

Publication

Access to, and use of, water by populations living in a schistosomiasis and fascioliasis co-endemic area of northern Côte d'Ivoire

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 3197893**Author(s)** Krauth, Stefanie J.; Musard, Capucine; Traoré, Seïdinan I.; Zinsstag, Jakob; Achi, Louise Y.; N'Goran, Eliézer K.; Utzinger, Jürg**Author(s) at UniBasel** [Zinsstag, Jakob](#) ; [Utzinger, Jürg](#) ;**Year** 2015**Title** Access to, and use of, water by populations living in a schistosomiasis and fascioliasis co-endemic area of northern Côte d'Ivoire**Journal** Acta tropica**Volume** 149**Pages / Article-Number** 179-85**Keywords** Cote d'Ivoire, Direct observation, Fascioliasis, Questionnaire, Schistosomiasis, Water contact

Water is an essential element of life, but it can also be a source of disease. Apart from direct consumption of unsafe water, direct contact and indirect consumption puts people at risk of many different types of pathogens. Employing a mixed methods approach, consisting of questionnaires and direct observations, we assessed access to, and use of, different water sources by the participants of the district des Savanes in northern Côte d'Ivoire. The use of water sources was put in relation to the potential risk of acquiring schistosomiasis and fascioliasis. Overall, 489 people aged 8 to 82 years participated. While all participants had access to safe water, 63% were in direct contact with unimproved water and 31% directly consumed unsafe water. More than a third of the people who otherwise reported using only improved water for all activities came in contact with unimproved water through crossing open water when going to their workplace, school or other destinations. Self-reported blood in urine - a marker for *Schistosoma haematobium* with reasonable sensitivity and specificity - was reported by 6% (n=30), self-reported blood in stool - an unspecific marker for *Schistosoma mansoni* - was reported by 7% (n=35), while blood co-occurring in both urine and stool was reported by another 10% (n=48) of participants. Accessing unimproved water for any activity (including crossing) was associated with higher odds of reporting blood in urine and/or blood in stool (odds ratio: 1.90; 95% confidence interval: 1.07-3.36). Our results have important ramifications for intervention programmes targeting neglected tropical diseases, and emphasize the need for a wider supply of safe water to rural populations, since the water supply at the workplace needs to be considered as well next to the water supply at home. Crossing of open water sources is an important risk factor for sustained transmission of schistosomiasis.

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