



FOOD INSECURITY AND ACCESS DISPARITIES IN SOUTH KOREA

IIPHRP Global Public Health Case Competition | Spring 2023



All characters, organizations, and plots described within the case are fictional and bear no direct reflection to existing organizations or individuals. The case topic, however, is a true representation of circumstances in South Korea. The case scenario is complex and does not necessarily have a correct or perfect solution, and thus encourages a judicious balance of creative yet perceptive approaches.

The authors have provided informative facts and figures within the case to help teams. The data provided are derived from independent sources, may have been adapted for use in this case, and are clearly cited such that teams can verify or contest the findings within their recommendations, if it is pertinent to do so. Teams are responsible for justifying the accuracy and validity of all data and calculations that are used in their presentations, as well as defending their assertions in front of a panel of knowledgeable judges representing different stakeholders.

The information and data given in the following text is meant as a suggestive guide but is not considered all-inclusive. Teams may choose any area(s) of approach that they deem impactful and feasible.

NARRATIVE

Ji-ho is a father living in Seoul, South Korea. He and his wife, Ha-eun, have 2 school-aged children. Ji-ho worked in a plant that manufactures parts for small electronics, but after 6 years of employment, he was let go from his position when the company moved their plant to a more cost-effective location overseas. Ji-ho and his wife are now worried about their ability to provide healthy food for their family while Ji-ho looks for steady employment. In their neighborhood, many sit-down restaurants have closed, while multi-national fast-food chains that serve burgers and fried foods have become the primary option for quick, affordable meals. There is only one grocery store within walking distance of their apartment and most of the healthy options, like produce, are now a strain on their budget. Going further away to shop for groceries requires additional money for public transportation which they no longer have.

As a child Ji-ho was taught that seeking assistance from government welfare groups was shameful and should be avoided at all costs. Instead, his family would frequently turn to neighbors for help when they found themselves in times of crisis and would always return the favor when asked. Unfortunately, most of their neighbors in their Seoul community have been impacted by the same manufacturing plant shutting down and as such, are experiencing the same instability at home.

Ha-eun wants Ji-ho to seek out government assistance. Ji-ho remains resistant to this idea and would rather come up with a solution that would help the entire neighborhood, as most other families they know are struggling with similar food access issues. He decides to approach one of the government-run food assistance agencies, but instead of requesting individual aid, he would like to propose a larger plan that would have an impact on the entire neighborhood and prevent their current situation from happening again.

BACKGROUND INFORMATION ON SOUTH KOREA

South Korea is located in East Asia on the Korean Peninsula. A geographically small country, it is bordered by both the Yellow Sea and East Sea. The closest neighbors are North Korea, Japan, and China. Despite the small land mass, South Korea is home to nearly 52 million people, with 81% living in urban areas. Due to high-density living, many households have high housing and education expenditures that can lead to less income available for food costs. The current average life expectancy is approximately 83 years (16th in the world) and health expenditures relative to economic size is 8.2% which is low even compared to other developed nations. The country has overall high literacy and education ratings and health ratings that imply an overall healthy population, including low obesity rates, hospital bed density, infant/maternal mortality rates, and other benchmarks. The economy is primarily made up of service-industry jobs (58%) and manufacturing jobs (40%) while agriculture is only 2.2% of all economic output (CIA World Factbook, 2022). South Korea uses the National Health Insurance Model, in which the payments are from a government-run insurance program, but practitioners are privately employed. It is considered a high-income country by the World Bank, as its gross national income per capita is higher than \$13,205 (World Bank, 2022). South Korea is racially and ethnically homogenous and a majority of the population (at least 57%) identifies as non-religious.

BACKGROUND INFORMATION ON FOOD INSECURITY

In 2015, the United Nations released 17 Sustainable Development Goals (SDG) to be achieved by 2030, with the objective creating a more equitable and sustainable world for all. Goal #2 was to “end hunger, achieve food security and improved nutrition, and promote sustainable agriculture” (United Nations, 2022). Unfortunately, the world is now facing increased levels of food insecurity that threaten the achievement of this goal, due to factors that include income disparities, supply chain disruption, violent conflict, climate change, and other global issues (The World Bank, 2022). In their 2022 food crises report, the World Food Programme reported that 193 million people across 53 countries around the world remain “acutely food insecure” – a significant increase from 2020. An additional 236 million people were in ‘stressed’ food situations, requiring assistance to find and acquire enough food (World Food Programme, 2022). Fortunately, South Korea has remained relatively high on the Global Food Security Index (#29) with only 2.5% of South Koreans classified as undernourished in 2020 (Abuasi, 2020). Most provinces in South Korea provide free school lunches to primary and secondary school students at school. A study has shown that free-school-lunch policies improved the health and welfare of students such as the body mass indices and mental health statuses of school children in South Korea (Bethmann & Cho, 2022).

Food insecurity is typically measured on a scale of severity and indicates amount of access to the “kinds and amounts of food necessary for each member of the household to lead an active and healthy lifestyle” (Babu et al, 2022). On a global scale, low to middle income countries are seen as the most severely impacted by food insecurities and the poorer health outcomes associated with this measure. However, high income countries also experience relatively high degrees of food insecurity in certain demographics, ranging from 8-20% of the population (Pollard and Booth, 2019). In high income countries, food insecurity can be difficult to measure due to its association with poverty and other structural and social conditions. Some countries only measure food security using proxy data metrics, such as national poverty rates, meaning food insecurity statistics in these countries are frequently estimates rather than precise measurements (Pollard and Booth, 2019). In Western nations, geographic areas in which healthy, nutritious food is not obtainable for a majority of the population, due to factors such as a shortage of grocery stores, low-income populations, and a lack of support programs and government policy are often referred to as food deserts (Karpyn et al, 2019).

SUMMARY OF THE ISSUE

Food deserts are often defined as a geographic area in which it is challenging to buy affordable, high-quality foods. While the concept of food deserts has primarily only been studied in Western countries, geographic information system (GIS) analysis has found that South Korea does have its share of location-based food insecure hotspots, particularly in large urban areas like Seoul (see Appendix A) (Kim et al 2016). In using culture-specific measures of food insecurity and malnutrition, these limited studies have found that unlike the U.S. and other western nations, financial instability is less of a factor leading to food insecurity in South Korea and other determinants must be considered to fully understand food barriers. As in the west, structural factors that result in concentrations of underserved, low-income populations in urban areas makes location-specific interventions relevant (Kim et al, 2016). Food

insecurity is multi-faceted, and financial and socio-behavioral barriers may be more likely to affect access to food in South Korea than proximity to healthy foods alone.

Food insecure Koreans may use formal (e.g., the government and social welfare institutions) and informal (e.g., extended families) resources to obtain food to feed their families. Food sharing is “deeply rooted” in Asian culture and the size of a household’s personal network may impact their ability to provide sufficient food for families in times of need (Park and Kim, 2018). Interview data has shown that low-income households have less access to private and informal food sharing networks than non-low-income households, making them more susceptible to long-term food insecurity (Park and Kim, 2018). As income inequality continues to grow in South Korea, the discrepancies between low-income and non-low-income households will continue to be exacerbated (Kang et al, 2021). Additionally, the consumption of nutritious food, such as fruits and vegetables, is highly dependent on financial stability and cost inflation, availability of fresh grocers, and changing cultural dietary patterns (Cheung et al, 2021).

The health implications of food insecurity are vast. Insufficient food intake, particularly of healthy, low-processed foods, can lead to malnutrition and/or undernutrition. Households that encounter financial barriers to purchasing healthy foods will tend to eat diets high in calorie-dense, low nutrient-dense foods, contributing to numerous food-related adverse health outcomes. Additionally, stress caused by these socioeconomic factors has been shown to increase tobacco and alcohol consumption which have known adverse health outcomes (Chun et al, 2015). Overall, men and women in food insecure households in South Korea have higher rates of smoking and tobacco usage, lower rates of physical activity, and lower rates of regular breakfast intake (Chun et al, 2015). Obesity rates in women also increases with food insecurity (Chun et al, 2015). Low socioeconomic status, which is heavily correlated with material hardship such as food insecurity, is a significant risk factor for depression in South Korea. In fact, food hardship is the most critical factor in identifying rates and severity of depression (Kang et al, 2021). Among those with low socioeconomic status, rates of suicidal ideation are high and a high rate of those attempting suicide have lower education rates and higher unemployment rates (Kim et al, 2016).

South Korea does provide several public food safety nets for its citizens. Retirement stipend programs for the elderly, government-run food management systems, and the implementation of various health and safety guidelines have helped to keep overall food insecurity rates low when compared to other nations (Abuasi, 2020). Unfortunately, those who do experience adversity, poverty and its associated hardships are heavily stigmatized in South Korea. An inability to provide for oneself and one’s household is culturally viewed as a failure of the individual and not the responsibility of society or the government (Jo and Walker, 2014).

COMPLICATING FACTORS

COVID-19 Impact: As with much of the world, COVID-19 has created unexpected strain on South Korea’s social assistance programs, which previously were primarily geared toward elderly populations and children. Nationwide lockdowns and social distancing created high rates of unemployment for self-employed and low-skilled labor. Emergency relief policies were implemented to varying degrees of

success (Choi et al, 2022) Additionally, studies show that spatial accessibility to restaurants increased during the first year of the pandemic, but access to grocery stores decreased (Kang et al, 2022).

Work Culture: While South Korea's unemployment currently hovers at historic lows (approximately 3.6% in 2021), houses where the income provider is unemployed or employed in a manual labor job are more likely to be food insecure (Kim et al, 2011). In the last 2 decades, Korean culture has begun to shift more toward individualistic attitudes in the workforce and a decline in trust and loyalty toward employers means fewer employees are working for the same company long-term. This cultural shift may result in reduced long-term financial security within many households (Kwon, 2005).

Agricultural Capacity: Since 1960, agricultural practices in Korea have heavily industrialized and neglected sustainable practices, encouraged by government entities focused solely on growth. This resulted in a decline in rural farming communities and a rapidly aging rural population. In the last 3 decades, South Korea has focused on a renewed interest in organic farming and younger families have begun to move back to rural areas for the purpose of farming. However, social infrastructure (schools, health services, etc) in rural areas are still lacking and farming capacity is still not adequate to supply population-dense urban areas (Suh, 2018).

Russia-Ukraine Conflict: Ukraine and Russia both represent a significant share of the global grain exports around the world. The ongoing conflict between these two countries has drastically reduced their ability to keep up with global food needs. As such, South Korea is currently grappling with the loss of as much as 10% of their wheat and corn imports, which will impact both local food and livestock sectors (Neo, 2022).

Food Choices and Lifestyle: Since the start of the COVID-19 pandemic, food takeout and delivery from restaurants has increased significantly among Korean households, compared to cooking meals at home and grocery shopping. Of the restaurant meals people purchased, fast food items such as fried foods, pizza, burgers, and other snacks were the most popular. These foods tend to be low in nutrition and high in saturated fats and sodium, potentially resulting in an increase in obesity and poor health outcomes (Rha et al, 2021).

CONCLUSION

Your task is two-fold. First, identify the most appropriate government agency or NGO for Ji-ho to approach for neighborhood-level assistance. Second, create an intervention proposal for him to present. This proposal should address both short-term solutions that have an immediate impact on the families currently in need of healthy foods, as well as long-term solutions to prevent this neighborhood and areas like it in Seoul from becoming susceptible to food access challenges. The proposal needs to be financially feasible and should identify potential funding sources where possible. All aspects of the intervention should be culturally appropriate for Seoul and South Korea.

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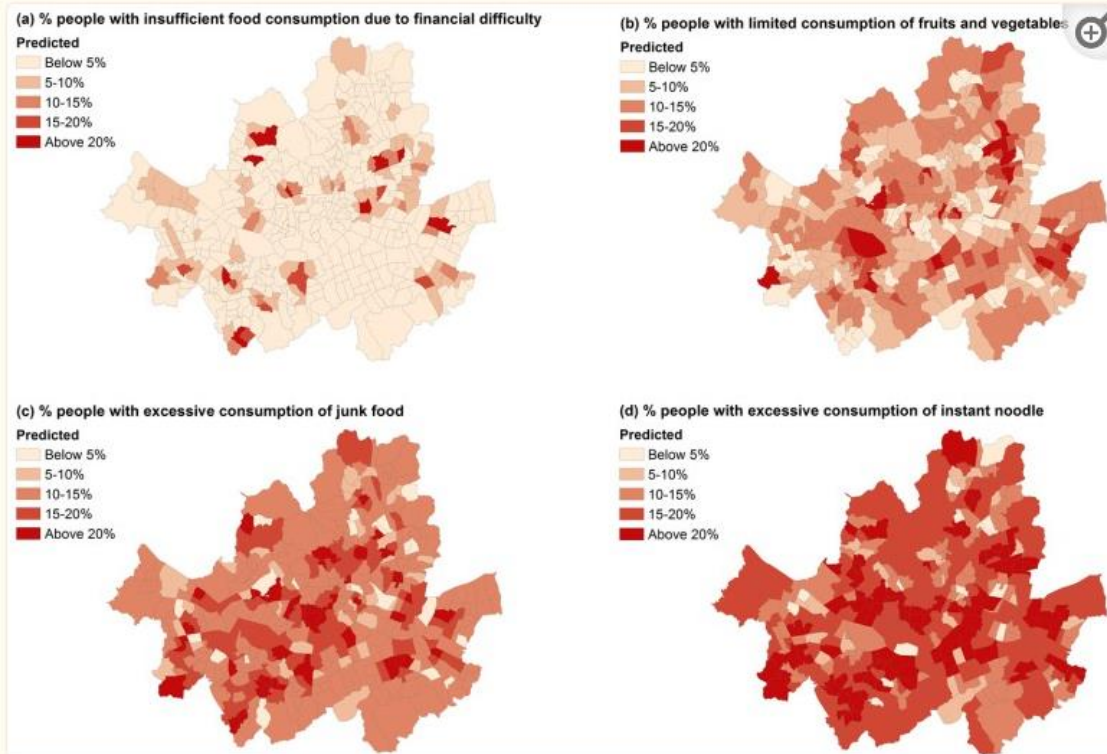
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APPENDIX A

Percentage of people showing measures of food insecurity by Seoul sub-district (Note: sub-districts are similar to boroughs in New York City)

from Kim et al, 2016



[Fig. 2](#)

Maps of sub-district level percentages of people showing (a) insufficient food consumption due to financial difficulty, (b) limited consumption of fruits and vegetables, (c) excessive consumption of junk food, and (d) excessive consumption of instant noodles