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Adolescent HIV in Africa: linking local lives and global targets

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More than 80% of adolescents living with HIV reside in sub-Saharan Africa, and AIDS remains a major driver of adolescent mortality in the region.[1] The rapidly growing youth population in Africa faces several challenges within and beyond the realm of health, such as little education, violence, and stigma. However, high-level population health targets established by global development experts are often far away from the local lives of those who suffer the most. The gap between the UN's broad sustainable development goals (SDGs) spanning multiple dimensions (social, economic, and environmental) and specific vulnerable groups such as adolescents living with HIV can be so large that it discourages empirical research. SDGs can be so high-level that they float up into the air while more and more adolescents die from HIV infection. The guiding principles of the SDGs suggest that they should benefit all, accelerating delivery of high-quality services to the most vulnerable people. SDGs certainly have value to guide health policy at high levels, but could they also be useful to guide studies measuring interventions at a local level?

This crucial question inspired an important study by Lucie Cluver and colleagues in *The Lancet Child & Adolescent Health*.[2] Their study used a longitudinal dataset of 1063 adolescents aged 10–19 years living with HIV in the Eastern Cape province of South Africa, a region with a high burden of HIV. The cohort data captured detailed information about not only health outcomes, but also other SDG-aligned targets that can be monitored, related to education (eg, school progression), sex (eg, no sexual abuse), and community (eg, no community violence). The authors recognised that meeting the actual SDG targets would often not be feasible, and therefore focused on SDG-aligned targets. For example, SDG 3.3 on ending the AIDS epidemic became the SDG-aligned target of more than 85% self-reported antiretroviral therapy adherence in the previous week. Within this cohort, the investigators examined whether specific interventions were associated with synergistic improvements across multiple SDG-aligned targets. Cluver and colleagues[2] showed that three interventions were so-called development accelerators—ie, interventions with a synergistic effect across three or more SDG domains. These accelerators are parenting support (associated with good mental health [odds ratio 2·13, 1·43–3·15, p<0·0001], no high-risk sex [2·44, 1·45–5·03, p=0·005], no violence perpetration [2·59, 1·63–4·59, p<0·0001], no community violence [2·43, 1·65–3·86, p<0·0001], and no emotional or physical abuse [2·38, 1·65–3·76; p<0·0001]); government cash transfers (associated with HIV care retention [1·87, 1·15–3·02, p=0·010], school progression [2·05, 1·33–3·24, p=0·003], and no emotional or physical abuse [1·76, 1·12–3·02, p=0·025]); and safe schools (associated with good mental health [1·74, 1·30–2·34, p<0·0001], school progression [1·57, 1·17–2·13, p=0·004], no violence perpetration [2·02, 1·45–2·91, p<0·0001], no community violence [1·81, 1·30–2·55, p<0·0001], and no emotional or physical abuse [2·20, 1·58–3·17, p<0·0001]). These findings suggest that solely tracking SDG targets will

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provide insufficient data to inform country-specific interventions, policies, and resource allocation for adolescents living with HIV in Africa.

This study is a rare example of an evaluation of interventions based on SDG-aligned targets in non-health domains.[3] Much public health research focuses on health outcomes, despite an understanding that we must go beyond health to create sustainable change. Non-health benefits of health interventions deserve greater attention, especially given the breadth of the SDGs. This study underlines the need for multidisciplinary metrics to assess the effects of complex interventions. Moreover, the concept of identifying synergy across interventions outlined in the UN Development Programme's development accelerator framework[4] is refreshing. The pragmatic orientation of the study allowed the investigators to follow a highly marginalised group as they received multiple interventions.

However, there are several caveats. Perhaps most importantly, this longitudinal study was not prospectively designed to determine the effect of interventions on SDG-aligned targets. The adolescents were exposed to multiple ongoing interventions, some overlapping in time and location. Additionally, the conclusions were based on data from a single cohort in HIV care, and generalising to adolescents who have never been HIV tested or to other settings should be done with caution. To address the challenge of reaching adolescents who have never tested for HIV, we need to also identify innovative accelerator synergies across SDG-aligned targets. One approach is to use crowdsourcing where a large group of people solve a problem.[5] This approach solicits feedback from individuals beyond the health sector, drawing on the collective wisdom of the group.

This study can help us to bring SDG targets to directly bear on the lives of the most vulnerable groups. Linking high-level targets and local interventions can help to accelerate programmes, research, and policy development. Further empirical research using SDG-aligned targets might be useful for identifying synergistic interventions and revising targets themselves. Adolescents' need for real-world development accelerators is still unfinished business for the 2030 sustainable development agenda. However, identifying services associated with synergies across and within SDG targets has major value for improving adolescent outcomes and ensuring that resources are better allocated to meet the needs of the world's fastest growing population.

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A global perspective on juvenile idiopathic arthritis

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Juvenile idiopathic arthritis is an umbrella term that describes a heterogeneous group of immune-mediated diseases characterised by chronic arthritis that persists for at least 6 weeks in childhood.[1] Juvenile idiopathic arthritis occurs worldwide, but its occurrence and clinical phenotypes have mainly been estimated in European and North American populations. Previous epidemiological studies showed marked differences in the prevalence and incidence of juvenile idiopathic arthritis itself[2] and in the distribution of juvenile idiopathic arthritis categories across Europe and worldwide. However, these published data are difficult