Investigating the food environment in Hatfield and Hillcrest, Tshwane

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Abstract

This study explored the availability of, and accessibility to, healthy and varied food for students of the Hatfield and Hillcrest suburbs of Tshwane, South Africa. These suburbs are adjacent to the main campus of the University of Pretoria and house many of the university’s students, in both university residences (TuksRes) and private accommodation. There are various factors that affect nutrition, such as food availability, affordability and variety; dietary preferences; knowledge and ability to prepare and cook food. A food desert is an area (a food environment) where sufficiently healthy and varied food is not readily available to the residents of the area, typically because supermarket and greengrocers are too few and too far away. Other barriers to accessing enough of the right food are physical (eg: railway lines or mountains), psychological (eg: personal safety concerns), sociological (eg: cultural or religious dietary practices), personal (eg: allergies, shopping patterns, grocery carrying capacity, or hours of work), information (eg: knowing what to eat and where to buy) and economical (eg: poverty).

Currently, there are no clear measures to define a food desert or a neighbourhood that lacks access to healthy foods, and there are many complications with identifying one. Further, little research has been done on the prevalence of food deserts in a developing country such as South Africa. This places much focus on the researchers, with the risk of over- or under-defining the problem. Hence, we investigated only some aspects of the food environment, namely the availability of, and access to, supermarkets that sell a suitable variety of fruits and vegetables. We also looked only at Hatfield and Hillcrest because they are conveniently demarcated by natural barriers and because the first author lives in the area and hence knows it well. Hopefully, this will contribute to a better understanding of environments in general, and in South Africa in particular.

Keywords: Healthy food, Food desert, Accessibility

Food Environments

- Where people live affects what they eat and food deserts and accessibility represent new challenges in the fight against diet-related diseases.
- Often, “food deserts” and “supermarketability” are interchangeable, but are they the same construct?
- Is food accessibility a precursor to a food desert?
- Because studies define a food desert as the researchers understand the term or as it befits their study, and because of different and uneven methodological processes used, it is difficult to compare the results of studies on food deserts.
- It is difficult to obtain reliable food intake data, because of factors such as portion sizes, number of servings, food and food groups consumed, identifying foods, new foods, mixed diets, and store size and layout.

Four barriers to accessing and consuming a healthy diet that can overlap and hence constitute unique types of a food desert, depending on the combination:

- Economic barriers (poverty), which affects the food a person can buy, their access to fuel for cooking and facilities and equipment for storing, preparing and cooking food;
- Geographic barriers, such as freeways, railway lines, mountains, lakes or rivers;
- Psychological barriers, such as concerns over personal safety and the perceived friendliness of the shops; and
- Sociological barriers, such as cultural or religious dietary practices [Shaver 2006].

To this, we would add two other types of barriers:

- Personal barriers, such as allergies, shopping patterns, grocery carrying capacity, hours of work, family responsibilities and income; and
- Information barriers, such as knowing what to eat and where to buy suitable food.

Personal characteristics of the consumer (food preferences, wealth, etc) are key in determining whether or not they consume healthy food [Turrell & Giske 2008].

- Over 11 million South Africans (one-fifth of the population) are “food insecure” [Food Bank].
- High food prices tend to force households to reduce the number of meals per day, change their shopping patterns and buy cheaper foodstuffs of lower quality [De Klerk et al 2001].
- Student funding is a major problem, with riots over funding closing several universities during 2014 [SAPA 2014a, 2014b, 2014c].

Results

It would appear from our study that:

- Almost all students in University of Pretoria residences in Hatfield and Hillcrest have ready access to grocery stores and shopping centres, and hence to fresh fruit and vegetables.
- However, much of the private accommodation in our study area lies more than 500 metres (an acceptable walking distance) [McEniere et al 2009, Smoyer-Tomic et al 2006] from grocery stores and shopping centres, and some are also more than 500 metres from public transport.
- On the other hand, many of the students in private accommodation might well have access to private cars.
- Further, we have evidence that some students are willing to walk two kilometres (in each direction) to get a meal.

This is only a preliminary study considering one aspect of the food environment in the Hatfield and Hillcrest student area, namely accessibility.

Further research will need to look at other aspects, such as:

- First buying patterns of students [TuksRes maintains detailed records of the purchases made at the Tuks Monate shop, which they will make available for analysis].
- Investigating other areas of South Africa with different spatial and socio-economic characteristics; and
- Nutritional quality of the food available, food choices, food prices, the actual accessibility of food outlets (comfortable walking distances and carrying loads, for example), and the time and distance that residents are willing travel or access food centres, be it using their own cars or public transport [Phaohna 2013, Phaphana et al 2014].

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References

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This shows that all the residences for which Tuks Monate is available, are within the acceptable walking distance. Of course, during the day the students are likely to be on campus, where they could use Kloostersaal or one of the restaurants there. Further, there are regular university shuttle buses running between Those residences and the main campus.