120,000 Winnipeggers live in neighbourhoods classified as Unsupportive Food Environments (UFEs) and have poor physical and/or economic access to healthy food. Of this number, 85,000 Winnipeggers live in inner city neighbourhoods with 35,000 people in more suburban areas.

Traditional food mapping research identifies Food Deserts. Food Deserts are typically identified as areas far from healthy food sources with a high prevalence of low-income households. Ideally, people should live within 500 meters of a supermarket but distances within 1000 meters are considered walkable.

The food desert concept suggests that low-income individuals who live far from healthy food sources lack the economic resources required to overcome distance in order to access healthy food.

Food deserts fail to account for someone who lives near a healthy food source yet is unable to purchase the nearby healthy food. These areas are Food Mirages, and defined as high social deprivation zones with a healthy food source nearby. The Food Mirage concept suggests that for some people the consumption of healthy food may be limited by barriers associated with the actual purchasing of healthy food rather than the presence of food in the area.

Our analysis shows that nearly 60,000 people live in inner city areas that are defined as severe food mirages. In traditional food environment mapping, these individuals are unidentified or misidentified because of their proximity to healthy food source, meaning these areas provide the illusion of access to food.

Food Mirages and Food Deserts present different barriers to accessing healthy food, and addressing each requires distinct and targeted policies.

As Food Mirages and Food Deserts presents barriers to accessing healthy food, both are referred to as Unsupportive Food Environments (UFE’s).

We developed a new method to classify and identify both food deserts and food mirages in Winnipeg to broaden the conceptual understanding of what barriers individuals face in accessing food, and to improve the identification of UFEs. This research is meant to expand the analysis used to identify and discuss food issues in Winnipeg.

A new social deprivation index was developed using seven distinct variables associated with poverty and mobility. These variables represent particular socio-economic characteristics that reflect an individual’s (in)ability to travel to supermarkets and purchase healthy foods. By using a social deprivation index we improve the understanding of food environments beyond the simple variables of income and distance.

Highest levels of social deprivation were found in the inner city, but areas of high social deprivation also exist outside of the inner city.
Our examination mapped 73 supermarkets in Winnipeg and assessed their spatial distribution in the city. Once identified, the research calculated distances to supermarket to determine area’s **physical access** to healthy food. On average, the inner city had closer access to supermarkets, challenge the often-touted claim that distance is the primary barrier to accessing healthy food in the inner city.

By combining **physical access** (distance) with **social deprivation** what emerges is a more accurate view of Winnipeg’s food environments. Individuals who live close to supermarkets but in socially deprived areas are in food mirages, while individuals who live far from supermarkets and in social deprived areas are in food deserts.

Individuals in non-socially deprived areas, regardless of their distance to a supermarket, are considered not at risk, because their socio-economic characteristics suggest there are capable of overcoming barriers of proximity through high-incomes. Eg, most can drive to a grocery store. This removes the identification as food deserts from many wealthier suburban areas.

Having this more detailed spatial understanding of the complexity of food insecurity can provide a clearer picture of the policy interventions needed to address income and distance. Our results emphasize the need for future policy and programing targeting the affordability of healthy food and the incomes of individuals, rather than focusing solely on supermarket locations.