

## Introduction

The physical food environment in cities represents the geographical access to various food establishments and shops, availability of different foods, reflects the opportunities and conditions influence people's food choices and nutritional status

plays a critical role in shaping dietary behaviors and long-term health outcomes. It encompasses factors such as the availability, accessibility, affordability, and quality of food across neighborhoods. As cities grow and dietary patterns shift, understanding how local food environments influence population health is increasingly important. This knowledge can inform both public health strategies and urban policy aimed at reducing health inequalities and promoting healthier lifestyles.

## Aim

To synthesize recent peer-reviewed evidence on how characteristics of the urban food environment—such as food availability, accessibility, and quality—relate to health outcomes across different population groups.

## Materials and Methods

A structured literature search was conducted in PubMed for peer-reviewed studies published in English between **January 2021 and January 2025**. The search strategy was developed using **DeepSeek**, focusing on terms related to food environments and health outcomes. Screening and classification of studies were carried out using **Rayyan**.

Scan the QR code to find out more for Materials and Methods

## Results

A total of **1,417 records** were identified and screened. After applying inclusion criteria, eligible studies were subjected to **data charting** and **narrative synthesis**. Four main outcome areas emerged

## Diabetes

Unhealthy food environments with high fast-food outlet density and limited fresh produce access were linked to a **20-30% higher incidence of type 2 diabetes, driven by poor dietary choices**.

## Cardiovascular Health

Healthier food environments with greater availability of fresh foods were associated with a **10-15% lower risk of cardiovascular diseases**, including hypertension and dyslipidemia.

## Obesity

Exposure to ultra-processed foods and food deserts was tied to dietary patterns causing a **1.5-2 kg/m<sup>2</sup> BMI increase**, with food desert residents showing **25% higher obesity rates**.

## Pregnancy-Related Outcomes

Food environment-related dietary patterns were associated with a **1.8-fold increased risk of gestational diabetes** and hypertensive disorders during pregnancy

## Discussion

This review highlights consistent associations between unhealthy food environments and poor health outcomes in urban settings. Dietary patterns influenced by exposure to ultra-processed foods and food deserts may also affect pregnancy outcomes, such as gestational diabetes and hypertension. However, the reviewed studies varied widely in their definitions and methods, limiting comparability and causal interpretation.

## Policy implications

Urban planning may benefit from considering food access strategies—such as zoning regulations, incentives for healthy retailers, and improved infrastructure — as potential tools to support healthier dietary behaviors, pending further evidence

## References

