# Situation analysis of urogenital bilharzia in West Africa (2010 - 2021): A systematic review

## BACKGROUND

Due **to bilharziasis resistance**, the healthily situation of most West African countries has caused a deeply reflection to their government, As such, jointly with **the World Health Organization WHO** the current efficacy of **Mass Drug Administration (MDA**) including the **strategies** and **control** implemented are still low and this situation raising  some questions that led us to a systematic review and meta analysis the impact of the **intervention**

## METHODS

In general terms, studies evaluating Bilharziasis strategies and control in school ages pupils and adults were included. Meta-analyses comparing treatments with **Mass Drug Administration (MDA)** with bilharziasis strategies and control were performed,
The primary endpoint was the eradication rate for prevalence of bilharziasis
In addition, sensitivity analyses ascertained the effects of treatment schedule, dosage, duration  and measure the prevalence before and after the treatment on cure rates.
**PRISMA** guidelines were used to conduct the **systematic review**. A literature search was conducted in the published (peer-reviewed journal articles) and grey literature (conference reports, theses and dissertations). Some electronic databases including **Google, Google Scholar, PubMed, Direct Science, Web of Sciences, PloS, Medline and BDSP** were targeted, with appropriate keywords.

## RESULTS

The  selection of studies is summarized in the flow chart  Entering the search equation into the various search engines mentioned above gave 1120 results. After removing duplicates, 752 studies were obtained. After reading the titles and abstracts and applying the eligibility criteria, 31 studies were retained. Sixteen (16) references were then excluded due to unavailability of full text. Thus, in the end, 15 articles were included in the systematic review
Many control strategies and policies have been implemented on both sides.
Data collected from the various articles show that bilharzia is one of the most important **neglected tropical diseases (NTDs**) in terms of morbidity and mortality. **Epidemiological data** from these papers show that the disease is endemic in many developing countries, affecting mostly children, farmers and women who are in frequent contact with waters that may harbor the intermediate host mollusks.  Millions of people worldwide are infected with different species of **schistosomes,**

## RESULTS

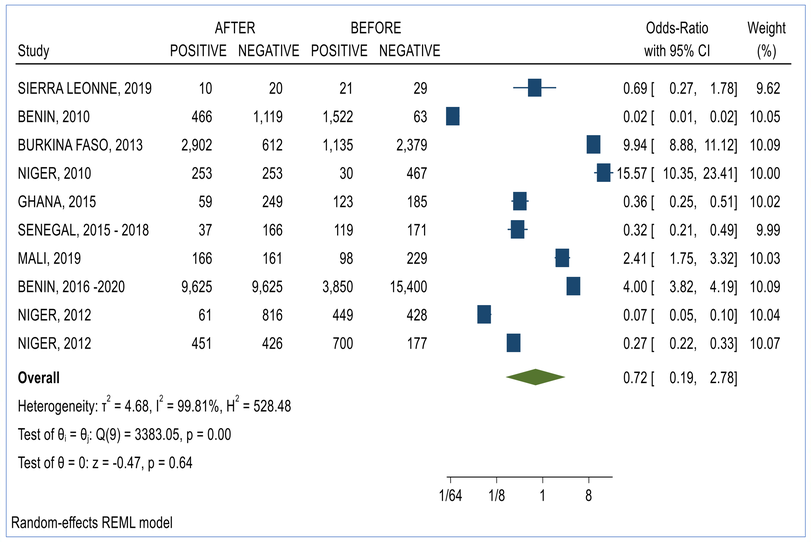
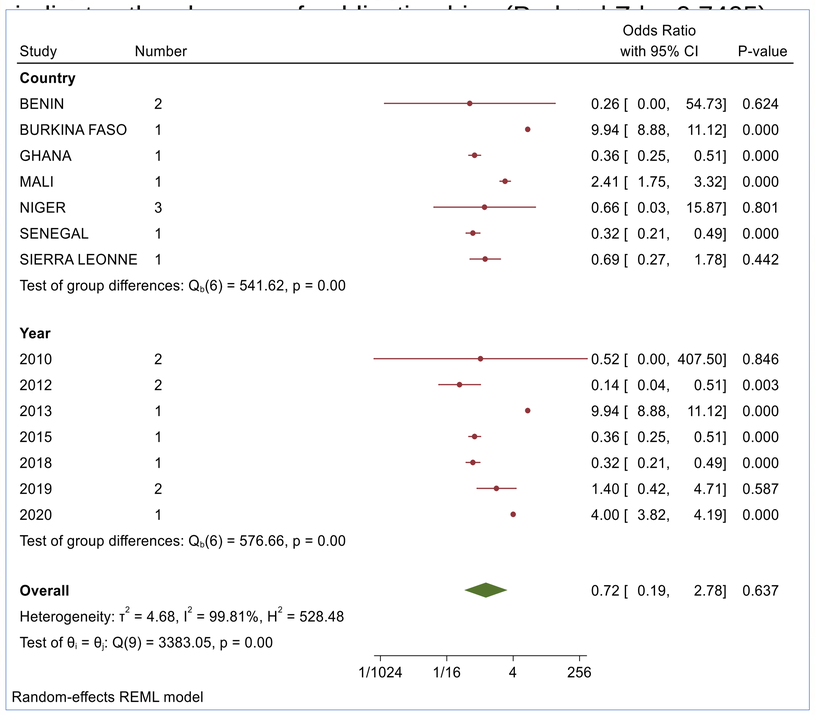



**Figure1 : Forest  plot of the effect of the interventions on the studied phenomenon**

Ten (10) studies contributed to the **meta analysis** forest plot of the random effect model of the level of intervention on the studied phenomenon of bilharzia and the result of the **Egger test** for publication bias. The model is significant at the 5% level (p = 0.00) and the **I2** statistic is 99.51%, suggesting strong heterogeneity, using the categorization of Higgins et al. Similarly, the Egger test




## CONCLUSIONS

The annual anti parasitic distribution campaigns remain the most widely used control strategy, however, host-vector and human-to-human transmission due to poor hygiene results in a continuous rebound in the prevalence of the infection. **Repeated implementation** of annual mass distribution campaigns based on WHO guidelines allows for an initial reduction in prevalence in two to three rounds. However, subsequent rounds do not allow for further reduction in infection prevalence, which has prevented the elimination of the **public health** problem. Uncertainties about aspects of human and shellfish biology and exposure factors must be taken into account for effective control. It would therefore be important to encourage vector control in schistosomiasis control strategies,

## ACKNOWLEDGEMENTS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Kind regards also to **ICAN** that offers us an opportunity to submit this research so as to help us to be well known in scientist world generally and particular in ICAN section,


## MORE INFORMATION / REFERENCES

Please, If you need further information or you want to read  a full paper associated to this research, for a moment, do write me first to the following address :


Phone number : **+229 97 72 57 09**
**E-mail : josiasahamide@gmail,com**


## CONTACT


**Josias AHAMIDE** ; PhD Student in **“”Institut Régional de Santé Publique’** ‘(IRSP-OUIDAH) BENIN
Phone number : +229 97725709
**E-mail : josiasahamide@gmail,com**



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