Use of media to engage school-age children and adolescents to improve their nutrition and health

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What this article is about: Across low- and middle-income countries in particular, traditional forms of media continue to influence dietary choices and behaviours with digital media playing an emerging role. This article showcases the innovative ways in which media-based platforms are being used to engage school-aged children and adolescents to tackle malnutrition across diverse settings.

Key messages:

- In Timor Leste, the Lafaek school magazine has been used as a tool to support learning in schools since 1999 and a special edition of the magazine was created as a tool to improve the nutrition behaviours of adolescents.
- UNICEF Pacific engaged children and adolescents in remote Pacific regions by developing 'The Pacific Kids Food Revolution (PKFR)', a reality television series featuring instructional cooking segments.
- In India, the 'Eat Right School' programme was designed by the Food Safety and Standards Authority of India as an interactive learning model to promote the development of healthy and sustainable eating habits by schoolchildren, with 53,043 schools registered to date.
- UNICEF Zimbabwe hosted a 'Nutrition Hackathon' event, mobilising adolescents by calling on them to design digital solutions to improve the health and nutrition of themselves and their communities.

s children and adolescents age, they experience rapid physical, mental and emotional growth and development which shapes their nutrition and health status into adulthood. This has long-term implications for their wellbeing, economic productivity and susceptibility to disease, as well as that of their future offspring (Patton et al, 2016). The social determinants of health also broaden with age and independence, becoming increasingly influenced by peers, communities, cultural beliefs and practices, education, media and economic freedom (Viner et al, 2012). As a result, school-age children (SAC) and adolescents are susceptible to adopting poor lifestyle behaviours including unhealthy diets, low levels of physical activity and too much time spent sedentary. While the global prevalence of underweight declined from 9.2% to 8.4% in girls and 14.8% to 12.4% in boys 5-19 years of age between 1975 and 2016, a staggering 75 million girls and 117 million boys were still moderately or severely underweight worldwide in 2016 (NCD Risk Factor Collaboration, 2017). In the same year, 50 million girls and 74 million boys were obese.

Qualitative data from eight sites across India and sub-Saharan Africa described the complex drivers of adolescents' diet and activity behaviours including transitions in nutrition knowledge, shifts in the economic and social contexts in which adolescents live and the changing power dynamics between adolescents and their caregivers (Weller et al, 2020). While adolescents commonly understand what constitutes unhealthy foods, their consumption of these foods is often influenced by vulnerability to marketing as well as adolescents' desires for increased independence, peer engagement and social belonging (Weller et al, 2020). During workshops with representatives from 18 countries around the world, adolescents similarly described family, social media and the internet as the primary drivers of their food choices, followed by television and radio, friends, branding, advertising and celebrity endorsements (Fleming et al, 2020). Across low- and middle-income countries in particular, traditional forms of media (including television, newspapers and radio) continue to influence dietary choices and behaviours with digital media playing an emerging role. Given these complexities, different approaches to behaviour change are needed for youth that engage them in identifying the interventions that work and developing innovative and accessible methods of implementation.

While the behaviours adopted during childhood and adolescence may, to an extent, be driven by the use of screens and digital devices such as televisions, computers and mobile phones, these media-based platforms also provide unique opportunities for youth engagement (Chassiakos et al, 2016). For example, adolescents are highly connected on social media and have been shown to access information on diet, physical activity and weight control behaviours via these platforms. Social media, television and magazines are also influential in shaping adolescents' perceptions of body image and the celebrities featured on these platforms commonly inform adolescents' views of the ideal body shape (Fleming et al, 2020). A number of examples of using media-based platforms in nutrition programming for SAC and adolescents exist. These provide useful insight into what works to engage youth in the design and delivery of nutrition and health interventions.

In Timor Leste, the *Lafaek* school magazine has been used as a tool to support learning in schools since 1999. Through a partnership between CARE Australia and the local government, four bimonthly editions of the *Lafaek* magazine are produced and distributed as a widely trusted source of educational content, focusing on improving literacy, numeracy, critical thinking and healthy living. Given the widespread distribution of, and engagement with, the print magazine in schools, TOMAK, in partnership with Adam Smith International and Mercy Corps, developed a Special Edition of the *Lafaek* magazine as a po-

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tential tool to improve the nutrition behaviours of adolescents (see Case Study 1). This Special Edition focused on encouraging students to consume breakfast before school and to select healthier snacks and drink water during the school day. Results from pre-and post-test questionnaires demonstrated the positive effects of the magazine on students' knowledge and practice of healthy eating behaviours. These effects were greater when coupled with two-hour facilitated nutrition sessions that allowed for interactive engagement around the magazine topics.

Previous research has shown that adolescents have a preference for 'hands-on' learning about nutrition (Fleming et al, 2020). Teaching children and adolescents practical skills related to cooking, gardening and visiting markets and restaurants has also proved effective in supporting them in the selection and preparation of healthy meals (Muzaffar et al, 2018). Such an approach was utilised by UNICEF Pacific in the development of a television series, 'The Pacific Kids Food Revolution (PKFR)', in which reality television was used to reach children and adolescents in remote areas of the Pacific Islands, including Fiji and Samoa, with engaging and instructional cooking segments (see Case Study 2). It also appealed to adolescents' appreciation for celebrity endorsements by including a celebrity chef and a local athlete in cookery teams with groups of adolescents to inspire adolescents to champion the consumption of healthy, local foods. This approach has positively influenced the diets of between 29% and 59% of the participants in different Pacific Islands. In addition, the merits of PKFR prompted the Fiji Ministries of Health and Education to join the 'Pacific Kids' through a launch of the PKFR on World Children's Day.

In India, the 'Eat Right School' programme was designed by the Food Safety and Standards Authority of India as an interactive learning model to promote the development of healthy and sustainable eating habits by schoolchildren (see Case Study 3). Within the programme, schools implement 'Eat Right' activities as part of the school curriculum, as well as during extracurricular activities, using a number of interactive media strategies. These include educational videos and games featuring local celebrities, online challenges and guizzes as well as social media engagement strategies. The campaign has registered 53,043 schools to date and, while scale-up and programme activities were slowed by the COVID-19 pandemic, the programme provided a good basis for engaging students through online webinars and competitions. For example, a total of 4,587 schools participated in the online poster and photography challenge in 2020 that focused on healthy eating as a way of life and food safety in the context of COVID-19.

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As described by the World Health Organization (WHO) in their guidelines for implementing effective actions for improving adolescent nutrition (WHO, 2018), the participation of adolescents in programme design is an important component of adolescent-targeted programme success. This approach was used by UNICEF Zimbabwe who hosted a 'Nutrition Hackathon' event during which adolescents designed digital solutions to improve the health and nutrition of themselves and their communities (see Case study 4). One of these solutions, the YOLO4Health application, is now a registered start-up company which allows young people to access accurate health and nutrition information via a webbased social platform. To date, Yolo4Health has engaged 1,149 followers across Facebook, Twitter, Instagram and the Yolo4Health app with a minimum of 50 likes received on average per post. Usage across a range of social media platforms helps to widen the reach of the app and discussions are ongoing around a partnership to assist with financing and further growth.

Overall, these case studies showcase the innovative ways in which media-based platforms are being used to engage SAC and adolescents in the design and delivery of interventions to tackle malnutrition across diverse settings. These tools can deliver nutrition education and facilitate learning while providing accessible platforms for two-way engagement with children and adolescents themselves. They also offer opportunities for youth to play a central role in designing creative interventions that appeal to their needs, desires and aspirations, thereby fostering buyin and accountability to the solutions developed. Interactive digital platforms should be further harnessed to provide social contact and support in future nutrition programming for SAC and adolescents (Chassiakos et al, 2016; Chau et al, 2018). This will help to encourage peer-to-peer interaction and allow for collective content creation and sharing across social networks and communities. These innovative approaches should be complemented with robust data monitoring systems to track the impact of the programmes, adapt and improve solutions and to inform scale-up.

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