

# NEED FOR TASK SHIFTING AND DECENTRALIZATION DELIVERY TO FIGHT AGAINST HEPATITIS B : a situation analysis of Madagascar

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## BACKGROUND

- WHO strategy : elimination of hepatitis B by 2030 and treat 80% of people with chronic HBV infection eligible for antiviral treatment (1).
- Pentavalent vaccine in EPI (including hepatitis B): implemented since 2002.
- Tenofovir : AMM (Marketing authorization) approved

See also Poster Reference Nos. 127 and 128

## RESULTS (1)

- 1778 samples from 28 areas tested
- Weighted seroprevalence of HBsAg: 6.9% (95% CI : 5.6-8.6). Some areas have seroprevalence as high as 26%
- Low socio-economic status ( $p=0.03$ ) and living in rural area ( $p=0.04$ ) are significantly associated with positive HBsAg (Figure 2)
- Gene flow : 80% of migration event are from rural to suburban area (Figure 3).
- Tenofovir is not available

## RESULTS (2)

- 78% (60/77) laboratories facilities are in the urban areas
- 1/1400 rural area has a laboratory facility
- Only 5 hepatologists in all of the country (3 at the capital), and no laboratory conducts HBV DNA PCR routinely (Figure 1)

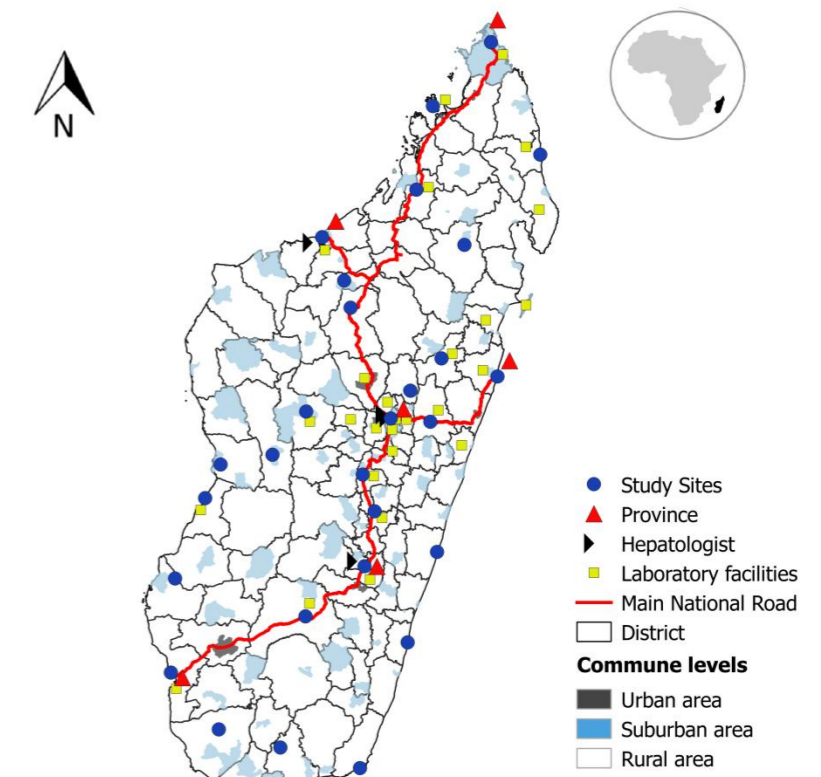


Figure 1 : Map showing the distribution of study sites across Madagascar. More than 80% of administrative commune are rural.

## AIM & METHODS

### The ZORA Study : A cross-sectional serosurvey

- **Aim** : To understand epidemiological pattern of HBsAg carriage in different areas and different socio-economical population.
- **Stratified multi-stage serosurvey** (2)
  - 28 Rural and Urban representative of Madagascar (Figure 1)
  - At least 30 individuals randomly included in each area
  - HBsAg detection (ELISA method)
- Assessment of laboratory capacities and health facilities in HBV screening, clinical staging of hepatic disease and treatment delivery
- **Phylogeography studies** (3) :
  - Gene flow study using preS/S gene of 100 isolates.

## RESULTS (3)

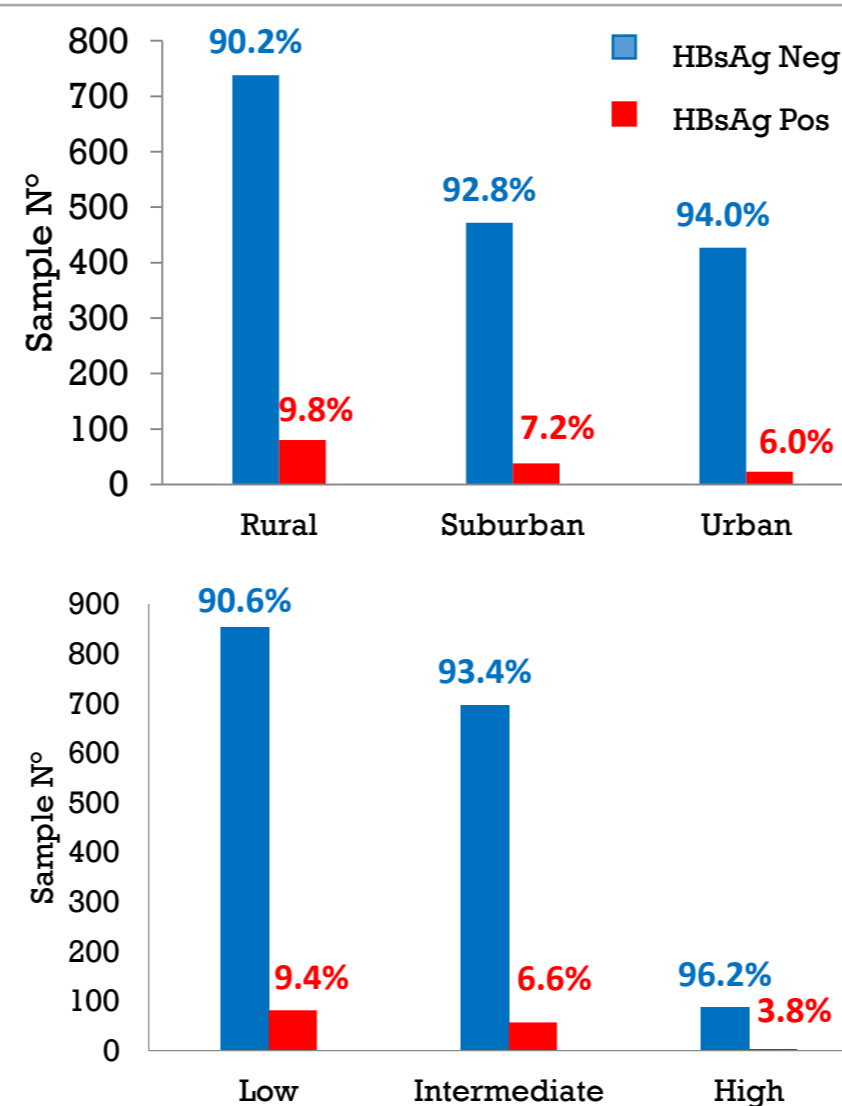


Figure 2 : Number of HBsAg positive according to rural/urban areas and economic status

## RESULTS (4)

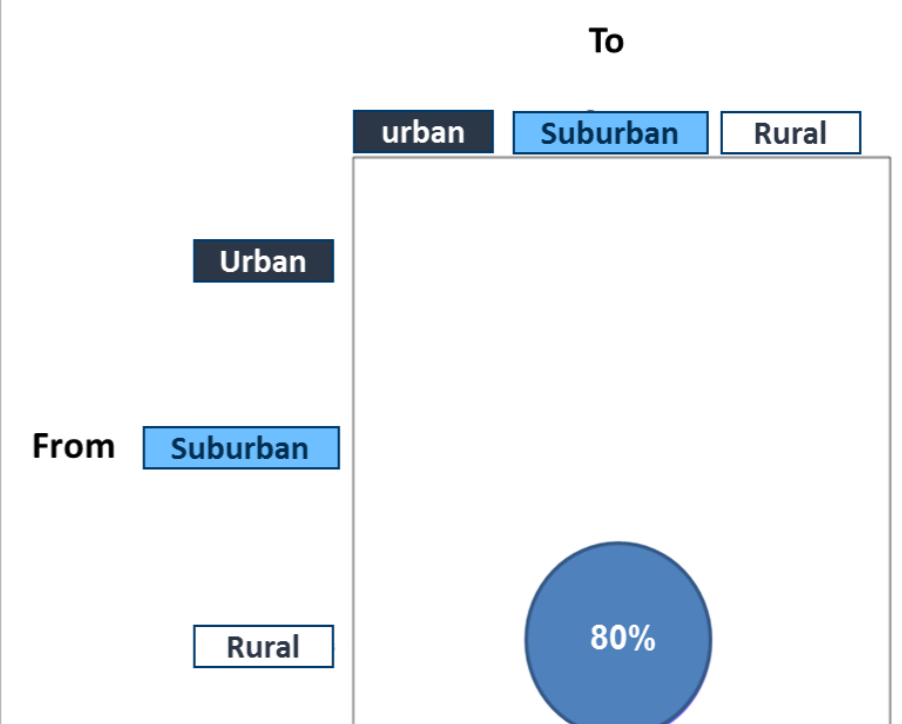


Figure 3 : Bubblegram showing the frequency of gene flow (migration) to/from different zone

## CONCLUSIONS

- High-intermediate level of endemicity for HBV infection
- High HBsAg seroprevalence in rural areas and people with low socioeconomic status
- Evidence in gene migration of HBV from rural to suburban areas
- Severely limited capacity for its diagnosis and treatment
- Need a public health approach to reach these populations in order to meet WHO's target in 2030 (1)
- Decentralize national hepatitis program : simple and low-cost diagnostic tools, task shift from hepatologists to general physicians or nurses should be urgently considered.

## REFERENCES

1. WHO: Draft global health sector strategies. Viral hepatitis, 2016–2021. 2015.
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## CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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