

Health Questionnaires

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Based on work by Jean-Noel Poda (Institut de Recherche sur les Sciences de Santé), Jürg Utzinger (Swiss Tropical Institute) and references

Scope: questions/ challenges the tool addresses

School surveys are an important tool that supports both participatory and biomedical research. In West Africa, school questionnaires have been developed as mass-screening tool for schistosomiasis by the Swiss Tropical Institute and partners (N’Goran et al. 1998; Utzinger et al. 2000a, 2000b; Lengeler et al. 2000, 2002; Raso et al. 2005). Similar questionnaires have been validated for schistosomiasis in Brazil (Barreto 1993; Lima e Costa et al. 1998; Friedman et al. 2001), China (Zhou et al. 1998), Ethiopia (Hailu et al. 1995; Jemaneh et al. 1996), Nigeria (Mafe et al. 2000), and Tanzania (Ansell et al. 1997, 2001; Booth et al. 1998). Survey schedules are filled in for all students, either by their teachers or by the students themselves. They include questions on symptoms, diseases, and socioeconomic characteristics of the student.

Such questionnaires can be adapted for other diseases and to fit varying local circumstances. They have been used in several countries to obtain community-level data on a variety of health issues, for example, in Bolivia on neurological diseases (Nicoletti et al. 1998); in Malawi on fever (Holtz et al. 2003) and filariasis (Nielsen et al. 2002); in Nicaragua on cervical cancer (Claeys et al. 2002); in Turkey on reproductive health (Filippi et al. 1997); in Lao PDR on tuberculosis (Odermatt et al. 2007); and in Zambia on epilepsy (Birbeck & Kalichi 2004). When epidemiological studies are carried out at the same time, a local quantitative relationship between measured and reported infection rates can be established. Then the questionnaire can be applied in a larger area to assess prevalence at the level of the reservoir cluster or river basin.

Target group of the tool

Planners, designers, builders, managers and users of small multi-purpose reservoirs who wish to increase health benefits and reduce health risks associated with reservoirs. It can also be used by health professionals and researchers.

Requirements for tool application

Sampling frame of schools, and logistical support (transport, enumerators) to pre-test, adapt, distribute, explain, fill-in and collect questionnaires.

Tool: description and application

Standard questionnaires have been developed by the Swiss Tropical Institute for school children as screening tools for schistosomiasis (Uttinger et al. 2000a; Lengeler et al. 2002). The questionnaire is based on one that was used previously for assessing the relation between parasitic diseases, perceived ill health, and socio-economic status in the region of Man, Côte d'Ivoire (Raso et al. 2005). The questionnaire includes questions on symptoms and diseases that should be adapted to the local epidemiological setting. Each new questionnaire should be pre-tested on a small scale (in one school outside the study sites). In the SRP study in Burkina Faso, a locally adapted and pre-tested version was used. The questionnaire was accompanied by a set of instructions for the teacher, who was asked to fill in the form for every student. For clarity, the various forms are often reproduced on sheets of different colors. The following questions were included, to be answered by yes / no / don't know. The French version in the appendix has the original form including check boxes.

Name of school, class

General

- Present / absent
- Repeating the year
- Living in this village / neighborhood
- Living more than 4 km away from the school

Socioeconomic

- Wearing shoes
- Sleeping under a bed net
- Living in an earth house
- Living in a concrete house
- Living in a house with electricity
- Washing hands before eating
- Washing hands after defecation
- Washing hands with soap
- Playing in the reservoir every week
- Family having any of these objects:
 - Radio
 - Television
 - Refrigerator
 - Fan
 - Bicycle
 - Motor cycle
 - Plow
 - Chariot
 - Motor pump
 - Traction animals
 - Car

Symptoms

Did you have any of these symptoms in the past month?

- Body itching
- Headache
- Warm body
- Stomach ache
- Dysentery
- Blood in urine
- Blood in stools
- Coughing
- Trouble breathing
- Pain with urination
- Vomiting
- Pain in joints
- Tiredness
- Diarrhea

Illness

Did you have any of these diseases in the past month?

- Skin disease
- Eye disease
- Schistosomiasis
- Intestinal worms
- Malaria
- Malnutrition
- Cold

Instructions for teachers (separate sheet)

1. Take the List of Students (separate sheet). Complete it and correct any errors.
2. Attentively read the Questionnaire (separate sheet) until you understand it completely.
3. Interrogate every student in the class individually in the order of the List of Students (separate sheet)
4. It is formally forbidden for the students who have been interviewed to discuss with the ones who are still waiting to prevent mutual influences. In order to do this, it is recommended to call the students in one by one in an empty class room where they then wait till all have finished the questionnaire.
5. The Questionnaire (separate sheet) has three main questions to be asked from the students. The first is about the socioeconomic situation, the second about symptoms and the third about diseases.
6. Ask from each student: “do you wear shoes?”
7. Ask from each student: “do you sleep under a bed net?”

8. Ask from each student: “do you live in an earth house?”
9. Ask from each student: “do you live in a concrete house?”
10. Ask from each student: “do you live in a house with electricity?”
11. Ask from each student: “do you wash your hands before eating?”
12. Ask from each student: “do you wash your hands after you have been to the toilet?”
13. Ask from each student: “do your parents have one of these things in the house?” and then list the objects.
14. Ask from each student: “did you have any of these symptoms in the past month?”
15. Ask from each student: “did you have any of these diseases in the past month?”
16. Mark the answers for each student according to the following system:
 - “yes” = Y
 - “no” = N
 - “don’t know” = -
17. Do not modify any of the answers given by the student, even if it seems to you to be contradicting what he/she said earlier.

Lessons learned

From the literature we know that this kind of questionnaire can help to identify focus transmission areas of schistosomiasis, malaria, and possibly other diseases. If it is used at the provincial level, it can identify which districts are most affected and, within districts, which groups of schools are more affected than others. This can help focus control interventions or guide further research on the health impacts of small reservoirs.

Recommendations

Pre-test and adapt the questionnaire for local circumstances before it is applied at larger scale.

Limitations of the tool

This tool only works well in countries that have an efficient school network with a high degree of attendance. While this is a useful tool to identify areas at risk, it is not very precise at targeting populations at risk as it only captures schoolchildren. Because treatment campaigns often use schools as easy entry points, there is a risk that highly infected groups of children and adults will be missed.

While in Mali a good correlation was found between prevalence of schistosomiasis in school children and the rest of the population (Traore et al. 1998), in the North of Côte d’Ivoire the most infected children were those who did not attend school (Cecchi 2007). Similar findings from Egypt show that children not enrolled in school had higher prevalence and more serious infections, while in some areas up to 80% of the girls could not receive treatment (Husein et al. 1996). It may be these children that have the most exposure to re-contamination at snail breeding sites.

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Further reading on Health Questionnaires

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Appendix: questionnaire in French (form)

Questionnaire à remplir par l'Enseignant (Suivant les instructions n°1 à 18)

(Marquez les réponses pour chaque élève suivant le système suivant : "Oui"= O, "Non"= N, "Je ne sais pas"= -)

École :

Classe: CE1 CE2 CM1 CM2 CP1 CP2

Elève N°	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Présent (p), absent (a)																				
Doublant (oui=O, non=N)																				
Habite dans ce village/ quartier																				
Habite à plus de 4 km de l'école																				

1. Socio-économie

Demander à chaque élève (Instructions n°6 à 13)

Porter une chaussure																				
Dormir sous une moustiquaire																				
Habiter dans une maison en terre																				
Habiter dans une maison en ciment																				
Habiter dans maison électrifiée																				
Laver les mains avant de manger																				
Laver les mains après selles																				
Laver les mains avec du savon																				
Jouer dans le réservoir chaque semaine																				

Demander à chaque élève : « Tes parents ont-ils un de ces objets à la maison ? » (Instruction n°14)

Radio																				
Télévision																				
Réfrigérateur																				
Ventilateur																				
Bicyclette/Vélo																				
Mobylette/Motocycle																				
Charrue																				
Charrette																				
Motopompe																				
Animaux de labour																				
Voiture																				

2. Symptômes

Demander à chaque élève : « *As-tu eu l'un de ces symptômes dans le dernier mois ?* » (Instruction n°15)

Corps qui gratte																			
Mal de tête																			
Corps qui chauffe																			
Mal de ventre																			
Dysenterie																			
Sang dans les urines																			
Sang dans les selles																			
Toux																			
Respire mal																			
Douleur en pissant																			
Vomissements																			
Mal aux articulations																			
Fatigue																			
Diarrhée																			

3. Maladies

Demander à chaque élève : « *As-tu eu l'une de ces maladies dans le dernier mois ?* » (Instruction n°16)

Maladies de la peau																			
Maladies des yeux																			
Bilharziose																			
Vers intestinaux																			
Paludisme																			
Malnutrition																			
Rhume																			