

TRANSITION MODEL TO ACHIEVE MORBIDITY REDUCTION AND NATIONAL PROGRAM SELF-SUFFICIENCY IN SOIL-TRANSMITTED HELMINTHIASES CONTROL



CWW

A program of
THE TASK FORCE
FOR
GLOBAL HEALTH

PROGRAM PHASE

	– NASCENT – START-UP/SCALE-UP	– MATURING – ROUTINE PROGRAMMING	– MATURE – END GAME	– MAINTENANCE – ELIMINATION AS A PUBLIC HEALTH PROBLEM
OVERVIEW				
ANTICIPATED TIMELINE				
PROGRAM YEAR	Years 1–2	Years 3–5	Years 6–8	Years 9–ongoing
OBJECTIVES				
MORBIDITY	– Evaluate assumption of high morbidity	– Substantially reduce morbidity to nearly controlled levels	– Achieve elimination of STH as a public health problem	– Sustain morbidity elimination as a public health problem
PROGRAM	– Develop STH control program and begin PC distribution	– Develop effective M&E to inform programming and target those at risk	– Develop strategy to fund and secure procurement of quality, affordable deworming products	– Deliver predominantly self-sustaining STH control program
DISEASE BURDEN				
PREVALENCE	– National average $\geq 20\%$ – STH assumed ubiquitous	– District average 10–<20%, some $\geq 20\%$ – Patchy and heterogeneous	– District average 0–<10%, few $\geq 10\%$ – Very patchy with a few “hot spots”	– District average 0–<10% – Low endemicity with environmental parasite reservoirs remaining
MORBIDITY	– MHII prevalence $\geq 2\%$ in all districts – STH-associated morbidity common	– MHII prevalence <2% in some districts – Some “hot spots” with increased morbidity	– MHII prevalence <2% in most districts – Few “hot spots” with increased morbidity	– MHII prevalence <2% overall – Very few cases requiring clinical care
PROGRAM STREAMS				
1. MONITORING, EVALUATION, AND SURVEILLANCE				
FRAMEWORK	– Limited M&E insufficient data for modeling	– District-level M&E data collected or modeled	– District and/or sub-district M&E data collected or modeled	– Surveillance incorporated into HMIS – Focal enhanced surveillance may be conducted
FUNDING	– Low costs – Limited funding needed	– High costs – Funded by pharma, IOs, NGOs, and MoH	– Highest costs – Funded by NGOs and MoH	– Low cost with surveillance funded largely by MoH
2. PREVENTATIVE CHEMOTHERAPY DISTRIBUTION				
PROGRAMMING DECISIONS	– Population-driven based on perception that ALL children in endemic countries are at risk	– Data-driven based on district-level prevalence estimates	– Data-driven based on district or sub-district level prevalence estimates	– Event-driven based on age, milestone, or venue (e.g. at vaccination, starting school, antenatal clinic)
FREQUENCY	– PSAC and SAC: 2x/year in all districts – WRA: treated when in contact with health system	– PSAC and SAC: 1x/2 years, 1x/year, or 2x/year based on district prevalence – WRA: treated when in contact with health system	– PSAC, SAC, and WRA: 1x/ 2 years, 1x/year, or 2x/year based on district or sub-district prevalence	– PSAC, SAC, and WRA: At qualifying events (e.g., age, school year, antenatal care)
FUNDING FOR DISTRIBUTION	– Low unit cost with many in target population – Funded primarily by IOs, NGOs, and MoH	– Low unit cost with many in target population – Funded primarily by IOs, NGOs, and MoH	– Increased unit cost (with addition of WRA) but fewer in overall target population – Funded primarily by IOs, NGOs, and MoH	– Low unit cost with fewest in target population – Funded primarily by IOs and MoH

(continued)

3. DEWORMING PRODUCT (MEDICINE) PROCUREMENT				
SOURCE	– Donated primarily by pharma and IOs	– Donated primarily by pharma and IOs	– Some donated by pharma and IOs	– Minimal donated by pharma and IOs – Local purchase by MoH
DONATION NEEDS	– As much as needed based on population data	– Tailored to district prevalence estimates and population	– Tailored to district and sub-district prevalence estimates and population	– Tailored to those countries requiring donations for maintenance of event-based PC
FUNDING FOR DEWORMING PRODUCTS	– Highest cost to pharma for donation, storage, and shipping – Highest cost to MoH for personnel, training, storage, and shipping	– High cost to pharma for donation, storage, and shipping – High cost to MoH for personnel, training, storage, and shipping	– Reduced cost to pharma – Low cost to MoH for personnel, training, storage, and shipping	– Lowest cost to pharma – Minimal cost to MoH
NOTES				
ASSUMPTIONS	<ul style="list-style-type: none"> – All children are at high risk – No surveys are required (but some may have been done) – There is unlimited donation of deworming products 	<ul style="list-style-type: none"> – The M&E system is affordable, funded, and able to categorize districts on prevalence – National programs can tailor PC frequency by district – There is unlimited donation of deworming products – The supply chain can be reactive to changing annual demand 	<ul style="list-style-type: none"> – The M&E system is affordable, funded, and able to categorize districts and sub-districts on prevalence – National programs can tailor PC frequency by district – The supply chain can be reactive to changing annual demand – WRA are included in PC distribution 	<ul style="list-style-type: none"> – Surveillance is incorporated into the HMIS – Donated or purchased quality, affordable deworming products are available for periodic event-based PC and case management – Quality, affordable deworming products are available to purchase at pharmacies for self-treatment
CAVEATS	<ul style="list-style-type: none"> – This model clarifies the transitions from the early “attack phase” of a program where STH infections are presumed ubiquitous (national twice-per-year mass PC distribution heavily dependent on donated deworming products and external financing) to the “maintenance phase” of a program where morbidity is controlled (with process 100% locally owned and managed). – We believe this model can be expanded and improved. We will solicit input from STH stakeholders over the coming months. – The model does not apply to all countries and different parts of the country may be at different phases. For example, some countries may go straight to local procurement of deworming products. – The funding, costs, and assumptions currently shown in the model highlight some current and future gaps. For example, if programs are to move to data-driven programming, then the M&E costs must be covered. If they are not covered, it is not reasonable to assume the countries will reduce the demand for donated deworming products. 			

Abbreviations: HMIS: Health management information system IO: International organizations; M&E: Monitoring and evaluation; MHII: Moderate or high-intensity infection; MoH: Ministry of Health; NGO: Non-governmental organizations; PC: Preventative Chemotherapy; PSAC: Pre-school-aged children (often defined as ages 1–4 years old); SAC: School-aged children (often defined as ages 5–14 years old); STH: Soil-transmitted helminths; WRA: Women of reproductive age (often defined as ages 15–49 years old)