

Potential barriers to implement timely birth dose vaccination of hepatitis B in sub-Saharan Africa: a cross-sectional survey in Madagascar

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BACKGROUND

- Timely administration of hepatitis B (HB) vaccine at birth: not well implemented in Africa.
- Only few African countries included this vaccine in their national program.
- Even in a country that scheduled birth dose vaccine, its implementation is complicated due to¹:
 - Home birth
 - Lack of coordination at maternity unit
- Madagascar
 - HBsAg prevalence: 6.9% in adults²
 - First dose scheduled at 6 wks after birth as pentavalent vaccine
 - No birth dose hepatitis B vaccine



OBJECTIVES

- To understand potential barriers for the future implementation of birth dose HB vaccine in Madagascar, we estimated:
 - % of infants born at health facilities
 - % given BCG, the first dose of oral polio vaccine at birth, or 3 doses of HB vaccine
- NéoVac study (Neonatal vaccination against hepatitis B in Africa) conducted in Senegal/Burkina Faso/Madagascar
- See also Posters No. 6, 115 & 128
 - No. 6: sero-prevalence study
 - No. 115: HBeAg kit validation
 - No. 128: anthropological study

CONCLUSIONS

- Although the vast majority of women used ANC, only 39% delivered babies at health facilities
- Even in those born at health facilities, only few (10%) were vaccinated at birth for BCG and/or oral polio
- It is unlikely to achieve a good coverage of timely birth dose HB vaccine in Madagascar unless new vaccine delivery mechanism is developed, such as
 - HBV screening at ANC & post-test counselling for those infected³
 - Task shifting from nurses to lay health workers to vaccinate home-born babies

METHODS

- Between Oct 2016 & Mar 2017, we conducted a survey in Moramanga District using the existing Demographic and Health Surveillance System
- Standardised questionnaire to all women aged 12-54 years on their experience for child delivery in the past year
- Ascertained vaccination status in children aged <24 months through vaccination card

RESULTS 1: ANC usage

- Of 44,711 people living in the area, 1,010 women delivered a child in the previous year.
- No. of antenatal care (ANC) visits

ANC visits	Number (n=1010)	Percent (95% CI)
Never	58	6% (4-7%)
Ever	952	94% (93-96%)
1	41	4% (3-6%)
2-3	202	21% (19-24%)
≥3	709	75% (72-77%)

- Vast majority (94%) of women used ANC at least once

REFERENCES

¹ Miyahara R, Jasseh M, Gomez P, Shimakawa Y, et al.. Barriers to timely administration of birth dose vaccines in The Gambia, West Africa. *Vaccine*. 2016.

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³ Shimakawa Y, Toure-Kane C, Mendy M, et al. Mother-to-child transmission of hepatitis B in sub-Saharan Africa. *Lancet Infect Dis*. 2016.

CONFLICTS OF INTEREST

We declare that we do not have any conflict of interest.

RESULTS 2: Place of child delivery

- Place of child delivery

Place	Number (n=1010)	Percent (95% CI)
Health facility	393	39% (36-42%)
Home	594	59% (56-62%)
Other	23	2% (1-3%)

- Only the minority (39%) of women delivered at health facility
- Reasons for not delivering a child at health facility (multiple choices allowed)

Reason	Number (n=621)	Percent (95% CI)
Distance	239	38% (35-42%)
Economic reason	61	10% (8-12%)
No time	41	7% (5-9%)
Others	280	45% (41-49%)

- More precise investigations done by the anthropological team (see Poster 128)

RESULTS 3: Vaccination

- Of 1985 children aged <24 months, only 59% (1168/1985) had vaccination card
- Vaccine coverage and timeliness

Type of vaccine	n=1168	Percent (95% CI)
BCG	Never received	16% (14-18%)
	Received	84% (82-86%)
	0-1 day	7% (5-9%)
	2-7 days	20% (17-22%)
	7-28 days	41% (38-45%)
	>28 days	32% (29-35%)
Oral polio 0	Never received	48% (45-51%)
	Received	52% (49-55%)
	0-1 day	12% (9-15%)
	2-7 days	26% (23-30%)
	7-28 days	41% (37-45%)
	>28 days	21% (17-25%)
HBV 3 doses	Not completed	24% (22-27%)
	Completed	76% (73-78%)

- Only 10% of infants born at health facilities received BCG and/or oral polio at 0-1 day after birth

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