averaged 5.5% among Minnesota children age 0-17; 4.7% of adults age 18-64, and 2.3% of seniors over age 65. These differences, especially between children and seniors, reflect the effectiveness of income support programs, such as Social Security, when there is a public commitment to supplementing people's incomes to prevent the physical, mental, social and economic hardships of poverty.

Figure 10: Percentage of Minnesotans living in deep poverty, by age group, 2013-17 (U.S. Census Bureau, 2017)



Source: U.S. Census Bureau.

The next section describes the chronic financial worry that parents living in poverty or deep poverty experience. Throughout this report we will describe the other chronic conditions they have, which they may not associate with stress, though there may be a link in the medical literature.

Parents report that financial stress is a big part of their lives

Parents living in deep poverty do a lot of worrying, and it takes a toll on them. They are concerned about the toll it takes on their children, too. We asked them whether they worry about having enough money to pay rent, make food last to the end of the month, and have enough money for other necessities. All but two of the 30 people interviewed said yes, they do worry about these financial realities. We followed up by asking how this worry or stress affects them, and the rest of this chapter describes what they told us.

Some try to not worry

Some parents try to not think about their financial situation because they cannot cope with the stress it causes them. Emily, for example, has lived in poverty nearly her entire life and has been homeless intermittently. Initially, when asked whether financial worry impacts her health she said:

It used to stress me out a lot more, but, after everything, I just, WTF, I've gotten to the point where it's just not worth stressing over anymore, it's really not, 'cause stressing about something won't fix it." [You've figured out coping mechanisms that work for you.] I don't have much choice.

However, later in the interview Emily was again asked whether worry impacts her. She says yes, and talked about having anxiety and an irregular heartbeat.

Yvonne immigrated to the US and lives with her husband and three children, including a six-month old. Her husband works as a janitor, and they do not have health insurance, MFIP or SNAP. They try to stay well and if they need medical care, they go to a sliding fee clinic and ask for a discount. They exercise so they don't get cancer. Yvonne tries to not think about what would happen if they needed regular medical care because it would make her anxious.

Julie and her husband and two children just moved to Minnesota from another state, and he doesn't yet have a job. She is currently pregnant and caring for the young children. She also tries to not worry.

I'm religious, so I have faith in God, so I try to just not worry. I just pray and have hope.

One of the things these parents have in common is their emphasis on how they 'try' to not worry. This phrasing suggests that it takes an emotional effort to push aside feelings of worry, and also suggests that the effort may not always be successful.

Parents strive to insulate their children from their own financial worries

Seven parents described the added worry they feel from trying to keep their financial worries from their children. This takes an additional toll on parents who are already stressed. They use humor and creative explanations to do this. This has mixed success, however, especially with older children.

I haven't been in this situation [homeless] in so long, and having three kids that depend on you, my daughter is ten and she notices things. So she can tell when something's wrong. It's hard emotionally to keep it together for your kids but still be able to vent, because that's healthy too. (Christine)

[The worry] would affect our kids I guess because ... if they see us worried, they're gonna be worried themselves. It kind of tears them up a little bit to see their parents stressed. (Karen)

They're so little that they don't need to worry. That's part of doing my job as a mom is making sure they don't worry. Another panic and worry I have on myself is that

they don't worry and that ...they understand that we have struggles, but they don't understand what kind of struggles. They don't need to know money struggles, this other struggle, they don't need to. They're babies... I made a joke one time, my [five-year-old] said 'Mom, can you take me to Disney world?' I said 'When I get rich, baby.' She said 'Oh, when mom gets rich we're going to Disney world.' Then she said 'Aw mom, it's taking so long' I said 'I know I'm sorry.' (Alison)

Parents worry the most about rent and food

Ten parents mentioned paying rent as a primary worry, including six parents who only mentioned rent. Rent is a particular challenge because as Diane says, "You can find options for food. But rent, you need cash to pay it." Karen agrees.

[Is there a particular item that worries you?] Housing would be the major thing, because everyone wants to make sure that they have a home, where they can keep their kids safe, have enough where you can make ends meet so you can pay rent every month.

Emily has been homeless up until recently and has just gotten into supportive housing (GRH). She says:

As long as my son's stuff is taken care of, as long as he has a roof over his head, that's what matters. My stuff can always wait. When I don't have a roof over my head, that's when I move from state to state, to stay with someone who will take me in.

Andrea does not receive MFIP, SNAP, or subsidized housing. Her monthly income is from her full-time employment. She uses her tax refund to prepay her rent, and her description of how it feels to NOT have that stress from needing to pay rent gives us insight into what that stress is like normally:

[Does the worry impact you?] Sometimes it does. When you're trying to pay the rent and I'm not on any assistance, so paycheck to paycheck. [How does it impact you?] It can be physically sometimes, it can be draining. When I'm coming home from work, and the kids are doing homework, prepare dinner, and get everything ready, and then do it all over again tomorrow. Some days it can be like 'ugh' and other days it can be... [Does this rent prepayment help your emotional well-being?] It does. So that way, I'm not worried, I'm not stressed. And like, that helps a lot. I'm paid up, so I don't have to be frustrated with, the kids.

Eight parents said that they worry about having enough food and/or getting the things their children need, and four mentioned only these things. The worry parents experience around food and similar necessities will be described in the chapter on SNAP (food support).

Two parents worry most about access to medicines or medical care. For example, Tina says that she and her two-year-old usually have health insurance, but their eligibility has lapsed and she is waiting for the county to process it. She worries about having the \$20 to \$40 she needs to get her child medicine.

The next chapter describes what providers who serve people in deep poverty said about their observations of their clients, and how deep poverty impacts them.

Providers describe the link between poverty and health

Subject Matter Expert: Jeff Schiff⁶

The stress associated with poverty also came up repeatedly in interviews with health care and social service providers. These providers talked extensively about how an increase in income could help the health and well-being of the families they serve for a variety of reasons, not the least of which was increasing their access to housing, a critical factor in people's health. The ten stakeholders included:

- Two physicians (1 specializing w/Native populations and 1 working primarily w/US-born African Americans)
- Two public health nurses (one who specializes in working with teen mothers in an urban area and another who works in a rural area)
- Four nonprofit service providers (2 specializing in financial wellbeing programs, 1 specializing in long-term chronically homeless populations, and 1 specializing in immigrant resettlement; 3 providers serve large numbers of US-born African Americans and to a lesser extent, Native populations)
- One county and one tribal supervisor of cash assistance programs (1 program serves primarily US-born African Americans and one serves American Indians)

Researcher Robin Phinney from the Humphrey School of Public Affairs conducted the interviews, and shared the results in a report to DHS⁷. Providers were asked about the link between deep poverty and health, about potential policy interventions, and whether they thought an increase in income to 75% FPL would make a difference in people's health and well-being. (The workgroup chose to ask about this level of income as moving families to this level seemed like a modest-sized goal.) Their main points are described below, and a few other themes can be found in other relevant sections of the report.

Stress

Providers who work in settings predominantly serving people in deep poverty described the impact of stress on their clients. They described how poverty limits their clients' functioning in whatever area of life they work with them on. They observe that poverty makes it harder for their clients to maintain their mental health and care for physical health conditions, to think about anything other than their immediate financial needs, and how it can lead to experiences of helplessness. Maude (a pseudonym) is a cash assistance supervisor in a predominantly White rural community.

Stress can be a huge barrier on their health. If you and I are worried how we're going to make ends meet and that stress on your heart and blood pressure... Do I pay my rent this month or do I pay my electric? This can have a cyclical and compounding

⁶ Jeff Schiff, MD, MBA, was Minnesota's Medicaid Medical Director at the time of these interviews.

⁷ <https://z.umn.edu/UMNDeepPovertyReport>

impact. The anxiety can lead to greater mental health breakdowns, which can then impact functioning. We see this a lot in our community.

Jody does financial counseling with people receiving job training, and used to work with survivors of domestic violence. She notices a difference in people's thinking, based on whether or not they're in crisis.

With people who are in stress or people experiencing trauma... they have this present bias where all they can focus on is their immediate need right now... Some of my work is with folks who are not in crisis, but MFIP people [those receiving cash assistance] are typically coming in crisis. It is a luxury to think about the future. What we try to do is get clients to come back when they are not in crisis.

Both doctors that were interviewed work in urban communities with high rates of poverty, and both emphasized the chaos in their patients' lives. The overarching problem of unstable housing is a key component of the stress they experience. Carrie is a pediatrician whose work focuses on the American Indian community:

The more lower down in poverty, the more chaotic the life is. The people who are closer to 75% of poverty have a very stressful life, and maybe a bit more money would help. But people very far down are almost in learned helplessness. Don't know where to start.

Margaret is a physician serving patients in North Minneapolis. She talks about the double impact of poverty on poor health: poor people are more susceptible to developing chronic disease, and once they have the chronic disease, they don't have the resources to manage it adequately and so their condition deteriorates faster than it should.

I have worked with under-resourced and low-wealth communities my whole career, in both urban and rural environments. Patients with a ton of chronic illnesses due to being poor – metabolic syndrome, hypertension, diabetes. People who are very young who have old people diseases. Chronic illnesses are challenging to take care of even for middle-class people, but for people with instability in every aspect of their life... Diabetes for example. Your diet impacts it. The medications you're taking impact it... If you don't have stable housing, where are you keeping your insulin? The impact of having diabetes and high blood pressure that's out of control. So then your kidneys get canned and you end up on dialysis earlier than you ever would have if you just had some consistency in your life... It's harder to control chronic illnesses when your stability is not there. We have people who move almost monthly...

The level of stress that accompanies crises often experienced by people in deep poverty makes it hard for them to think clearly, to problem solve strategically, and to plan for the future. Those cognitive functions are impaired when people experience ongoing stress.

Income Level Necessary to Influence Health Outcomes

Providers were asked whether they have seen evidence in their work that an increase in income can improve the health or well-being of people living in deep poverty.⁸ The idea that there is a relationship between income and health resonated with all ten stakeholders, for a variety of reasons. Mia, a public health nurse, had analyzed county data and found that income was correlated with a range of health outcomes. Margaret spoke of the difficulty that her medical patients face in attempting to manage chronic illnesses, such as diabetes (for adults) and asthma (for kids), when financial circumstances are unstable.

Several stakeholders talked about the stress associated with financial insecurity and the impact this stress can have on health. Jody, a financial counselor, noted 'I'm certain that financial stress can have a profound impact on health and wellness'. Crystal, another tax preparation manager, elaborated on this relationship:

There is no question that the less stressed one is financially, the more likely they are to be healthy in terms of the food they can eat and the reduced stress and ability to have the commodity of time to focus on other things in their life. There's no question those go hand in hand.

At the same time, stakeholders disagreed as to whether income increases lead to improvements in health for those living in deep poverty. Several stakeholders stated that elevating income can improve health and wellbeing directly – for instance, by decreasing stress levels, or indirectly – for instance, by increasing the ability to purchase high quality or stable housing. This emphasis on a lack of basic necessities, such as housing, is validated by national and international research on access to resources.

Some providers emphasized that adequate income is necessary but not enough to improve the health of their clients

Other stakeholders questioned whether increasing the income of those living in deep poverty would lead to health improvements. Mia reflected on this related to her public health clients:

There are so many other underlying issues for families that are in deep poverty. Would income be the sole thing that would raise up their health? I don't know.

These stakeholders drew attention to the heterogeneity of the population living in deep poverty, the diversity of their needs, and the needs of special populations. For instance, Carrie said that in her work with some patients, additional income is unlikely to improve health outcomes:

I don't think money in and of itself would help. I've seen this my whole career ... Even people who are gainfully employed, the money just goes through their fingers

⁸ The results in the next three sections are taken verbatim from Robin Phinney's report, with a few additions from the research team to add context.

because people have so many people to care for. The person who has the job, people lean on them.

Bill works to create housing opportunities for chronically homeless adults with significant barriers to supporting themselves. He emphasizes that while some people in deep poverty primarily just need to have higher income, other people have extensive needs, income just being one.

Everyone we work with has both an economic need and a service need... The deep poverty category has a ton of nuance to it. [This population's] issues are not just economic but also mental health, chronic health, traumatic brain injuries, etc. As long as there are services in place to help them access the health care, then improving income will also improve health. But only with the idea that services have to be there.

Thus while stakeholders overwhelmingly saw a connection between income and chronic disease, not all agreed that elevating income would have an impact on these health outcomes unless services are also available. There was broader support for the idea that income increases would positively affect wellbeing, however, whether by reducing stress levels, providing more opportunities, or providing more stability and predictability.

Providers inherently recognize that the challenges associated with deep poverty are complex. These front line providers realize that the cycle associated with poor economic situations, stress, and long standing trauma can only be broken by a multifaceted approach. Many of these providers work in these communities because these challenges are also associated with resilience in members of these communities and in community structures. Still, most of their work, like the lives of those they serve, is focused only on the immediate need in front of them.

How much income is necessary to influence health outcomes?

To the extent that stakeholders were willing to answer this question (and some were not, either because they did not want to or did not feel like they could), they stated that more money is a good thing. Stakeholders drew attention to how little families are getting by on even when they are living at 100% of FPL. Jody, a financial advisor to those in employment training said:

You forget how incredibly low that is [100% FPL]. The fact that we have to distinguish deep poverty... whereas even 100% is bad, let alone 25%. ... \$26 an hour with one child is the living wage. We rarely see that.

Because income is so low already, any increase was considered to be as beneficial. Brenda, a public health nurse, told a story of how small changes can improve the health and wellbeing of young families. She described how the young mothers with whom she works often live in unstable situations, with limited money to pay for things like child prescriptions or transportation to the pediatrician. These young mothers often do not prioritize their own health needs. Brenda described a program that provided young mothers with winter coats, because although the mothers purchased coats for their children they did not purchase their own. Such a change, she argued, could improve the health and wellbeing of these mothers. This story suggests that even small changes in income can have a beneficial effect on health.

However, some stakeholders were hesitant to say that increasing income to 75% of FPL would directly improve the health and wellbeing of all those living in deep poverty. Stakeholders highlighted the diversity of situations and circumstances in which families in deep poverty find themselves. Maude, a supervisor at a county financial office felt that while an income of 75% of FPL would be sufficient (though still tight) for someone living in subsidized housing, it would not be enough for someone without subsidized housing. Another drew attention to the service needs of some individuals and the fact that the health effects of raising income to 75% of FPL will depend on a person's access to other types of assistance.

Finally, some stakeholders went as far to say that 75% of FPL may be too low to see an impact on health. Margaret, a physician in an urban area said:

I hate the idea that we're quibbling over percentages. We're wanting them to be just a little less poor than they were last year. ... At what point does it impact health? Well, it's not gonna impact health that much. They're gonna still have the same social problems that they're having, they're gonna still have the same access to food that they're having. They may make it a couple more days in the money with a little more food. But will they? I don't know.

The responses to this question suggest that stakeholders support the idea of increasing income above 50% of FPL, though are hesitant to say that an increase to 75% of FPL will improve outcomes across the board. While such an increase may improve health and wellbeing for some households, others are unlikely to experience similar improvement. In addition, a majority of stakeholders felt that even 75% of FPL represented an extremely tight budget for most individuals and families.

As they were being asked about whether higher income can improve health, stakeholders drew attention to the difficulty that low-income populations face in securing affordable, safe, stable housing, and the implications of this for individual health and wellbeing.

Housing

Almost all providers emphasized the importance of housing. When we asked how much income it would take to improve people's health, several said that it's more about access to housing than anything else. Carrie, a pediatrician who works predominantly with American Indians in an urban setting was one of those providers who said stable housing is the way to improve people's health:

Stable housing would make a difference. It's more important for getting people stable. It is a really bad slide once people lose their housing – everything gets more expensive. Stable is a subjective term – around one-third of my patients would consider themselves in stable housing, but it might not be safe, it might be crowded, etc. What I have really seen help is permanent supportive housing or long-term housing. That is where I have seen people really get health problems under control... I have seen a lot of times where housing becomes suddenly unstable and also when someone loses housing and everything else falls apart. It happens over and over.

Other providers thought greater income would improve health, but their examples were predominantly about making it easier for them to pay rent. Louise, a tribal financial services provider, for example, emphatically agreed that if families in deep poverty had higher income it would improve their well-being. 'It's hard enough to pay shelter costs, and what if rent increases?' Similarly, Janell described her work with immigrants and what would help:

Anything that can help with income to then help with rent is great. Rent is usually the hang-up for the clients I work with... When people started getting the MFIP [cash assistance] housing subsidy a few years back it was huge for clients. The cost of rent was prohibitive for many families, so anything to help with rent payments is good.

Providers described the even greater challenges some population groups have with getting access to housing. Maude is in a rural county financial office and noted that someone with a felony on their record would be unable to get subsidized housing, and would need more for rent. Brenda, who works with teen mothers in Minneapolis described the link between substandard housing and poor health for African Americans.

...there are lots of disparities in terms of African Americans having higher rates of asthma. So if they could move to different housing or better quality housing this could lead to better outcomes in terms of asthma, which is affected by things like mold, dust, etc. There are lots of asthma triggers in poor quality housing.

Margaret, a physician in North Minneapolis agrees. 'Housing stability plays a critical part in managing chronic illness. Asthma in kids is a big one; it's all about maintenance. They often have to replace nebulizers because they got evicted and lost previous ones.'

The next chapter describes people who exist at the intersection of two types of harmful stress: those who live in deep poverty and are regularly exposed to racial discrimination.

American Indians and African Americans experience the worst income and health disparities

Subject Matter Experts: Alicia Smith and Nathan Chomilo⁹

American Indians and US-born African Americans have the highest rates of deep poverty of any adults enrolled in Minnesota's Medical Assistance or Minnesota Care programs. They also have the worst health disparities of any of these groups. These socioeconomic and health disparities are no accident; they are the result of generations of discrimination. This section provides a very brief introduction to a few of the many historical and present-day experiences that have led to these disparities.

Among adults enrolled in Medical Assistance or Minnesota Care (referred to as Minnesota Health Care Programs, or MHCP) programs, 44 percent of American Indians and 43 percent of African Americans report income that is within the deep poverty range, compared with 36 percent of all adults age 18-64¹⁰. Over one-quarter of people in these groups also report being homeless in the past year, compared with 11% of all adults on MHCP programs.

Racial and ethnic health disparities are often attributed to differences in socioeconomic status or health insurance coverage rates (Hayward, M., Miles, T., Crimmins, E., Yang, Y., 2000; LaVeist, T., 2005). However, even when compared to other low-income families with public health insurance, American Indian and US-born African Americans have worse health than other groups in the U.S. (Williams, D., Priest, N., Anderson, N., 2016).

The pattern of dark gray shading in the table below shows the dramatic health disparities of American Indians enrolled in MHCP programs, as compared with others in these programs¹¹. American Indians have dramatically worse mortality (over 1% of adults died in the 2.5 years measured), a much higher rate of most chronic medical conditions we reviewed, and even greater disparities in mental health conditions such as Post-Traumatic Stress Disorder.

US-born African Americans enrolled in MHCP programs are a second group that experiences striking health disparities compared with other enrollees. This group had the highest prevalence of asthma, hypertension, and heart failure/hospitalized heart problems of any group, and the second or third highest rates of many other medical or behavioral health conditions.

⁹ Alicia Smith, American Indian Advisor, Children and Family Services; Nathan Chomilo, MD, Medicaid Medical Director.

¹⁰ MN DHS calculation of people enrolled in Medicaid 11 of 12 months from September 2018-August 2019.

¹¹ Dark grey shading indicates the worst outcomes and light grey shading indicates the next worst. The values in the table are simple prevalence rates among all MHCP enrollees, without any adjustments for other factors. For example, 6.95% of all MHCP enrollees (in the far right column) had a diagnosis of type 2 diabetes.

Figure 11. Prevalence of mortality, chronic conditions, preventable health care, and annual preventive care, by race/ethnicity and immigration status.

| | Enrollees who were born in the U.S. | | | | | | Enrollee who immigrated to the U.S. | | | | | All MA Enrollees |
|--|-------------------------------------|-------------------------|--------|-----------|--------|----------------|-------------------------------------|--------|-----------|--------|----------------|------------------|
| | American Indians* | Black/ African Americas | Whites | Hispanics | Asians | Other/ Unknown | Black/ African Americas | Whites | Hispanics | Asians | Other/ Unknown | |
| Mortality and Morbidity | | | | | | | | | | | | |
| Mortality over 2.5 years | 1.35 | 0.8 | 0.95 | 0.51 | 0.28 | 0.49 | 0.21 | 0.37 | 0.31 | 0.58 | 0.09 | 0.78 |
| Type 2 Diabetes | 12.37 | 8.28 | 6.19 | 7.6 | 4.9 | 5.32 | 7.66 | 7.54 | 10.88 | 9.71 | 6.52 | 6.95 |
| Asthma | 12.48 | 16.47 | 9.56 | 9.97 | 4.55 | 7.53 | 4.82 | 4.61 | 3.79 | 4.02 | 2.86 | 9.4 |
| HIV/ Hep-C | 4.52 | 2.67 | 1.48 | 1.66 | 0.36 | 0.9 | 1.09 | 0.8 | 0.72 | 1.02 | 0.96 | 1.6 |
| Hypertension | 7.69 | 9.6 | 3.93 | 5.55 | 3 | 3.61 | 8.03 | 5.34 | 6.74 | 4.5 | 5.07 | 5.14 |
| Heart failure, hospitalized heart conditions | 2.05 | 1.96 | 1.46 | 0.65 | 0.57 | 1.08 | 0.65 | 0.96 | 0.79 | 1.27 | 0.59 | 1.37 |
| COPD | 11.91 | 8.4 | 10.17 | 6.72 | 2.98 | 6.33 | 5.1 | 5.65 | 3.92 | 4.46 | 2.74 | 8.53 |
| Lung, Laryngeal Cancer | 0.25 | 0.2 | 0.27 | 0.07 | 0.07 | 0.17 | 0.1 | 0.19 | 0.05 | 0.18 | 0.1 | 0.22 |
| Behavioral Health | | | | | | | | | | | | |
| Substance Use Disorder | 35.37 | 20.09 | 15.64 | 14.12 | 4.33 | 12.34 | 2.56 | 3.75 | 3.97 | 2.78 | 2.37 | 14.42 |
| PTSD | 10.54 | 8.64 | 5.62 | 6.06 | 2.41 | 3.58 | 6.31 | 6.76 | 3.09 | 6.05 | 2.51 | 5.9 |
| Depression | 30.27 | 20.58 | 22.4 | 19.23 | 7.53 | 15.33 | 6.78 | 12.36 | 10.32 | 9.65 | 5.39 | 19.22 |
| SPMI | 7.36 | 7.09 | 6.19 | 4.77 | 2.94 | 3.68 | 2.73 | 4.47 | 1.59 | 5.48 | 1.38 | 5.55 |
| Costly Utilization | | | | | | | | | | | | |
| Injury due to accident/ violence | 10.45 | 7 | 6.02 | 6.57 | 2.26 | 4.85 | 3.16 | 2.3 | 2.1 | 1.58 | 2.14 | 5.59 |
| Preventable hospitalization | 1.09 | 1.02 | 0.6 | 0.5 | 0.23 | 0.51 | 0.31 | 0.31 | 0.27 | 0.42 | 0.2 | 0.6 |
| Preventive Care | | | | | | | | | | | | |
| Annual preventive care (higher is better) | 35.02 | 35.93 | 33.8 | 31.4 | 24.09 | 29.82 | 34.49 | 30.31 | 40.43 | 25.39 | 35.12 | 33.23 |
| Average Age | 35.1 | 35 | 38.7 | 31.2 | 31.3 | 37.6 | 35 | 38.7 | 36.5 | 38.8 | 36 | 37.2 |
| Total enrollee population** | 23464 | 66093 | 296992 | 16907 | 15466 | 47973 | 34925 | 7007 | 8187 | 20971 | 12356 | 550341 |

Adult MA enrollees, 2014 = highest rates highlighted in dark gray; second high-test rates in light gray

* All American Indian were included in this column

**Some health outcomes are only partially populated, so the percentages are often based on smaller groups of people

American Indians

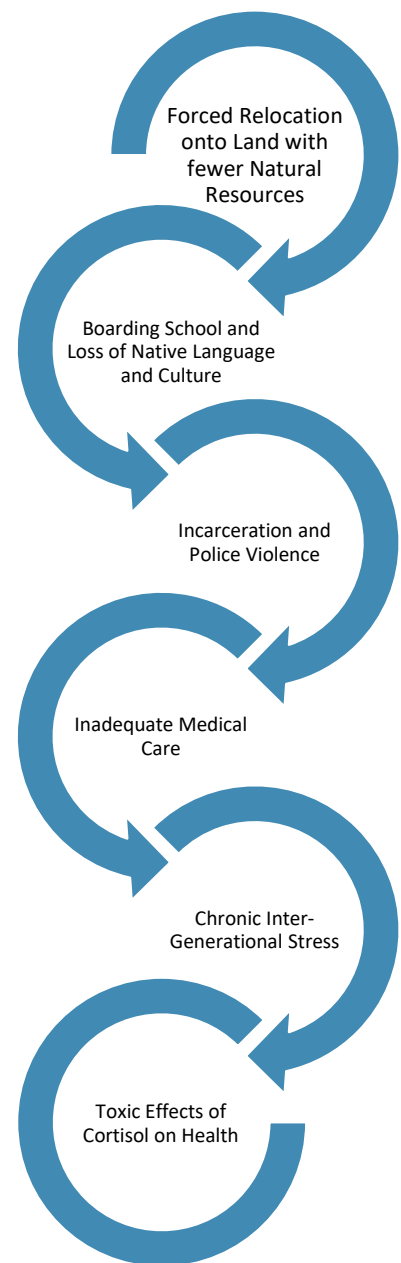
Traumatic history affects health today

The population of Native Americans sharply declined after 1492 when colonization began on the American continent due to war and the spread of new diseases brought by colonists. After the United States declared independence, American Indians were forcibly moved westward, most notably by the Indian Removal Act of 1830 that led to the Trail of Tears, or the forcible relocation of many tribal communities to reservations. Reservations are located far from economic development opportunities and lack the resources to thrive (Martinez, D., Sage, G., Ono, A., 2016). As a result, living conditions (e.g., sanitation and lack of access to quality health care) on reservations have contributed to high rates of infectious diseases, chronic diseases, and mortality among American Indians (Jones, D., 2006).

Between the late 1800s and the mid-1900s, federal policy aimed to assimilate American Indians into white society through the Dawes Act of 1887, which sought to revoke tribal sovereignty and break up tribal lands, and by forcing American Indian children to attend boarding schools to eradicate native cultures and languages. As a result of these policies, many elders in native communities today experienced numerous adverse childhood experiences that detrimentally affects their health (Evans-Campbell et al. 2012). Services that could help individuals and families struggling with these past traumas, like culturally appropriate, trauma-informed mental health services, are scarce on or near reservations (Rieckmann, et al., 2012).

Throughout the 1900s, federal policies reversed direction several times with devastating consequences for American Indian communities. In contrast to the Dawes Act of 1887, the 1935 Indian Reorganization Act encouraged Native self-government. However, just a few decades later, in the 1950s and 1960s, the federal government disbanded many tribal governments and abolished reservations with the goal of assimilation again. The last major flip in federal Indian policy occurred at the end of the 1960s when policy switched back to promoting tribal sovereignty and self-determination. These dramatic policy changes that have

Figure 12: Structural racism's impact on American Indian communities.



been imposed on American Indian communities have made it impossible to build economically stable communities and have naturally engendered a great deal of distrust in government and chronic intergenerational stress, which negatively affects the health of Native communities.

Research has documented that the traumatic experiences of past generations are transferred to successive generations through both biological and social processes (Bar-On, et al., 1998; Brave Heart, 1999; Nagata, D., Trierweiler, S., Talbot, R., 1999). The field of epigenetics has found in animal studies that ancestral traumatic events can affect the health of offspring by inducing changes in the genomic DNA that are passed down to future generations (Schiele, M., Domschke, K., 2017). In humans, research has documented higher disease risk and different genetic patterns in individuals whose ancestors were exposed to famines (Hughes, et al., 2009; Tobi, et al., 2009), and who survived the Holocaust (Yehuda, et al., 2016). While the biological literature is still in its infancy, there is a large literature documenting how past traumas affect the identity, values, attitudes, beliefs, and parenting practices of current generations (Lichtman, H., 1984; Evans-Campbell, T., 2008). All of this evidence taken together makes it increasingly recognized that historical events such as colonization, the Trail of Tears, and Indian boarding schools experienced by American Indians have clinically observable intergenerational effects in current generations (Yehuda, R., Lehrner, A., 2018). Thus, the American Indian community has a health disadvantage that are the result of past US policies and should be given extra consideration in current policies and programs.

Racism and discrimination produce stress and, when it occurs in the health care system, can exacerbate health problems

Justification for many of the policies against American Indians in past centuries and decades were based on stereotypes of “savages.” However, negative perceptions of American Indians that have been passed down through generations lead to continued racism and discrimination against the American Indians. Racism refers to an organized system that ranks some racial groups as inherently or culturally superior to others and supports the social norms and institutions that implement this belief (Jones, 2000). Discrimination is the differential treatment of members of racial groups by both individuals and social institutions (Williams, D., Mohammed, S., 2008).

Experiences of racism and racial discrimination are a particular type of chronic stressor specifically impacting people of color. As discussed earlier, stress can activate stress responses in the body, and chronic stress can lead to a wide variety of mental and physical health problems (Carter, et al, 2017; Paradies, et al, 2017; Sternthal, et al, 2011; Williams, D., Mohammed, S., 2013). People of color experience these types of stress on top of being more likely to experience the stress of living in deep poverty.

While aggressions experienced in everyday life are stressful and may harm one’s health (Gonzales et al., 2016), discrimination in health care settings clearly have negative health consequences. American Indian patients report high rates of health care discrimination, where clinicians choose treatment plans based on stereotypes about substance use or ability to adhere to ongoing treatment plans (Joe, J., 2003). Bill, a housing provider we interviewed, emphasized that we must also keep in mind the medical system’s historical misconduct against American Indians:

The roots of distrust go way back to when army doctors were used by the army to kill using [distribution of blankets contaminated with] smallpox. The sterilization of women is still felt pretty deeply in the community.

Research indicates that racism in health care settings leads to delays in seeking medical care and increases barriers to accomplishing medical care recommendations (Ben, J., Cormack, D., Harris, R., Paradies, Y., 2017).

Incarceration disproportionately affects American-Indian communities with substantial health consequences

Evidence indicates that structural racism contributes to the over-representation of American Indians in the criminal justice system (Arya, N., Rolnick, A., 2009; Rovner, J., 2014). Nearly 10% of American Indian men enrolled in MHCP¹² have been incarcerated in a Minnesota prison; this is double the rate of white men in these programs.¹³ Similarly, nearly 6% of American Indian women enrolled in MHCP programs have been in prison, compared to just over 1% of white women in these programs.¹⁴ The disparities in the criminal justice system lead to disparities in health for the incarcerated individual, their family, and their community. Incarceration restricts a family's (and community's) resources in many ways – through the loss of income from a worker and the loss of a parent during the incarceration period (Geller, A., Garfinkel, I., Western, B., 2011), and then the reduced employability and eligibility for social programs (e.g., public housing) after release. Incarceration has been shown to lead to higher rates of mental illness (Stokes, et al., 2015) and communicable diseases (Dolan, et al., 2016; Wilper, et al., 2009) for the incarcerated, which can lead to higher incidences of disease in their community upon release. In addition, some research documents increased risk of poor physical and mental health for the children of incarcerated individuals (Wildeman, C., 2012; Roettger, M., Boardman, J., 2012; Boch, S., Ford, J., 2015; Roettger, M., Swisher, R., Kuhl, D., Chavez, J., 2011).

The American Indian community suffers from chronic intergenerational stress because of historical traumas created by US policies that have baked in racism throughout our existing institutions. On top of the stress of experiencing structural racism and deep poverty, the resources available to American Indians are inadequate in terms of being culturally appropriate, trauma-informed, and geographically accessible. The effects of these multiple stressors and barriers on people throughout their lives as well as the lives of their parents and grandparents may help us to understand the extremely high prevalence of chronic conditions among American Indians illustrated in Figure 11.

¹² Medical Assistance (Medicaid) and MinnesotaCare, collectively referred to as Minnesota Health Care Programs (MHCP), are the public health care programs in Minnesota.

¹³ Calculations by MN DHS.

¹⁴ Calculations by MN DHS.

African Americans

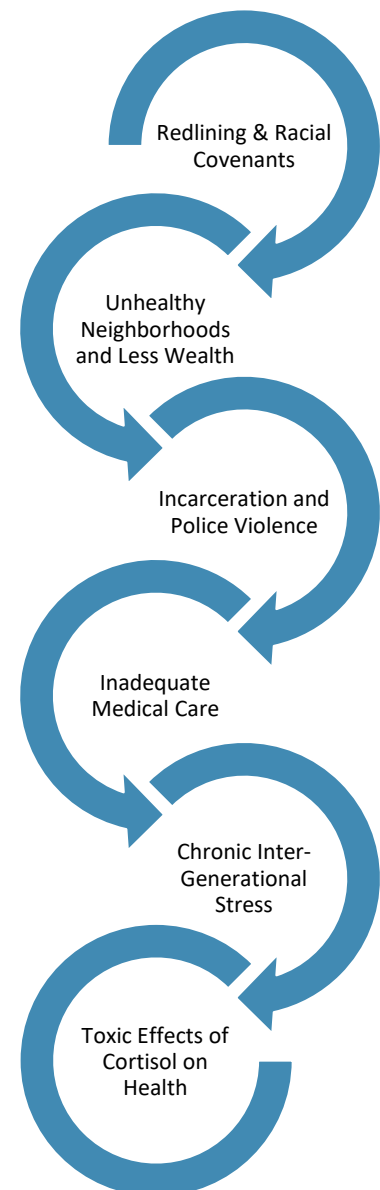
Traumatic history affects health today

Most US-born African-Americans had ancestors who were brought to the US forcibly as slaves. Slavery existed in the Americas from 1619 to 1865. While enslaved, the ancestors of current African-Americans were malnourished, lived in unsanitary conditions, performed excessive physical labor, and were often physically and sexually abused (Kiple, K.F., King, V.H., 1981). After slavery was abolished in the US, many Midwestern and southern states enacted codes (referred to as Jim Crow laws) that legally subjugated African-Americans and were in place for about 100 years. Jim Crow laws imposed legal restrictions for non-white persons in education, transportation, hospitals, employment, marriage, voting, and every other institution that affects one's health. The laws led to economic and social deprivation, inadequate medical care, excess exposure to toxins, pathogens, hazards, as well as chronic stress among African-Americans. As a result, evidence suggests that Jim Crow laws had an enduring impact on premature mortality among the US black population (Krieger, N., et al., 2014). As described above, historical atrocities, such as slavery and the Jim Crow era in the case of African-Americans, have huge effects on families through the formation of identity, values, attitudes, beliefs, and parenting practices developed over generations (Lichtman, H., 1984; Evans-Campbell, T., 2008) as well as clinically observable intergenerational health effects in current generations (Yehuda, R., Lehrner, A., 2018).

Lack of neighborhood investments puts African American families at a health disadvantage

One of the most pervasive ways in which US policy and institutions implemented structural racism is through residential segregation. Redlining is the practice of restricting financial services like mortgage lending to neighborhoods of color; (Institute of Metropolitan Opportunity, 2009) this practice was widely implemented throughout the US (including Minnesota) between 1934 and 1968, when it was outlawed. Similarly, the practice of stipulating racially restrictive covenants on deeds (i.e., that non-white people could not own the property) began in the early 1900s and were enforced until the 1970s, and was a common practice in Minnesota. Sundown towns were towns that made it known that African-Americans were not safe after dark. There are

Figure 13: Structural racism's impact on African American communities.



about 20 suspected sundown towns in Minnesota, including Albert Lea, Edina, Mankato, Red Wing, St. Louis Park, Stillwater, and Worthington (Loewen, J.W., 2005). These various policies caused racial segregation of neighborhoods throughout the US in such a way that white families lived in neighborhoods with good schools, plentiful public green spaces, inexpensive grocery stores, and low poverty and crime rates, and non-white families lived in neighborhoods with very limited public investments (Delegard, Ehrman-Solberg, 2017).

Because of these policies, people of color have been and continue to be much less likely to be homeowners than white families across the nation, but especially in Minnesota. Minneapolis has the widest racial homeownership gap out of the 100 US cities with the largest black populations; the white homeownership rate in Minneapolis is 74.8% while the black homeownership rate is only 24.8% (MCargo, Stochak, 2018). Moreover, because homeowners of color own homes in neighborhoods that have not been invested in historically due to redlining, the returns to homeownership are lower for families of color than for white families (Traub, et al., 2016). Homeownership is how most Americans build and pass on wealth to future generations, thus while redlining and racial covenants are illegal today, the impact of those practices, and many other forms of structural racism, is still felt today. In 2016, the median white family in America had \$171,000 in wealth, compared to just \$17,600 for the median black family and \$20,700 for the median Latino family (Dettling, et al., 2017).

A large body of research has documented that residential segregation shapes socioeconomic status and health by restricting access to quality schools and employment opportunities and creating health-damaging conditions in some residential environments (Williams, D., Mohammed, S., 2008). African-Americans still live predominately in neighborhoods with poor quality schools, limited green space, and high poverty and crime rates. Low-income, non-White urban populations experience the poorest access to supermarkets (Zenk, et al., 2005), and the highest access to fast food (Kwate, N., 2008). These neighborhoods are also often heavily targeted by advertisers of tobacco and alcohol products (Lee, et al., 2015; Kwate, N., Lee, T., 2007; Lower, B., Sloane, D., 2014). Concerns about neighborhood safety may discourage physical activity (Evenson, et al., 2012). Institutional neglect and disinvestment in segregated neighborhoods contributes to increased exposure to environmental toxins in the air, soil, water, and buildings (e.g., lead) (Ard, K., 2015; Sampson, R., Winter, 2016).

Racism and discrimination in the criminal justice and health care systems produce stress and health problems

African-Americans report experiencing discrimination on a daily basis (Britt-Spells et al., 2018), which contributes to stress-related health conditions, as discussed in an earlier section. A Department of Education study found that while African-American students had the same rate and severity of misbehavior as other students, they made up 35% of school suspensions but only 15% of the student body (US Department of Education, 2018). In an experimental study, job resumes with traditionally white-sounding names (e.g., Emily and Greg) received 50% more callbacks than those with traditionally African-American-sounding names (e.g., Lakisha and Jamal) (Bertrand, M., Mullainathan, S., 2004). While African-American and white Americans use drugs at similar rates, African-Americans are 6 times more likely to be arrested for drug use (The Sentencing Project, 2018). A young black male in the US faces a risk of being shot by a police officer that is 2.5 times that of a young white male (Edwards, F., Lee, H., Esposito, M. 2019). Videos of police brutality against Black men around the country and of George Floyd locally have brought this issue to the public eye, and are calling for reform in this area.

Evidence indicates that racial differences in incarceration rates are the result of racial bias in the criminalization and investigation of certain behaviors, as well as discrimination in prosecution and sentencing (Heitzeg, N., 2015). As a result, nearly 10% of US-born African-American men enrolled in MHCP have been incarcerated in a Minnesota prison; this is double the rate of white men in these programs.¹⁵ Similarly, 2% of African-American women enrolled in MHCP have been in prison, compared to just over 1% of white women in these programs.¹⁶ As discussed above, incarceration is devastating to the health and wellbeing of the incarcerated individual, their family, and their community. The individual experiences higher rates of mental illness (Stokes, et al., 2015) and communicable diseases (Dolan, et al., 2016; Wilper, et al., 2009). The family loses the income and time of a parent during the incarceration period (Geller, A., Garfinkel, I., Western, B., 2011). The children of incarcerated adults face a higher risk of poor physical and mental health (Wildeman, C., 2012; Roettger, M., Boardman, J., 2012; Boch, S., Ford, J., 2015; Roettger, M., Swisher, R., Kuhl, D., Chavez, J., 2011). Finally, the community faces higher incidences of diseases in their community when members rejoin after incarcerated episodes.

In the health care arena, African-Americans often report mistrust of the medical care community stemming from historical transgressions such as the Tuskegee syphilis study (Divodio, et al., 2008). Eugenic programs during the same Jim Crow era, which coerced African American women to undergo sterilizations without their knowledge that they are irreversible, further engendered mistrust (Prather, C. et. al, 2018). Studies indicate that even today, African-Americans are less likely to receive necessary medical services like heart surgery (Peterson, et al., 2002), dialysis, and kidney transplants (Epstein et al., 2000) than are White patients. Many African-Americans feel that the medical community lacks the cultural competence to serve them (Murray-Garcia et al., 2000). Lack of trust in their providers leads to delays in seeking medical care and increased barriers to accomplishing medical care recommendations (Casagrande, et al., 2007; Dailey, A., Kasi, S., Holford, T., Jones, B., 2007; Facione, N., Facione, P., 2007; Ben, J., Cormack, D., Harris, R., Paradies, Y., 2017).

African Americans experience structural racism in multiple arenas of society: housing, criminal justice, and health care, all of which cause chronic stress. Thus, for families in deep poverty, these barriers put in place by US policy and institutions make escaping poverty and maintaining one's health nearly impossible.

Considerations for improving the health of American Indians and African Americans

The generations of broken commitments and U.S. policies steeped in structural racism described above have led to many American Indians and African Americans not trusting government programs or officials. One practical implication for DHS and similar programs is that these populations may require more time to get to know government workers, such as county financial workers, before they feel comfortable talking openly about their circumstances and their needs. This can be a significant problem as they won't get all the services they need if they're not open about them.

¹⁵ Calculations by MN DHS.

¹⁶ Calculations by MN DHS.

While providing additional income to families in deep poverty will likely improve their health, policies need to also take race and ethnicity into consideration. A Health Affairs blog by Minnesota Medicaid Medical Director Nathan Chomilo and his co-authors (Chomilo et. al., 2020) advocate for the use of tools such as the Seattle Race and Social Justice Initiative's Racial Equity Toolkit, or the Government Alliance on Race and Equity's Racial Equity Tool. These tools can help us think through and understand how structural racism may be embedded in their own policies and programs. Maybe even more importantly, it can help us think through how, by applying seemingly colorblind policies in our programs, we may be inadvertently exacerbating racial inequity, if White clients have greater access to resources than do people of color and American Indians. The effects of racism and discrimination need to be illuminated in every policy – from racial bias in the health care system, to housing restrictions imposed on families with formerly incarcerated individuals, to public investments in segregated communities. For American Indian and African American communities in particular, investments in neighborhoods and communities are needed as much as investments in individual families.

Workgroup members spoke with American Indian and African American providers and people living in deep poverty. However, we did not ask them what kinds of interventions would enable people in their cultural group to become healthier; we asked in general what people in deep poverty need. Because of this, and because of the lack of *culturally-specific* research on how to improve the health of people in poverty, it would be useful to talk with community leaders to learn their recommendations for improving the health of these two communities as well as learning how to address underlying structural racism.

The unreliability of low-wage work, high cost of housing, and high cost of child care help explain the need for income support programs for Minnesotans living in deep poverty

Subject Matter Experts: Deborah Schlick, Jeannette Raymond (MDH)¹⁷

Low wage work has unreliable schedules and few benefits

Minnesota boasts high median income, high educational levels, a strong economy, and low poverty rates as compared to other states. For Minnesotans who have middle- or higher-income jobs, employer-sponsored benefits offer salaries that cover basic needs and enable an accumulation of savings. Those jobs often provide a solid safety net that secures income in times of illness (sick leave), pregnancy (maternity leave), and in case of layoffs (employer-funded state Unemployment Insurance). In addition, middle-class jobs often offer reliable work schedules with year-round work that does not change with the season, and consistent daily schedules that start and end at the same time each day.

Low wage jobs, on the other hand, often do not offer a steady income, predictable or fulltime schedules, or financial benefits that kick in when shifts or hours are cut. Sick leave and maternity leave benefits are unavailable to most low-wage workers (US Bureau of Labor Statistics, 2016). Nor is the Unemployment Insurance program a backstop for most low wage jobs. In fact, low wage workers in the United States are two and half times more likely to be unemployed as higher wage workers, but only half as likely to collect Unemployment Insurance benefits when unemployed (Government Accountability Office, 2007).

One of the few options available to some low wage workers is public assistance programs. Low wage workers may rely on public assistance programs to cover basic needs when they have to stop work due to illness, caring for a newborn or other family members, or due to a temporary layoff when an employer does not need them right then, or needs them for fewer hours than usual.

The majority of working age adults enrolled in cash and food support or the child care assistance program have recently worked and their jobs are most likely to be or have been in four industries: hotel/restaurant, retail, temporary agencies or health care (Jefferys, 2004; DEED, 2010; DHS 2019). Those industries show a pattern of the most part-time jobs and the highest turnover of workers. Except for temp agencies, the workers from those industries are highly unlikely to receive unemployment insurance benefits. In contrast, most workers in the construction and manufacturing industries rely on employer-funded unemployment insurance – not public assistance programs - during spells of unemployment.

¹⁷ Deborah Schlick, Deborah Schlick, Manager in Strategic Projects Office, Economic Assistance and Employment Supports

Jeannette Raymond, Community Engagement Supervisor, Center for Public Health Practice, Minnesota Department of Health

The Minnesota workforce’s reliance on Unemployment Insurance benefits versus public assistance programs vary by occupation type and industry as well as by gender and race. The table below shows that 80 percent of unemployed workers who receive unemployment benefits are men, whereas 80 percent of MFIP recipients are women and 70 percent of SNAP recipients who have children are also women.

Figure 14: Demographic differences by income-supplementing program.

| | UNEMPLOYMENT INSURANCE¹⁸ | MFIP¹⁹ | SNAP²⁰ |
|--|--|--------------------------|--|
| GENDER OF ADULTS SERVED | Almost 80% are men | 80% are women | 70% of working age adults with children are women 56% of working age adults without children or disabilities are men |
| PROPORTION OF THE PEOPLE SERVED WHO ARE WHITE | 83% | 36% | 47% of adults with children 55% of working age adults without children |

The extensive literature review conducted for the purpose of this report and augmented by interviews with people living in deep poverty uncovered a two-tiered labor market where low-wage workers rely on public assistance programs to substitute for a lack of employee benefits otherwise available to middle-wage workers through their employers. Some low-wage workers access our public assistance programs not because our program is the right fit for them, but because their employers and the public sector do not offer an appropriate level of benefits to cover their basic needs when they cannot work full-time.

For example, we interviewed Christine at a homeless shelter. She had worked full-time in retail, earning about 150% FPL. Like many low wage workers, Christine did not have sick or maternity leave. When she had to stop working for a few months to have a baby and take care of him, she could not pay her rent, and she and all three children became homeless.

¹⁸ Unemployment Insurance Claimant Characteristics, MN Department of Employment and Economic Development, <https://apps.deed.state.mn.us/lmi/ui/Results.aspx?date=202005&mn=0>. (This is data is pre-COVID.)

¹⁹ [Minnesota Family Investment Program and Diversionary Work Program: Characteristics of Cases and People](#), December 2016, Minnesota Department of Human Services.

²⁰ [Characteristics of People and Cases on the Supplemental Nutrition Assistance Program](#), December 2018, Minnesota Department of Human Services.

Affordable housing is scarce for people in deep poverty

When asked how we could best improve the health of people living in deep poverty, the most common policy option given by health care and social service providers²¹ was additional support for safe and affordable housing. People living in deep poverty as well as health care and social service providers who serve them drew attention to the difficulty that these populations face in securing affordable, safe, and stable housing, and the implications of this for individual health and wellbeing. One physician described witnessing how the loss of housing has a compounding negative effect on the lives of many of her patients. At the same time, stakeholders drew attention to how stable housing can improve health outcomes. For instance, one nonprofit worker noted how better quality housing can improve asthma in children if the housing has lower levels of mold and dust.

Having stable housing is foundational for health and healing. It reduces stress and improves mental health and well-being, promotes growth and development among children, and helps adults maintain treatment for chronic disease. A stable home also increases opportunities for employment and improves educational outcomes, both of which are linked to better lifetime health. Children in stable homes are more likely to have access to nutritious food, get a good night's sleep, and maintain a healthy weight (Health Affairs, 2018; Sandel, et al., 2018; Thomson, et al, 2013).

On the flip side, substandard and poor quality housing can negatively impact health. Substandard housing conditions such as water leaks, poor ventilation, dirty carpets, and pest infestation also increase rates of asthma and hospitalization. Exposure to extreme high or low temperatures is particularly dangerous for the health of elders and those with compromised immune systems (Health Affairs, 2018; Rauh, V., Landrigan, P., Claudio, L., 2008; Jacobs, D., 2011).

Social connections, inclusion, and belonging links people together to create health and a resilient, thriving community. Stable housing fosters social cohesion which supports community empowerment and action to shape positive social and physical environments. Social cohesion also buffers acute and chronic stress, and improves both mental and physical health (Gordeev, et al., n.d.).

However, access to stable, safe and quality housing is limited for people in deep poverty. A 2019 State of the State's Housing report by the Minnesota Housing Partnership (2019) provides perspective on the challenges Minnesota faces in providing quality homes for all residents.

Because of the lack of affordable housing options across Minnesota, families are forced to make impossible decisions on a daily basis. Cost burden, a key metric in assessing housing affordability, occurs when a household spends more than 30 percent of its annual income on housing. ... More than 1 in 4 — or 572,133 — households in Minnesota are cost burdened.

²¹ These interviews are described in the section entitled 'Providers describe the link between poverty and health'.

And cost burden disparately impacts households of color: 40 percent experience cost burden compared to 23 percent of white households...

Minnesota has one of the largest renter populations in the Upper Midwest with 611,160 renter households, which has grown proportionally by 27 percent since 2000. Of these households, 44 percent experience housing cost burden and 22 percent experience severe housing cost burden — meaning they pay more than 50 percent of their income on rent. Of all the states in the Upper Midwest, Minnesota contains the highest percentage of cost-burdened renters, outpacing Wisconsin, Iowa and the Dakotas. While many housing trends vary by region, renter cost burden is an issue in every Minnesota County. (page 6)

Between 2000 and 2017, median rent in Minnesota increased 12 percent, while the median renter's income fell 5 percent (Minnesota Housing Partnership, 2019). The State of the State Housing Report also found:

- Only 2 of the 7 top in-demand jobs in Minnesota pays enough to afford a two-bedroom apartment.
- Although there are more than 179,000 extremely low income households in Minnesota, there are only about 68,000 units affordable to those households in the state.
- In 2008, 12 percent of people holding section 8 vouchers in the Twin Cities metro area were unable to find units where they could use their vouchers. In 2016 this figure jumped to 40 percent (Minnesota Housing, n.d.).

Income problems become most visible around the state as housing problems. And income crises become housing crises. This has an especially large impact on the growing number of people in deep poverty. The number of American households living on \$2 per day per person in deep poverty grew in the 15 years between 1996 and 2011 from 636,000 to 1.46 million, according to research by the University of Minnesota National Poverty Center.

Families living in deep poverty could not secure market rate housing in almost any housing market; their incomes are just too low. For a family of three in deep poverty in 2020, their total monthly income is \$905. They might be able to find a market-rate apartment for \$900 per month. For these individuals and families to secure stable housing there are basically two options. Either dramatically increase the availability of subsidized housing or find ways to supplement people's income so they can afford a market-rate apartment and still have money for other things they need. The remainder of this report is about this second option: programs that supplement people's incomes.

III. Financial benefits available to many Minnesotans living in deep poverty

This section describes programs which supplement people's income, which are currently available to different groups of Minnesotans living in deep poverty or poverty. There is evidence that all of them are associated with better health outcomes.

A striking theme of the programs in this chapter, when workgroup members reviewed them all together, is how resources are so much more available to people with a) a disability determination, or b) dependent children. People with neither a disability nor dependent children are categorically ineligible for some financial benefits (e.g., MFIP), and when they are eligible for a program, the benefit is very small (e.g., SNAP). Tax programs also provide increased benefits to people with dependent children, such as the federal Child Tax Credit which is not available for individuals without dependent children; and the state and federal Earned Income Credits which provide much smaller amounts for workers without dependent children. We review these programs below.

Tax benefits available to people living in poverty

Subject Matter Expert: Janell Bentz (MN Department of Revenue)²²

Several federal and state tax credits can increase the after-tax income of low-wage workers and their families. Properly structured, these tax credits can also serve to ensure that low-income families can access tax benefits similar to those available to middle and upper income households.

Two tax credits are specifically targeted to low-wage workers with children - the federal Earned Income Tax Credit (EITC) and the state's earned income tax credit called the Minnesota Working Family Credit (WFC). These are critical to the income of low-wage earners with children in Minnesota. Workers without children have a more limited ability to qualify for these credits and receive a substantially smaller benefit. The federal Child Tax Credit (CTC) is another federal tax credit for families with children who have employment income, but this program is not targeted to low-wage workers and in fact the benefit amounts are greater for higher income families than for lower income families.

Low-income Minnesotans may also qualify for a state property tax refund. These refunds help limit how large a share of household income is paid towards property taxes. Property tax refunds for renters are particularly focused on lower-income people.

Refundability is an essential feature of a tax credit by making the full value of the credit available to low-income families regardless of tax liability. When a tax credit is nonrefundable, like the Mortgage Interest Tax Credit, low-income families may not get the full benefit. For example, if a family owes \$600 in income taxes after taking into account other deductions, and they have a tax credit of more than what they owe (e.g., a Mortgage Interest Tax Credit of \$1,000), then the credit eliminates what they owe in income taxes, but does not result in a tax refund. In this case, the remaining \$400 in value of the tax credit is not received by the family. Without refundability, the full power of tax benefits – in this example, an incentive for homeownership – is not available to lower-income people.

The federal EITC and Minnesota's WFC are both fully refundable, which means that if the worker's credit is more than they owe in income taxes, then they receive the remaining amount in the form of a tax refund. In the above example, if they had owed \$600 in income taxes but have an EITC of \$1,000, they would receive a refund of \$400.

The refunded portion of tax credits like the EITC and WFC can offset some of the other taxes that low-wage workers pay, such as property taxes, sales taxes, Social Security, and Medicare taxes. As noted above, they may also benefit from tax provisions aimed at reducing the amount they pay in a particular tax, such as Minnesota's property tax refunds for homeowners and renters.

²²Janell Bentz, Senior Policy Advisor, Minnesota Department of Revenue

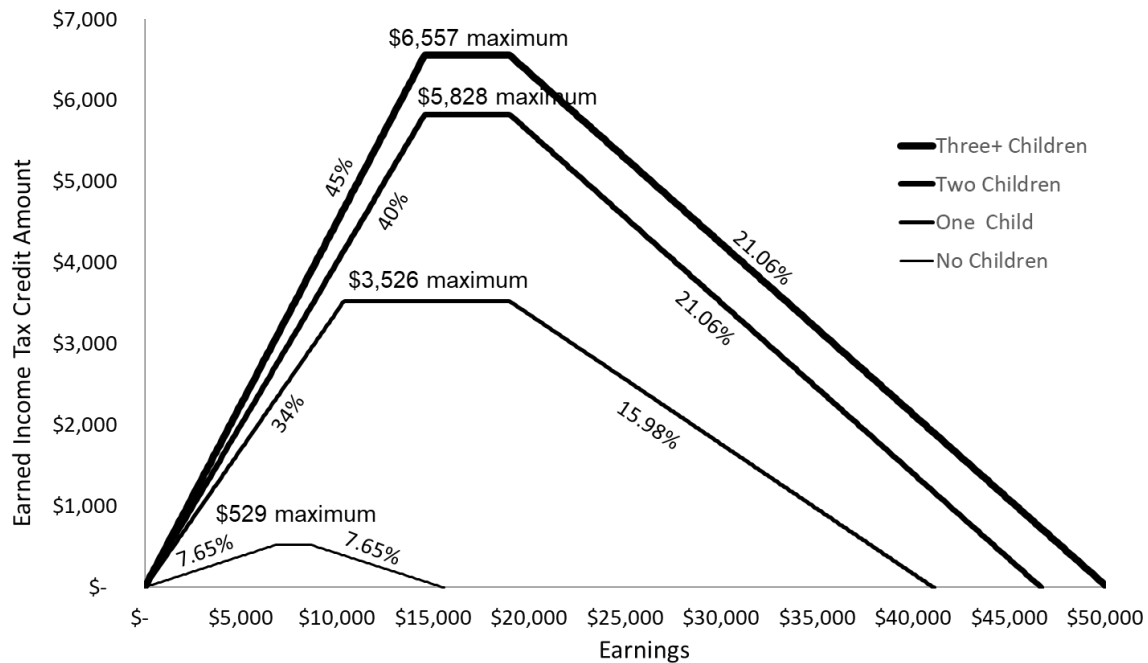
A national study finds that, as a percentage of their income, low-income workers pay higher state and local taxes than do other workers – what’s defined as a ‘regressive’ system (Center on budget and Policy Priorities, 2018). Lower income groups pay roughly 11% of their income in state and local taxes. A study by the Minnesota Department of Revenue finds that over time, Minnesota’s tax system has been becoming less regressive and closer to becoming a ‘proportional’ system in which people pay about the same proportion of their income in taxes, regardless of whether their income is among the lowest or the highest in the state (Minnesota Department of Revenue, 2019). Nevertheless, a proportional tax system imposes a much heavier burden on the lowest income households, as what they are paying for in state and local taxes is competing with paying for necessities, while it may be coming from discretionary spending for higher-income earners. For more information on the regressive tax system, see analysis by the Minnesota Department of Revenue and the Institute on Taxation and Economic Policy (ITEP, 2018). Because these tax credit programs have complicated structures, we provide details of each program in the following section.

How do these tax credits and refunds work?

The Federal Earned Income Tax Credit (EITC)

The federal EITC was introduced in 1975 and has been expanded several times in the last 4 decades such that the structure and benefit rates of the federal program for 2019 are as shown in Figure 13. The average EITC claimed by Minnesotans in tax year 2016 was \$2,167. About 13% of this credit was used to offset what workers would have owed in federal income taxes. The remaining 87% was given out in refunds (MN House Research 2019). The percentage given out in refunds emphasizes the critical nature of this tax credit being refundable; if it were not refundable, workers would not receive much benefit because they do not owe very much in federal income taxes and it would be less effective in offsetting other taxes, such as payroll taxes, that low-wage workers pay.

Figure 15: Structure of the Federal Earned Income Tax Credit in 2019



Note: Amounts are for single or head-of-household tax filers; for married tax filers, the credit begins to phase out at a higher income than shown.

Also, families often receive a check that is pretty substantial compared with their employment earnings. For example, look at the horizontal axis of Figure 15, and identify where the family would be if they had \$20,500 per year (full-time work at minimum wage of \$9.80). Then, move up to the second line for a family with one child, and you'll see that they receive the maximum credit of \$3,526. Some of this will offset their income tax they would owe. However, if we assume that they receive the average of 87% in a refund, they would receive a check from the Internal Revenue Service (IRS) for \$3,067 at the end of the tax season. That is a pretty big refund for anyone, but it is especially impactful for this hypothetical family whose average monthly pre-tax employment income would be \$1,708. As we'll hear later in this chapter from the parents who were interviewed, this can have a very positive impact on their financial and overall well-being.

For households without children, the maximum benefit is low. Figure 15 illustrates the much greater benefit for workers with three, two, or one child (the top three lines) than for those without children (the bottom line).

As shown in this figure, after the credit reaches its maximum, it stays at that level until it begins to phase out, and begins to decline with each additional dollar of income. The purpose of the phase out is to avoid creating a strong work disincentive once their income is high enough.

Eligibility for the EITC is restricted to households where everyone (filer, spouse and children) on the tax return has a Social Security Number, total earnings are at least \$1, and investment income is less than \$3,600. For households without qualifying children, everyone on the tax return must be at least 25 but under age 65 and not

claimed as a dependent on anyone else's return. The qualifying children counted in the calculation must be under age 19 if not in school, under age 24 if a full-time student, or any age if totally and permanently disabled.

In tax year 2016, 343,550 Minnesota returns (12.6 percent of all federal returns filed by Minnesotans) claimed the federal EITC, totaling \$744 million (MN House Research 2019).

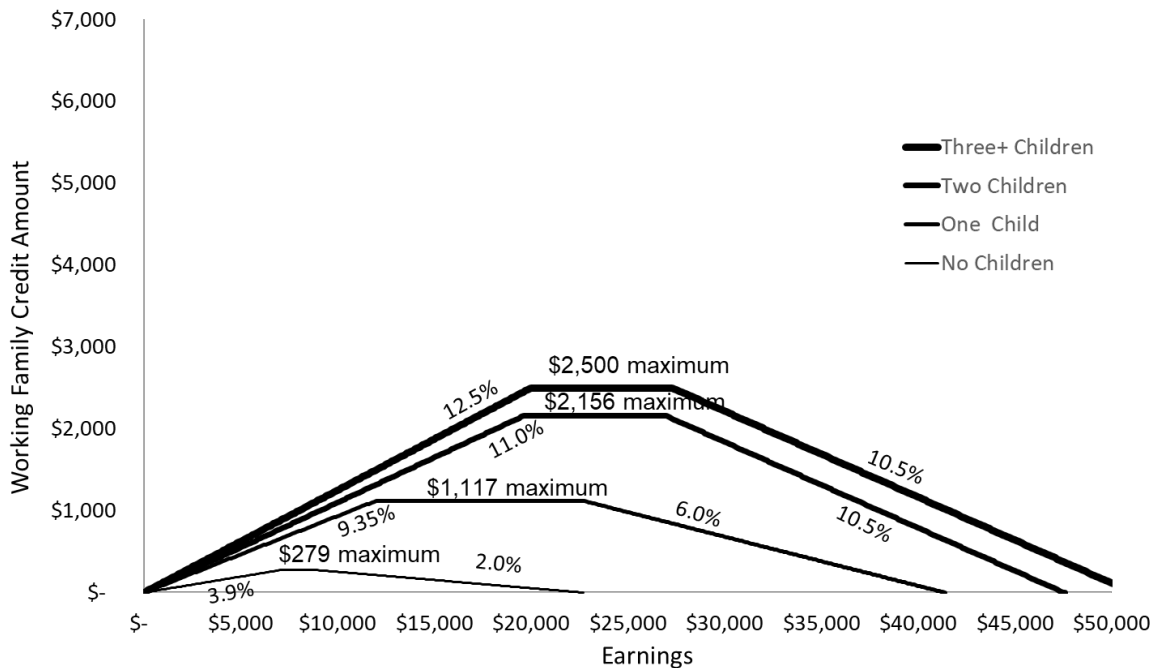
Minnesota's Working Family Credit (WFC)

In tax year 2016, 324,390 Minnesotan tax-filers claimed the WFC (11.3 percent of all state returns) claiming a total of \$249 million in credits, of which \$205 million (or 82.2 percent of the total) was paid as a refund; the average WFC per filer was \$768 (MN House Research 2019).

Twenty-nine states plus the District of Columbia and Puerto Rico currently have a state-specific earned income tax credit. Minnesota's Working Family Credit is one of the stronger state EITCs of the 29 (Davis, Davis, Gardner, Mitchell, and Wiehe, 2014). The WFC was established in 1991 and has been expanded several times in the intervening years. Most recently in 2019, the amount of the WFC was increased and eligibility was expanded. For households without children, the credit was increased from a maximum credit of \$136 to \$279, and from a maximum eligible earnings of \$15,300 to \$22,700 for a single worker without children. A higher maximum credit and higher maximum earnings for families with 3 or more children was added to match the federal EITC tier structure. The structure of benefits in 2019 is shown by the figure below. The credit percentages and credit maximums are lower than for the federal EITC, but the structure is generally the same.

Eligibility for the WFC is generally restricted to households that are eligible for the federal EITC; however, starting in tax year 2019, Minnesotans age 21-24 without children will also be eligible for the WFC despite not being eligible for the federal EITC.

Figure 16: Structure of Minnesota's Working Family Credit in 2019

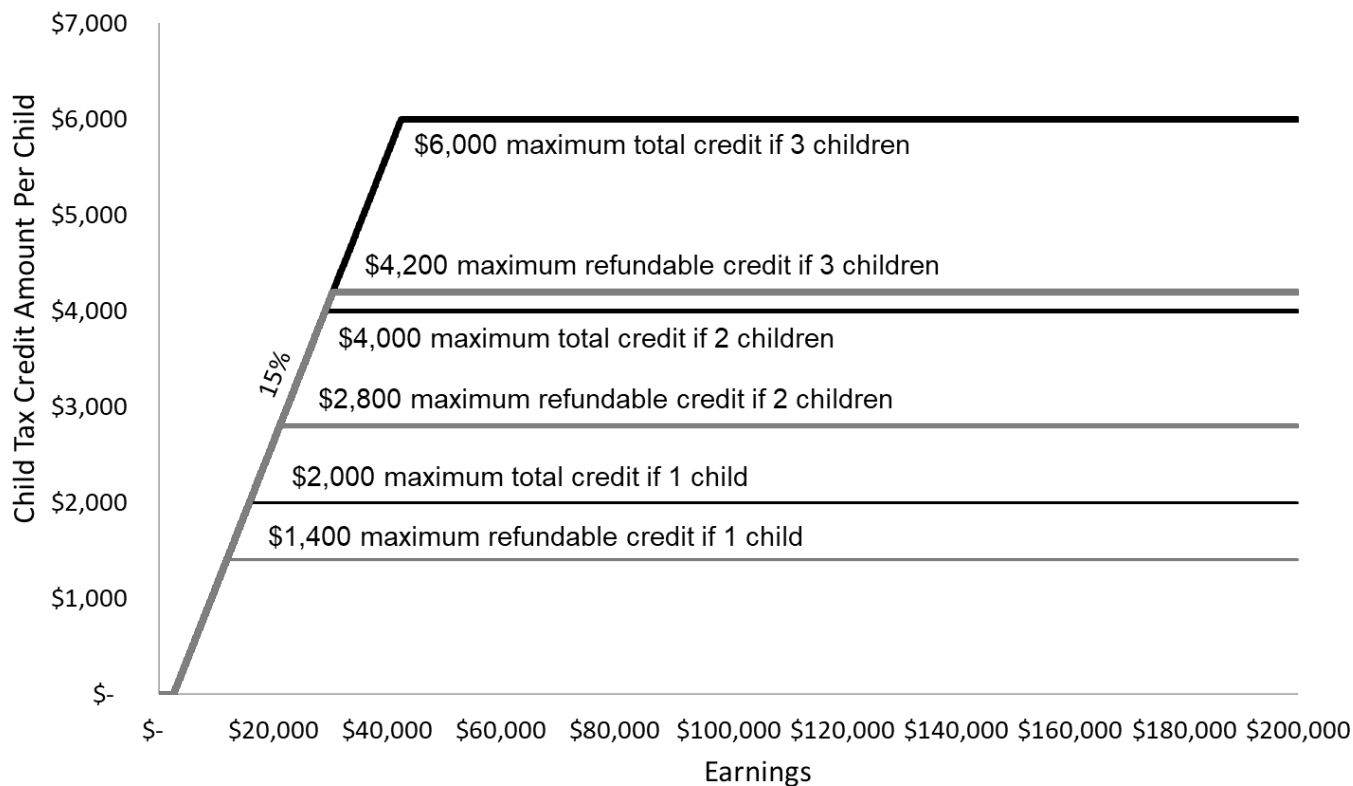


Note: Amounts are for single or head-of-household tax filers; for married tax filers, the credit begins to phase out at a higher income than shown.

Federal Child Tax Credit

The federal Child Tax Credit (CTC) was enacted in 1997. Eligibility is based on earned income, and does not count other sources of income (e.g., investment income). Families with children under the age of 17 are eligible for a tax credit of 15 percent of their earnings above \$2,500 up to maximum credit of \$2,000 per child. Unlike the EITC and the WFC, the CTC is not fully refundable; if the value of the CTC exceeds the amount of federal income tax owed by the family, only \$1,400 (of the \$2,000 maximum credit) per child can be received as a tax refund. Also unlike the EITC, the CTC was originally designed as tax relief for middle income households (Crandall-Hollick, 2016). The structure of the CTC in 2019 is shown by the figure below. As can be seen by comparing these figures to those for the EITC and the WFC, the more a family has in earned income, the greater their CTC is, up until the maximum is reached, but does not begin to phase out until their income is \$400,000 for married filers or \$200,000 for other filers. And higher income households are more likely to receive the maximum credit of \$2,000 per child because they are more likely to have federal income tax liability to offset.

Figure 17: Structure of the Federal Child Tax Credit for non-married filers in 2019



Eligibility criteria for the CTC includes that the child must be less than age 17 and have a Social Security Number. The tax filer and spouse can have Social Security Number or Individual Tax Identification Number (ITIN), which some documented workers have.

Currently six states also have a state CTC (California, Colorado, Idaho, New York, North Carolina and Oklahoma), but Minnesota does not.

In tax year 2015 (the latest year for which state data was available), 412,780 Minnesota returns (15.1 percent of all federal returns filed by Minnesotans) claimed the federal CTC totaling \$867 million, of which \$316 million was paid as a refund (MN House Research 2018). The average amount of the nonrefundable portion claimed was \$1,336 and the average amount of the refundable portion was \$1,375 (MN House Research 2018). The nonrefundable tax credit doubled in size starting in tax year 2018, so the amounts received by Minnesota families are likely much larger now.

Property tax refunds for homeowners and renters

Minnesota has two tax refunds targeted to Minnesotans whose property taxes exceed a certain share of their incomes. Such tax refunds are often called “circuit breakers”. Eighteen states and Washington DC have circuit breakers targeted to lower-income families; an additional 13 states have other property tax credits based on income (ITEP, 2019). Minnesota’s circuit breakers are known as the Renter’s Property Tax Refund Program (or

Renters' Credit) and the Homestead Credit Refund Program (sometimes referred to by its prior name, the Property Tax Refund or PTR.)

To qualify for the Renter's Property Tax Refund, a household must have income below a certain limit (\$61,320 for refunds claimed in 2019), and their property taxes must exceed a certain share of their income. Renters do not pay property taxes directly, but instead pay through their rents. For purposes of calculating the property tax refund, 17 percent of rent paid is considered to represent the renter's property taxes. Nearly 325,000 Minnesota households received renter property tax refunds for 2016. A total of \$212 million in refunds were received statewide, with an average refund of \$653 (Minnesota House Research, 2019). The refund is received as a one-time payment that renters or homeowners apply for through a separate application process – it is not part of the process of filing income taxes.

The formula for calculating the credit has a number of parameters, and it is structured to provide larger refunds to those with lower incomes, and to those whose property taxes are especially high in relation to their incomes. Eligibility does not require earnings from work. In 2015, 28 percent of households receiving the Renters' Credit included at least one family member who was over 65 or living with a significant disability (Minnesota Budget Project, 2018)

Property tax refunds for homeowners are structured similarly to those for renters. One substantial difference is that it is less income-targeted; the maximum income a home-owning household could have and still qualify for a refund is \$113,150 – nearly twice the income limit for renters. For 2016, more than 471,000 Minnesota households received the homeowner property tax refund, for a total of \$422 million in refunds statewide. The average refund was \$894 (Minnesota House of Research, 2019).

What is the evidence that tax benefits can improve the health of people living in poverty?

Academic research provides support for the argument that changes to tax credit programs can affect health. The following is a synopsis of Dr. Fertig's literature review findings.

Several recent studies examined the health effects of expansions of the federal Earned Income Tax Credit (EITC). The expansions were found to improve the mental and physical health (depression symptoms and inflammation biomarkers) of mothers most likely to experience an increase in income from the expansion (married mothers with a high school degree or less with 2+ children) compared to women less likely to benefit (Boyd-Swan, Herbst, Ifcher, and Zarghamee, 2016; Evans and Garthwaite, 2014). One study found that for single, low-education mothers, an EITC expansion-induced increase of \$1000 in after-tax income is associated with a 1.6 to 2.9 percent reduction in the low birth weight rate (Hoynes, Miller, and Simon, 2015). As increases in income could be related to increases in childhood obesity, one study examined whether EITC expansions led to increases in childhood obesity and finds no evidence connecting the two (Chia, 2015).

Several studies have found that states like Minnesota with state tax credit programs based on the federal EITC (or more generous state tax credit programs) have better average birth weights and gestational ages (Markowitz, Komro, Livingston, Lenhart, and Wagenaar, 2017; Strully, Rehkopf, and Xuan, 2011), have better

parent-reported health status of children age 6-14 (Baughman and Duchovny, 2016), and have lower rates of child maltreatment (Berger, Font, Slack, and Waldfogel, 2017; Klevens et al., 2017). One study used the fact that EITC income receipt occurs disproportionately during February-April to argue that EITC income receipt causes low-income individuals to experience improvements in diet (for the most part) and food security during these high income receipt months compared to other months (Rehkopf, Strully, and Dow, 2014). Finally, one cost-effectiveness study estimated that state earned income tax credit programs increased quality-adjusted life years (QALY) at a cost of \$7,786 for the average recipient of state EITC (Muennig, Mohit, Wu, Jia, and Rosen, 2016); this cost-effectiveness ratio is lower than several health interventions that are considered standard practice because they are highly cost effective (e.g., cervical cancer and hypertension screenings) (Maciosek et al., 2006).

There is less research on the effects of the federal Child Tax Credit (CTC) than the EITC because the CTC only began in 1997 and was initially nonrefundable and small. However, because the CTC now functions very similarly to the EITC in that it is only available to families with earned income and it phases out slowly as earnings increase, the CTC is expected to have the same health effects as the EITC (Marr, Huang, Sherman, and DeBot, 2015).

Tax refunds play a key role in the lives of interviewed parents

Of the 30 people interviewed, 18 said that they had filed or intended to file income taxes in 2018 (all interviews were conducted before the filing deadline). Even if they had not filed for 2018, almost everyone interviewed had an idea of what they would spend a tax refund on. Most people did not tell us how much their refund tends to be, as this was not a question we usually asked. However, when people talked about large purchases, we would sometimes ask how much the refund was. People sometimes described the previous year, and other times described more memorable past years when they had received a large tax refund. This may have led to people talking about the highest tax refund they had received in recent years. Of the ten people who happened to talk about the amount, they indicated that they received \$500 (1 person), \$1,000 (2 people), \$5,000 (1 person), \$6,000 (1 person), \$7,000 (3 people), and \$10,000 (1 person), with the larger amounts being reported by families with at least three children. The most common categories for spending a tax return were: 1) catching up on bills, 2) acquiring or maintaining housing, and 3) making larger purchases, mostly durable goods such as vehicles or furniture. Their answers are very similar to those from a larger sample for a study done in 2012 about how low income families used earned income tax credits (Mendenhall, et al., 2012). Because of the timing of interviews, almost no one had yet received a refund for 2018.

Parents used tax refunds predominantly to provide for their family's basic needs

Interviewed parents who receive a tax refund spend this primarily on meeting their family's basic needs: rent, utilities, and things for the children, and other necessities. Some report spending it on 'extras', though this was much less common. Parents who spent it on extras described very small extra purchases, or a modest trip out of town.

Catching up on overdue bills and purchasing necessities

Most people who were interviewed discussed using their tax refunds to pay overdue bills. Though many parents recited a list of several items that they would like to spend their refund on, paying bills was usually a priority. “Catching up” was a term that several respondents used to refer to paying bills that were past due, often because their monthly income was not sufficient to cover all of their expenses. Paying monthly rent was the most frequently mentioned bill, though some respondents also mentioned paying monthly utilities such as heat or electricity, Wi-Fi, cell phone bills, and monthly car payments.

Nine respondents talked about paying for housing when they talked about spending their tax refunds. People who used their refund for housing caught up on mortgage or rent payments, paid security deposits for a new rental (this was mentioned by more than one person with unstable housing), or prepaid rent. As with bills, respondents talked about “catching up” with rent if they had delayed payments or could not pay full rent amounts in previous months.

For seven people, a tax refund was helpful to purchase necessities for the family that would meet their ongoing needs, like groceries, clothing and diapers. Several respondents said that they bought “things their kids needed” with a tax refund, but didn’t always specify what was purchased.

In addition to “catching up” on bills, seven respondents mentioned paying off or paying down debt with a tax refund. In a few cases, refunds were garnished because of outstanding school loans payments. Generally, people who spoke about paying off debts were not asked about what specific expenses contributed to their indebtedness. However, a few people mentioned car loans and student loans as a form of debt they were struggling with.

Like other parents, Jane would like to prioritize buying furniture that helps keep her child safe. She has employment and cash assistance income, as well as food support, and has income at 25% FPL for herself and her toddler. She also talks about items needed to keep her child safe, but said that she may need to delay as she first needs diapers and to make the car payment.

*Anything he needs for safety, like the car seat, the bed railing, I would prefer to get it as soon as I can and as soon as I can afford it... [It seems like the MFIP grant isn't enough maybe?]
Yeah, I pretty much would use all of it in one go. His car seat, the one I looked at, was between 100 and 200 dollars.*

Alice describes her reaction when she received a refund greater than \$1,000.

I literally cried. Because I was struggling at the time, I was about to lose my apartment, I was barely able to keep a phone, and to keep my bills up and stuff. Just struggling to make ends meet. Because the job before I had that, I was only making like \$170 or something every week with no help... But with employment, [the refund] increases the money that you get. 'It pays to work,' pretty much. I know I wouldn't have been able to, without the tax money, I wouldn't have been able to take care of the things that I needed to. [Does it impact your health?] It takes a lot of stress off me... There's certain things, like stress can trigger my disorder. And my

anxiety and my depression and all that. So with being financially stable and being okay, it takes a lot of stress off mentally and emotionally... And it makes me a better parent, because I'm a lot calmer at home and I'm not so stressed out with my kids. When I'm being a good mom, and I'm taking care of myself, emotionally it puts me in a good place.

Making large purchases or repairs

Many parents talked about how tax refunds are great because they can make large purchases or repairs with the lump sum tax refund that they would not be able to afford at any other time of the year.

Eleven people said they used a past tax refund to fix a car, make a car payment, or buy a used car. Particularly for families who used cars as a main mode of transportation, they emphasized that having a vehicle that was reliably working was important to get to and from work. Some parents told us that they bought a 'new' car with a tax refund but when asked the year of the car, it was always a used vehicle; 2012 was the newest vehicle mentioned. Interviews emphasize the importance of having a vehicle, as well as the many pitfalls of purchasing old vehicles.

Eight people spent their tax refunds on other large purchases like furniture and household repairs. Repairing a furnace and air conditioner, replacing a couch, television or appliance were mentioned as purchases some people had made or would like to make. Buying car seats for toddlers and beds for young children were mentioned several times, reflecting the young age of respondents' children in this sample.

I made a big purchase every year. I bought a vehicle one year, I was able to put money aside to make it through the rest of the month when I was short, I got caught up on my mortgage when I had gotten my tax return, I got furniture. The bigger purchases that are harder to accommodate when you're a single income home. (Katie)

We ended up getting a car [last year], a '97 Nissan Quest. [Is it still working?] No, I just got that car out there [pointing to the parking lot]. It's a 2005. We bought it with a loan. (Mike)

This year I got a new car. [My previous car] was a '98, now it's a '05. It starts in the cold weather, the [previous] car's battery and alternator would die. If my husband had to take the bus to get to work, it would require four different buses. (Theresa)

Ella spent \$2,900 of her tax refund on a used car, and after two missed payments it was repossessed. To get it back they said she would have to pay the entire loan amount. She didn't have the money so she now is still making \$250 monthly payments on a car she no longer has.

I don't have a vehicle now, so it was hard to get to work. I was 7 or 8 months pregnant walking to work, it was rough. [How far away was work?] Like twenty minutes. Most of the time I could get a ride, but when I couldn't...

Investing in the future

Some respondents mentioned prepayment of expenses, such as bills or rent, as a way to be proactive and look to the future to get ahead of expected expenses. Parents also discussed saving for their children's future using

leftover money from the refund, since debt and monthly expenses prevented them from doing so during the rest of the year. As with the relief of meeting past or current financial obligations, prepaying future obligations helps families reallocate resources in later months and feel less worried about money.

Currently in school full-time while her husband is working, Bonnie uses the money from her tax refund to help pay bills so she can continue to go to school, which she believes will lead to higher income for the family.

I'm using it to pay my bills so I don't have to work right now. I don't absolutely have to. I'm still looking [for a job], and if it worked with my hours, I would take it. But I don't have to.

Jane and her son live with her family and she receives the MFIP cash grant in addition to her employment income, which brings her income to 25% FPL. She thinks of the tax refund as her son's money.

My goal is that every year he [my son] gets money back, I want to put a thousand away if I can, to save for him. So when he goes to college or wants to move out, that way he has a good head start on things.

Jane does not say that she has succeeded in setting aside any funds for her son's future, and we didn't ask whether she has.

Diane works full-time and cares for her two children. She points out that being proactive and 'getting ahead' by saving or prepaying bills only works when there are not emergencies or unforeseen expenses.

You get expenses that come out of nowhere, like your car breaks down. Little stuff. Your kid gets sick, and you have to be off work for a few days. You have to rob Peter to pay Paul.

Tax refunds can provide temporary comfort and relief

Many parents mentioned experiencing a level of comfort or relief around the time period of receiving a large tax refund. Some parents reported feeling less stressed or worried after receiving a refund, because there was at least a temporary relief from living paycheck to paycheck, or they could meet their financial obligations. With the money from a tax refund, a few parents talked about spending leftover money on their children or on themselves, for things beyond necessities.

Alice lives with her two children, and her part-time employment along with MFIP bring her income to 75% FPL, which is made manageable by the subsidized housing she receives at about \$100 per month. She explains what she might spend her return on, after paying back rent and overdue cell phone bills:

If I needed clothes or whatever, get a haircut. Not be wealthy but just live comfortable a little bit. And not stress about getting a haircut, and how am I going to have money for other things...I'm not sure what I want to do with my tax money yet, but I know I want to take a little vacation with my family. If it works out in the end, and I get everything taken care of that I need to here.

Andrea works full-time supporting her two children and receives a refund of about \$6,000 every year. She uses this to stock up on necessities and tries to prepay rent through August.

[How does it feel to pay this in advance?] [Andrea laughs.] It's the best thing ever... I love it! So then I can try to save for whatever kinds of emergencies or whatever else I need.... So that way, I'm not worried, I'm not stressed. And like, that helps a lot. I'm paid up, so I don't have to be frustrated with, the kids. I've been doing it the past couple of years.

John, who uses a food shelf with his daughters once a month, said that he doesn't usually receive a lot for a refund because his construction job income varies greatly throughout the year.

I pay for something fun for the girls; maybe bring them to an amusement park, pick up stuff for camping, fishing...it helps me feel better. If my girls are happy, I'm happy.

Andrea

Family: Mother, teenage daughter and son

Rent: \$1,000/month

Employment Income: \$1,690/month, part time (100% FPL)

EITC: She usually receives around \$6,000, which she uses to pre pay her rent and buy school clothes for her children.

Some parents would prefer monthly assistance payments over annual refunds

We asked people which they preferred: monthly cash assistance or annual tax refunds. Most thought that both were necessary. However, of those who were willing to express a preference, 12 people favored the monthly cash assistance due to its predictability and help with monthly bills; five favored the annual lump sum tax refunds as it allows them to make large expenditures they cannot otherwise make.

Monthly cash assistance provides a reliable regular income

Twelve people thought cash assistance was better due to the more reliable, predictable monthly payments, which they can use to pay their monthly bills. These were primarily people who are currently or who have been on MFIP, they are predominantly single parents, and their income is lower than average in our sample. Several described how they struggle with wisely spending a large lump sum tax refund when they usually live paycheck to paycheck. Some said they had made poor decisions in what they spent the tax refund on (though their descriptions often seemed to make sense given the family's needs), and others didn't think it was possible to budget the lump sum over an entire year. Of course, this preference for monthly MFIP payments might not be present among a representative sample of parents living in deep poverty; our sample's high percentage of MFIP recipients may have had a preference for monthly payments.

Gina and her three children (one more lives with her mom) live on \$750 per month which almost pays for her subsidized housing, she receives SNAP for food, and she has a close family member who helps out with everything else. When asked which type of program she prefers, she says:

In the long run, MFIP and SNAP are more beneficial. In the moment of time, tax returns are nice because it's a lump sum of money. [Why is MFIP and SNAP better in the long run?] Because that money is there every month. It runs out eventually, but not as fast as a tax

return if you have a lot of stuff to pay off. It spreads more. ...You can splurge with a tax return. I do, anyway. [Are you a person where it's helpful to not be able to splurge?] Yes.

Karen and her boyfriend take care of their eight children, and they live on her employment income which brings them to 50% FPL.

Monthly is better. Annually, I don't think you'll be able to budget it out as [well], as to where you'd need it every month, for rent, or food or, everything you might need. So, the monthly helps with immediate needs, 'cause if you got it annually, how would you figure out how to budget every month?

Ella was interested in receiving the tax refund spread out over the course of the year. In fact, when the interviewer asked what she would do if the government were able to give her the option of either a lump sum payment or the same payment distributed across 12 months, she said that would be easier, and she thinks she would take the payment over 12 months.

EITC tax refunds provide a lump sum that allow people living paycheck to paycheck to make big purchases

Five people preferred the annual lump sum of a tax refund. They highlighted that this allows one to pay for things that aren't possible to pay for when one has a very limited monthly budget. One person said that the tax refunds help her to plan ahead, even if she doesn't know exactly how much she'll get, she is able to plan how she'll pay her bills.

Katie lives on MFIP and SNAP and is not employed right now as she is addressing issues that arose due to domestic violence (e.g., mental health concerns for herself and her children). She says:

The one lump sum always helped me reached the goal of things I couldn't afford throughout the month, 'cause something always comes up. Trying to save money is really hard on such a small income.

Most of the parents who preferred a lump sum were married, have higher income than most in our sample, and have never been on MFIP.

Parents we interviewed generally said that both the monthly assistance and the annual tax credits are necessary. However, for those who had a preference for one over the other, they seem to prefer the program that their family is eligible for. Nevertheless, some parents struggle with budgeting a lump sum that is bigger than their usual income. They may benefit if there was a way for workers to choose whether they receive the refund as a lump sum or as a monthly payment over the course of the next twelve months.

Many Minnesotans eligible for earned income tax credit do not claim it

In 2018, approximately 316,000 tax returns from Minnesota claimed the federal EITC (IRS, 2019). However, the IRS estimates that only about 79% of eligible Minnesotans file for the EITC (IRS, 2019). This might be at least partly due to the complexity of compiling needed documents and filing a tax return. Interviewed parents who filed their taxes said they used volunteer tax preparation services, a private tax preparation company, or they

electronically filed on their own. Although several people said it generally worked well, three of the people who used a private tax preparation company said that it was expensive to file. A few people expressed that they wished it were easier and less complicated to file by themselves.

EITC benefits are only available to people with employment income and a Social Security Number

Like all other income benefits discussed in this report, the federal EITC and state EITC-like tax credits are not available to everyone living in poverty. Only people with employment income are eligible. This is a significant limitation given how beneficial people in poverty feel tax refunds are in helping them 'catch up' on past-due bills and make repairs and purchases that they would otherwise be unable to do. We interviewed some people who are living on MFIP and SNAP with no employment income, who were working to address issues such as mental health or domestic violence, or who were working on getting disability benefits. They sometimes described needing a vehicle, or worrying about how to get everything children need, and they have no access to the EITC refund that could ease their worry, or help them with transportation that would make getting a job easier. This benefit works by requiring that people be employed first, and then the following year, they will be eligible for the credits.

In addition, in order to be eligible for the EITC and similar state tax credits, everyone on the tax return must have a Social Security Number (SSN). Many immigrant families are therefore ineligible for the federal EITC or the Minnesota Working Family Credit. However, if their children were born in the U.S. and have SSNs, they can claim the Child Tax Credit on those children. The latter is a much smaller credit than the EITC.

Forty percent of the families in poverty we interviewed (12 of the 30) said they will not file taxes for 2018, and thus will not have access to any of these tax credits. Of these, five people said that they had never filed taxes, or had not filed taxes in many years. Not having a SSN, not having earned income due to having a disability, and having another person claim them as a dependent were all stated as reasons for not filing. For the seven people who did not intend to file in 2018 but who had filed recently, most did not file because they did not work during the previous year and did not have any earned income. Five of the seven respondents who said they would not file in 2018 but had done so in the recent past had children under two years old, or were pregnant. Some had recently experienced domestic violence or said they had diagnosed or undiagnosed mental health disorders during the time they were not employed.

Among people who have immigrated, five of the six people that we talked to regularly file their taxes. One of the six arrived here only two years ago and does not file as she says they are afraid to. Of the five parents who do file, four appear to receive the Child Tax Credit, and one appears to receive no tax credits. We failed to ask them about the size of their refunds, but they are presumably much smaller than those of people of the same family size and income who can claim the EITC. Nevertheless, their descriptions on what they spend their refund on are very similar to what other parents said: they spend it on rent, transportation, meeting children's needs, building up savings, and paying debt.

What are additional tax proposals that could help families in deep poverty?

Minnesota's Working Family Credit is considered strong overall when compared to other states (Davis et al., 2014). Some states have enacted or considered additional ways to provide tax benefits for families in deep poverty. First, we discuss tax credits that could help families with children, and then we turn to individuals without children. Finally, we discuss ways in which we can help all Minnesota families' access tax credits they are eligible for.

Families with children

A state refundable child tax credit

As noted above, while the federal Child Tax Credit provides an important tax benefit for many families with children, it does not provide a full benefit for the lowest-income families. States could reduce child poverty through child tax credits that build on the federal credit's strengths and make up for its weaknesses (ITEP, 2019).

Six states have some kind of state child tax credit: California, Colorado, Idaho, New York, North Carolina and Oklahoma. Enacting a state CTC can ensure that lower-income families, including families in deep poverty with little or no income, receive a similar combined state and federal child tax credit as higher-income families. Consistent with the goal of ensuring more equity, five of the six states with their own CTCs either restrict the credit to a lower income than the federal CTC or reduce the credit as income rises. The credit amounts in the six states range from about \$100 to almost \$700 per child (TCWF, 2019).

Individuals without dependent children

A higher state Earned Income Tax Credit for individuals without children

The state EITC is one of the very few targeted policy levers for addressing poverty among income of very low-wage workers without dependent children who do not have a disability determination. Low-wage workers without children are the lone group that federal income and payroll taxes push deeper into poverty, and many of these individuals are non-custodial parents or future parents (Williams, Waxman, 2019). Because of this, Washington DC expanded its "state" EITC to fully match the federal credit for workers without children in 2014. In Minnesota, the WFC for families with children ranges between 9 and 11 percent of earnings and the WFC for workers without dependents is 3.9 percent of earned income (with a \$279 maximum credit). A single adult without children in deep poverty, earning 50% of the federal poverty level or \$6000/year, would receive about \$700 through the federal EITC and WFC, which raises their income to 55% of the FPL. In contrast, a single adult with one child in deep poverty, earning 50% of the FPL or \$8200/year, would receive about \$4400 through the federal EITC, the WFC, and the CTC, raising their income to 77% of FPL. Increasing the WFC for adults without children could pull more individuals out of deep poverty, and a pilot study in New York City has shown that increasing the credit for this group increases their employment rates and child support payments from non-custodial parents (Miller, et al., 2018).

Allowing workers age 18-20 without children to receive the Working Family Credit

There are many independent, working, young adults between the ages of 18 and 20 in poverty. In 2018, California expanded its EITC to all workers 18 and over, Maryland eliminated its lower age limit, and several other states are currently considering similar expansions (Williams, Waxman, 2019). Young adults who could be claimed as a dependent on someone else's tax return would still not be eligible, thereby preventing young adults who are supported by their parents from receiving the credit.

Several health care or social service providers interviewed for this report singled out this policy option as particularly important. A physician at a community health clinic described 18-20 as a vulnerable age where young people are beginning to make their own choices and can potentially fall through the cracks. She argued that an intervention targeted at this age group might help young people stabilize their trajectories. Another nurse at a public health department thought this policy could be particularly helpful for the first-generation college students in her community. A supervisor in a county cash assistance program stated that such a policy could provide assistance to young people who are not supported by their parents.

Renters and Homeowners

Maintain and strengthen state property tax refunds, particularly for lower-income renters

As noted above, property tax refunds are an important policy for limiting how much of a household's income can go toward paying property taxes. This leaves more after-tax income available for other basic necessities.

Minnesota's property tax refunds are effective in reaching lower-income households because they are available to renters as well as homeowners and are not limited to only some age groups or family types (ITEP, 2018).

A robust property tax refund for renters also encourages racial equity. Disparities in rates of homeownership exist between people of color and whites of similar incomes, reflecting current barriers to wealth building and a history of policies that excluded African Americans and other people of color and American Indians from homeownership (Voices for Racial Justice, 2019).

How can we facilitate access to tax credits for families in deep poverty

Each year 21% of Minnesota workers do not claim the EITC²³ for which they were eligible. Research indicates that a major barrier to claiming the EITC is the complexity of its rules and of filing taxes generally (Goldin, forthcoming). The Volunteer Income Tax Assistance (VITA) program, administered by the Internal Revenue Service (IRS) and operated by nonprofit organizations (e.g., Prepare and Prosper, University of Minnesota Extension Services), provides free tax preparation services to qualifying taxpayers (below an income threshold, \$55,000 in 2019) (IRS, 2020). Minnesota's Department of Revenue also administers grants and tax training to support VITA sites throughout the state. The IRS and tax software companies also offer tax preparation software

²³ IRS-ACS Match - Center for Administrative Records Research and Applications, U.S. Census Bureau in collaboration with IRS

that is free for taxpayers to use (called Free File) if they have an income below a specified threshold (\$66,000 in 2019), but use of the program is very low (Goldin, 2017).

An interviewed leader at a financial support program highlighted the fact that demand for assistance with tax preparation help exceeds supply throughout the state of Minnesota. Consistent with this, a supervisor at a cash assistance program drew attention to the limited tax preparation help available in her largely rural community. This feedback suggests a need for an expansion of tax preparation assistance programs. DHS could also collaborate with the Minnesota Department of Revenue to assess and remove barriers to filing taxes and accessing tax credits for participants of DHS programs, many of whom are eligible for these credits.

Cash assistance programs for poor families with children: MFIP and DWP

Subject Matter Experts: Pamela McCauley, Deborah Schlick²⁴

Minnesota provides cash assistance to families in deep poverty through the Minnesota Family Investment Program (MFIP), funded by state dollars and the federal Temporary Assistance to Needy Families (TANF) block grant. Families can receive benefits from MFIP, for up to five years over the parent's lifetime. Every month, about 30,000 Minnesota families receive cash assistance through MFIP. To be eligible, the family must have at least one child younger than 18 in the household, and have very low income. A family of three can earn no more than \$1327 per month or \$15,924 annually to remain eligible for the MFIP program. The maximum benefits a family can receive without any outside income are at below poverty levels.

Half of children and caregivers enrolled on MFIP are in households that have incomes that keep them in deep poverty. Fewer than half the families with children in poverty received assistance through MFIP as of 2016-2017 (Center for Budget and Policy Priorities, 2018). This is a change that has occurred over time. In 1995, the year before the federal Temporary Assistance to Needy Families became law, 93% of Minnesota children in poverty were in families receiving cash assistance. In that same year the old federal Aid to Families with Dependent Children (AFDC) program replaced by TANF, lifted 2.7 million children out of deep poverty in the United States. In 2015, that number had dropped to 349,000 children. (TANF Reaching Few Poor Families, Center for Budget and Policy Priorities, 2018, <https://www.cbpp.org/research/family-income-support/tanf-reaching-few-poor-families>.)

Data analysis by the Minnesota Department of Employment and Economic Development indicates that most of the parents enrolling in cash assistance in Minnesota are low wage workers who are recently unemployed. The majority worked in one of four industries: retail, hotel/restaurant, temporary placement agencies or health care.

Roughly 72 percent of the people served are children and 40 percent of those children are younger than 6. Assistance to pay for child care is available while parents work or participate in required work activities. Failure to follow program requirements results in grant reduction.

²⁴ Pamela McCauley, Manager of MFIP, Economic Assistance and Employment Supports; Deborah Schlick, Manager in Strategic Projects Office, Economic Assistance and Employment Supports.

What is the evidence that this intervention improves the health of people living in poverty?

The following is Dr. Fertig's synopsis of the national literature on cash assistance programs, which can also be found in her report to DHS²⁵. This first section is about conditional cash transfer programs, often known as 'welfare' programs. All states have these programs, so there have been no studies of what happens to the well-being of families when this is not available. However, in the 1980's and 1990's there was a fair amount of experimentation in welfare programs, and the literature tells us about the well-being of families who are part of the 1990's welfare-to-work programs (that encourage labor market participation) compared with the earlier welfare programs which, in important ways, discouraged labor market participation.

The goal of welfare programs is to provide cash assistance to bring families out of poverty. However, most innovations in welfare programs over the last few decades have involved welfare-to-work strategies, which do not necessarily increase income. Most relevant to our state is the MFIP field trial which began in 1994 in three urban counties and four rural counties. The program differed from earlier Aid to Families with Dependent Children (AFDC) in three ways: more earnings were disregarded to encourage work, long-term welfare recipients had to participate in workforce services/training, and there were simpler administrative rules. MFIP studies find that maternal depression and child health were not significantly changed relative to the control group, but children's behavioral problems were reduced for the treatment group relative to the controls (Gennetian and Miller, 2000, 2002) and the likelihood of having health insurance coverage was increased (Bitler and Hoynes, 2006). The treatment group did see an increase in accidents/injuries requiring the emergency department or a clinic (Gennetian and Miller, 2000). One treatment arm included only more financial incentives (and no requirement for services/training); mothers in this arm did see a reduction in depression and an increase in the likelihood that children had insurance coverage, saw a doctor in the last 2 years, and had a place for routine care (Bitler and Hoynes, 2006; Gennetian and Miller, 2002).

A national evaluation of eleven different welfare-to-work demonstration programs (MFIP was not one of them) found a reduction in the likelihood of physical domestic abuse compared to controls (Hamilton et al., 2001). A separate community-initiated employment-based antipoverty program called New Hope was implemented in Milwaukee, Wisconsin, starting in 1994. The program provided earnings supplements, child care assistance and health care subsidies for 3 years. New Hope recipients reported better physical health and fewer signs of depression than the control group at 5 years after random assignment (A. Huston, Miller, and Richburg-Hayes, 2003). In addition, children in New Hope households (boys especially) had better social positive behaviors at 5 years (A. C. Huston et al., 2005). Finally, welfare reform implemented through state waivers (like MFIP) and the introduction of Temporary Aid for Needy Families (TANF) in 1996 has been found to reduce health insurance coverage (Bitler, Gelbach, and Hoynes, 2005; Bitler and Hoynes, 2006). However, the effects on health care

²⁵ <https://z.umn.edu/UMNDeepPovertyReport>

utilization and health status vary greatly by the state program (Bitler and Hoynes, 2006). Overall, studies of these welfare programs look at several health outcomes and generally find a few modest positive effects.

Dr. Fertig also finds that the health impact of cash assistance programs are even stronger in non-conditional cash transfer programs, where cash assistance is provided, without requiring any action on the part of the recipient. For example, Canada's child benefit has been shown to significantly improve the health of Canadian children and mothers (Milligan and Stabile, 2011). Another example is Alaska's Permanent Fund Dividend, which has been shown to improve birth weights among less educated Alaskan mothers (Chung, Ha, and Kim, 2016). Finally, numerous studies have shown that the income increases from casinos on Native American reservations have led to reductions in psychiatric disorders, smoking and heavy drinking, days of anxiety, the probability of obesity, being hypertensive, and having diabetes (Milligan and Stabile, 2011; Wolfe, Jakubowski, Haveman, and Courey, 2012).

This report cannot assess the health impacts of MFIP as we did not do a study of its effects. However, in the interviews, some parents receiving MFIP described issues related to health. Of particular importance was their access to food and other necessities.

Interviews with Minnesota parents: Parents use MFIP grants to purchase basic necessities

Parents we interviewed told us that they use MFIP payments for basic necessities, especially those related to babies and toddlers. Diapers and wipes were far and away the most common thing these funds were spent on. Few parents mentioned buying formula as they generally had both SNAP and WIC. They spent their MFIP grant on food, rent, utility bills, and transportation (gas for the car, bus fare, or taxi fare in a rural area).

What would families do with an additional \$100?

We asked parents on MFIP what they would spend an additional \$100 on, if the grant was that much higher. This was in the winter of 2018-19, before the increase was passed by the legislature. They said they would spend it on a variety of necessities, but what was striking was how expressive they were in their words and body language on what a relief it would be if they had a little more money every month. They worried about making ends meet.

Many parents would buy groceries for the family, clothes for the children, and other necessities

A woman with one child who used to be on MFIP before she got her current job and exited the program said she would buy more groceries and food. A man with two daughters who works construction and was living at half the poverty line when we met him in January would also buy groceries. A woman in a suburb who was recently determined ineligible for MFIP would 'buy everything I need for the month, and then save in case I need to go back to buy more'. Another said that she would save some of the \$100 'in case anything came up, and emergencies, or you know the baby gets sick and needs Tylenol, Ibuprofen...'. Many parents described buying basic necessities that they currently cannot afford.

Alison lives with her boyfriend who is disabled, and their two children in a rural area, with income at 25% FPL. She said she would use the money to buy new clothes for her two girls.

Probably more clothes for the girls. Warm clothes for the winter, cool clothes for the summer. Just the necessities. They still get new clothes, but only when something's worn. You don't ever want to cut your kids short because of how much money you have, it's your job as a parent to make sure they have everything they need in that moment in time. [So with MFIP grant now, if they have ripped clothes, you can't really replace it?] The next month if we have extra money, we'll get them a pair of shoes or an outfit. If it's something we need then and there, we will go short to have what we need... What we have, we have to make last, and with our situation, it's really hard to make it all last for that month or whatever it may be... Maybe Goodwill-- \$1 for two. But to go to a store and get a \$20 dress or even a \$10 dress that's way too much for me right now. I don't want to sound like a cheapskate, but that's what we can afford right now.

Gina said she would pay her utility bills. She has subsidized housing, getting a four bedroom townhome for herself and her three children for \$800, which she says is a good deal. However, her MFIP grant is \$750, so it all goes to rent. She relies on her parents to help with all other expenses.

The parents who described necessities such as food, clothes and rent were a mix of those receiving subsidized housing and those who were not. Their responses give one the impression that their current MFIP grant does not provide everything their family needs, and that it would take more to meet their basic needs. When asked what they would recommend for improving parents' ability to meet their families' needs, two parents said to raise the MFIP grant, and two said to raise it so it reflects the current cost of housing in their region.

How much cash assistance is a single-parent with three children eligible for?

If the parent does not work and has no other income:

MFIP: \$632 (cash)

MFIP Housing Assistance grant: \$110 (if they have no other housing assistance)

Total: \$742 to live on per month, which is in poverty, 41% FPL

This family would also be eligible for \$457 in SNAP benefits (debit card funds which can be used to purchase food).

Many parents with subsidized housing would save for a car, or use it for other types of transportation

Most parents interviewed were paying market-rate housing. However, six of the thirty parents had subsidized public housing, two were living with their friends or family for free or reduced rent, and three were homeless. We conducted eight interviews in a rural Minnesota town where most MFIP clients we interviewed had subsidized housing (public or family). When we asked those parents what they would spend an extra \$100 on, there was a striking difference- half of them would spend the \$100 improving their access to transportation in general, and a car in particular. None of the parents we interviewed who lacked subsidized housing mentioned transportation when they talked about how they would spend an additional \$100. This is because they had to prioritize any additional funds for housing.

Lucy lives with her two children on 25% FPL which comes from MFIP, in a subsidized apartment where she pays \$240 per month. She lives on the outskirts of the town, so finding a job within walking distance does not seem likely. If she had an extra \$100, she would put it towards a car. She says that a car, together with her previous work experience, would allow her to get an adequately paying job.

Ella lives on 25% FPL from MFIP and gets help with bills occasionally from her parents. She receives subsidized housing. With an extra \$100 she says she would get caught up on bills, including a car loan for a vehicle that was repossessed. She would also use it for taxis. She thinks that having the extra \$100 would be a huge stress reliever.

Gina also lives in this rural area and gets 25% FPL from MFIP, which is almost as much as her monthly subsidized rent for herself and her three children. She gets help from a parent to meet her other expenses. With an extra \$100, she would pay utility bills, but also pay for gas so her friends can give her rides.

Jane lives with her young child, in her mother's house for free. Her income is under 25% FPL from MFIP. She would use the extra \$100 for her car payments and to pay for gas.

An automatic annual cost of living adjustment for MFIP cash benefits

After 33 years of unchanging benefits levels, Governor Walz and the Minnesota legislature raised the maximum cash assistance benefits families in Minnesota can receive by \$100. It is one of only 16 states (Burnside, 2019) to have increased cash assistance benefits in the last two years and it is the largest increase among those states. The maximum cash payment to a three-person family had been \$532/month during those years. It increased to \$632 a month in February 2019. Thirty years ago (1986), \$532 a month brought a 3-person family's income to 70% of the federal poverty line. Since 2015, a housing assistance grant of \$110/month has also been available as a cash assistance supplement for most families receiving MFIP assistance, bringing their total MFIP cash benefit to \$742/month. In 2019, that \$742 a month puts Minnesota in the top ten states for benefits provided to a family of three but it is still a deep poverty level income (Welfare Rules Databook, 2017) at 42% of the federal poverty line and well below the \$1,089 per month that the U.S. Department of Housing and Urban Development recognizes as fair market rent for a two-bedroom apartment in the Twin Cities (Huduser, n.d.).

Evidence-based literature described above suggests that increased payments are associated with better health outcomes in parents and children (though which outcome is improved seems to be associated with the gender

and developmental age of the child). Parents currently on MFIP describe significant worry with meeting their family's basic needs, and when asked how they would spend \$100 extra, describe what are generally considered necessities.

To get families beyond the deep poverty line, the benefit for a family of three would have to be \$888. That would mean an increase of \$356 a month for families not receiving the MFIP housing assistance grant and \$255 a month for those receiving that supplemental benefit. Increasing the cash grant to 75 percent of federal poverty line in 2018 would require an additional \$675 for a family of three each month, bringing the cash grant to \$1,299.

An annual cost of living adjustment, like SNAP and Social Security have, would not necessarily result in benefits above the deep poverty line, but it would ensure that the value of the hard-won benefits do not erode during the period between actual benefit increases.

People want to work, but suggest that circumstances should be taken into account

Several parents enrolled in MFIP emphasized that everyone should work and support themselves. They talked about how they see work requirements as a valid expectation.

Some parents were exempt from the work requirements for a short amount of time while they addressed a crisis or a transition, and they described how helpful this was. One mother of four in rural Minnesota said that she was exempt from work requirements due to pregnancy. Having this exemption meant that she didn't have to worry about meeting the job search requirements and was still able to provide for her family. She said it took away stress that she was able to provide the essentials.

Katie has a 90 day leave from work search.

I started seeing a therapist and I had a domestic issue and I've been leaving my kids' father and stuff, so I'm dealing with a whole lot all at once, you know mentally because he went after my kids. I'm just trying to work on myself right now so when I do get a job I'm not setting myself up for failure.

Nevertheless, parents experience the work requirements as arduous. They indicate that some circumstances make this impossible. When asked for recommendations for improving public programs, Alison talked about how her boyfriend's medical condition requires her to be home with him as he can't go upstairs (where the kitchen is) or do other things by himself, so work requirements shouldn't apply to her right now.

I understand that you have to work for what you get. Everybody does. But with him having seizures and not being able to work, and the kids being at home, not having daycare and not being able to put them in preschool right now...and then you have to do so many hours a week job searching in order to be on this program to receive this stuff, and that doesn't bother me. But it's hard when you're working 24-7 to make sure that he's not hurting himself when he does fall into a seizure, and that the kids aren't hurting themselves when this is going on. I can't leave my kids with him, I have to have somebody there. And my family is so far [away] So it's been rough in that area, but it's understandable, it's a great thing to

have to do in order to receive your benefits. But there are families who have complications, where it's harder and more distracting to be able to succeed in all the stuff you have to do in front of you.

Alice is in a rural area and says that she understands she should put in the 30 hours of work and job search, but that her restaurant job's hours are unpredictable and sometimes get cut and so she often has to do a lot of hours of job search.

...we're such a small rural area here, that the jobs are limited. I'm required 35 hours a week, but I'm only putting in 15, 20 hours per week on my job, and sometimes they want me to job search 20 hours a week, and sometimes there isn't even 20 jobs available. The nearest city is ... an hour away. ... the jobs are just really limited here. If you ask my opinion, on how to maybe make a change, well, don't compare the entire state as one. Separate the counties, maybe, and realize that we're not a metropolitan area- we don't have the job opportunities that they do.... Sometimes I have to apply for jobs I know I'm not going to get, because I don't have a Bachelor's degree, because there just aren't any jobs to apply for.

Alice

Family: Mother, infant, and another child under 10
Rent: subsidized, \$150/month
Employment Income: \$900/month, part time (50% FPL)
Child Support: \$60/month
MFIP cash: \$180
WIC/MFIP Food: \$650 (200 + 450)
EITC: Last year she received \$5,000, which she used to catch up on bills, back rent, and buy clothes for her children
More information in Appendix II.

Sanctions reduce or eliminate grants

Most parents participating in MFIP work with an employment counselor to create an employment plan focused on job search or employment. Failure to follow work rules or provide verification of job search results in a 10 percent reduction in assistance in the first month and 30 percent reduction in the second through sixth months if the individual does not start complying with program rules. After six months of continued failure to comply with program rules, assistance ends (State of MN, 2019).

The policies for sanctions are complex and difficult to understand. The policies are different for families with significant barriers who are granted extensions beyond the five year limit. County workers and families have to track the number of sanctions over someone's entire history on MFIP, even if there are years between eligibility for MFIP. In addition, sanctions are not lifted as soon as families come into compliance. The Department is currently working on simplifying the sanctioning policy to provide clarity for county and tribal staff. The workgroup has not had the opportunity to analyze the long term impact of sanctions on program participants but believe policy simplification will lead to positive outcomes for families. Policy simplification will decrease the length of time a family would remain ineligible for the program due to a sanction and create consistency for county and tribal staff that administer the MFIP program.

In 2017 one percent of families receiving MFIP had their cases closed due to receiving sanctions. Although this is a small portion of the families participating in MFIP, more than 600 families lost all of their income support in that year. More families experienced a 10 percent or 30 percent reduction in benefits. Overall, 3.5% of adults are sanctioned each month.

During interviews, three parents said they had been sanctioned while on MFIP and expressed frustration about this. Two were sanctioned or taken off the program due to not getting paperwork in on time. Andrea remembers when her teenage twins were babies and she was on MFIP:

It was a lot of work... Like going down to the building a lot, to like turn in so many forms all the time, and sometimes when you didn't get it in on time they wouldn't give you... [So did that mean you didn't get the benefit that month?] Mmmm hmmm. [So you had to bring lots of paperwork in to the financial office, and if you were late...] You wouldn't receive anything. [Would you receive it retroactively so you'd receive like two payments?] Sometimes what happened with me a lot was they'd only give me, it was supposed to be like \$500 something but sometimes I would only get like \$200 something, and I didn't have any other income or anything...All of that went pretty much to diapers, because they were super young then... I was never suspended from SNAP. Just cash.

Jane lives in a rural area and is currently receiving both MFIP and SNAP. She also describes the challenges with getting paperwork in on time.

I was on SNAP, then cash, and then I wasn't able to make it in a few times, and then I ended up getting my case closed on me... Especially since I didn't have a car for a while I didn't have a way to get down here. Now things are getting better.

Minnesota complies with the federal requirements for completing the work participation rate measure. This measure focuses on documenting and counting hours in different activities and results in a tremendous amount of work for MFIP participants and can lead to their losing their entire or a part of their MFIP grant because they struggle with filling out the paperwork and getting it in on time. Employment Counselors also report that they spend a disproportionate amount of time collecting this paperwork, reducing the time available to help participants address barriers to employment.

Participants often do not have the skills to navigate unplanned or unexpected changes with employment. Employment Counselors focusing on helping participants develop soft skills and skills to grow and advance in their jobs would help with job stability and increased income in the home.

Recommendation: A performance measure for MFIP that focused on outcomes instead of process would refocus the program. The impact of setting outcomes for the MFIP program that measure the families' ability to become financially self-sufficient which may not always be related to employment.

The federal performance measure for cash assistance programs funded with the Temporary Assistance for Needy Families block grant is a process measure. It counts how many parents receiving assistance are in one of 12 activities for a minimum number of hours of work. This performance measure does not track how many parents leave assistance because of employment or increased income and research has not established any connection between participation in the counted activities and improved employment outcomes. In order for someone to get and keep a job, barriers such as homelessness, low skills, lack of transportation or health related issues need to be resolved. There are other measures of success for low income families besides complying with documentation or job search. The federal performance measure, the Work Participation Rate, results in a focus

on completing paperwork. After the introduction of more stringent federal rules to track activities, employment counselors were found to be spending more than half their time on documentation activities. That results in less than half of their time being available to assist participants with needs assessments, employment plans and job searching. (The Flexibility Myth: How Organizations Providing MFIP Services are Faring Under New Federal Regulations., Dani Indovino et al, 2008, a professional paper, Humphrey Institute). The result of a poorly targeted performance measure is to focus the program on getting participants into activities that count in the federal measure instead of into services that could increase their employability.

Another consequence of a poorly targeted performance measure is that it may put a damper on clients talking about their own goals and hopes for the future with their worker. This may get in the way of the worker and client building a trusting relationship, and of making the client feel comfortable being open about what they need, so the worker can help them access all relevant services. For American Indians and African Americans, this dynamic may be even more harmful as it is combined with a multi-generational history of structural racism in U.S. policies. The current performance measure focuses on monitoring hours in a specific and limited list of activities. That makes the focus on compliance which can discourage open communication. An outcomes-focused measure could encourage open conversation that allows clients to identify what they need to move towards greater financial self-sufficiency.

Congress would have to change the performance measure when it reauthorizes TANF funding. Proposals to change performance measures have appeared in TANF reauthorization bills in recent years, but Congress has not acted on TANF reauthorization since 2005 and instead has passed continuing resolutions that keep the funding intact, but address no policy considerations. DHS could stop requiring Employment Counselors and MFIP recipients to complete the paperwork for the federal work participation rate measures. For families who are already on track to become self-sufficient in a few years, this will free them up to do that work without fearing that they will lose their benefits. This will also free up Employment Counselors to help families make plans to become financially self-sufficient. Employment Counselors' time would be better spent assisting families with resolving barriers to employment or building relationships with local employers so they can assist work-ready participants with job placement.

One parent currently has her MFIP 'cut off' because she's been dragging her feet on helping collect child support from the child's dad. She said that he bought her some things so she doesn't want to go after him for child support.

Recommendation: A 100% child support disregard would allow more income to remain in the MFIP household and would be an additional method of streamlining administration of the program.

When a parent receiving assistance through MFIP also receives child support from a non-custodial parent, the MFIP assistance is reduced – if the child support for the month is more than \$100 for a single child or more than \$200 for two or more children. Those \$100 and \$200 thresholds were established in 2015. Recent DHS data shows that the current child support disregard has created inequities with White, American Indian, and African American households receiving child support. Based on additional racial disparities in MN such as employment and education, White families on MFIP receive more child support payments than American Indian and African American households, creating a disparity in the current disregard policy. Efforts are being made to work with

the Child Support Division to increase child support payments by non-custodial parents and reduce disparities between these populations.

Parents on MFIP prioritize caring for children

Six parents talked about the tension between wanting to spend time with their children, and difficulty finding jobs that don't require evening and weekend work. Stacy describes the importance of having a job with evenings off.

I have a teenage daughter that's involved in a lot at night. This is the first time I've had a job where I'm not working at night or the weekends. She's been with a babysitter growing up, daycare in the day; babysitter at night. I have a hard time finding a job that's willing to work around my schedule. I'm a single mom, so it's up to me to get her to her concerts that she needs to get to, her conferences, her sporting events, just anything that she has going on, I'm the one that needs to be there.

Diane works full-time in telephone customer support in the evenings. She has one preschool-age child and one elementary school age child, and when we asked about opportunities for increasing her income by increasing her hours, she said:

I'm too tired, or I don't get to spend time with my kids. Me and my mom had this conversation the other day. She said she wished she had spent more time with us, but she was always at work. She was the only one bringing in the money.

Jane just got a housekeeping job at a clinic, and is thinking seriously about going to school to become a Certified Nursing Assistant. She would like to start her generals in the fall and then if child care for her toddler works out, she will focus on nursing classes.

I would want to start nursing when he's in school, so I could work full-time. And I want to spend as much time as I can with him now before he gets to school age.

Lisa works three days per week in a retail setting and her husband works in a restaurant. Their income is 50% FPL with no MFIP or SNAP (just WIC). She would like to work more than her three days per week but the only shifts they have available are night shifts, and she tells her employer that she can't do those:

But I have three kids; they need me more than you do!

Several parents say they like their current or their past work. However, when asked to elaborate they didn't often describe the work itself. Instead, they generally described liking that it allows them to support their children, or that it had flexible hours. Karen works at [a social services office for American Indians] and does child care and janitorial work. She says that she's happy with her current job. Her hours are pretty flexible, and she likes this. She is not interested in a higher paying job; she's feeling happy with where she is right now.

MFIP makes employment possible for some parents

A handful of parents said that MFIP helps with employment. One way was through the required job search. Two moms got their current jobs through the MFIP Employment Counselor, and both seemed grateful for this. One has been a child care assistant at her current employer for several years, and really enjoys it. She is now taking online courses to become a child care teacher, which she thinks may bring a \$2-3 per hour raise. She will be done soon. Another mom got a job at a tribal organization through an MFIP work readiness program. This mom wouldn't want to be on MFIP again due to the hoops she had to jump through, but she is glad for this employment opportunity. Secondly, MFIP provides funds for transportation which parents use to job search and to get to work.

Stacy described how her MFIP grant, combined with her part-time job, earnings allows her to make enough to survive financially while single-parenting.

[Does MFIP has an impact on your ability to keep a job?] Being that I get the cash assistance, I am able to keep the job that I'm at now. They are willing to work with me, give me the day hours I want, M-F. But if I didn't, I wouldn't be able to keep this job because it wouldn't be enough to cover my bills.

Lucy said that when she starts working again she'll get a smaller portion of MFIP, \$115, but that 'still helps; to me it's beneficial to get'. She plans to combine employment income with the MFIP grant.

Despite the focus on employment which was a key aspect of the PRWORA that made the change from AFDC to TANF, and Minnesota's MFIP program, interviewed parents talked surprisingly little about actual assistance with finding a job or even better, advising on a career that could yield a livable wage. Given how grateful two families were at receiving help with finding a job, it would be useful if more emphasis were placed on job development and creating relationships with local employers and job skills training.

Ways to make MFIP more supportive of the transition into and out of employment

TANF is designed to be a temporary solution when other financial options are not available. However, several parents described how MFIP makes the transition into employment and the transition of leaving employment due to the birth of a child or another life event difficult. Middle income families often have a financial savings that can support them during these transitions, but saving is much more difficult for families living in poverty or deep poverty as they are often living paycheck to paycheck. Support during transitions is therefore much more important for this population.

Transition into employment

One woman described what it was like to start working after having been on MFIP. She is now going to school and her husband works.

If you're on MFIP, if you get a job, your cash grant and your food stamps goes like way down right away. It makes you either like want to quit the job or it just leaves you at a weird space where you need to work, but... I need the MFIP cash and food stamps... Maybe like not count

the income right away, like the next month, at least give them like maybe 3 months or something. And that way they're established at their job, they're past the 90 day period, and they don't have to worry about not having their grant for the next month and how they're going to pay their rent and bills and stuff. So maybe go back to like instead of just one month, go back 90 days, and then start counting their income.

Transition from employment

As described earlier, Minnesota families earning low wages who need to take a leave from employment due to a medical, behavioral health, or birth of a child do not generally have access to sick or maternity leave. MFIP may not be the best fit but it is what is available to some. Two interviewed parents had been supporting themselves through full-time employment, with no MFIP, SNAP or similar programs, and needed to stop work because they had a baby or got sick. Maternity leave or sick leave might have been a much more appropriate safety net for them, but they did not have this available. At the time they left employment they applied for MFIP, but the two-month lookback period meant that they were not eligible right away.

Christine, for example, was working in a retail job, earning about \$3,000 per month (150% FPL for herself and three children) and supporting her family without MFIP or SNAP. She had thought that she would receive paid maternity leave and only found out two weeks before she delivered that she would not.

So I had to really scramble trying to... figure out how I was going to pay rent, buy food and still maintain after I had [my baby], because I had to take the six weeks off. So when I learned that, I didn't qualify for MFIP then and there because of my [recent employment] income, so I had to wait until I was eligible. And then when I was, it wasn't enough to pay my rent and my bills... When I did get approved, I was already two months behind in rent. When I went to the landlord and tried to give him what I had for MFIP, they wouldn't take it by that time... So I ended up getting evicted. So that's why I'm here [in a homeless shelter].

Recommendation: Minnesota should transition from retrospective to prospective MFIP budgeting. Minnesota could adopt the method almost all other states use for calculating income in order to determine a family's benefits. Minnesota is one of only a handful of states that still uses retrospective budgeting: determining benefits for the current month based on income from two months ago. Almost all other states determine benefits for the current month based on the income the household is likely to have in that month. This method makes it less likely that households are ineligible for MFIP benefits when their employment income comes to an end.

Recommendation: Minnesota could better address the income volatility of working parents who receive MFIP assistance

MFIP is designed, in part, to help families sustain employment by allowing families to continue partial benefits when they have a job. This allows families to combine earnings and benefits to get above the poverty line. This element of program design, however, is incomplete. Families with outside income, such as earnings, have to report their household income and their household membership every month. Low wage workers, particularly those earning enough to still be eligible for MFIP assistance are in jobs with inconsistent schedules that result in

a varying monthly income. Every change in income then results in a change in assistance, meaning families have no stable predictable monthly income to use for budgeting and planning. The federal SNAP program allows for setting benefits for a six month period. Doing the same in the MFIP program would create a stable base income for families and allow parents to better predict their income, plan for unexpected events and save money. It would also allow the paperwork expectations to align with the SNAP program. Parents would have the option of reporting losses of income but would not have to report increases in income in that six month period.

Transitions in which children are moved into and then return from out-of-home placements

Another critical transition for a small number of families receiving MFIP, is if children are removed from their homes and put into an out-of-home-placement by child protective services. MFIP payments are based on the number of family members living in the household, so when a child is removed from the home, the MFIP stipend is reduced or ends. We did not come across this in our interviews, but program staff in both MFIP and in child protective services describe instances in which this has resulted in the parent not being able to pay their rent and therefore losing their housing. Having housing is one of the requirements parents must meet in order to be reunited with their children. The loss of the MFIP grant can therefore have traumatic consequences for parents (and their children) who would otherwise be ready to be reunited.

Recommendation: When a child is taken out of the home, parents are likely to be in crisis and to be working on doing everything required by their county protection worker. The MFIP program should support the parents during this critical time. At the very least, there should be no decrease in the MFIP grant.

The next chapter describes the SNAP program, which provides food benefits to low-income families.

Supplemental Nutrition Assistance Program (SNAP) for low-income people

Subject Matter Experts: Kathy Bruen, Deborah Schlick, Karen Giusto, Jennifer Gerber ²⁶

The Supplemental Nutrition Assistance Program (SNAP), formerly called Food Stamps, helps people with low incomes pay for food by issuing monthly stipends onto an electronic benefit transfer, or EBT card, similar to a debit card. These dollars are spent at local grocers and farmers markets and are restricted to purchasing food. About 400,000 Minnesotans receive SNAP each month, which comprises about seven percent of the state's population. However, it is estimated that only about 64% of eligible individuals participate in the program. This rate puts below the US average participation rate of 74%²⁷. The average monthly amount per person is \$110. In addition to providing food for recipients, having access to SNAP frees up limited resources in household budgets to be spent on other necessities such as housing and transportation. Most parents we interviewed had received SNAP at some point in their lives, and they reported that it was very valuable in helping them access food, especially healthy food, and worry less about whether they would be able to feed their family.

Many parents say SNAP increases access to healthy food and encourages cooking

SNAP income thresholds are much higher than MFIP's and almost everyone we interviewed was either currently receiving SNAP (15 parents) or had previously received SNAP (11 parents). Only two have never been on SNAP, and both are interested in enrolling.²⁸ Similarly to MFIP, due to the selection of interviewees in poverty, this rate of SNAP utilization is much higher than is found in Minnesota in general.

When asked to talk about what they currently purchase, or what they purchased in the past with their SNAP debit card, seven parents described buying food that is healthier than they would otherwise be able to afford. Fruits and vegetables were mentioned especially frequently, maybe partly because these interviews were conducted in the winter months of 2018-19. For example, Katie lives with her two children, and is not employed

²⁶ Kathy Bruen, B.A., SNAP Manager, Economic Assistance & Employment Supports Division; Deborah Schlick, Manager in Strategic Projects Office, Economic Assistance and Employment Supports; Karen Giusto, Eligibility Policy Manager, Health Care Eligibility & Access Division; Jennifer Gerber, Health Care Operations Manager, Health Care Eligibility and Operations.

²⁷ 2017 Federal Nutrition Assistance SNAP Program Access Index

²⁸ An additional two parents were not currently on SNAP and it is unknown whether they have previously received SNAP.

as she works on her recovery from domestic violence, so her income comes solely from MFIP, of about \$550 per month (50% FPL). She describes how SNAP allows her to provide healthy food for her children.

[SNAP] helps me buy fruits and vegetables more. Because they seem to get really expensive, but my kids love them. Being able to buy all the fruits. Grapes are as expensive as ever right now. Watermelons. All the things that I'd be 'Oh, I'll have to wait until next time'... I love cooking and baking for my kids. It's a bonding time with us...so that gives me that time more often. Being able to buy all the things they like.

Two other parents described how they cook more because they have access to SNAP.

I think it [changes the way I shop and cook]. I find myself getting more healthier stuff. I cook more instead of getting snacks. When [food expenses were] coming out of my pocket, it was just quick cheap things... Before for my son I would have just bought Lunchables, mac n cheese, just simple quick and easy. Now I will actually cook for him. (Ella)

Parents are frustrated that healthy food is more expensive than junk food.

I can get stuff that is a little bit healthier for him. Sometimes I hate that junk food is cheaper than healthy food. Lately I've wanted to get on a streak with being healthy, even though he's not really fond of vegetables. (Jane)

Although we asked parents about chronic medical or mental health conditions in their family members, we didn't always ask what conditions they have. When we did ask, two parents said they have diabetes, and in other parts of the interviews they described how a healthy diet can dramatically impact their health. Theresa and her family are not currently receiving SNAP, but used to. She describes how she prioritizes healthy food for her children, even though she is the one with diabetes.

I think of SNAP as being for my children because they are growing and need better, healthier food. It makes a difference because it can help prevent a cough and the flu, and not fat food. I sometimes buy [them] cheeseburgers from school lunches, but the healthier food from home keeps them from [she makes a hand gesture moving really fast in a big circle. Interviewer says 'Being too wound up due to sugar?'] Yes. It's nice to have the option of school lunches or food from home. SNAP for cooking vegetables and healthy food.

Later in the interview Theresa talks about her diabetes. She describes the impact taking the less healthy, cheaper food on her own health.

When I eat healthy food, I feel good. When I eat not healthy food like cheeseburgers and such like that, I have a headache, and my diabetes go out... Normal my diabetes is 120. When I eat cheeseburger my diabetes go 250, almost 300. When you have 200, you feel headache, you feel a little dizzy, you don't feel good.

A blood sugar reading of 120 is well within a healthy range for anyone, including for people with diabetes. A post-meal reading of over 200 is considered high and can result in symptoms right away and complications later on.

Parents enrolled in SNAP report that it significantly decreases their stress as they know their family will have food

We asked parents whether SNAP has any impact on their physical or emotional well-being. We expected to hear stories on how they feel physically healthy because of the program, and this is what we heard from a few people with a particular chronic condition (diabetes). However, most people told us that they buy healthier food, but they didn't see a direct impact on their own or their children's actual physical health.

What they did describe over and over was how much better they felt emotionally due to the decrease in stress from knowing that their family and in particular their children, have food. Seven of the 15 current SNAP recipients mentioned a reduction in stress. Alice, for example, combines MFIP and SNAP with part-time employment to support her school-age child and her infant.

[SNAP] keeps me physically healthy, you know I have to eat healthy and take care of myself to go to work to support my kids. But it also takes some stress off me, because I always feel like if my bills are paid, even if I have no money, and I have my bills paid and I have food in the house and heat, my kids are okay. And I've always had food in the house for them. So that, really, that's a big thing, that takes a lot of stress off, and it's a lot of comfort for me, to know that my kids are fed, and I'm taking care of myself, and I'm not going without eating just so my kids could eat.

Parents' worry focuses on their children having enough to eat

Several of the parents emphasized how making sure their children have enough to eat is their main concern.

It helps me from worrying or trying to figure out how to feed my kids. It doesn't matter the situation, my kids come first. I will give them the last of whatever it is so that they're satisfied. Emotionally yes. You're not fighting and worrying about, 'how am I gonna support my kids?'
(Alison)

Adequacy of SNAP benefit to meet a family's food needs appears to be tied to the cost of housing

We didn't include a question on whether SNAP benefits are enough to meet their family's food needs, though interviewers occasionally probed for this. Eight of the 15 parents currently receiving SNAP told us whether they thought it was. They were evenly split; four said it was enough and four said it was not. Those who said it was enough were all receiving subsidized housing and those who said it was not were paying regular market-rate rent. When we refer to subsidized housing in this report, we're referring not to the approximately \$110 MFIP housing supplement, but to a housing arrangement where they were paying dramatically lower rent than market rate.

SNAP benefit level is adequate

Four families indicated that they are satisfied with the SNAP benefit. They didn't talk about SNAP meeting all of their needs but instead talked about how it 'helps'. They apparently do not perceive it to be their sole funding for food. They're all receiving subsidized housing.

[Is the SNAP benefit enough for you and your two kids?] I rarely run out. Just one month I did. So then also WIC, you can get fruit and milk with that. (Lucy works part-time and receives MFIP and SNAP, and pays under \$300 in rent for herself and her two children)

[In response to a question on how much SNAP they get for their family of four]. Right now I get \$582. It lasts, but you can't go out and spend that much at one time, and expect it to last. 'Oh mom can I have this, can I have that?' Hard to say no to little kids. So we go out twice, once at the beginning, once at the end, so it lasts...It helps a lot, we don't really run short of food at all. (Alison and her boyfriend who is unable to work, and their two children receive MFIP and SNAP, and live with a family/friend who charges them \$300 per month).

Alice works part-time and receives MFIP and SNAP, and she pays under \$200 for her rent. She receives \$500-600 per month in SNAP benefits for her and her two children which she says helps her to buy groceries, and she thinks this is plenty.

SNAP benefit level is not adequate

Four parents indicated that SNAP doesn't meet all of their family's food needs, though they didn't always say that explicitly. Instead, they would talk about their reliance on food shelves (3 parents), or they would talk about going without food sometimes so their children could eat. They are all paying market rate rent.

The person who really needs to eat is my [2-year-old]. I eat like once or twice a day. It's to save food and because sometimes I'm just not hungry. (Tina and her daughter live on Social Security and MFIP. She uses Social Security to pay her rent (under \$750) and phone bill, and pays for everything else with her \$300 MFIP and SNAP (unknown amount) benefits.

I purchased basic groceries [with SNAP], not everything I need, as I'm going to the food shelf at least once per month. (Sara)

A woman and her toddler live with family/friends, and everyone in the household is receiving SNAP. They share food:

We just stock the fridge and freezer as much as we can. We've tried to keep it cheap, but having six people in the house, two teenage boys, it doesn't really help because they eat everything. (Jane has MFIP, SNAP, and employment income)

Mike and his partner and their four children use SNAP as well as the food shelf because all other funds they have must be spent on the extended stay motel they're in until they can find stable housing.

We buy food and formula with SNAP. No hot foods; stuff that's already cooked. We wouldn't have enough to buy the food we need without SNAP.

Special dietary needs impacts adequacy of SNAP benefit level

Three parents have children with a special dietary need which requires more expensive formula or food. One parent buys her child medicated formula for acid reflux and two other parents have lactose intolerant children. SNAP does not adjust the amount for dietary needs. All three of these parents (one of whom used to be on SNAP and two are currently on SNAP) said that SNAP does not cover all of their food needs.

The formula he's on, is a medicated formula, because he's got acid reflux and he's got stomach issues. The original [formula is] like \$16, and this one is \$27. It's a little spendy and I can't always afford it. (Alice)

Grace and her family used to receive SNAP, and one of the things they purchased with it for the children was almond milk. Two of her children are lactose intolerant and could not drink regular milk. The almond milk is easier on the health for the children, but it costs more money. The food purchased with food stamps didn't last the whole month.

Only families receiving subsidized housing see SNAP as a supplement; most families see it as their only source of money for food

Another striking difference between the parents receiving subsidized housing and those not, is how the former talked about how SNAP 'helps' to meet their food needs. Apparently, they expect SNAP to be a supplement and not their sole source of money for grocery shopping. This is consistent with the intent of the program, as indicated by the name 'Supplemental Nutritional Assistance Program' (SNAP).

In contrast, parents not receiving subsidized housing talked about SNAP's inability to meet all of their family's food needs. The vast majority of families on SNAP are paying market rate housing, and some have no income besides the MFIP payment. For these families, SNAP cannot be a supplement; it has to be stretched to meet all of their food needs as there is no 'extra' income available to use for food. The intentionally low SNAP benefit, designed as a supplement, together with the very low MFIP payment, and the extremely sparse level of

Mike

Family: Father, mother and four children under the age of 10.

Rent: \$1,400 at an extended stay motel.

Employment income: \$1,400 or less per month (50% FPL) from girlfriend's full-time job at a fast food restaurant and Daniel's roofing job with inconsistent hours.

SNAP (estimated): \$630 (WIC \$280)

EITC: Last year they received \$10,000, which they used to pay forward their rent four months and bought a 1997 car (no longer working).

subsidized housing in Minnesota together mean that most families on SNAP must make SNAP and WIC stretch to meet their entire family's food needs. If they still need more, they find other sources of food or go without.

Interviewed parents who had immigrated to the U.S. receive much smaller tax refunds and no SNAP or MFIP

We interviewed six parents who have immigrated to the U.S. They used income supplementing programs noticeably less than did other parents.

People who have immigrated to the U.S. and don't have a Social Security Number (SSN) are not eligible for the Federal EITC or the Minnesota Working Family Credit. However, if their children were born in the U.S. and have SSNs, they can claim the Child Tax Credit. The latter is a much smaller credit than the EITC, especially for low-income families who cannot use a credit of more than \$1,400 per child.

Five of the six parents we interviewed who immigrated file taxes; one of the six arrived here only two years ago and does not file as she says they are afraid to. Of the five parents who do file, four appear to receive the child tax credit, and one appears to receive no tax credits.

Immigrant parents talked about relying on family and friend relationships more than other parents did. Four of the six parents lived with extended family or share housing with another family or other adults. These parents talked about financial worry, and how this affects them in a similar way as did other parents. However, two of them were unique among all interviewees in saying that if they can't make ends meet, they go to friends for financial help. (Other interviewees said they go to family.)

This kind of assistance between friends might be necessary as none of the six are receiving MFIP or SNAP, although all are eligible for SNAP (their incomes are 50% - 100% FPL). Two have been on SNAP in the past, and an additional two have been on MFIP and SNAP in the past. They generally mention dropping off of the programs after they got a job, or because they couldn't complete the paperwork. They didn't talk about needing food support for their families, but we recruited four of the six at food shelves, which suggests their incomes may be inadequate to meet their food needs. (We met the other two at a free dental clinic.) This begs the question of why they're not accessing SNAP.

A few pages earlier we heard about Theresa's diabetes and how inexpensive, unhealthy food increases some concerning diabetes symptoms. She and her husband immigrated from Mexico. They live with their four children, and two of their parents on her husband's employment income which registers their total family income at 50% FPL. They used to be on SNAP but are not currently enrolled. Anita and her husband immigrated to the U.S. 15 years ago, and their three children were born here. They had income of about 100% FPL when they were both working, but ever since she had a baby with an allergic condition and she had a recent surgery, they are earning a lot less but are not applying for SNAP. Years ago, they wanted to apply for SNAP, but never did so because that would preclude them from sponsoring her mom to come to this country. Her mom is now here, but Anita said that the way the President is talking (alluding to public charge), they won't be applying for SNAP now either. This is what she says when asked whether she worries about making ends meet:

Every month we worry about it. When we sit down, with my husband, and try to go through those numbers, sometimes, we think, "How will we make it?" God will help and we will do it. So, that's our goal. [Does this worry or stress impact you at all?] Yeah. Our health. Because I had stress, I had migraines, I was taking pills for a year for depression.

As noted in this chapter, SNAP is a popular program, with few complaints about the paperwork. This is reflected in the fact that among people we interviewed who were born in the U.S., 79% with income at or below 50% FPL receive SNAP, and 56% of those with income between 75 and 133% receive SNAP. The fact that none of the six immigrants we talked to were enrolled in SNAP is therefore striking. We didn't ask about the federal 'public charge' proposals that would make people who had received cash assistance ineligible for citizenship, though Anita refers to it above. We also didn't ask people if they are citizens as we were concerned that this would make them uncomfortable talking with us. However, we wonder whether the talk about public charge, which was a frequently publicized topic in the winter of 2018-19 when we did the interviews, deterred some from applying for SNAP and other public programs. We consider this as a possibility though we do not have the data to verify it.

Published literature suggests that SNAP may improve health outcomes

The beginning of this chapter describes parents' own experiences with SNAP, and how they feel it impacts their own and their children's health. This has the advantage of being grounded in real experience, but the disadvantage that individuals don't generally know what would have happened had they NOT had access to a program. Research studies that include a 'treatment group' of people who received SNAP and a 'comparison group' of people who did not can provide more insight on the impact SNAP has on people's health. The next two sections describe studies such as this found in the national literature, or conducted at DHS.

The following is taken from Dr. Fertig's literature review findings related to the impact SNAP has on people's health²⁹. Because SNAP is a federal entitlement program, it is not possible to randomly assign some people to a treatment group (SNAP) and others to a control group (no SNAP). Instead, they review the health outcomes of people who had access to SNAP (because of where they lived or when they grew up) with those who did not. These findings are promising, though not definitive given the methodological limitations.

Research indicates that food insecurity in children is associated with serious health, behavioral, and cognitive problems (see Gundersen and Ziliak, 2015 for a recent review). SNAP participation has been shown to reduce food insecurity (Nord, 2012; Schmidt, Shore-Sheppard, and Watson, 2016) but there has been a debate in the literature about whether SNAP contributes to obesity among its participants because SNAP benefits can be used to purchase high calorie, low nutritional value foods like sugar-sweetened beverages (Gundersen, 2016). However, a few recent studies have provided compelling evidence that SNAP participation has health benefits for both adults and children. Hoynes, Schanzenbach, and Almond (2016) find access to the food stamp program (FSP, the precursor to SNAP) during childhood improves later life health among cohorts born between 1956 and

²⁹ <https://z.umn.edu/UMNDeepPovertyReport>

1981. Specifically, children who had the option of the FSP from birth to age 5 have a 0.3 standard deviation lower metabolic syndrome index (created from obesity, high blood pressure, heart disease, diabetes, and heart attack indicators) when aged 18-53 compared to children with no access to the FSP under age 5 (because of the timing of the rollout of the program). In terms of short-term health outcomes, SNAP participation has been shown to be associated with \$1409 lower estimated annual health care expenditures in adjusted models (Berkowitz, Seligman, Rigdon, Meigs, and Basu, 2017). Finally, (Taillie and Poti, 2017) find that daily home-cooking among SNAP participants was associated with a 6% decreased prevalence of overweight/obesity, but home-cooking has no relationship with overweight/obesity for non-participants, suggesting that SNAP may allow households to provide healthier meals for its members.

DHS study finds that one group of adults on MA have lower health care costs when they are receiving SNAP than when they are not

Families with children, seniors and individuals with disabilities with low household incomes can access consistent food assistance through the federal SNAP program. In contrast, non-senior adults who do not reside with dependents or have an identified disability, can be limited to receiving SNAP for only 3 of every 36 months. This population is called 'Able Bodied Adults without Dependents' (ABAWDs), and they have their SNAP limited unless they work at least 80 hours per month, or reside in a geographic area where work requirements have been waived.

We investigated whether Minnesota's ABAWD population has lower MHCP³⁰ expenditures when they have consistent access to SNAP, as academic researchers have found with SNAP recipients in other states and nationally. Staff in the SNAP and Minnesota Health Care Programs (MHCP) areas linked data and made an interesting discovery. Although ABAWDs are generally eligible to receive benefits for only three of every 36 months, in 2013 due to the recession, this eligibility limitation was waived, and they could receive continuous SNAP benefits. Minnesota's statewide waiver ended in 2014 and most SNAP ABAWD recipients were again subject to the work requirements and time limits. There was a sharp decrease in the number of SNAP ABAWDs receiving SNAP and the number of months in which they received SNAP, starting in 2014. We used this temporary change in policy to conduct a natural experiment. To do this, we created a sample of people enrolled in SNAP who would have been considered ABAWDs, who were also enrolled in MHCP programs in 2013 (when there was no limitation in months of SNAP eligibility). In order to be in the sample, they also had to be enrolled in MHCP programs in either 2014 or 2015 (but did not have to be enrolled in SNAP as most of them had dramatically lower eligibility as the eligibility limitation was back in place).

We found that people had much higher health care expenditures in the year when they received few or no months of SNAP, and much lower health care expenditures in the year they received more SNAP. This was comparing a person to him or herself over time, which makes for a robust methodology. On average, for each additional month a person was enrolled in SNAP in a given year, their health care costs were **\$100.30** lower in

³⁰ Medical Assistance (Medicaid) and MinnesotaCare, collectively referred to as Minnesota Health Care Programs (MHCP), are the public health care programs in Minnesota.

the same year in comparison to years with lower SNAP coverage.. To give context to this, the average monthly SNAP benefit for a person meeting ABAWD criteria was \$160 at that time. We might interpret this to mean that putting funds into a federally-funded preventive program (SNAP) may reduce preventive and treatment costs in a mostly federally funded Medicaid program (the Medicaid expansion population). As might be expected, there is an even greater reduction in monthly health care expenditures for people who were homeless (\$152.40), had a chronic mental health condition (\$206.10) or a chronic physical disease (\$193.20).

Methodology of SNAP health care expenditures study

In studies that use existing data without randomly assigning people to a treatment or a control group, it is hard to know whether differences between program participants and non-participants is 'caused' by the program, or whether they are simply due to differences between the two groups. The use of a 'natural experiment' such as this provides a much more scientifically robust methodology and a much better basis for concluding that the differences we're seeing are due to the SNAP benefit itself. This analysis compared the same people to themselves over time, so we would expect their expenditures to be very similar in the two years (or that expenditures would increase slightly due to medical inflation

We conducted the difference in difference analyses and controlled for age, race, a Johns Hopkins' Adjusted Clinical Groups cost coefficient (which controls for expected health care expenditures given people's medical conditions), months enrolled in MHCP, and other relevant factors. The sample size was 24,181. We are currently working on publishing these findings. The following tables show these results.

Figure 18: Increase in health care spending per person for each month reduction in SNAP coverage.. The 'estimate' column represents how much lower the average person's MHCP health care expenditures were for each additional month they received SNAP.

| Characteristic or Condition of People in Analysis | Estimate |
|--|------------------|
| Everyone | -\$100.30 |
| Homeless Subsample | -\$152.40 |
| Mental Health Condition Subsample⁶ | -\$206.10 |
| Physical Condition Subsample⁷ | -\$193.20 |
| Continuous Coverage Subsample | -\$80.20 |
| Interrupted Coverage Subsample | -\$98.50 |

Recommendation: Ensure that implementation of SNAP policies in Minnesota prevents people in deep poverty from losing or experiencing interruptions in their food benefits in error.

Families with children, seniors and individuals with disabilities with household incomes in deep poverty can access consistent food assistance through the federal SNAP program. Non-senior adults, not residing with dependents or having identified disabilities can be limited to receiving SNAP for only 3 months, every 3 years. Yet one-fifth of those persons identified as able bodied in Minnesota had recently experienced homelessness.

More than three quarters were reporting no income source at all, and on average, their income is only 18% of the FPL (\$2,290 annual income for one person).

The determination of ‘able-bodied’ status is made by a county worker whose role is benefit calculation rather than disability assessment. Thus, many individuals with disabilities that are not readily apparent are likely being misclassified as able bodied and subject to losing their access to SNAP benefits. We found that in 2018, 42% of the individuals with a SNAP case closing due to exceeding the time limits, had been treated for severe mental illness in the past seven years, a diagnosis that could preclude them from holding steady employment. We recommend that DHS investigate ways that SNAP applicants can be more effectively screened so as to determine whether it is realistic to expect that they can work. In addition, DHS and other research suggests that we should find a way to offer continuous benefits to all SNAP recipients.

Recommendation: Work with others to develop policy that would ensure all people in poverty have reliable, stable access to SNAP benefits.

Given the critical role the federal government plays in funding SNAP and Medicaid, DHS should communicate our concerns to them about the impact of SNAP time limits on the health of SNAP recipients. We can also share our findings about the potential impact of SNAP on Medicaid costs.

College students and SNAP

SNAP benefits are limited for students in higher education. Historically, a typical college student is someone who recently graduated from high school and is still financially supported by their parents. However, the characteristics of a ‘typical’ college student have changed in recent years. Today, more college students than in previous decades are over age 24 (NCES, 2019), parenting, working part or full time, attending college on a part-time basis, financially independent from their parents. This shift has contributed to a rise in food insecurity among college students across the US, especially for those attending 2 year institutions. In fact food insecurity among college students attending 2 year institutions is higher than in the general population.

The federal government invests heavily in postsecondary education through programs such as federal grants, loans and work study as well as tax credits. According to the Congressional Budget Office this amounted to \$160 billion in 2017 alone (Congressional Budget Office, 2018). Updating policies around postsecondary students and SNAP eligibility to recognize these demographic shifts could serve to maximize that investment if reducing food insecurity helps students complete their degrees of study. The GAO issued a report in December 2018 recommending steps to improve communication of current policy to ensure postsecondary students eligible for SNAP receive it.

In Minnesota, the department issued a Q&A to clarify policy and a flow chart to assist eligibility workers in county and tribal agencies in determining eligibility for students in postsecondary education and the relationship between postsecondary education and SNAP Employment and Training.

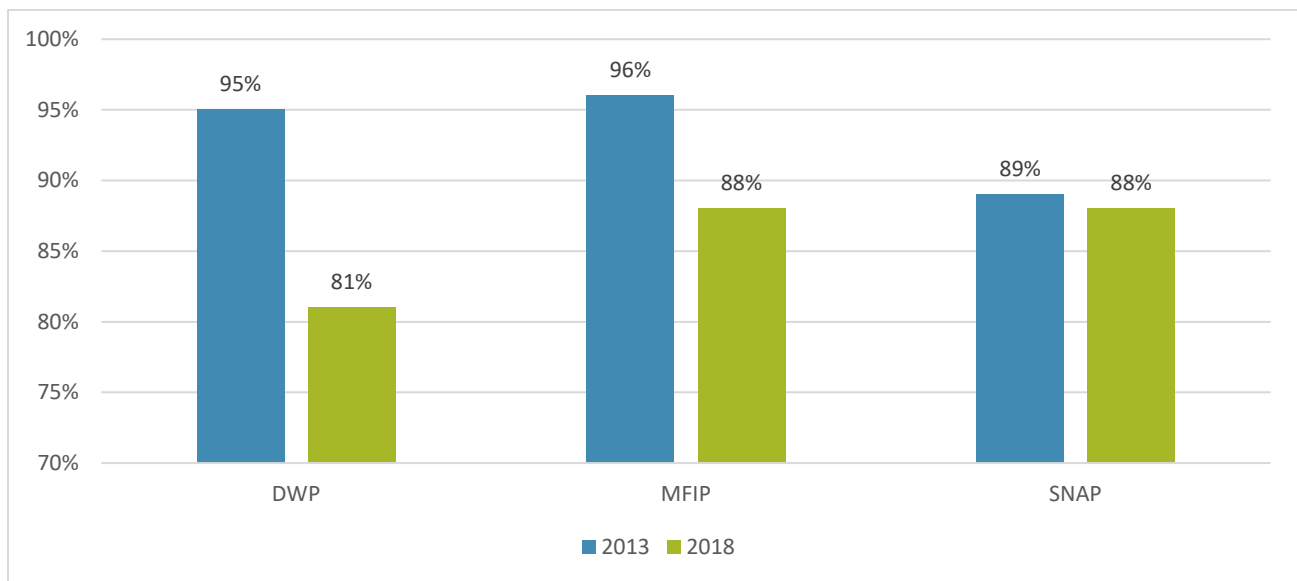
Recommendation: In addition to steps already taken, the department should consider engaging the Minnesota State College and University System in SNAP Outreach.

Dual enrollment in Cash Programs and Minnesota Health Care Programs has declined since 2013

In the fall of 2013, to facilitate major changes in MA and MinnesotaCare eligibility rules under the Affordable Care Act, DHS deployed a new IT system to support eligibility for and enrollment in MA for families with children and adults without children, and MinnesotaCare. The new eligibility system, the Minnesota Eligibility Technology System (METS), is shared with Minnesota's state-based insurance exchange, MNsure, and also supports eligibility for private market insurance enrollment with federal advanced premium tax credits. Beginning in October 2013, Minnesota families and non-disabled adults without children were directed to apply for MA and MinnesotaCare through the online MNsure web portal, and DHS began the work of migrating all existing MA families and adults and MinnesotaCare enrollees from the legacy IT systems, MAXIS and MMIS, into METS. MA enrollees who are age 65 and older, who are blind or have disabilities, and those who need help paying for long-term-care continue to be served via the MAXIS system. MAXIS also contains eligibility and enrollment for SNAP, MFIP, and other financial assistance programs. Prior to the implementation of the Affordable Care Act and the METS, families who needed both financial assistance and health care could apply for and enroll in these programs through their local county agencies via a combined paper application process. Although local county agencies remain the operational front line, administering eligibility and providing case management for all MA populations and a significant number of MinnesotaCare cases, the advent of the METS, which includes a consumer self-serve online application with real-time eligibility results, bifurcated the MA and MinnesotaCare eligibility and enrollment processes from SNAP, MFIP, and other financial assistance programs. To apply for both financial assistance and health care, families and adults must navigate separate eligibility and enrollment processes, each with unique rules and requirements, assorted differing paperwork and often different eligibility workers involved.

As shown in Figure 19, in 2013, nearly all people receiving cash assistance were also enrolled in MHCP programs. In 2018 the rates of MHCP participation among people in cash programs was dramatically lower. MHCP program enrollment was lower for SNAP recipients than cash recipients both before and after the IT system changes. Given the more stringent income and other eligibility requirements in the cash and food programs, almost everyone in cash/food programs should be eligible for MHCP programs program participation.

Figure 19. The percentage of cash recipients who were also enrolled in MHCP³¹ programs decreased from 2013-2018.



We also tried to determine whether there has been a change in the proportion of MHCP enrollees who qualify for and participate in SNAP. This is the inverse of the previous question. Analysis of this program overlap is more difficult as MHCP income limits vary across health care programs and populations, and are higher than those in SNAP. Many people enrolled in MHCP are not eligible for SNAP or MFIP/DWP. We therefore limited our analysis to children's enrollment over time.

Minnesota expanded MA eligibility for children under age 19, from 150 to 275% of the federal poverty guidelines effective January 1, 2014. This resulted in a shift of children within MHCP from MinnesotaCare to MA. In December 2013, prior to the enrollment being in the MNSure system, 44 percent of children under 19 who were enrolled in MHCP were also enrolled in SNAP. In December 2018 this was dramatically lower. Only 23 percent of children enrolled in MHCP were also enrolled in SNAP.

Interviewed parents talk about difficulties they had enrolling in MHCP programs

Of the 27 parents we asked about health insurance, 19 are insured (70%), all but two through Medical Assistance. Two parents said some members of their family have health insurance (primarily children) and others do not (adults). Six parents (22%) appear to be income-eligible for MA but are not enrolled. Five of these are enrolled in SNAP. The sixth parent's income is at 100% FPL. She didn't feel the food benefit she and her teenagers would receive would be worth the effort of enrolling.

³¹ Medical Assistance (Medicaid) and MinnesotaCare, collectively referred to as Minnesota Health Care Programs (MHCP), are the public health care programs in Minnesota.

One concerning thing about the six families with no current MA benefit, is that they have significant health care needs. Two parents are pregnant or just had a baby, one parent has diabetes, and three parents have serious mental illnesses. For example, Emily moved to Minnesota five months ago with her toddler, to stay with a relative as she had been homeless. She receives not only MFIP and SNAP, but she is also getting supportive housing, and has a public health nurse. She has PTSD, borderline personality disorder, and anxiety, and is going without medication as she doesn't have health insurance. Her public health nurse has offered to reach out to her financial worker as phone calls 'stress her out'. Emily has already attained services through multiple social service programs and now needs to apply for MA in an entirely new and different process.

Tina says that she and her daughter usually have health insurance, but that she needs to renew their applications. She says that she has an assigned worker at the county. She has Social Security, MFIP for her child and SNAP for them both. She has bipolar disorder, anxiety and depression.

Other uninsured parents we interviewed had diabetes or were pregnant, but are confused by the MA enrollment process. Two parents have submitted MA applications but they are unsure where they are in the process. For example, Julie is currently pregnant, and she recently moved to Minnesota with her husband and two children.

When I had my first pregnancy, it was much easier and I got insurance the same day. My first pregnancy was like six years ago... in California. So, this time was actually more difficult because they said it could take up to four months, to be approved, and so you'll have to backdate your... [But it would cover, but you'd still have upfront expenses, right? But they would reimburse you. Yeah, four months is a long time.] So we were really surprised, because it wasn't as convenient as it was years ago... [Did you go to the county office, or just do it on the computer?] I went to the county office and I asked everyone what we should do. And they said we can apply for food, SNAP, we'll get approved today. But we can't do medical. So, that's a long process.

Andrea has two teenagers, works full-time without cash or food benefits, and is taking online courses to become a child care teacher. She has diabetes, and is interested in getting health care for her child who is having emotional outbursts.

We applied for MNSure, but I didn't do it through there. I did it on paper. They say it's backed up on paper, so I should have done it online because it's quicker. I wonder if I should do it online. But they said what would happen is I would get knocked off the list for already having it. It's confusing.

The perceptions of these parents help us to understand what it is like to try to navigate multiple systems, each for a different program. Given the evidence about how poverty and chronic stress can make cognitive tasks much more challenging (Sandi, 2013), the complicated processes of applying for these types of support can be daunting. This process may be even more challenging for people with serious mental illnesses. Official 2018 DHS average application processing times for Medical Assistance for families with children was 6 days for an online application and 25 days for a paper application.

Recommendation: DHS should engage with county and tribal human service agencies to identify best practices and fully understand the challenges they face in facilitating the eligibility and enrollment processes across both MHCP and MFIP or SNAP.

The White Earth Nation administers MHCP, SNAP and MFIP programs. The Mille Lacs Band of Ojibwe administers MHCP, SNAP and Tribal TANF. These tribes administer health care as well as cash and food programs in the same system, MAXIS. The Red Lake Band of Chippewa administers SNAP and Tribal TANF, but not MHCP.

Counties in Minnesota administer MHCP as well as MFIP and SNAP programs. Many people have to enroll in different systems for these different programs; the online MNSure process for health care and through the county for cash and food. DHS expects these entities to assist people in evaluating their needs and facilitating the application and enrollment processes for all the county- and tribe-based programs that are available.

Health care and social service providers lament the fragmented public systems

In the interviews with providers, several of them described our social service systems for poor people as fragmented, time-intensive, and confusing. When asked what else we could do to improve the well-being of people in deep poverty, Brenda, a public health nurse said:

What would be really helpful would be simplification. In many ways the process is difficult and confusing... There used to be AFDC [pre-1990's cash assistance program] automatic qualification. You have to keep proving that you qualify for separate programs. ... Keeping the programs separate is not ideal (housing, cash and food). The process could be simplified so that it doesn't feel so onerous... When you are working so hard to get county benefits it is hard to have energy to do all the other things. It's felt by both clients and caseworkers... If you call the county you can get three different answers. Due to the complexity of the programs, largely, [financial workers'] sense of being overwhelmed by caseloads/workloads.

Margaret, the physician put it even more succinctly:

It is time consuming and expensive to be poor. You have to jump through so many hoops, constantly, to survive... We should be decreasing the bureaucratic burden. It is a full time job being poor. How are you even going to try to get employed?

DHS should better coordinate eligibility and information between SNAP and MA

In workgroup discussions, the de-coupling of the eligibility and enrollment processes emerged multiple times as a barrier to dual SNAP and MA participation. (People enrolled in MFIP and DWP were not considered uniquely, as they are almost always enrolled in SNAP, and so they are inherent in this analysis.) As part of this process, the workgroup explored a variety of programmatic and administrative strategies to ensure that individuals and families living in deep poverty can more successfully apply for and maintain the benefits they are entitled to across public assistance programs.

Ideally, Minnesotans living in deep poverty, and all others seeking assistance from public programs, would be served by a single fully integrated eligibility and enrollment system. DHS has initiated efforts to achieve an integrated service business model, with connected IT systems and a streamlined user experience, so people can apply for and enroll in all public programs simultaneously. This is the long-term solution for ensuring Minnesotans have access to the full breadth of human services resources and assistance that they need in a holistic, consumer-focused manner, with minimal administrative barriers and efficient use of eligibility and enrollment data across programs.

DHS is currently developing standard definitions for all DHS program application forms. This is an important precursor to the creation of more integrated systems. However, integrated systems are several years away. Research and analysis was therefore performed to consider intermediate options for coordinating eligibility and information between SNAP and Medical Assistance, to be utilized until the integrated business model can be achieved.

The Express Lane Eligibility option has been effective in some states and should be considered as part of the integrated service business model.

As shown in the bar chart above, 11-12 percent of SNAP participants were not enrolled in MHCP in 2018, even though virtually all of them were probably eligible. DHS could identify these SNAP and MFIP participants. The Centers for Medicare & Medicaid Services (CMS) has authorized states to use non-health care sources (such as income findings from financial assistance programs) to enroll or recertify children for Medicaid and CHIP programs, and they have approved waivers in two states to do the same for certain adults. This is called Express Lane Eligibility, and is currently implemented in eight states. States that automatically enroll financial assistance recipients in health care programs have realized benefits both in terms of greater enrollment of uninsured children, as well as in administrative savings with reduced staff time spent processing applications and renewals.

Staff in the Health Care Eligibility and Access Division reviewed the legal and practical feasibility of pursuing Express Lane Eligibility now. This would require changes to state law, and submission of a state plan amendment to CMS. Federal approval of a section 1115 waiver would be needed to extend Express Lane Eligibility to parents and adults without children. Following the passage of legislation and federal approval, implementation of Express Lane Eligibility would require the construction of electronic interfaces between the MAXIS eligibility system, which supports SNAP, MFIP and other financial assistance programs, and the METS system, as well as significant changes to METS to carry out automatic MA eligibility for SNAP and MFIP participants. Given the current trajectory of METS development, and the eventual implementation of an integrated system across both social service and health care programs, such changes are deemed impractical right now. However, Express Lane Eligibility should be explored as a strategy to simplify program rules and streamline the consumer experience within the future integrated service business model.

Recommendation: Permit and support county, tribal and DHS workers in using existing verified SNAP and MFIP participant data to verify MA and MinnesotaCare eligibility, as an alternative to paper documentation.

Federal regulations permit Medicaid agencies to gather and use financial data from SNAP and the State's Temporary Assistance for Needy Families program (MFIP in Minnesota), to the extent the agency determines it

useful to verifying a person's financial eligibility³². Since the MAXIS to METS systems interface needed to electronically access SNAP and MFIP data is not currently available, Minnesota has thus far declined to use SNAP and MFIP data to verify health care eligibility. However, DHS has not explored the potential for using SNAP and MFIP data to verify financial eligibility for health care programs as an alternative when manual verification of income is warranted.

Generally, the agency is required to exhaust all available sources of electronic verification prior to requesting paper documentation from an applicant or enrollee to verify health care eligibility³³. If electronic data is not available, or the electronic data is not reasonably compatible with the person's attested information, the worker requests paper documentation from the person. Although SNAP and MFIP data is not available through an electronic interface, eligibility workers could look up SNAP and MFIP income data in the MAXIS system and utilize it to verify financial eligibility for health care programs. In some number of cases, this would alleviate the need to request, submit and process paper documentation, lessening the administrative burden for both clients and workers. Individuals and families that participate in both financial assistance and health care programs would be more likely to maintain health care programs eligibility as a result. DHS would need to create policies, procedures, and worker training to assist and support workers in their use of SNAP and MFIP data to determine and renew health care programs eligibility. Staff in Health Care Eligibility and Access and Health Care Eligibility Operations are collaborating on a plan for this initiative.

The ideas above are about making it easier for MFIP/SNAP enrollees to enroll in MHCP programs. It would also be useful to find ways to make it easier for MHCP enrollees to become enrolled in MFIP and SNAP. This makes a lot of sense as there appears to be a benefit to consistent access to food support in at least one MHCP population (those without dependents and without an established disability).

Recommendation: Investigate the possibility of connecting MHCP enrollees with people who can help them enroll in SNAP

There are various ways that DHS could reach out to MHCP enrollees to offer assistance with enrolling in SNAP. For example, SNAP outreach managers have indicated that if DHS could send them a list of low-income people enrolled in MHCP but not in SNAP in each community in Minnesota, community organizations doing SNAP outreach would contact them and help them to enroll. However, Medicaid enrollment data may only be used for purposes directly connected with the administration of the state plan, which limits us to the provision of Medicaid services³⁴. We are thus not currently allowed to share identifying information about MHCP enrollees with other programs or to contact MHCP enrollees who seem to be eligible for financial assistance programs, and encourage them to participate.

³² 42 CFR 435.948(a)(2)

³³ 42 CFR 435.952(c)

³⁴ 42 CFR 435.907

DHS is planning to look into other possibilities for communicating with MHCP enrollees to let them know who can help them enroll in other programs such as SNAP. Some preliminary ideas are to educate and encourage Navigators to make appropriate referrals, and review recipient mailings to determine if there is an opportunity to insert information about how to contact SNAP outreach workers.

Do participants 'churn' on and off of MFIP and SNAP?

Churn occurs when a household receiving public benefits exits the program and then re-enters within a few months. This section describes evidence related to the consequences of churn both nationally and within Minnesota SNAP and MFIP enrollees.

Is churn a problem nationally?

This section is taken from Dr. Fertig's literature review on churn³⁵. Some churn is expected given that eligibility could change because of short-term changes in income. However, churn among households that are continuously eligible is problematic because of the harmful effects on households as well as the time and costs associated with re-entering the program (for both the household and administrative staff). One qualitative study of local SNAP caseworkers and administrators found that the perceived consequences of SNAP churn includes anxiety, food insecurity, missed rent payments and utility bills, inability to meet other basic living expenses, and reliance on food pantries (Mills et al., 2014). More broadly, income volatility, which could result from churn, has been shown to increase the risk of experiencing mental health problems (Bøe et al., 2017; Prause, Dooley, and Huh, 2009) and can increase the rate of ED visits (Basu, Berkowitz, and Seligman, 2017). The financial costs associated with SNAP churn have been estimated to be between 1 and 4 percent of statewide SNAP administrative costs overall and between 2 and 5 percent of SNAP benefits forgone by households (Mills et al., 2014).

The percentage of SNAP cases that experienced at least one churn spell is estimated to range between 17 and 28 percent in 2011 (Mills et al., 2014). One-third to one-half of all households that churn were likely benefit-eligible while off the program (Mills et al., 2014). While the literature does not discuss TANF churn (but instead refers to re-entry and recidivism), 19 percent of TANF leavers (between 1996 and 2001) were found to re-enter welfare within four months (Acs and Loprest, 2007). This language distinction suggests that households only leave TANF because of ineligibility.

Studies have found that the main barrier to maintaining consistent coverage on SNAP is procedural difficulties (Ribar, Edelhoch, and Liu, 2008). For 66 to 90 percent of churning households, the exit from SNAP occurs at the time of a scheduled recertification or a required interim report (Mills et al., 2014). Households that churn at recertification are more likely to have experienced a residential move, a change in household size, a change in TANF or SSI receipt, a change in employment, or a change in earnings (Mills et al., 2014).

While some argue that procedural difficulties may serve the system by ensuring that those who need the benefits the most will be the most likely to work through the administrative challenges (Nichols and Zeckhauser,

³⁵ <https://z.umn.edu/UMNDeepPovertyReport>

1982), the evidence indicates that those most in need are the most likely to experience churn. The households at greatest risk of churn are those with no earned or unearned income (Mills et al., 2014). Among households coming due for recertification, households with elderly or disabled members are more likely than others to churn (Mills et al., 2014). Similarly, welfare leavers with a work-limiting disability or with a disabled child are more likely to re-enter welfare than those without (Acs and Loprest, 2007; Huang, Porterfield, Jonson-Reid, and Drake, 2012). Thus, the procedural difficulties may pose a barrier that is too high for those most in need.

Dr. Fertig was only able to find two studies that have examined the impact of interventions or administrative changes aimed at reducing churn. One study found that living in a state with more relaxed asset limits (i.e. eliminating assets tests through broad based categorical eligibility policies) decreased the likelihood of SNAP churn by 2 percentage points, representing a 26 percent decline in SNAP churn (Ratcliffe et al., 2016). A large foundation-funded study by the Urban Institute, called the Work Support Strategies initiative, was launched in 6 states with the goal of helping low-income families get and keep the full package of work supports for which they are eligible (focusing on SNAP, child care assistance, and Medicaid) (Isaacs, Katz, and Amin, 2016). Only two states (Idaho and Rhode Island) were able to track SNAP churn for evaluation. The actions taken to reduce churn were to: 1) prepopulate redetermination forms, 2) gather information already available electronically (e.g., using SNAP information to renew Medicaid), 3) change operations for processing renewals, 4) lengthen certification periods for benefits, and 5) align redetermination dates for multiple programs. As a result, Idaho's SNAP churn rate fell from 19 to 17 percent, but Rhode Island's SNAP churn rate increased from 32 to 39 percent (Isaacs et al., 2016). Differences in effects were attributed to system problems and understaffing in Rhode Island. In addition to these two evaluation studies, a qualitative study found that local SNAP administrators and caseworkers recommended the following to reduce SNAP churn: 1) align the recertification dates for SNAP, TANF, and Medicaid; 2) eliminate the requirement for a face-to-face interview at recertification; 3) use call centers to handle routine client communication (like address changes); and 4) allow clients a "30-day grace period" for failing to provide required documentation at recertification or an interview report (Mills et al., 2014)" (Fertig, 2018, p. 11-12).

Is churn a problem for Minnesota participants of MFIP and SNAP?

In interviews with Minnesota parents, churn came up a lot, though we did not ask about it. Parents describe the challenges of getting their paperwork in, and of getting their benefits cut or dropped when they didn't. They acknowledged that it was their own doing, but described it as a major challenge, and that getting their benefits cut had a noticeable impact on their family's access to resources.

Examining a cohort of cases closing in 2016 we found that:

- 24% of MFIP cases that closed re-opened within 3 months and 33% re-opened within 6 months
- 15% of SNAP cases that closed re-opened within 3 months and 26% re-opened within 6 months

While some families may have experienced a change in circumstances that necessitated renewed assistance, when a case closes and re-opens quickly it can indicate that a case closed due to compliance requirements. The higher rate of churn in the MFIP program may be linked to the more frequent and extensive reporting required to receive cash vs food assistance. This is supported by the fact that interviewed SNAP recipients did not express

the same frustration with paperwork that MFIP recipients did. This is a benefit of having a six-month eligibility span, and fewer requirements. We hope to keep the requirements for SNAP simple in this way, and to continue SNAP without an asset test or other requirements of MFIP.

The income supporting programs we've just reviewed are designed for a variety of people with low income. The next section looks at programs for people who have a disability.

Income supports for low-income people with disabilities: SSI, SSDI and MSA

Subject Matter Experts: Jill Hillebregt, Deborah Schlick, John Petroskas³⁶

There are a few programs which provide income specifically to people with disabilities. Supplemental Security Income (SSI) is the federal program for people who are disabled and have low-income. This is an important program for people who are unable to work enough to support themselves and would otherwise be without an income.

SSI has a maximum benefit of \$783 per month, which would put an individual with no other income at 74% of the poverty level. If they have a spouse, then the benefit puts their combined income at 82% of the federal poverty guideline if they have no other income (SSI Federal Payment Amounts for 2020). Adults eligible for SSI are often also eligible for Minnesota Supplemental Aid (MSA), which is typically \$81 per month for a single person and \$111 for couples (Department of Human Services, 2020).

Retirement, Survivors, and Disability Insurance (RSDI) is another federal program which provides income to people unable to work or to their spouse or dependents. It requires that people become “insured” for RSDI purposes after they earn income above a certain level during 40 calendar quarters. In 2020, this level was \$1,410 per quarter (Social Security, n.d.). If an insured person, or their spouse or dependent, becomes disabled and are eligible for RSDI, their benefits are based on their earnings. A person who earned more during their work history will receive more RSDI than a person who earned less during their work history. If a person had only very low-wage jobs, it is possible they will receive both RSDI and SSI benefits. Most people who receive RSDI have benefits that exceed the \$783 SSI federal benefit rate.

In our interviews, we talked to two people who receive income from a program targeted to people with disabilities. Without subsidized housing, each family cobbles together multiple sources of income and in-kind benefits to make ends meet.

Tina lives with her toddler and receives Supplemental Security Income, possibly due to her multiple mental health conditions. Her total income is at the poverty line, and comes from SSI as well as MFIP and SNAP. She pays market rate rent (about \$700). We met her at a free meal site in the metro where she accesses free meals as well as free clothing.

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Eloise is blind and lives in a multi-generation family with her mother, one of her siblings, and her grandchild. She is receiving income from Social Security Disability Insurance, and other members of the family receive Social Security, Veterans benefits, and MFIP and SNAP for the grandchild. They live at the poverty level.

Navigating the enrollment process, including getting a disability determination

Accessing federal financial benefits can be a challenge in any public program, but it can be especially challenging for programs that require a disability determination. This is a complex, time-consuming, and sometimes expensive process. It generally requires compiling extensive medical documentation over multiple years, and filing legal paperwork with the Social Security Administration.

In our interviews, we talked to multiple people who described significant limitations in their ability to work due to a physical or mental health condition, but who are not receiving SSI, SSDI, or any other financial supplement linked to a disability. Two of them were on MFIP, not because MFIP was the right program, but because they knew about it and had successfully enrolled in it.

Emily appears to be in her twenties and lives with her toddler. She tells us that she has post-traumatic stress disorder, borderline personality disorder, and what she refers to as serious anxiety'. She receives MFIP and SNAP, and her total income is less than 50% FPL. She has been moving around to live with different friends and relatives for three years.

When I don't have a roof over my head, that's when I move from state to state, to stay with someone who will take me in. That's when I jump city, jump state. I was on the street from 15-17.

Emily applied for disability in the last state she was in, but was denied, and didn't continue the process after she moved here. However, she's going to try to find a therapist to verify her mental health conditions, and allow her to be in an MFIP program with more flexibility in allowed services. She recently received subsidized supportive housing so the apartment she shares with three other women costs her less than \$200 per month. She got access to this program after she got lost when she was looking for a homeless shelter, was wandering around, and was approached by a public health nurse. Given Emily's mental health conditions, SSI might be a more appropriate program for her than MFIP.

Alison lives with her boyfriend and their two children under the age of six, and they live in part of a friend or family member's home (at lower than market-rate rent). Her boyfriend has seizures and cannot work, and they are working with a law firm to start the process of getting a disability determination so he can receive SSI. Alison also does not work as she is afraid that her boyfriend will get hurt if he falls when she is not there, and she needs to take care of their children.

Sometimes [you] don't see [the seizure] coming. He had a head injury when he was a child. His grandma kept him alive, taped a phone book around his head to keep skull together. With

that, anything, a small fight, getting hit in the head the wrong way, he's gone, he's done. No more of him. That's one of my biggest fears... What happens if he goes upstairs to move something; he's coming down and falls down the steps, and falls, he's done... It's not just an excuse [for me to not work], this is real life. People think that seizures are just somebody falling, they're not. Fifteen minutes into a seizure somebody can go brain dead for the rest of their life. And that's not how I want my kids to see their dad.

DHS offers two programs to assist people applying for federal disability benefits. The Social Security Advocacy program assists people who are disabled and receiving DHS programs such as MFIP, GA, Housing Support, and foster care, and the SSI/SSDI Outreach, Access, and Recovery (SOAR) program helps people who are disabled and are experiencing homelessness or are at risk of becoming homeless. Both programs provide assistance with completing Social Security forms, filing appeals, and representing people at hearings.

These programs are critical for a couple of reasons. First, many people who would qualify as having a disability do not succeed in navigating the disability determination process without substantial assistance. Serious mental illness is one chronic condition that can qualify as a disability but that can make it extremely difficult to navigate this process.

Secondly, if applicants sign an Interim Assistance Agreement with DHS, this allows DHS to reclaim the GA and Housing Supports benefits the applicant received while waiting for a disability determination. This is a process which partially pays for itself in the following way. DHS compensates the grantees providing Social Security Advocacy and SOAR for their assistance after they successfully get someone through the disability determination process. Then, after the SSI is in place and DHS has recouped the GA and Housing Supports benefits, DHS reinvests these funds in new SOAR and Social Security Advocacy cases. This process is great both for the people who receive SSI benefits, as well as for state funding.

SSI offers higher monthly financial benefits than does MFIP, as well as not requiring that a person documents their efforts at a job search, so it is much less work on a monthly basis. For people like Alison who don't feel like they can take a job, the job search part of MFIP doesn't really make sense. Receiving SSI is a better financial arrangement for the state since SSI is fully funded at the federal level, while MFIP is a block grant with a pre-determined amount of funding regardless of the number of enrollees.

Recommendation: People with disabilities who receive GA should be given 90 days to meet with a Social Security Administration worker.

In Minnesota, a person who is disabled has an extra requirement in order to receive GA benefits. They must complete additional paperwork for the county or tribe and apply for and participate in an interview with a Social Security Administration worker within 30 days of being told to apply for Social Security disability benefits by their county or tribal eligibility worker.

Unfortunately, the requirement to apply for Supplemental Security Income is impossible to meet for many GA applicants in Minnesota. Twenty-three percent of people seeking Social Security based on blindness or disability waited 41 to 61 days between first contact with the office and their appointment. In six of Minnesota's 17 field offices, a significant majority of cases (97 percent in one of the field offices) were not processed in under 30

days. People applying for GA also experience the same delays in making their application within 30 days as directed by current state law. The delays by Social Security to process applications is through no fault of the people applying for GA. These delays are beyond their control. It would be much more realistic to expect this task to be completed within 90 days.

In this chapter we tried to take a thorough look at a few income supporting programs for people living in deep poverty. We offered some specific ideas for improving their effectiveness. In the next chapter we briefly review financial benefits that many higher income people use when they cannot work, but which low wage workers generally do not have access to. This provides some perspective on why some low wage workers are accessing programs such as MFIP when it may not be the best fit for their situation.

IV. Financial benefits generally NOT available to Minnesotans living in poverty

Subject Matter Experts: Jill Hillebregt, John Petroskas, Deborah Schlick ³⁷

Income to sustain people during times they are unable to work comes from different systems. Each system has been designed for a particular population. The value of the benefits, the level of stigma associated with accessing them and the amount of work it takes to access them differs by system.

People who have established that they have a disability may receive income from the Social Security Administration. Supplemental Security Income, the program for people who are disabled and have low income, has a maximum benefit that would put them at 74% of the poverty level if they had no other income in 2019. If the person has a spouse and neither has any other income, then the benefit puts their combined income at 82% of the federal poverty guideline. People with disabilities may also receive employment benefits and/or public welfare or tax benefits.

Middle- and high-income workers often have access to income from employers when they are out of work due to medical or caregiving responsibilities (e.g., sick and maternity leave). In addition, many can receive income to replace earnings due to a job loss from unemployment insurance. Middle income workers may also receive tax benefits, though different ones than the ones for low-wage workers (e.g., mortgage interest deduction).

Most low-wage workers do not have access to sick or maternity leave (U.S. Bureau of Labor Statistics, 2016).

- Ninety percent of workers whose wages are in the highest 10% have paid sick leave. Only 28% of the workers whose wages are in the lowest 10% have that benefit.
- Fourteen percent of civilian workers in the United States have access to paid family leave. Workers earning the highest wages are the most likely to have access to paid family leave, and workers whose wages are in the lowest 25 percent are the least likely to have access to paid family leave.

Some low-wage workers can access public welfare programs and needs-tested tax credits to replace or supplement wages. However, the value of the benefit and a worker's eligibility varies dramatically according to whether or not the worker has children.

Among low-wage workers, those with children may be eligible for financial assistance through the Minnesota Family Investment Program (MFIP) to supplement their wages or to replace income while they're out of work.

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The stipends are small; the newly raised grant, plus a \$110 housing grant for families who do not receive any housing subsidy puts a family of three's income at \$742 per month. This is only 42% of the federal poverty line. Families with children earning low wages may also be eligible for tax credits. Tax credits are only available in calendar years when the family has earned income.

On the other hand, low-wage workers without dependent children are categorically ineligible for some financial benefit programs (e.g., MFIP). Other financial programs' benefit levels are relatively low. For example, General Assistance is currently \$203 per month and only available to adults in limited circumstances. Adults without dependents (who do not have a disability determination) in most counties are only eligible for three out of 36 months of Supplemental Nutritional Assistance Program (formerly called food stamps).

The previous sections described the situations in which low-wage workers have a natural fit with existing programs (e.g., the Earned Income Tax Credit and SNAP), and how expanding eligibility or benefits could help those programs more effectively respond to people in deep poverty. The section below describes programs that currently do NOT exist for most low-wage workers, but for which there is a definite need. This is not a complete investigation of all the possible supports that should be considered for low wage workers. These are just issues that surfaced through comments by the people interviewed.

Unemployment insurance

Low-wage workers may experience more sporadic work histories, more part-time time work and more job loss. Low-wage workers in the United States are two-and-a-half times more likely to be unemployed as higher-wage workers. However, they are only half as likely to collect unemployment insurance benefits when unemployed (Government Accountability Office, 2007).

They are more likely to work in sectors with low rates of unemployment insurance take-up. Hourly workers in the retail and hotel/restaurant sectors and temporary workers placed in those sectors along with workers in low-wage health care occupations (such as personal care attendants and nursing home aides) often have inconsistent schedules. Four parents talked about the challenges that lead people to need unemployment insurance. They describe unreliable hours in a restaurant (two parents) or construction (two parents) and how tough this is on their families.

John³⁸ described how he can't find work in construction in the winter.

Mike is in the Twin Cities, has a car, and even has two years of college for construction. We interviewed him during a cold spell in February, and he said that the previous week he had only worked three days due to the cold (temperatures averaged -4 to 16°F that week). His wife's check from a fast-food restaurant was short too, so they were not going to be able to pay the bill for their long-term motel.

³⁸ All interviewees' names are pseudonyms.

Stacy worked at a restaurant for many years and received a back injury from years of heavy lifting, and her employer “let her go.” She describes her current challenges with a new job with unreliable hours.

I work in the restaurant industry, that is a job where you go in at a certain time, and it could be that you work three hours, or you work five hours, or ten hours. You don't know. It's hard for me to determine how many hours a week I'll be working. I typically work 15 hours per week.

Maria, her husband and three small children do not receive MFIP or SNAP. They immigrated to the US two years ago. She stays home with their children while her husband works, with hours that vary dramatically according to how busy the restaurant is. Although their income is at the deep poverty level, she doesn't wish for him to have a job with higher wages; she would instead like him to have more steady hours.

In the nine interviews with parents who were not working outside the home and do not have disability benefits, none of them mentioned unemployment insurance as a source of income. The time they had been out of work varied from five months to three years (some did not tell us the amount of time), and was often precipitated by a major transition, such as the birth of a child or transitioning to a new situation due to domestic violence. We did not find any data on the use of unemployment insurance among low-wage workers in Minnesota, but another qualitative study on low-wage Minnesotans found that only two of 40 people who had recently been separated from low-wage jobs were receiving unemployment insurance (Urban Institute, 2019). In that study, low-wage workers reported that the application process was too difficult or that they did not qualify, either because their employment had not lasted long enough or they could not prove that they left their job involuntarily. In these very small samples, low-wage Minnesotans do not appear to find unemployment insurance a reliable source of income when they are out of work.

In our interviews we talked with parents with minor children, and some of them used MFIP to supplement or replace their income when they were out of work. We did not talk with low-wage workers without children. However there are even fewer options for low-wage workers who do not have children and are experiencing underemployment. General Assistance (GA) is only available to unemployed adults if they meet one of the following criteria:

- They are ill,
- needed in the home to care for a family member,
- placed in a residential facility,
- unemployed,
- developmentally disabled or mentally ill,
- aged 55 or older,
- involved in court-ordered services,
- applying for disability income,
- have chemical dependency or addiction, are learning disabled, or
- are a fulltime student eligible for displaced homemaker services

The GA program is administered by all Minnesota counties and one tribe. Red Lake Nation administers a separate tribal GA program with the same monthly benefit as the county-administered program.

Maternity leave

A striking number of parents we interviewed at places offering free goods and services were either pregnant or caring for a baby. This was not our intention; we did not try to recruit parents in the perinatal period (defined here as pregnancy through 13 months of age); this is simply who we came across. We visited four sites where people were accessing free goods and resources from the non-profit sector, presumably because the public sector and labor market could not meet their needs: two food shelves, a free dental clinic, and a homeless shelter. Of the 17 people we interviewed at these places, a striking 47% of parents were in the perinatal period:

One was pregnant

Two had babies under 12 months

Three had babies 12-13 months old

Two said their child is a baby, and we didn't ask the baby's age

We didn't always ask the age of children, so this may be an undercount. (Some other parents talked about the cost of diapers and wipes and another talked about their child in child care, but because we didn't ask their child's age, we didn't include them in the percentage above.) Most of these families in the perinatal period had older siblings, too. However, when we looked at other child age brackets (e.g., preschool, grade school, teenage years), none of them were nearly as common as the pregnancy to 13 months age group.

The U.S. is unusual among nations in the 37 nations participating in the Organization for Economic Cooperation and Development, because it lacks mandatory paid maternity or paternity leave to support families during this financially vulnerable period (OECD Family Data Base, 2019). About 46% of low wage workers are without paid family or medical leave (Institute for Women's Policy Research, n.d.). Several factors may explain why there were so many parents in the perinatal period accessing free services:

- High cost of child care (infant care at a center in Minnesota averages more than \$15,000 a year) (Child Care Aware, 2018)
- A waiting list of more than 1,700 families as of June 2019 for Minnesota's Basic Sliding Fee child-care assistance (MN DHS, 2019)
- High cost of housing
- Low wages, with almost half the workers in Minnesota earning less than \$17.69 an hour (the wage level needed to meet the basic needs of a family of three (DEED, undated).

Sick leave

Most low-wage workers don't have paid sick leave to cover their wages when they have to stay home for a short while for a cold or longer for a more serious illness or injury (U.S. Bureau of Labor Statistics, 2016).

Anita told us about how her family cobbles together enough to make ends meet when she had an injury and couldn't work. Anita worked as a nursing assistant in a nursing home, and her husband works full-time. Together they earned enough to be at the poverty level for themselves and their three children. However, Anita recently had surgery, and her baby has a food allergy, so Anita is taking two months off of work. Anita has not left her employment for good; she intends to go back after her recovery. In fact, her employer pays for her educational credits to maintain her nursing assistant license. She does not have paid sick leave, and so she makes ends meet by accessing free resources such as the food shelf where we interviewed her, a clothing shelf and a church program that provides food. The children receive free meals at school. Anita also babysits for money and sells things they no longer need. They also receive WIC.

Stacy received a back injury from work. She did not get sick leave or unemployment insurance (and we didn't ask if she was eligible or applied). Instead, she got MFIP and SNAP benefits. Stacy managed a pizza restaurant, and after doing that job for several years she injured her back from lifting dough, so she has a hard time lifting and standing for long periods.

I had sciatica ,and a cervical disc herniated, which I did get taken care of, so that's why I came to [my MFIP and SNAP financial worker], 'cause I need help until I can get another full-time job.

Some parents seem to be using MFIP because they do not have adequate paid maternity or sick leave

We talked to multiple parents who had been supporting themselves and their children through low-wage work, without assistance from MFIP, SNAP or similar programs, but who needed to stop working because they had a baby or got sick. They did not have paid family leave, and so they applied for MFIP to get them through the period without employment earnings.

However, MFIP is a program to move people into the workforce, so the rules and benefit calculations are not often a good fit for these parents. For example, MFIP has a two-month lookback period, so they are not eligible for benefits until two months after their income is low enough to meet MFIP requirements. As a result, two of the families in this situation became homeless. Their experiences are described below.

Christine was working in a retail job, earning about 150% FPL for herself and her three children. She had thought that she would receive paid maternity leave and only found out two weeks before she delivered that she would not. MFIP's two-month lookback for counting income made her ineligible when she was applying for it.

So I had to really scramble trying to find out how I was going to pay my rent, make ends meet. Because I wasn't on MFIP before having my son, so I had to figure out how I was going to pay rent, buy food and still maintain after I had him, because I had to take the six weeks off. So when I learned that I didn't qualify for MFIP then and there because of my [recent employment] income, so I had to wait until I was eligible. And then when I was, it wasn't enough to pay my rent and my bills... When I did get approved, I was already two months behind in rent. And before that I didn't qualify because of my income. When I went to the landlord and tried to give him what I had for MFIP, they wouldn't take it by that time... So I ended up getting evicted. So that's why I'm here [in a homeless shelter].

Diane was working in telephone customer service, in an environment that was emotionally rough for her. She needed a break to address mental health issues. She had some sick time but had exhausted it. This is when she lost her income and then her housing.

The reason that I qualified for [MFIP] was that I went on a leave at work, I was going through mental and emotional moments, so I had to take a leave at work.

Access to paid family leave may have prevented the housing crisis both Christine and Diane experienced when they needed to take a temporary leave from full-time employment. In order for paid family leave policies to prevent low-wage workers from falling into deep poverty because of the birth of a new baby or a seriously ill family member, they would need to have high wage replacement rates for the lowest paid workers (the level of replacement would be higher for lower paid workers than for higher paid workers). Paid family leave may be even more important for low-wage earners without children, as they are categorically ineligible for MFIP and have even fewer options for support during a time of under- or unemployment.

The next section reviews one initiative in Minnesota's Medicaid program that encourages health care providers to collaborate with social service providers so Medicaid patients get access to needed social services.

V. Health care providers connecting patients with social services

Subject Matter Expert: Mat Spaan³⁹

Like many states, Minnesota’s Medicaid program has been experimenting with innovative payment models designed to improve the quality and value of the health care received by Medicaid enrollees. One of these, the Integrated Health Partnership (IHP) program allows health care provider organizations voluntarily to contract with DHS to care for Medicaid enrollees in both fee-for-service (FFS) and managed care under a payment model that holds these organizations accountable for the total cost of care (TCOC) and quality of services provided to this population. The new iteration of the program includes both resources and expectations for these provider organizations to begin to address social determinants of health.

Within this model, most IHPs are able to retain a portion of any savings when their patient population’s health care costs are less expensive than expected. Towards this, participants are encouraged to develop strategies to improve quality and patient experience while reducing unnecessary utilization of care—for example, developing plans for improving care for patients with particular social risk factors. To assist in this strategy, DHS provides IHPs with patient and service level encounter data which allows them coordinate the care their patients receive and monitor their population’s health outcomes. Beginning in 2018, IHPs are also provided an upfront, flexible population based payment, which is modified based on both the medical and social risk of the IHP’s population, to support this care delivery reform work.

IHPs are in a unique position to address social risks in their patient populations. In a value-based payment arrangement, providers have financial incentives to address non-medical needs of their patients, because social determinants of health like deep poverty, are strongly associated with poor health outcomes and higher healthcare costs (Department of Human Services, 2018). IHP providers can help people who live in deep poverty connect to available resources by creating partnerships with community-based organizations.

In a study supported by the Robert Wood Johnson Foundation and Kaiser Permanente Community Health, the Center for Health Care Strategies and the Nonprofit Finance Fund found that partnerships between healthcare providers and community-based organizations were effective in addressing social needs that contribute to poor health outcomes. For example, CHCS documented a partnership between the Children’s Hospital Colorado and Hunger Free Colorado that resulted in over 36,000 households receiving food assistance. In San Diego a partnership between federally qualified health care centers and a community information exchange resulted in fewer emergency medical services and increased stable housing rates (CHCS, 2019).

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In Minnesota, IHPs also partner with community-based organizations to address social determinants of health. In exchange for the population-based payment, Minnesota's IHPs are required to conduct interventions that specifically address social needs and risk factors. The focus of these equity interventions depends on the unique needs of each IHP's population of patients. For example, eight out of the 25 current IHP's are focused on connecting patients with food resources or social services (see Table 17 below).

The first cohort of IHPs to receive the population-based payments submitted the results of their equity interventions to DHS in October of 2018. The following two stories provide a good example of how these interventions are already beginning to impact Minnesotan's lives.

"A mother was referred to Community Connect for food support. The family of five was struggling to afford food and did not receive enough income to support their family. Mom was already receiving WIC but was unable to work due to being unable to afford childcare for her 3 year-old. The Resource Navigator connected the family to a preferred community partner for childcare assistance and scholarship support. With her childcare application approved, mom was able to start looking for work. Additionally, the Resource Navigator provided resources for food pantries close to home and coordinated a referral to an organization who helped the family apply for SNAP benefits as mom "didn't know how it worked." She has now been approved and is receiving benefits. Mom was also able to receive assistance with her utility payments." (Children's Hospitals and Clinics of Minnesota IHP)

"A home care nurse identified food as a barrier for medication adherence for one of our patients. This individual reported only eating once per day with limited resources for food. This was causing non-compliance with necessary medications that required three doses per day. Our home health nurse got them connected with our Community Health Coordinator for enrollment within the Food Farmacy. Food is now delivered and a part of their Home Care plans." (Lakewood Health IHP)

DHS is continuously working with IHPs to address social determinants and improve the health of people living in deep poverty. DHS is also in the process of developing quantitative assessment of the effectiveness of these interventions.

Figure 20: Integrated Health Partnerships equity interventions focused on connecting patients with food resources or social services, 2018.

| IHP 2.0 | Name of the Intervention | Focus |
|---|--|---|
| Children's Hospitals and Clinics of Minnesota | Community Connect Model | Connecting families to on-site services and/or external resources |
| Hennepin Health System (HCMC) | Second Harvest Heartland Partnership | Connecting patients who are food insecure with food resources |
| Homeless | Hennepin County Human Services Partnership | Connecting at risk populations with social services |
| Lakewood Health System | Food Insecurity Intervention Model | Connecting patients who are food insecure with food resources |
| North Memorial Health Care | Second Harvest Heartland Partnership | Reducing hunger and increasing access for healthy foods for individuals who are food insecure and have chronic disease |
| Winona | Winona Wellbeing Collaborative | Connecting patients at risk with social services they need by coordinating care using the Pathways Community HUB model |
| Allina Health System | Accountable Health Communities (AHC) Model | Connecting patients to the five core health-related social needs: housing instability, basic living costs such as utility bills, food insecurity, interpersonal safety, and transportation. |
| Essentia Health | Hunger Solutions Partnership | Connecting patients to their Hunger Help-Line through a referral. Hunger Solutions then connects hungry people to local food resources, such as SNAP, WIC, food shelves, farmers markets that accept EBT. |
| Northwest Metro Alliance | Accountable Health Communities (AHC) Model | Coordinating care between Mercy Hospital and Community Emergency Assistance Program (CEAP) about a person's health related social and medical needs, in order to enhance and coordinate services |

Health care alone is not enough to ensure the health and well-being of Medicaid enrollees. These health care-social service partnerships are important pathways for people who are not currently connected with social services, to get access to these services. However, it is also important that the social services are both effective and available to those who need them. If the right services are available when needed, the referrals from health care providers will be more effective at improving the health and well-being of Medicaid enrollees.

VI. Conclusion

This report utilizes multiple data sources to illuminate the connections between deep poverty and health, and to investigate which interventions may improve the health of people living in deep poverty. Our biggest findings relate to how closely deep poverty is linked to chronic stress and to its negative health effects.

Our literature review found evidence of many ways that poverty leads to poor health. This includes the material deprivation that results from poverty; the food deserts and unsafe environments where many people in deep poverty live; and the impact that chronic stress and elevated levels of the ‘stress’ hormone cortisol have on people's health. We also find that among Minnesotans enrolled in Medical Assistance or Minnesota Care, those living in deep poverty are more likely to have a variety of chronic conditions than are those with slightly higher income, even when controlling for demographic, geographic, and other relevant factors.

Most parents we talked to who are living in or near deep poverty described a near-constant worry about how they will afford basic necessities. For some, this worry resulted in sleeplessness, inability to focus, and other symptoms that not only produce physical and emotional hardship, but also hinder their attempts to move out of poverty. Parents described how they try to insulate their children from this stress, with mixed success.

Health care and social service providers who predominantly serve people in deep poverty described the impact of stress on their clients. They described how poverty makes it harder for their clients to maintain their mental health and care for physical health conditions, or how the constant financial crises pushes them to focus on their immediate (instead of long-term) financial needs.

Based on these findings, we conclude that the best way to improve the health of this population is to give them the tools and supports they need to move out of deep poverty. We recommend working collaboratively to create a plan that would allow all Minnesotans to move out of deep poverty. We also recommend modifying DHS programs in ways that make them easier for people in deep poverty to benefit from them.

Recommendation: Improve access and reduce gaps in DHS programs

The recommendations provided below are intended to improve the lives of people living in deep poverty in two ways:

- Redesign of DHS programs and policies so they respond more effectively to the realities of a life in deep poverty, characterized by income volatility and chronic stress, that is exacerbated by trying to meet complicated program demands.
- Ensuring resources can carry people through the transitions such as the birth of new baby, loss of a job, involvement in child welfare services that quickly turn into crises and send a life on the edge over the edge.

These recommendations are important for all people living in deep poverty. However, because Minnesotans with an American Indian or African American heritage experience the greatest health disparities and are

experiencing the effects of generations of structural racism, these are even more critical for these populations. The following are our recommendations for improving DHS programs.

Minnesota Family Investment Program

- Redesign the way income is calculated in order to provide more predictable levels of assistance and to counter the income volatility that low wage workers experience:
 - Discontinue using income from two months earlier to set monthly benefits and instead use income anticipated in the benefit month for the benefits delivered in that month.
 - No longer require families with outside income to have benefits recalculated every month as earnings move slightly up or down. Set a six-month eligibility period to match federal SNAP policy and provide families with much-needed stability in their household budgets.
- End the policy that makes it difficult for families to regain custody of their children. Do not reduce MFIP assistance to families when their child is temporarily removed from the home. The family needs their full grant to maintain housing and other necessities if they are to successfully satisfy child protection requirements and regain custody of their child.
- Advocate to have the federal government replace the federal process measure which assesses compliance with the program. Minnesota is well poised to replace this with a measure that looks at whether families are getting jobs and improving their income. This would focus the system on services that make a difference instead of activities that count in the process measure.
- Adjust the cash benefits annually for inflation, like SNAP, Social Security and other federal programs.
- Introduce additional increases to the benefits outside a cost of living adjustment to account for inflation in the past 30 years when there was no increase and to get children and their families out of deep poverty.

General Assistance

- Set a 90-day window for people with disabilities who receive General Assistance to apply for Social Security disability benefits and meet with a Social Security Administration worker. The waitlist to meet with a Social Security Administration worker does not make it possible for someone to meet the current 30-day window.

Supplemental Nutritional Assistance Program (SNAP)

- Find a reliable way for county workers to assess whether a SNAP applicant is actually able to work, and thus are appropriately subject to a three-month time limit for SNAP benefits.

Enrolling in both MFIP/SNAP and Medical Assistance

- Create the means for county and tribal workers to use verified SNAP or MFIP data to verify eligibility for Medical Assistance and Minnesota Care, and vice versa.
- Collaborate with counties and tribes to find ways to make it easier for Minnesotans to enroll in both MFIP/SNAP and Medical Assistance/ Minnesota Care more efficiently.

Community engagement

- Engage American Indian tribal and other leaders and members of the African American community to collaboratively address structural racism within DHS policies and programs. These conversations can be even more effective if done while using a racial equity toolkit to help us see inequities among the populations we serve, and how our policies can exacerbate these inequities. Engage in inter-agency collaborations to address larger inequities that impact those we serve.

Recommendation: Create a plan to move Minnesotans out of deep poverty

DHS programs have barriers to accessing services, and the above solutions are important for addressing these problems. However, we do not expect that addressing these barriers will substantially reduce the constant financial worry so many people living in deep poverty described in interviews, or the sleeplessness, or the depression and anxiety some said they experienced. We do not expect that their elevated rates of hypertension and other chronic medical conditions that research shows is associated with living in poverty will decrease dramatically. Instead, if Minnesotans living in deep poverty are to improve their health, they need a reduction in the underlying stress of living in deep poverty, and the accompanying lack of basic resources. They need to move out of deep poverty.

Workgroup members therefore recommend that DHS collaborate with other agencies and with communities to create a plan to dramatically reduce the number of Minnesota families and individuals living in deep poverty. Such a process would embed an equity strategy that leads with a racial equity lens to address structural racism in the communities most affected by it (American Indians and African Americans) who are also living in deep poverty. This is an ambitious goal and would require significant time to put together and implement, probably in phases, but it is what needs to happen to move Minnesotans out of deep poverty.

This report has contributed to the creation of such a plan by showing how deep poverty and poor health outcomes are inextricably linked, and by describing some major programs that already exist and could be strengthened to such a degree that they would actually lift people out of deep poverty. We look forward to advocating for a solution larger than DHS alone can implement, and to working alongside many others to come up with a plan that would offer all Minnesotans the opportunity to thrive.

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Appendix: Methodology

The overarching goal of this project has been to identify ways to improve the health of people who are living in deep poverty. To do so, we solicited feedback from three different populations and sources:

- An evidence-based literature review to identify effective methods for improving the health of people living in deep poverty.
- Ten Minnesota health care and financial professionals who work with people in deep poverty to get their perspective on how poverty affects their clients' health, and how programs could be improved.
- 30 Minnesota parents living in or near deep poverty to find out how poverty impacts them, how they meet the needs of their family, and how public programs could be improved.

DHS staff also used administrative data from internal DHS programs (e.g., MA, MinnesotaCare, MFIP, SNAP) to assess things such as how difficult it is to enroll (eg including take-up rates among eligible participants) and cross-program effectiveness (eg health care costs associated with SNAP receipt).

The workgroup used the above information to identify the most promising program changes and new interventions that could potentially improve the health of people living in deep poverty. Once these interventions were chosen, subject matter experts within the relevant programs at DHS and Department of Revenue investigated the legal, logistical and IT- feasibility of implementing the identified changes. Once this was done, the subject matter experts described their recommendations in the report, or described why the changes are not deemed feasible at this time.

Evidence-based literature review

Humphrey Institute Economist Angela Fertig, PhD, conducted the first part of this study, which happened between late 2017 and early 2020. She conducted a literature review of interventions that had an impact on the health or health care utilization of people living in poverty. The following is the description, taken nearly verbatim from her report⁴⁰:

There are a wide variety of interventions that could improve the health of individuals in deep poverty. At the onset of the project, the scope was narrowed to four types of interventions that have a particular influence on the health of individuals in deep poverty:

- Interventions that increase the incomes of low-income households;
- Interventions that reduce food insecurity and improve the diets of low-income households;

⁴⁰ <https://z.umn.edu/UMNDeepPovertyReport>

- Administrative interventions that reduce procedural churn on and off of essential social services for low-income individuals; and Case management interventions that connect low-income individuals to needed social services.

To identify effective interventions to improve the health of Medicaid enrollees in deep poverty, we conducted a literature review of academic research and developed a series of policy options in collaboration with the DHS policy team.

The literature review was restricted to academic literature in the four areas listed above. The studies focused on children, parents, and non-elderly adults; and included health, health care utilization and/or health care costs as primary outcomes. Because the Minnesota Department of Human Services contracted with other vendors to provide literature reviews identifying interventions on other specific populations, this review does not cover interventions specifically focused on mental illness and chemical dependency, homelessness and neighborhood poverty, prior incarceration, and language and immigration.

The review included a search of peer-reviewed and non-peer reviewed published studies, working papers, policy reports and government documents produced between 2007 and December 2018. The search was limited to articles published in the English language. We excluded studies that did not include a sufficient sample of low-income participants to draw conclusions about the effectiveness of the intervention on low-income populations. We also specifically searched for research focused on Medicaid enrollees.

It is important to note that much of the academic research focuses on the impact of programs on those living in poverty, rather than on those living in deep poverty. Analysis indicates that those who live very far below the federal poverty line differ from those who just below the line (Minnesota Department of Human Services, 2018); however, because few studies focus on those living in deep poverty, we pull from the broader body of research in this analysis.

Separate searches were conducted for each of the four intervention types listed above. Within each intervention type, analysis of the available literature led to the identification of several potential policy options that have been shown in the literature to improve the health of Medicaid enrollees or low-income participants.

Interviews with Minnesota health care and social service professionals

Robin Phinney, PhD, from the Humphrey Institute (now at Rise Research, Inc.) conducted interviews with ten health care or social service professionals, asking them about the health implications of living in deep poverty, and asking their opinion on the value of various cash assistance and tax programs. They were conducted late in 2018. The following is also taken mostly verbatim from their report.

The goal of this part of the project was to recruit stakeholders drawn from multiple professions, as well as those working with Native American and US-born African American populations.

The ten stakeholders included:

- 2 physicians (1 specializing w/Native populations and 1 working primarily w/US-born African Americans)

- 4 nonprofit service providers (2 specializing in financial support programs, 1 specializing in long-term chronically homeless populations, and 1 specializing in immigrant resettlement programs; 3 providers serve large numbers of US-born African Americans and to a lesser extent, Native populations)
- 4 county/tribal supervisors (2 public health and 2 cash assistance programs; 1 program serves primarily Native people and 1 program serves primarily US-born African Americans)

All stakeholders worked with a majority or significant minority of individuals living in deep poverty.

The interviews were semi-structured in nature and were designed to provide insight on the relationship between income and health for those living in deep poverty and to gain feedback on the set of potential policy interventions, particularly with respect to the preferred mechanism and level of income necessary to affect health outcomes. Stakeholders were provided with a handout of some policy options prior to the interview. The interview instrument and stakeholder handout are included in the Humphrey Institute report.

Each interview lasted approximately 45-60 minutes. Interviews were recorded and detailed notes were taken immediately following all ten interviews. Noteworthy ideas or statements were transcribed in the notes and all interview notes and audio recordings were analyzed in NVivo.

Because only ten stakeholders were interviewed, their views should not be interpreted as representative of the opinions of practitioners in the health and social services fields in Minnesota. Rather, stakeholders' feedback is intended to provide insights as to how various interventions might function to affect health among extremely low-income populations, based on stakeholders' experiences working with needy families throughout the state.

Interviews with Minnesota parents living in or near deep poverty

Workgroup members conducted interviews with 29 parents and one grandmother caregiver who have children under the age of 18. We chose just one population living in poverty as we did not have the time or funds to conduct an adequate number of interviews with multiple populations. We chose this particular population because families with children are a major focus of many DHS programs, and they are the only population served by DHS' largest income supplementing program, MFIP.

We were interested in both the effectiveness of programs, as well as the barriers to access. For that reason we did not sample solely from among program participants (all of whom would have successfully enrolled). Instead, we tried to find parents living in deep poverty, some of whom would have gotten enrolled and others who would may not have succeeded at this. We then asked them whether or not they enrolled in various programs, and if so, if they found the programs useful.

To help with recruitment, we worked with organizations that offer free goods or services, or that offer public programs targeting poor people. We used a convenience sample made up of people we met at the following sites:

- A workforce center - rural (9 people)
- A food shelf - suburban (8 people)

- A free dental clinic – urban (3 people)
- A tribal social services provider - rural (3 people)
- An free meal site - urban (3 people)
- A homeless shelter – urban (2 people)
- An American Indian social services provider - urban (2 people)

At each organization, a worker or volunteer asked clients if they would like to be interviewed, or if the organization's leaders were comfortable with it, workgroup members recruited people for an interview. When we began to talk to a potential respondent about participating, we promised them anonymity, and did not collect their names. We also promised them a \$25 Target or Walmart gift card, and gave it to them immediately after the interview.

A copy of the study description people received as we talked to them about the study, and a copy of the interview instrument are included below. Questions were asked in a semi-structured format, with interviewers asking follow-up questions to better understand the respondents' experiences. Workgroup members' follow-up questions often varied according to the program where they work (e.g., interviewers who work in cash assistance asked detailed questions about MFIP eligibility and upcoming time limits, and those who work in Medicaid asked more detailed health-related questions). We tape recorded almost all interviews. Some interviews were transcribed, and others received a near-transcription. The comments by respondents in this report are close to verbatim. Analysis was conducted using excel spreadsheets. We submitted and received approval from the DHS IRB, for proposal #355.

We asked respondents about their racial/ethnic background, and they answered this question in a variety of ways. A convenience sample such as this makes it difficult to target particular racial/ethnic groups. Here is what people identified their cultural/ethnic backgrounds.

- 10 White
- 6 Hispanic
- 5 American Indian
- 3 US-born African American
- 3 White and Hispanic
- 3 people reported that they were 'mixed' or used another description which did not point to one of the major groups above

We only asked for respondents' race, but some volunteered the race/ethnicity of their spouse/significant other and children. There were at least two multiracial families.

The last two attachments are the Study Description that was given to potential interviewees, as well as the survey instrument itself.

Study Description



Making Ends Meet: Minnesota Parents give their opinions on programs that can increase income

You are being invited to do an interview today. Whether or not you participate is entirely up to you. Please ask as many questions as you like before deciding whether or not to participate.

Why are we doing this study?

Leaders at the Minnesota Department of Human Services would like to know what families think about programs that could increase their income, such as tax credits and cash programs. We're hoping to learn what people like about these programs, what they don't like, and how they could be improved.

What will you be asked to do?

We will never ask your name, or anything else that can identify you. We will record the interview to ensure we remember what you tell us. The interview should take 30-45 minutes. You can choose to stop the interview at any time.

If you decide to do the interview with us today, a staff person from the Department will interview you about the following topics:

- Do you participate in these programs?
- What do you like and not like about the programs?
- How could they be improved?
- What is your cultural background? (We want to know how well our study represents all families.)
- How many people are in your family, and which income category best describes your family's income?

You can stop the interview at any time.

What are the risks?

The main risk may be in others overhearing what we talk about. We will be in a separate room so everything we say should be private. We will keep the interview recordings in a safe place and will delete all recordings by June 30, 2019.

Is there any cost or payment for doing the interview?

The interviewer will give you a \$25 Target or Walmart gift card if you complete an interview. There is no cost to you.

Do I have to participate?

No. Your decision not to do the interview will not affect the services you receive at this location or the services you could receive from DHS in any way. If you change your mind about doing the interview, simply tell the interviewer that you no longer want to do it.

If you have concerns about the study, you can contact University of Minnesota Professor Traci Laliberte at lali0017@umn.edu or 612-624-2279. You can also contact either of the researchers directly. Erika Martin can be reached at Erika.Martin@state.mn.us or 651-431-3978. Justine Nelson can be reached at Justine.Nelson@state.mn.us or 651-431-5608. If you would like a copy of the findings, please contact Justine Nelson and she will send you the report once it is done.

Interview Instrument

Making Ends Meet:

Minnesota Parents give their opinions on programs that can increase income

Good afternoon. I am from the Minnesota Department of Human Services, and I'm interviewing parents, to learn what they think about programs that can boost people's incomes, like food stamps. I'm hoping to interview people who are over age 18, and have children under the age of 18 that they are responsible for. Does that describe you?

If NO: Thank you for your time.

If YES TO BOTH, continue...

Great. I'll be asking about your experiences with income support programs and how you make ends meet, so I want to talk to parents who are probably eligible for them. Do you think your recent income level would qualify you for programs like SNAP (food stamps) or cash assistance?

[We could hear that people applied but didn't get approved, got kicked off, etc...Respond with – "You can still do the interview even if you aren't getting help from any of these programs"]

The interview takes 30-45 minutes. I'm not asking for anyone's name, so the interview is anonymous, and whether or not you participate will not affect your eligibility for any programs. I will audio record it so I'm sure I can remember what you tell me. It is also voluntary, so of course it is up to you whether or not you do the interview. And, if there's a question I ask that you're not comfortable answering, we can skip it. When we're done with the interview, I give participants a \$25 Target gift card. Would you like to do the interview?

If NO: Thank you for your time.

If YES, continue...

Verbal consent received from participant

Signature of interviewer and date

TURN ON RECORDER!

Thank you so much.

As I said we won't be asking for your name and everything you tell us will be anonymous but we will take your ideas and combine them with the ideas of other parents to help the leaders at the Department of Human Services know what would be the best way to help families make ends meet. We can't promise that these interviews will lead to any changes to programs, but we want to be sure leaders at the department have a good sense of what families feel would be most helpful to them.

Interview Questions

I'd like to start by asking what brought you to [interview location] today?

Have you been here before?

Do you think [interview location] helps you or your family to make ends meet?

Next I'd like to ask a little about your family:

- How many children do you live with, and have responsibility for?
- How many adults do you live with, who you share income and expenses with?
- So, would you say that there are [#] people in your family?
- How would you describe your cultural or racial background?

INTERVIEWER NOTE: If respondent has hesitation – explain that we're asking to be sure the full group of people we talk to represents many communities across the state.

In this chart are some monthly income categories. Could you tell me which category is closest to your family's income for [previous month]? [CIRCLE ONE] [May need to help respondent round]

| | | | | | | | |
|---------------------------|------------|--------------|--------------|----------------|----------------|----------------|----------------|
| <i>1 person</i> | <i>\$0</i> | <i>\$101</i> | <i>\$253</i> | <i>\$506</i> | <i>\$759</i> | <i>\$1,012</i> | <i>\$1,346</i> |
| <i>2 people in family</i> | <i>\$0</i> | <i>\$137</i> | <i>\$343</i> | <i>\$686</i> | <i>\$1,029</i> | <i>\$1,372</i> | <i>\$1,825</i> |
| <i>3 people in family</i> | <i>\$0</i> | <i>\$173</i> | <i>\$433</i> | <i>\$866</i> | <i>\$1,299</i> | <i>\$1,732</i> | <i>\$2,304</i> |
| <i>4 people in family</i> | <i>\$0</i> | <i>\$209</i> | <i>\$523</i> | <i>\$1,046</i> | <i>\$1,569</i> | <i>\$2,092</i> | <i>\$2,782</i> |
| <i>5 people in family</i> | <i>\$0</i> | <i>\$245</i> | <i>\$613</i> | <i>\$1,226</i> | <i>\$1,839</i> | <i>\$2,452</i> | <i>\$3,261</i> |
| <i>6 people in family</i> | <i>\$0</i> | <i>\$281</i> | <i>\$703</i> | <i>\$1,406</i> | <i>\$2,109</i> | <i>\$2,812</i> | <i>\$3,740</i> |
| <i>7 people in family</i> | <i>\$0</i> | <i>\$317</i> | <i>\$793</i> | <i>\$1,586</i> | <i>\$2,379</i> | <i>\$3,172</i> | <i>\$4,218</i> |
| <i>8 people in family</i> | <i>\$0</i> | <i>\$353</i> | <i>\$883</i> | <i>\$1,766</i> | <i>\$2,649</i> | <i>\$3,532</i> | <i>\$4,697</i> |

- Is this typical for your monthly income?
If not typical, how much is typical?

Families get their income from a variety of sources. This might be from a job, from public programs, from informal work such as babysitting, or from other sources. Thinking about the past few months, how did you meet the basic needs of your family?

IF THEY WORK AT A JOB:

Would you like to work more hours?

IF YES:

Is there anything keeping you/others in your family from increasing your hours at work? Please describe.

Would you like to get a higher paying job?

IF YES:

Is there anything keeping you from finding a higher paying job? Please describe.

IF THEY DO NOT WORK AT A JOB:

Parents sometimes experience obstacles to working at a job. Is there anything keeping you/others in your family from getting a job? Please describe.

I'd like to ask about government programs that can help people increase their income. We want to know which type of programs parents think work the best.

The first type of program I'd like to ask about is government programs that provide a cash grant to families once a month, such as food stamps or welfare. Have you ever been a part of a program that provided monthly cash assistance for your basic needs?

IF YES:

Do you remember which one it was?

How about MFIP? Have you ever been enrolled in that program?

INTERVIEWER NOTE: People might call it the "welfare program" for families. They may also have had experienced with the Diversionary Work Program (DWP) and may or may not connect that to MFIP. DWP is a four-month cash assistance program for families who have not received cash assistance in the 12 months before they apply for assistance.

When were you last enrolled in MFIP?

IF EVER ENROLLED IN MFIP:

What kinds of things does the MFIP cash grant help you to buy?

If you had an additional \$100 each month – how would you spend it?

Did this purchase have an impact on your ability to get or keep a job?

Do you think that this impacts your health or emotional well-being?

IF NOT CURRENTLY ENROLLED IN MFIP:

Can you tell me why you are not enrolled in the program now?

If the benefit amount in MFIP were higher, would you apply for the program?

Have you ever been enrolled in SNAP, also called food support or food stamps?

What kinds of things does the SNAP program help you to buy?

Did this purchase have an impact on your ability to get or keep a job?

Do you think this impacts your health or emotional well-being?

Another way people get extra money is from tax refunds. When parents have wages from a job during a year, and they file their taxes that year, they usually get money back from the state and federal government. It can be well over \$1,000.

INTERVIEWER NOTE: Some respondents might not consider tax credits “refunds”, if they do not experience paying tax withholdings.

Do you usually file taxes?

Did you file your taxes this year

IF NO TO EITHER (a) OR (b)

Why did you not file taxes?

IF YES TO EITHER (a) OR (b)

What were you able to pay for because of your tax refund?

Did this purchase have an impact on your ability to get or keep a job?

Did this purchase help you to be healthier or to feel better?

Are there things about filing taxes that work well for your family? Please describe.

Are there things about filing taxes that do not work well for your family? Please describe.

In general, which do you think is better for your family: support from a monthly cash grant program like MFIP or support once a year through a tax program? Please describe.

INTERVIEWER NOTE: Probe for differences related to eligibility or enrollment, process for receiving benefits, or monthly vs. lump sum payment.

Cash grants and tax programs are just a few ideas for raising people’s income. What suggestions do you have for making sure families have enough money to buy the basics?

The last section has questions about your family’s health and income.

Does anyone in your family have a serious physical or mental health condition?

Do you have health insurance?

Do you ever worry about making ends meet [making rent, making food last to the end of the month, or having enough money for some other necessity]?

Do you think this worry or stress affects you?

[INTERVIEWER NOTE: Probe which budget item is most cause for worry, and how this affects them.]

How much money would it take for you to not be worried about [insert item listed in previous question] every month?

These are all the questions I have for you. Do you have any questions for me about this project? Or, is there anything I didn't ask you about that you would like to tell me?

Let me get your gift card. Thank you very much for agreeing to participate.

[REMEMBER TO HAVE PARTICIPANT INITIAL FOR RECEIPT OF GIFT CARD]