

## **Call for Expressions of Interest and Proposal**

**VN#027 – An agency to conduct assessment of infection rate of soil transmitted helminthiasis (STH) in school age children (SAC) in Cao Bang, Dien Bien and Lang Son; and determine prevalence of *Clonorchis sinensis* infection in high-risk populations in Hoa Binh, Ninh Binh, Nam Dinh and Thanh Hoa**

### **1. Background:**

In Viet Nam, WHO has been supporting deworming programme for preschool children, school age children and women of reproductive age in the past more than 15 years. Mass drug administration (MDA) for SAC is in progress in almost all endemic provinces throughout the country. More than 10 years ago, Vietnam had conducted several surveys to assess STH infection situation in SAC in the endemic provinces where had two round MDA per year. To assess impact of MDA on STH infection and to inform the next round of MDA for STH, it is important to conduct another survey to determine STH infection rate among SAC in three high endemic provinces which have not conducted before which are Cao Bang, Dien Bien and Lang Son.

Foodborne trematodiasis (FBT) are major NTDs in Asia, particularly those caused by the human liver flukes *Opisthorchis viverrini* and *Clonorchis sinensis*. Clonorchiasis caused by *C. sinensis* is endemic in northern Viet Nam. The *Clonorchis sinensis* and *O. viverrini* infections have both been reported in Vietnam with *C. sinensis* distributed in 21 provinces in the North and *O. viverrini* in 11 central provinces. Unpublished data from NIMPE for 2018 - 2020 showed *C. sinensis* infection rates were very high in Thanh Hoa, Ninh Binh, Yen Bai. In 2016, the first finding of *Clonorchis sinensis* metacercariae in Thac Ba reservoir (Thac Ba Lake) and the routine of eating raw fish that prepared from fish collected in the Lake, remains numerous questions on *Clonorchis sinensis* and factors associated to the infection over here. However, other factors reported to be related to high prevalence of the questions such as drinking water, personal hygiene may also play a role in transmission of FBT. Therefore, it is necessary to assess the prevalence and related factors of *Clonorchis sinensis* in four provinces to inform public health interventions including MDA.

### **2. Work to be performed**

- STH survey:
  - SAC from 6 – 11 years old in Cao Bang, Dien Bien and Lang Son provinces where high prevalence of STH and implemented deworming for SAC continuously more than 10 years ago.
  - Total 500 samples of SAC in two primary school per province for conducting stool examination by Kato-Katz technique to determine eggs of STH infection in SAC and interview on Knowledge Attitude and Practice (KAP) for STH for SAC by questionnaire for SAC from 3-5 grades.
- Liver fluke *Clonorchis sinensis* survey
  - o Participants: People from 6 to 65 years old, who have lived in the selected commune for > 1 year and agree to participate in the survey.
  - Conduct the assessment of prevalence and related factors of small liver fluke *C. sinensis* infection in 4 provinces where people had high prevalence of *Clonorchis sinensis* long time ago and the resident in there have habit eating raw fish
  - At least 600 households will be randomly selected by the proportionate stratified sampling of households in each commune. Each study participant will provide one stool sample for coprological examination and answered a list of questions in the questionnaire to collect information for evaluation of risk factors associated with *Clonorchis sinensis* infection.
  - Survey questionnaires will include demographic characteristics, behavior risks and KAP for *Clonorchis sinensis* and questionnaires will be administered by interview

#### **Documents to be submitted:**

- Protocols for each survey including data collection tools.
- Estimated budget for each survey

### 3. Description of the tasks/process involved in carrying out the activity

Task 1: Conduct an assessment survey to determine STH infection rate among SAC in three high endemic provinces

- Collaborate with targeted provincial CDC to develop implementation plan with clear timeline
- Carry-out the survey on STH infection rate and to assess the impact of MDA in three provinces.

Output 1: Report on the survey results including background, methodology, results, conclusion, and recommendations.

Task 2: To assess the prevalence and related factors of *Clonorchis sinensis* to inform public health interventions including MDA

- Collaborate with targeted provincial CDC to develop implementation plan with clear timeline
- Carry-out the assessment to determine the prevalence of small liver fluke - *Clonorchis sinensis* infection in human and some related factor for liver infection in four provinces.

Output 2: Report on the survey results including background, methodology, results, conclusion and recommendations.

### 4. Planned timeline:

From 1 September to 31 December 2024

### 5. Specific requirements

Qualification:

- Team leader: University degree in medicines, public health with advanced post-graduate in the field of parasitology.
- Team members: Technicians who trained on parasitology from general practice with 5 years of experience in the field of parasitology.

Knowledge and experience:

- Team leader: At least 10 years experiences in the field of parasitology. Excellent knowledge on STH and small liver fluke. Strong capacity in implementing research/survey.
- Team members: At least 5 years experiences in the field of parasitology. Good knowledge on STH and small liver fluke.

Languages:

- Team leader: Vietnamese as mother tongue and proficiency in English
- Team members: Vietnamese as mother tongue basic level of English

### 6. Place of assignment

In Hanoi but data collection will be conducted in 3 provinces for STH survey (Cao Bang, Dien Bien and Lang Son) and in 4 provinces for FBT (Hoa Binh, Ninh Binh, Nam Dinh and Thanh Hoa).

Agencies who are interested can contact our focal person before/by **7 August 2024**

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***Subject: Application for VN#27 (To to conduct assessment of infection rate of soil transmitted helminthiasis (STH) in school age children (SAC); and determine prevalence of small liver fluke *Clonorchis sinensis* infection in high-risk populations in the north of Viet Nam***