

Global Trends in Preventative Chemotherapy for Soil-Transmitted Helminthiasis, with a focus on Pre-school age children

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The World Health Organization (WHO) recommends that all countries with $\geq 20\%$ prevalence of soil-transmitted helminthiasis (STH) at baseline administer preventative chemotherapy (PC) to children aged 1-14 years. WHO has the target of reaching at least 75% of children in all countries requiring PC by 2020. Historically, global STH control efforts have been largely school-based with most program indicators and data collection focused on school-aged children (SAC: ages 5-14 years), even though pre-school aged children (PSAC: ages 1-4 years) represent between 10-20% of the nearly 1.5 billion people worldwide infected with STH. Using the WHO PCT Databank, we analyzed 2006-2016 global PC coverage, with a focus on coverage among PSAC. Neither PSAC nor SAC met the 75% coverage target in 2016, with PSAC lagging behind SAC. If the current trend in PC coverage persists, PSAC and the combined group of children 1-14 years will not reach the target by 2020. Of the over 267 million PSAC living in the 103 countries requiring PC for STH in 2016, only 49% received treatment. However, of the 162 million PSAC in the 55 countries that treated PSAC in 2016, 80% received treatment. Furthermore, from 2014 to 2016, only 36% of countries requiring PC reported treatments every year, while 30% of countries reported no PSAC treatment. Globally, over 104.8 million PSAC live in countries requiring but not treating PSAC in 2016, which constitutes 39% of the at-risk PSAC population. While countries that do target PSAC have demonstrated the ability to reach the 75% target, the WHO PC coverage targets for PSAC and all children remain unrealized because too many countries either do not currently target PSAC or do so inconsistently. The failure to reach PSAC undoubtedly undermines the WHO goal of elimination of STH as a public health problem by 2020. In line with WHO 2017 STH guidance, we strongly encourage donors and ministries of health provide additional resources for the provision of PC, conducting monitoring, and measuring the impact of control efforts on this risk group. As adopted by the STH Coalition Action Plan, this is a critical and immediate opportunity to accelerate progress towards the WHO 2020 STH PC targets.