



WHITE PAPER

Empowering Medicaid Populations:

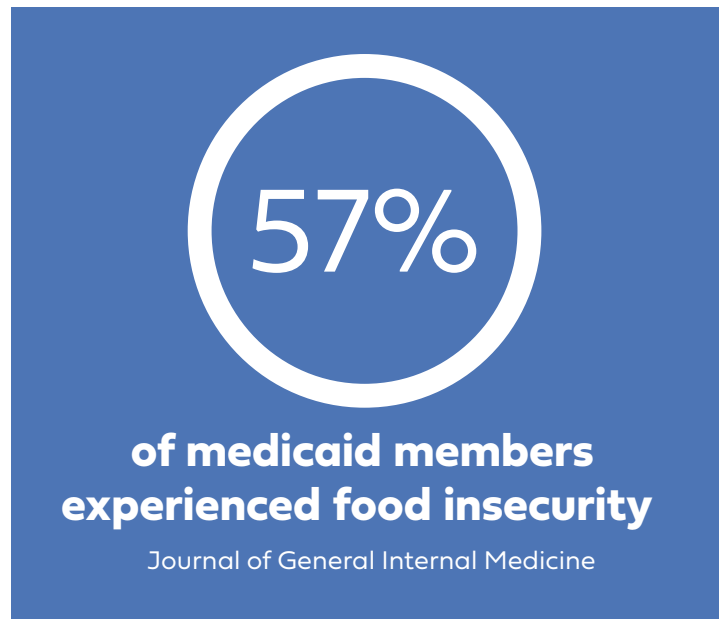
How Personalized Food Access and Health Coaching Transforms Care

EXECUTIVE SUMMARY

In the U.S., access to quality healthcare and nutritious food is not equitable or guaranteed for everyone. Millions of Medicaid participants face this access challenge and as such, experience additional hurdles in maintaining their overall health and well-being. Relatively small investments in personalized food access and nutrition coaching can improve the health and well-being of these populations and reduce the cost of care for state and federal Medicaid programs.

90% of U.S. annual healthcare expenditures are to treat chronic disease and mental health conditions that can be prevented or improved by increased nutrition access and consumption. ^{1 2}

As of 2020, the USDA reports that around 10.5% of U.S. households have experienced food insecurity, meaning they had difficulty providing enough food for their family members.³ That's one in ten families who struggle with reliable access to sufficient, nutritious food to lead active and healthy lives.



Perhaps unsurprisingly, this number jumps to 57% when looking solely at Medicaid populations, thus highlighting the prevalence of food insecurity among marginalized populations.⁴

This sobering reality highlights the urgency of addressing food disparities and ensuring that every individual has the opportunity to make healthier dietary choices. The importance of addressing food insecurity and nutrition access cannot be overstated, as its relationship to health outcomes and the increased cost of care is well-documented.

Food swamps are areas where an abundance of unhealthy food options, such as fast-food restaurants and convenience stores, overwhelms the limited availability of healthier choices.

¹ Public Sector Consultants, Michigan Health Endowment Fund (January 2021). Produce Prescription Programs: Health Impacts of Fruit and Vegetable Consumption.

² Centers for Disease Control and Prevention Newsroom. November 16, 2017. "Only 1 in 10 Adults Get Enough Fruits or Vegetables." Centers for Disease Control and Prevention. <https://www.cdc.gov/media/releases/2017/p1116-fruit-vegetable-consumption.html>

³ USDA Economic Research Service - Key Statistics & Graphics (<https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx>)

⁴ Seligman, H. K., Laraia, B. A., & Kushel, M. B. (2010). Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants. The Journal of Nutrition, 140(2), 304-310. (<https://academic.oup.com/jn/article/140/2/304/4600328>)

For families living in food deserts and food swamps, access to fresh and healthy food options is severely limited. Research by the CDC shows that living in an area classified as a food swamp is a better predictor of adult obesity than living in an area classified as a food desert.⁵ Further, the research demonstrates that food swamp environments are more common in neighborhoods with low incomes, and particularly impact Black communities.

While food deserts have limited access to any foods, including nutrient dense items, food swamps primarily consist of low-quality, highly processed, and high-calorie foods found in low quality grocery, convenience, and fast-food stores. As a result, families are left with limited nutritious options. The absence of accessible healthy grocery stores not only hinders individuals' ability to maintain balanced diets, but also contributes to higher rates of obesity and diet-related chronic diseases within these communities.

For many Medicaid members, the desire to eat better and adopt healthier dietary habits is constrained by the lack of financial resources, transportation, access to healthy and nutritious foods, and nutrition education regarding which foods can genuinely make a positive impact on their diets. Nutrition education plays a crucial role in empowering individuals to make informed choices about the foods they consume and to understand the importance of a balanced diet, proper portion sizes, and the health benefits of incorporating fruits, vegetables, whole grains, and lean proteins into their meals.

Addressing food insecurity and improving access to nutritious food requires a multi-faceted approach that addresses immediate hunger as well as invests in the long-term health and well-being of over 87 million Medicaid members in the U.S.⁶



5 Cooksey-Stowers, K., Schwartz, M. B., & Brownell, K. D. (2017, November 14). Food Swamps Predict Obesity Rates Better Than Food Deserts in the United States. PubMed Central. Retrieved August 3, 2024, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5708005/>.

6 Medicaid.gov April 2023 Data Report

Addressing disparities and health equity through food and nutrition: A Holistic Approach

The Centers for Disease Control and Prevention (CDC) reports that racial and ethnic minorities often experience higher rates of chronic diseases, including diabetes, heart disease, and obesity. These health disparities are influenced by social determinants, such as access to healthcare and nutritious food.⁷ Inadequate healthcare facilities, transportation challenges, and a shortage of providers delay or limit medical care. Lower socioeconomic status leads to restricted access to healthcare, nutritious food, safe housing, and education, resulting in higher rates of chronic illnesses for Medicaid beneficiaries. In addition to access challenges, marginalized and underserved communities encounter discrimination and stigma in healthcare settings which increases their distrust and reluctance to seek out care.

USDA's Economic Research Service (ERS) highlights that food insecurity is associated with higher rates of diet-related chronic diseases, including obesity and type 2 diabetes.⁸ The prevalence of food insecurity among people with diabetes was much higher among Medicaid enrollees compared with those with other types of insurance. Nearly one-third (32%) of Medicaid enrollees with diabetes were food insecure.⁹



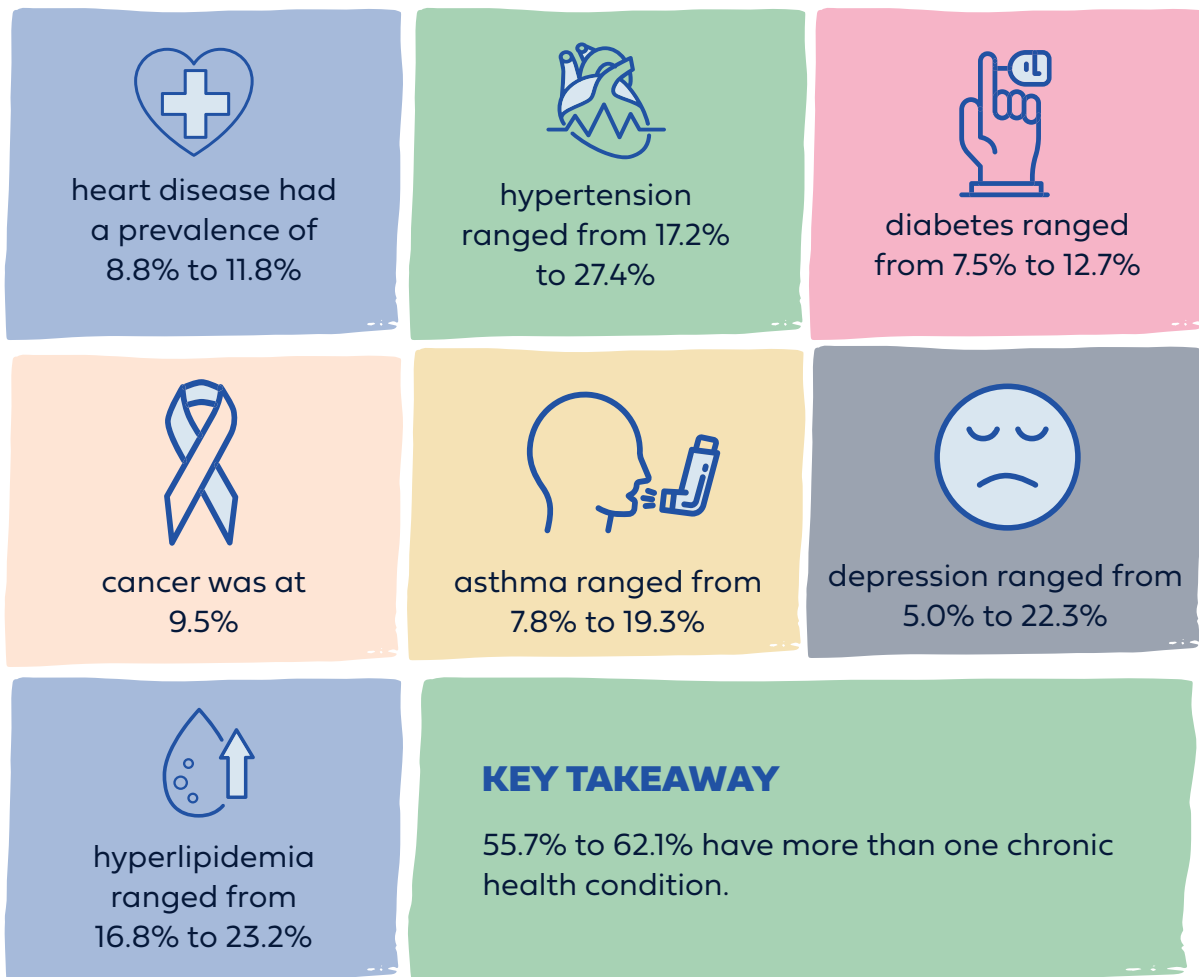
Health disparities refer to differences in health outcomes and access to healthcare among various populations. These disparities are shaped by social, economic, and environmental factors that disproportionately affect underserved communities. Underserved communities, including racial and ethnic minorities, immigrants, individuals with disabilities, and those in rural areas, face barriers to healthcare access, education, and essential services.

7 CDC Health Disparities and Inequalities Report (<https://www.cdc.gov/mmwr/volumes/66/su/su6601a1.htm>)

8 ERS - Food Security in the U.S. (<https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/>)

9 Kirby JB, Bernard D, Liang L. The Prevalence of Food Insecurity Is Highest Among Americans for Whom Diet Is Most Critical to Health. *Diabetes Care*. 2021 Jun;44(6):e131-e132. doi: 10.2337/dc20-3116. Epub 2021 Apr 26. PMID: 33905342; PMCID: PMC8247495.

In August 2016, the databases MEDLINE and CINAHL were queried using specific keywords such as Medicaid, health status, and healthcare cost. The goal was to identify original studies published between 2000 and 2016, focusing on Medicaid as an independent population group. The studies examined the significant prevalence of chronic health conditions in adults aged 18 to 64 years.¹⁰



10. Chapel JM, Ritchey MD, Zhang D, Wang G. Prevalence and Medical Costs of Chronic Diseases Among Adult Medicaid Beneficiaries. Am J Prev Med. 2017 Dec;53(6S2):S143-S154. doi: 10.1016/j.amepre.2017.07.019. PMID: 29153115; PMCID: PMC5798200.

Higher rates of obesity and diabetes in Medicaid populations also increases risk of severe maternal morbidity and mortality (SMMM). In fact, Medicaid beneficiaries have 82% greater chances of severe maternal morbidity and mortality (SMMM) than those who are privately insured.¹¹ One contributor is the higher risks documented for Black/Indigenous mothers and rural residents – a population who more frequently have Medicaid. Nutrition interventions can be a key lever in reducing SMMM as they positively impact five of the nine maternal morbidity health causes which occur within first 3-5 years after conception - heart attack, diabetes, hypertension, renal disease and mental health – representing 81% of the \$32B cost of maternal morbidity in the U.S.^{12 13}

A holistic approach to address disparities and health equity through food and nutrition is needed as affordable nutrition access plays a key role in improving health outcomes and reducing healthcare costs for underserved and marginalized populations. This can result in long-term cost savings for both individuals and health plans, as it prevents and manages chronic diseases and reduces the need for expensive medical interventions.

A holistic solution is comprised of:



¹¹ Katy B. Kozhimannil, PhD, MPA, Director, University of Minnesota Rural Health Research Center. Associate Professor, University of Minnesota School of Public Health. "Risk of Maternal Morbidity among Medicaid Beneficiaries". Medicaid and CHIP Payment and Access Commission. Pub 2020 Jan 24. www.macpac.gov

¹² American Journal of Public Health (AJPH), October 2022, Focusing on Maternal Nutrition to Improve the Health and Well-Being of Pregnant Women in the United States, Usha RamakrishnanPhD

¹³ Maternal and Child Outcomes Associated With the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Comparative Effectiveness Review, No. 253. Investigators: Laura E. Caulfield, Ph.D., Wendy L. Bennett, M.D., M.P.H., Susan M. Gross, Ph.D., M.P.H., R.D.N., L.D.N., Kristen M. Hurley, Ph.D., S. Michelle Ogunwole, M.D., Maya Venkataramani, M.D., M.P.H., Jennifer L. Lerman, M.P.H., R.D., Allen Zhang, B.S., Ritu Sharma, B.Sc., and Eric B. Bass, M.D., M.P.H. Rockville (MD): Agency for Healthcare Research and Quality (US); 2022 Apr. Report No.: 22-EHC019

INNOVATIVE NUTRITION ACCESS AND DELIVERY IN RURAL AND URBAN AREAS, REGARDLESS OF ZIP CODE

Improving access to healthy and nutritious food for Medicaid populations in underserved urban and rural areas is of paramount importance as it directly impacts their overall well-being and health outcomes.



Individuals living in underserved areas have great challenges accessing fresh and nutritious food due to limited availability of grocery stores and the prevalence of food swamps and deserts characterized by a lack of grocery options. Residents are then forced to rely on convenience stores with limited healthy offerings and processed, unhealthy food choices.

Cycle of quality grocery disinvestment

Grocery chains tend to set up their stores in areas with higher population density and higher average income levels as they offer a larger customer base with more purchasing power, making them more economically viable. In contrast, lower socioeconomic neighborhoods and rural areas may have smaller populations and lower average incomes, making it less profitable for grocery stores to operate.

Compounding the financial challenges for businesses to thrive in small and lower income neighborhoods is the greater variety of diet preferences and purchasing patterns that often occur due to broader cultural and ethnic diversity. As such, stocking shelves with a broad and shallow product mix can be a lot more



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costly and unpredictable for businesses than a more narrow and deep mix. Limited demand coupled with diet preference variety increases barriers to stocking more nutrient dense and fresh foods which often cost more and spoil more quickly – all resulting in quality grocery disinvestment.

Local government zoning policies and incentives have historically played a role in attracting businesses to certain areas. If there are incentives or tax breaks for businesses to invest in certain neighborhoods, it has further exacerbated the disparity in grocery store distribution. Historical patterns of economic disinvestment and structural inequalities have contributed to the concentration of unhealthy food options in marginalized communities. These neighborhoods may lack the resources and political influence to attract grocery stores and healthier food retailers, perpetuating a cycle of limited access to nutritious options.

Benefits of innovative solutions for equitable access to nutritious foods

To address this issue and ensure inclusivity, it is essential to explore innovative solutions like direct-to-home shipped delivery of grocery products. This approach benefits both urban and rural members alike, as it eliminates geographical barriers, facilitates the delivery of fresh produce and nutritious foods to a member's doorstep and evens out the cost differential between highly processed and nutrient dense foods. By meeting people where they are, the service becomes a lifeline for individuals in rural and urban areas, ensuring they have access to the nutrition they need to lead healthier lives.

Beyond the immediate health impact on individuals, addressing food insecurity and improving nutrition in underserved areas has far-reaching benefits for the community as a whole. In both urban areas experiencing disinvestment and rural communities struggling with limited resources, low access to healthy food options perpetuates cycles of poor health and socio-economic challenges. Improved nutrition can lead to reduced healthcare costs as a healthier population is less burdened by the many chronic diseases associated with poor diets.

Promoting equitable access to nutritious food aligns with general health equity principles. Disparities in access to healthy food often disproportionately affect marginalized populations, including low-income families and communities of color. Addressing these inequalities and creating opportunities for all Medicaid members to access fresh and healthy food, impacts health equity, food insecurity, and health outcomes.

2 THE POWER AND DIGNITY OF PERSONALIZED FOOD SELECTION

At the core of personalized nutrition interventions lies the dignity of choice. Respecting the worthiness of individuals means recognizing their autonomy and right to make decisions about their own lives, including what they eat and how they access food.



Providing personal food choices empowers individuals to take ownership of their health and well-being by fostering a sense of control and self-determination over food selection and dietary habits, and empowering behavior change. Furthermore, a tailored food “shopping” approach helps individuals address their own challenges with chronic medical conditions and promotes better health management through proper nutrition.

Access and choice

Basic access to food and nutrition has, in itself, a significant impact on mental health and emotional well-being. Adding dignity of choice through personalized experiences can positively influence an individual’s relationship with food, reduce feelings of shame or stigma associated with food insecurity, and contribute to overall emotional well-being.

Dignity of choice and personalized experiences are fundamental in addressing food and nutrition, particularly for individuals experiencing food insecurity. Emphasizing empathy, cultural relevance, and respect allows for better engagement, improved health outcomes, and a more sustainable and equitable approach to promoting nutritious food access and choices for all individuals, regardless of socioeconomic status.

Cultural Variety:

Food is Family

By offering personalized food selection with cultural and dietary preferences, food and nutrition benefits can play a crucial role in promoting cultural sensitivity in food choices. This approach not only encourages better adherence to dietary plans but also ensures that individuals from diverse cultural backgrounds can access food that aligns with their traditions and taste preferences. A program that aligns with individual preferences and cultural norms encourages better adherence to dietary plans, leading to improved health outcomes.

Cultural relevance plays a crucial role in promoting healthy food choices. First, food and nutrition are deeply connected to cultural identity and heritage. By honoring cultural relevance, interventions can avoid imposing a one-size-fits-all approach, thereby increasing the likelihood of acceptance and adherence to healthier food choices. Second, offering a breadth of cultural foods provides a healthier variety of spices, grains, proteins, fruits, and vegetables from which everyone can reap health benefits. Plus, it provides a fun sense of discovery and nutrition literacy.

Personalization Improves Adherence

Improved adherence is a significant benefit of personalized nutrition interventions. When individuals are involved in the decision-making process and have the freedom to choose foods that align with their tastes and preferences, they are more likely to adhere to dietary recommendations. This leads to better health outcomes, especially for those managing food-related chronic medical conditions.

Sustainable improvements in food and nutrition require solutions that can be integrated into individuals' daily lives. Personalized experiences align with ones' lifestyle and as a result, create sustainable habits improving the likelihood that making of healthier food choices will last way beyond the intervention period.

3

THE HUMAN TOUCH: NUTRITION AND HEALTH COACHING

A study published in Health Affairs found that Medicaid expansion under the Affordable Care Act (ACA) led to an increase in preventive services, including nutrition counseling, for low-income adults. Medicaid expansion allowed more individuals to access nutrition services and interventions, likely positively impacting health outcomes.¹⁴



Nutrition and health coaching is a valuable resource providing personalized guidance tailored to each individual's unique needs, preferences, and health goals. Health coaches play a crucial role in improving nutrition and addressing diet-related diseases for both individuals and communities. Health impact from personal coaches results from their deep nutrition expertise, ability to provide personalized guidance, and role as motivators and educators.

Health coaches take into account an individual's specific health conditions, dietary restrictions, nutritional needs, and household members' comorbidities. This targeted approach optimizes health outcomes, as it addresses nutritional deficiencies and supports individuals in managing chronic illnesses more effectively. A study published in the American Journal of Public Health highlighted the role of Medicaid managed care plans in providing nutrition services to enrollees. The study found that Medicaid managed care organizations were increasingly offering nutrition counseling and interventions to improve health outcomes among their members.¹⁵

¹⁴ Sommers, B. D., Gunja, M. Z., Finegold, K., Musco, T., & Zuckerman, S. (2015). Changes in Utilization and Health Among Low-Income Adults After Medicaid Expansion or Expanded Private Insurance. *Health Affairs*, 34(10), 1688-1696. (<https://www.healthaffairs.org/doi/10.1377/hlthaff.2015.0646>)

¹⁵ Cohen, A. B., & Raja, S. (2019). Assessing the State of Medicaid Managed Care Plans' Nutrition Service Initiatives for Members. *American Journal of Public Health*, 109(5), 735-741. (<https://ajph.aphapublications.org/doi/10.2105/AJPH.2019.304988>)

It's Personal

One of the key strengths of health coaching is personalization. Everyone's nutritional needs are unique, influenced by various factors such as age, gender, activity level, medical history, cultural background, personal preferences, and house-hold wide medical conditions. Health coaches assess an individual's specific requirements and tailor dietary plans accordingly. This approach increases the likelihood of success in achieving health goals and effectively managing diet-related conditions.

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A study published in the International Journal of Behavioral Nutrition and Physical Activity found that nutrition coaching interventions were associated with significant improvements in dietary behaviors, including increased consumption of fruits and vegetables.¹⁶

The impact of nutrition on chronic diseases such as obesity, type 2 diabetes, hypertension, and heart disease is well-established. Health coaches play a vital role in educating individuals about the importance of proper nutrition in preventing and managing these conditions. By promoting a balanced diet and encouraging healthy lifestyle habits, coaches contribute to reducing the burden of diet-related diseases. A review published in the "Annual Review of Nutrition" indicates that health coaching can be effective in promoting behavior change and improving health outcomes, particularly in managing chronic diseases like diabetes and heart disease.¹⁷

¹⁶ Hutchesson, M. J., Rollo, M. E., Krukowski, R., Ells, L., Harvey, J., Morgan, P. J., & Collins, C. E. (2015). eHealth interventions for the prevention and treatment of overweight and obesity in adults: A systematic review with meta-analysis. The International Journal of Behavioral Nutrition and Physical Activity, 12(1), 1-12. (<https://ijbnpa.biomedcentral.com/articles/10.1186/s12966-015-0313-6>)

¹⁷ Ammentorp, J., Uhrenfeldt, L., Angel, F., Ehrensward, M., Carlsen, E. B., & Kofoed, P. E. (2013). Can life coaching improve health outcomes? A systematic review of intervention studies. Annual Review of Nutrition, 33, 269-287. (<https://pubmed.ncbi.nlm.nih.gov/23862644/>)

“A systematic literature review identified 11 randomized controlled trials studying the use of Health and Wellness Coaching for improving nutrition-related biomarkers and eating behaviors. These trials demonstrate efficacy across diverse populations and treatment modalities. Almost all (82%) of the trials showed an improvement in at least one outcome. The most commonly studied outcomes were weight, blood pressure, and fruit, vegetable, and fat intake.”¹⁸

Change is Easier with an Ally

Changing dietary habits can be challenging, and many individuals struggle with making sustainable changes. Health coaches serve as supportive partners, helping clients set realistic goals, providing feedback, and offering strategies to overcome obstacles. By focusing on behavior change, coaches empower individuals to develop healthier eating habits and maintain long-term changes.

Regular coaching interactions also provide accountability for individuals striving to improve their nutrition intake. Health coaches monitor progress, celebrate successes, and provide encouragement during challenging times. The ongoing support helps individuals stay motivated and committed to their health goals. Coaches go beyond providing mere meal plans; they educate their clients about nutrition principles, hydration strategies, label reading, and more. By understanding the “why” behind certain dietary choices, individuals become empowered to make informed decisions on their own, long after the coaching sessions have ended.

Health coaches play a vital role in improving nutrition and combating diet-related diseases by providing expert advice, personalized guidance, behavior change support, and motivation. Through education and empowerment, they contribute to healthier communities and individuals, leading to a reduced incidence of chronic diseases and improved overall well-being.

18 Kennel J. Health and Wellness Coaching Improves Weight and Nutrition Behaviors. Am J Lifestyle Med. 2018 Aug 9;12(6):448-450. doi: 10.1177/1559827618792846. PMID: 30783395; PMCID: PMC6367877.

CONCLUSION

In a world where access to quality healthcare and nutritious food is not a guarantee for everyone, millions of individuals in the Medicaid population face significant challenges in maintaining their overall health and well-being. The importance of addressing these challenges cannot be overstated, as the correlation between health outcomes and access to proper nutrition is well-documented.

A patient-driven, digital health platform offering personalized food selection within cultural norms and preferences, coupled with nutrition coaching, can revolutionize healthcare for the Medicaid population. Innovative solutions like direct-to-home shipped delivery services improve access to healthy and nutritious food in underserved areas, creating more resilient and thriving communities. Emphasizing equity and inclusivity, these solutions bridge the gap in infrastructure and disparities that exist in communities.

By combining personalized nutrition interventions, health coaching, and innovative access to nutritious food, we can create a transformative and holistic healthcare approach for Medicaid populations who need it. Embracing the principles of dignity, choice, cultural sensitivity, and education, we can pave the way for healthier individuals and communities, impacting health disparities, lowering care costs, and promoting overall well-being.





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