**Title of the Innovation/Practice**

Y-Check: innovative and comprehensive adolescent health check-ups

**Problem Statement**

In low- and middle-income countries (LMICs), improving access to preventive interventions for adolescents (10-19 years) is critical in the context of high morbidity and mortality from communicable and non-communicable diseases. Schools offer an important opportunity to reach adolescents with health services, and routine health check-ups ("well-care visits") offer a potential solution. However, evidence on the feasibility, acceptability, and effectiveness of routine check-ups in LMICs is scarce and services are not always appropriate for adolescents’ needs. Generating evidence on well-care visits to inform guidelines is a WHO priority for adolescent health. To address this evidence gap, WHO is coordinating the Y-Check Research Programme, with studies in Zimbabwe, Tanzania and Ghana.

**Innovation or Practice Description**

In each setting, we co-developed and delivered a novel comprehensive health check-up programme (Y-Check). The content of the check-up was rigorously designed through expert consultation, literature review, qualitative interviews and co-design workshops with adolescents and key adults in their lives, policymakers, programmers and healthcare workers. Y-Check was implemented among 10–19-year-olds attending school or community venues. We used self-administered digital questionnaires, clinical tests, and nurse/physician assistant reviews to screen for 20-25 conditions/behaviours, including mental health, nutrition, and HIV/STIs (older adolescents in the community setting only). We provided health promotion, on-site care and referral where required.

We evaluated the implementation and short-term effects of Y-Check through a hybrid implementation-effectiveness study. The primary outcome was the proportion of those screening positive for ≥1 issue who received appropriate on-the-spot care and/or completed documented referral(s) for all identified issues. Secondary outcomes, such as changes in behaviours, were measured using baseline and follow-up surveys. Implementation outcomes, including acceptability, adoption, appropriateness, feasibility and fidelity, were assessed through a mixed-methods process evaluation. Data from observations, in-depth interviews and participatory workshops were analysed thematically. A full-cost economic evaluation was undertaken from the provider's perspective to estimate the total cost of setting up and implementing the intervention. Here we present the findings from Zimbabwe.

**Results and Evidence of Impact**

In Zimbabwe from October 2022 to September 2023, 2097 adolescents (56.5% female) were enrolled; 1071 in primary schools (mean age 11.1y [standard deviation (SD)0.7]), 387 in secondary schools (16.2y[SD 0.8]) and 639 in community hubs (16.6y[SD 0.6]). 1843 (87.9%) were followed up on average 5 months after the check-up. 82.5% of 10-14 year-olds, and 95.1% of 15-19 year-olds screened positive for >1 issue. There was large unmet need for healthcare services with the most prevalent untreated conditions being suicide ideation (12.8%;95%CI 11.4-14.2%), anaemia (11.5%; 95%CI 10.5-13.2), oral health (11.3%; 95%CI 10.0-12.7), mental health (11.1%; 95%CI 9.8-12.5%), and visual impairment (7.0%; 95%CI 6.0-8.2). The primary outcome of appropriate care and/or successfully completed referral(s) for all identified issues was achieved for 70.8% (95%CI 68.7-72.9%).

At follow-up, there were improvements in nutrition, health-related quality of life, self-esteem, behaviours and educational outcomes. The intervention was feasible and acceptable. Uptake of referral services varied by condition. Y-Check cost USD47 per participant.

**Scalability & Sustainability**

Comprehensive adolescent health check-ups were feasible, acceptable, and effective in this resource-limited, urban African context. The Zimbabwe findings demonstrate the potential of an intervention like Y-Check to improve health, educational outcomes, and well-being. Evaluation of the Y-Check intervention, adapted to context, is ongoing in Tanzania and Ghana and will provide additional evidence on adolescent well-care visits worldwide. Future larger-scale implementation and evaluation of Y-Check is planned. With the support of UNICEF, Jamaica and Indonesia have contextually adapted and implemented Y-Check with a view to scaling up well-adolescent visits in these countries in 2025.

**Lessons Learned or Key Insights**

We identified a substantial untreated burden of disease among the adolescents using relatively simple and cheap methods. On-site, we were able to screen adolescents and provide immediate care for almost all conditions, with only 30% of those screening positive requiring referral. Adolescents, guardians, and teachers found the intervention to be acceptable, with its youth-friendliness and the fact that the services were free highly valued.

Key intervention strengths are (1) Co-design to develop and provide adolescent-responsive services, (2) Harnessing digital technology through a bespoke application and digital referrals to increase data quality and efficiency, (3) Strengthening school- and community-health services to address the comprehensive health needs of adolescents in an equitable manner. The intervention successfully reached adolescents who are particularly hard to reach: males and out-of-school youth.

**Partner Quotes or Community Voice**

 “There is no other program I know that can make you feel comfortable talking about issues. She listened and I was able to explain everything.” (Male adolescent,17 years).

“I noticed some changes in one student who was taught by Y-Check on obesity. He never had interest in sports, but this year he joined sports. The food he carries to school has changed. He now understands the value of exercising and eating healthy foods” (Primary School Teacher, Female)