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PROMOTING FRUIT AND VEGETABLE INTAKE IN URBAN ETHIOPIA

An Experiment Using Video-Based Communication

Gashaw Tadesse Abate, Kaleb Bayeh, Alan de Brauw, and Kalle Hirvonen

Inadequate consumption of fruits and vegetables is recognized as an important risk factor for noncommunicable diseases (Forouzanfar et al. 2015). Despite the protective effects of fruits and vegetables for micronutrient deficiencies and chronic diseases, intake is still far below the World Health Organization (WHO)'s recommendation of 146 kg per year or at least two servings of fruits and three servings of vegetables per day (Micha et al. 2015; Hall et al. 2009). Given that the promotion of fruits and vegetables is relatively more palatable economically than interventions that restrict intake of unhealthy foods, the relative lack of fruits and vegetables in the diet offers a promising opportunity.

Ethiopia is among the low- and middle-income countries (LMICs) with the lowest intake of fruits and vegetables. In Ethiopia, cereals and pulses largely dominate food consumption baskets, while the consumption of animal-sourced foods and fruits and vegetables is rare (Hirvonen et al. 2016; Worku et al. 2016). A recent study by Worku et al. (2017) indicated that, in 2011, households in Ethiopia consumed only 42 kg of fruits and vegetables per person per year on average—less than 30% of the recommended amount. Another study shows a disparity in the consumption of fruits and vegetables in the country, with fruit intake significantly smaller than vegetable intake—19.2 gm/day of fruit vs. 195.1 gm/day of vegetables (Micha et al. 2015). Low intake of fruits and vegetables is found to contribute to the high prevalence of various micronutrient deficiencies in the country (Harika et al. 2017; Herrador et al. 2014; Amare et al. 2012).

In developing counties, several factors can influence the consumption of fruits and vegetables, including factors related to what consumers are able to purchase and consume—household income, price, and access or availability (Hirvonen et al. 2018; Hirvonen and Headey 2018; Bachewe et al. 2017; Stifel and Minten 2017; Hirvonen et al. 2017; Miller et al. 2016; Mackenbach et al. 2015); what consumers choose to purchase and consume—preferences (Jarpe-Ratner et al. 2016; Draxten et al. 2014); and consumer knowledge about the nutrition and health benefits of fruits and vegetables (Farragher et al. 2016; Spronk et al. 2014).

This pilot experiment aims to address the knowledge gaps on the nutrition and health benefits of fruits and vegetables to help find ways to increase both consumption frequency and amounts at the household level. While there are already commendable efforts in the country to improve overall nutrition knowledge through behavioral change communication, so far, the interventions focus on rural areas and are limited to conveying recommended behaviors with little or no emphasis on the mechanisms by which diet quality can improve nutrition and health outcomes. This experiment will be the first of its kind to introduce systematic nutrition behavioral change communication in urban Ethiopia with an enhanced intervention to communicate the mechanisms through which the consumption of fruits and vegetables can lead to better nutrition and health outcomes.

The intervention

To attain the above-mentioned objective—increasing knowledge about fruits and vegetables, and ideally the intake of fruits and vegetables—the experiment will implement a video-based behavioral change communication targeting a sample of households in Addis Ababa. The intervention will have three groups of roughly equal size—two randomly selected treatment arms and a comparison group. The groups are chosen from a relatively representative sample of households in Addis, initially interviewed in late 2017. Households in the first treatment arm will be shown a video that covers the WHO-recommended consumption of fruits and vegetables, i.e., at least two servings of fruit and three servings of vegetables per day. While this intervention mimics the current practice of Ethiopia's public health extension workers, it will be enhanced by a video medium that features local characters. Households in the second treatment arm will be trained about the processes or mechanisms by which the consumption of fruits and vegetables can lead to better nutrition and health outcomes as well as the recommended consumption. This treatment is intended to address the "why" aspect in recommended behaviors, often overlooked in standard behavioral change communication approaches (Schneider and Masters 2018).

The video medium with local characters is chosen to ascertain whether equipping public health extension workers with ICT tools can improve their impact for several reasons. First, the ability of an intervention to change behaviors toward some desired outcome depends on whether the message is framed so that individuals can relate to it. With video content, exposure to local characters with whom a viewer identifies, can substitute for an individual's experience or the experience of actual peers and can be a particularly persuasive way of framing a message to promote attitude and behavior change—that is, people tend to receive, accept, and internalize messages better from those whom they recognize as similar to them (Bandura 1986). Second, the approach allows for consistent delivery of content, thereby reducing potential errors in conveying technical messages that require specialized knowledge or more accuracy than a health extension worker may be able to retain and communicate correctly. Moreover, videos can have recognition and medium effects, meaning they can be easier to understand or more convincing and lead to greater attention than ordinary health extension approaches.

After the videos are screened on tablets for respondents in the two treatment arms, a cross-randomized group of respondents will receive short phone calls two weeks later to stimulate their memories of the content of the videos, including recommendations for increased fruit and vegetable intakes. Approximately four weeks after the video intervention, the team will conduct a survey to observe both how consumption has changed in Addis Ababa and whether the interventions had positive impacts on either knowledge or intake of fruits and vegetables.

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Gashaw Tadesse Abate is a senior research coordinator, Markets, Trade and Institutions Division (MTID), IFPRI. Alan de Brauw is a senior research fellow, MTID, IFPRI. Kalle Hirvonen is a research fellow, Development Strategy and Governance Division, IFPRI. Kaleb Bayeh is affiliated with Addis Ababa University.

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1201 Eye Street, NW, Washington, DC 20005 USA | T. +1-202-862-5600 | F. +1-202-862-5606 | Email: ifpri@cgiar.org | www.ifpri.org | www.ifpri.info