Addressing Food Insecurity During COVID-19:

A Role for Rural Federally Qualified Health Centers

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Abstract

In rural communities, existing food insecurity, chronic diseases, and an aging population create a complex environment that has the potential to strain health systems despite lower overall COVID-19 case counts. Past pandemics have revealed that populations served by the primary care safety net require resources beyond federal and state aid programs. At our federally qualified health center (FQHC), we have adapted our food prescription program for patients with chronic diseases to a home delivery service, which leverages existing relationships between care coordinators and patients. Such efforts may fill underlying gaps in food supply and distribution through cross-sector collaboration with farms and non-governmental agencies. The current pandemic highlights an opportunity for FQHCs to proactively engage with communities and build upon existing outreach efforts to address issues of nutrition and food access. Prompt and targeted interventions can establish partnerships within community food systems and advance long-term program implementation.

Key Words: food insecurity, federally qualified health center, nutrition, COVID-19, primary care, safety net

Abbreviations: federally qualified health center (FQHC), Supplemental Nutrition Assistance Program (SNAP), Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

COVID-19 and Implications for Rural Populations

As many states are beginning to relax social distancing guidelines, the pandemic continues to pose special challenges in rural areas. The number of new cases has begun to plateau in hotspots such as New York City, and rural counties have become new epicenters for the virus, with growth rates surpassing those of larger metro areas.[1] There is a need for creative solutions to address the implications of this geographic shift in cases, as existing health inequities create a perfect storm in rural communities.

At baseline, rural populations tend to have higher poverty rates, older individuals, healthcare providers who are also older, and sparsely distributed healthcare resources.[2] Lessons from past pandemics teach us that these health disparities contribute to chronic medical conditions that increase the risk of infectious diseases. The elderly and those with chronic diseases such as hypertension and diabetes are most susceptible to developing severe symptoms of COVID-19, which puts rural patients and providers in higher-risk categories.[3]

The conditions that serve as risk factors for COVID-19 share a common thread. They are diseases that constitute metabolic syndrome, a state of insulin resistance and mitochondrial dysfunction affected by diet that predispose individuals to chronic inflammation. Nutritional status is central in supporting our immune systems, and malnutrition can lead to immunodeficiency as well as increased rates of morbidity and mortality from infections.[4] Nutrition and food security are essential components of human health, and necessitate

comprehensive solutions that engage community health systems, especially during the COVID-19 crisis.

Challenges of Rural Food Insecurity

Individual risk factors for COVID-19 are further exacerbated by the pre-existing issue of food insecurity in rural communities. In Northern New England, there are large food deserts with no grocery stores for over 30 miles and many regions that rely on a single store for most of their nutritional needs. This limits food choices for everyone, but uniquely for migrant and seasonal farmworkers, who in past pandemics have faced additional financial, logistical, and legal barriers.[5] In response to the challenges of food access during the pandemic, federal benefits have been expanded through the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The United States Department of Agriculture (USDA)'s pilot program allowing SNAP for online grocery purchases was launched in 2019 for eight states, and was extended to only a few more states in recent months.[6] These expansion efforts have followed a piecemeal and top-down approach and leave behind significant gaps in food security, especially if families lack access to adequately stocked grocery stores or if some populations are precluded from these benefits altogether.

Solutions to pandemic food insecurity also need to address issues in our food system at large. Community-led initiatives have had to seek out their own partnerships with local farms and rely on charitable donations, as food banks are inundated with their current responsibilities and are unable to take on new partners. Images of dairy farmers having to dump gallons of

excess milk are at odds with the endless lines seen at food pantries and highlight the insufficiency of our current food supply and distribution chains in meeting the needs of families that are most likely to go hungry or ration their food supplies. In April, the USDA began the Farmers to Families Food Box program to limit any interruptions in the food chain between farmers, distributors, and families.[7] While offering immediate relief to struggling communities, the initiative only serves as a temporizing measure without a focus on sustainability or long-term implementation.

Federally Qualified Health Centers as Pillars of Community Health

Federally Qualified Health Centers (FQHCs) are community-based health providers that receive funding from the Health Resources and Services Administration to provide primary care services in both rural and urban underserved areas. Out of 9,388 total FQHCs in the US, 3,183 or 33.9% serve rural areas.[8] As safety net providers, they are a linchpin in communities during a pandemic and may be the only source of primary care for many high-need individuals who would otherwise fill emergency room beds in small, rural hospitals.[9] FQHCs have a long history of tackling the social determinants of health as part of their core mission, starting in 1965 when pioneering physicians began writing food prescriptions for malnourished children at the Delta Health Center in Mound Bayou, Mississippi.[10] Food prescriptions continue to be one of the many tools FQHCs use to support patient health.

At Little Rivers Health Care, an FQHC in rural northeastern Vermont, we are doubling efforts to ensure food access as a pillar of community health as patients have been facing increasing struggles to find staple food items. The center's service area includes the largest food desert in Vermont. Prior to COVID-19, we launched a food program in partnership with local

farms that provides fresh produce to patients at the clinic who have chronic diseases. Since this effort has been curtailed by the pandemic, care coordinators at our clinic have instead begun bagging groceries and going out of their way to deliver them directly to patients' homes.

These "knock and drops" have turned into small, but precious moments of connection and gratitude, especially for families receiving WIC benefits that are unable to find adequate food. One volunteer fondly recalls watching a child ask her mother why people were bringing them food only to erupt in a big grin from ear to ear after picking up an apple and a carton of eggs from one of the bags. At the homes of elderly community members whose driveways are posted with signs of "Quarantine" and "No Visitors Please," the food deliveries have been met with overwhelming messages of appreciation exchanged from afar. Similar programs have also recently been implemented in other states such as Arkansas, where the rural FQHC ARcare has responded to the current pandemic by providing meals and childcare to children of essential workers. Beyond serving as an example of a community coming together, these initiatives demonstrate the potential that rural FQHCs have as mainstays of their community to address food insecurity in the face of COVID-19.

FQHCs are uniquely aware of health needs in underserved areas at both a patient and a community level. They regularly screen for social determinants of health such as food insecurity and are well connected to local resources, allowing them to bridge the gap between health systems and non-governmental agencies to support community food access through cross-sector collaboration.[11] With the drop in office visits during stay-at-home orders, FQHCs also have the capacity to consult governing boards that include patient representatives to quickly adapt existing programs to meet community needs. If provided adequate tools and support, FQHCs are best

equipped to know about and reach those that are most in need (see Table 1 for suggestions on community engagement).

As COVID-19 stresses our systems, existing inequities are also underscored. While total redesign of food and health structures is impractical, initiatives taken by FQHCs have the potential to make an impact by repurposing current resources. Addressing the immediate nutritional needs of communities can be used not only to mitigate risk and stressors during the current crisis but can also lay the groundwork for long-term programs and partnerships to ultimately improve rural community health.

Conflicts of Interest: There are no financial or professional conflicts of interest to disclose.

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Table 1. Opportunities for Community Engagement Around Food Insecurity During COVID-19

Screen all patients for food security and access during telehealth visits and provide food prescriptions or referrals to local food shelves or food banks
Partner with grocery stores to develop nutritious and shelf-stable food kits that can be pre-arranged for purchase or delivery
Limit food waste and support agricultural workers by purchasing products directly from farmers to supply food pantries
Organize community food drives where excess food can be donated and redistributed to families in need
Engage with public transportation services to deliver meals via local bus routes
Organize pop-up pantries at remote sites or arrange food deliveries for those without access to stable transportation
Share knowledge about maintaining a healthy diet with available foods and updates to available federal or state programs in accessible formats and in multiple languages
Create specific implementation plans following up-to-date public health guidelines for agricultural facilities to protect at-risk essential workers