

## **Refugee Gardening: An Opportunity to Improve Economic Conditions, Food Security, and Mental Health**

**Laura Anne Minkoff-Zern, Rashmi Gangamma, Bhavneet Walia, and Anna Zoodsma**

### **KEY FINDINGS**

- Gardening increases refugee access to desired foods and methods of attaining food.
- Overall, refugee gardeners reported better mental health and food security outcomes than refugee non-gardeners.
- Refugee gardeners reported that gardening facilitated a connection to both their new communities in the U.S. and to former home country traditions.

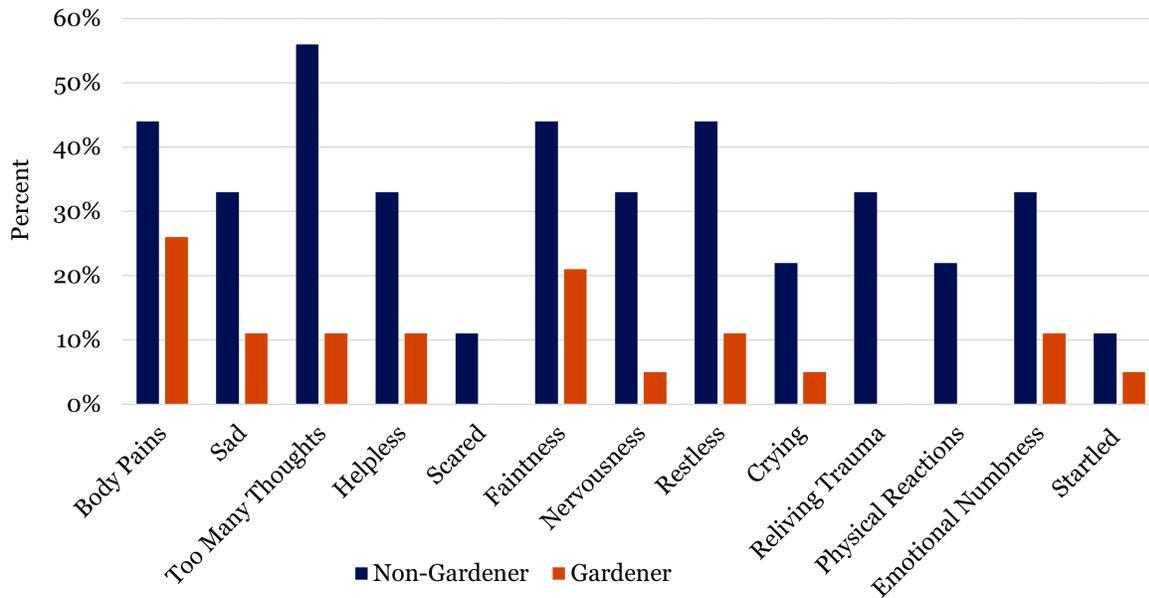
There are over 25.4 million registered refugees in the world.<sup>1</sup> In 2021, the United States (U.S.) had a refugee admission ceiling of 62,500 but only admitted 11,411.<sup>2</sup> Research has shown that adverse mental health, economic insecurity, and food insecurity are prevalent among resettled refugees.<sup>3, 4, 5, 6, 7</sup> Conditions prior to resettlement, such as exposure to conflict, persecution, and loss, as well as conditions after resettlement, such as isolation and adjustment to a new culture, impact these outcomes.<sup>4, 5, 8, 9</sup> The U.S. relies primarily on a private, clinically-based mental health system and a public-private piecemeal emergency food system to address these concerns. As such, mental health and food security are considered as separate issues with separate solutions. Refugee access to land and resources for gardening has been shown to have quality of life benefits including enhanced food security and mental health outcomes, at both the individual and community levels.<sup>10, 11, 12</sup>

This brief summarizes our recent study that examined how community gardening may reduce food insecurity and adverse mental health among refugees living in Central New York. We find that refugees who engaged in community gardening activities reported better mental health and food security than those who did not.

### **Community Gardening Improves Mental Health**

To assess the impact of gardening on refugee mental health, we compared self-reported mental health indicators between 19 refugee gardeners and 10 non-gardeners living in Central New York in Summer and Fall of 2020. Additionally, we conducted interviews with refugee gardeners to further understand their perception of how gardening impacts

their mental health. As shown in Figure 1, refugee non-gardeners were more likely to report various poor mental health outcomes than gardeners, with the largest differences seen in the categories of “too many thoughts,” “restlessness,” “nervousness,” and “reliving trauma.”



**Figure 1: Percentages of Refugee Participants Self-Reporting Mental Health Symptoms, by Gardener Status**

Additionally, refugee gardeners noted several benefits beyond improved mental health symptoms. These benefits included feelings of connection with their home country traditions, having access to fresher foods, building community, and saving money. For example, a 62 year old Bhutanese man stated,

*“It makes me really happy because I’ve been doing this for a long time. So when I see it’s [the garden] growing, it just makes me so happy and it reminds me of home.”*

Another gardener, a 33-year-old Nepali woman, remarked,

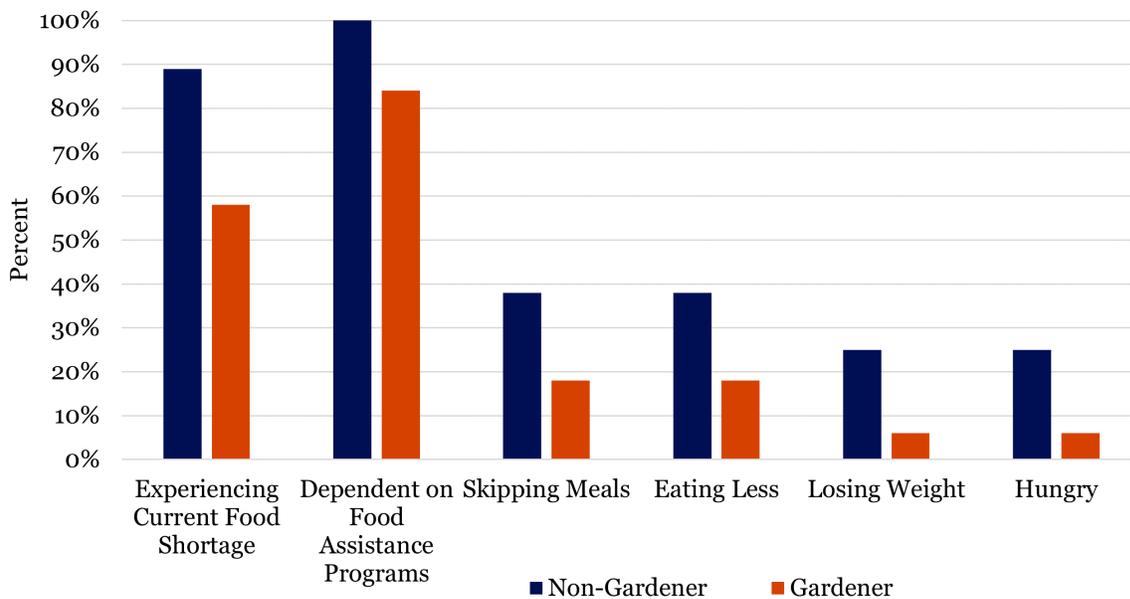
*“It [gardening] does help with everything, I make extra money by selling those items and when I’m busy all the time, I don’t have any, you know, free time to think about some other negative [chuckles] things so... I feel really good outside the house so that way I can make more friends and make more money.”*

Overall, these results show that engagement in community gardening has a positive impact on self-reported mental health symptoms and feelings of social connectedness.

## **Community Gardening Improves Food Security and Economic Wellbeing**

Besides having positive impacts on refugee mental health, we found that gardening has positive impacts on food security and economic wellbeing. As shown in Figure 2, gardening participants were less likely to report skipping meals, eating less, being hungry, and losing weight than non-gardeners. While on average, gardeners made

slightly less earned income per month (\$920-1020 for gardeners vs \$980-\$1080 for non-gardeners), gardeners were less likely to report experiencing a food shortage, or depending on food assistance programs, such as WIC or SNAP. These findings illustrate that gardening can be an effective and desirable tool for refugees to improve food security.



**Figure 2: Percentages of Refugee Participants Self-Reporting Food Security Outcomes, by Gardener Status.**

Interviews with refugee gardeners further emphasized their perceptions of the positive impacts of gardening on food security and economic wellbeing. Gardeners reflected on the social and economic currency they gained through gardening. Gardeners strengthened relationships within their families and communities, reduced the amount of food they needed to purchase, and acquired extra money by selling produce. One gardener, a 69 year old Burundian man, said,

*“It [gardening] really affects my family because it removes the burden of what money is being spent. Everybody has to put in efforts to make money to buy food, but since I’m growing food, the burden is removed from some family members... It really gives me a sense of being useful, that feeling that I’m not sitting at home and not doing anything, but it’s giving me that sense that I’m productive. I can produce something and can contribute to the well-being of the family.”*

A 33-year-old Nepali woman, stated,

*“I can grow whatever I want for my culture, for my religion. I can have my own food... those are all the items that our culture has, so everything that I’m growing is what our people in the community eat.”*

Our study shows that the benefits of gardening reach across many areas of refugees’ lives and are interconnected.

## **Federal Resources Should Support Refugee Gardening for Consumption**

There is substantial potential for successfully reducing the challenges of refugee mental health and food insecurity via gardening, as opposed to the siloed current strategies used most often to address these issues in the U.S. Refugee gardening as a public health tool should continue to be explored, promoted, and expanded in refugee communities where it is appropriate.

Currently, funding and resources to support refugee gardening are only available through piecemeal government private grants and programming, and tend to be focused on farming for profit, rather than gardening for home consumption. Expanded comprehensive funding through both the Office of Refugee Resettlement (ORR) and the United States Department of Agriculture (USDA) would benefit refugee communities and their host organizations. While the ORR has a funding opportunity for refugee agriculture, through the Refugee Agricultural Partnership Project (RAPP), the emphasis is on farming for profit, and not food security and mental health. Our research shows many public health benefits from gardening, which focused on food production for consumption, not sale. A shift in this funding towards home gardening and other subsistence production, would better suit the current needs of refugees, who are not all poised to start farm business, but would still benefit from gardening resources and support.

Further, incorporating refugee voices and representation in the leadership of governmental and non-governmental organizations promoting and sponsoring such refugee gardening projects is essential to creating more inclusive policy and opportunities.

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## Data and Methods

This study included both qualitative interviews comprising open-ended questions and quantitative surveys related to mental health, food security, and economic well-being among refugee gardeners and non-gardeners living in Syracuse, NY. We collected data during the summer and fall of 2020 from 19 gardeners and 10 non-gardeners, with a near equal split of men and women and an average age of 49. Most participants self-identified as Bhutanese, Nepali, or Somali.

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