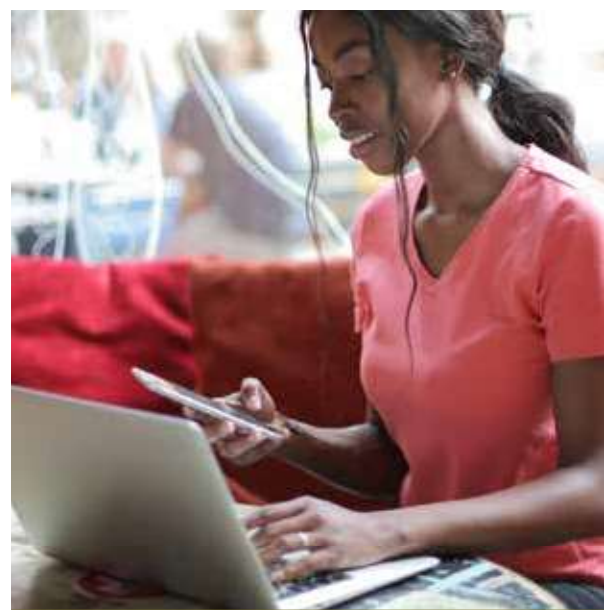




Access to nutrition information helps people to make better food choices.
 Photo: Jack Sparrow, Pexels



Photo: @NappyStock



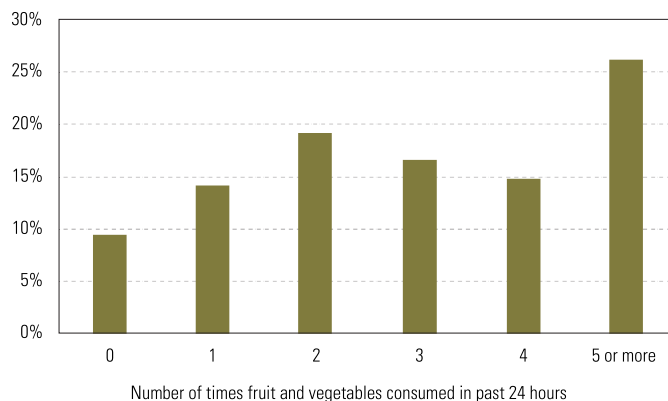
Access to nutrition information via information and communication technologies such as mobile phones, television, radio and the Internet may encourage people to eat more fruit and vegetables.
 Photo: Andrea Piacquadio, Pexels

Sharing information through television and mobile devices can help **improve the consumption of fruit and vegetables**

A healthy diet is crucial to building a strong immune system, but how do we encourage people to eat better? Looking at data from the [2018 General Household Survey](#), HSRC researchers investigated the extent to which access to mobile phones, radios, televisions and the Internet leads to improved consumption of fruit and vegetables. By *Mudzunga Neluheni, Sikhulumile Sinyolo and Catherine Ndinda*

Eating more fruit and vegetables is beneficial to health and reduces the chances of diet-related non-communicable diseases. However, the levels of fruit and vegetable consumption in South Africa are generally low. [Our analysis](#) of the [2018 General Household Survey](#) indicated that only 26% of the respondents consumed fruit and vegetables at least five times a day, which is the minimum level [recommended](#) by the World Health Organization (Fig 1). On average, households consumed fruit and vegetables 3.46 times per day, which is 31% below the WHO's recommended 5 times a day. This low consumption is likely to have worsened during the COVID-19 lockdown period, as online news [reports](#) indicated that many households 'panic bought' more foodstuff with long-term shelf life, before and during the early phase of lockdown in South Africa.

Figure 1. Frequency of fruit and vegetable consumption in South Africa, 2018



Besides the availability of fruit and vegetables, the lack of awareness and knowledge about their significance for peoples' health are cited as some of the key factors contributing to low consumption. As a result, the South African government has taken initiatives to increase health and nutrition awareness and to promote healthy behaviours through household visits and facilitating [community dialogues](#). While these approaches may be effective, they do not reach enough people and are too expensive to [scale up](#). The interventions outlined in South Africa's health and nutrition strategic documents, therefore, also include the use of mass media communication technologies including radio, television, and online and print media to improve nutrition education and awareness, with the intention of reaching large audiences. In recent years, there has also been a focus on the use of social media and [web-based applications](#). However, it is not clear whether this approach has achieved much success. We used the 2018 General Household Survey to investigate the extent to which access to mobile phones, radios, televisions and the Internet leads to improved consumption of fruit and vegetables.

There are two main pathways through which information and communication technologies such as mobile phones, television, radio and the Internet can lead to increased consumption of healthy diets. Firstly, households who own or have access to communication technologies are expected to have easier access to nutrition information. Access to information is expected to increase nutrition knowledge and awareness, leading to behavioural changes and improved dietary practices. Secondly, the ownership of communication technologies improves coordination and reduces the costs of transacting. For example, access to the Internet, or a mobile phone, allows a household to search easily for information that relates to the availability, location, and prices of fruit and vegetables, or any other commodity the household is interested in, instead of incurring transport costs driving to the market, only to find that the commodity is perhaps not available. The reduction in costs incurred by households leads to increased net savings, which they can spend on fruit and vegetables.

Findings

Table 1 compares the number of times fruit and vegetables were consumed in households with access to mobile phones, radio, television and the Internet to households without these technologies. It shows that households with access to the four information and communication technologies, consumed fruit and vegetables more frequently than households with no access to these technologies. Further [econometric analysis](#), which controlled for confounders, also found that access to any of the four information and communication technologies was associated with an increased frequency of fruit and vegetable consumption, and higher chances that a household would consume the minimum recommended levels. In other words, usage and access to information and communication technologies expand the possibility of changing diet patterns that favour an increased frequency in fruit and vegetable consumption among the population.

Table 1. Frequency of fruit and vegetable consumption and access to information and communication technologies

	Household has access	Household does not have access
	<i>Frequency of fruit and vegetable consumption per day</i>	
Mobile phones	3.51	2.21
Radio	3.77	3.12
Television	3.64	2.61
Internet	3.75	2.93

However, the types of information and communication technology had different effects on consumption. Our further analysis found that television had a higher effect on the consumption of fruit and vegetables than the other three technological modes. This suggests that video messaging is more effective than audio or texts when it comes to the promotion of healthy diets. The effectiveness of television in promoting the consumption of fruit and vegetables was more pronounced for fruit than for vegetables, whereas access to the internet was more strongly associated with increased consumption of vegetables than fruit. The role of mobile phones and radio was largely consistent across the models, suggesting that these two communication technologies can be used equally to promote the consumption of both fruit and vegetables.

Our findings suggest that while sharing nutrition information using any of these communication technologies is likely to improve fruit and vegetable consumption, the extent of the impact depends on the type of communication technology used. Further analysis also showed that demographics and socio-economic factors play an important role in shaping the fruit and vegetable consumption patterns of the people. For example, wealthier and more educated individuals consumed more fruit and vegetables than poorer households. Interestingly, those located in rural areas consumed fruit and vegetables more frequently than those in urban areas.

Our study concluded that there is scope to disseminate nutrition awareness and education programmes through mobile phones, the Internet, radio and television in South Africa. However, these should be tailored according to different socioeconomic profiles of the population. A one-size-fits-all approach is less likely to succeed.

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