

Influencing factors on missed opportunities for vaccination among children aged 0-24 months in hospitals of White Nile State, Sudan: a mixed-method study

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Available online: <https://www.panafrican-med-journal.com/content/article/52/43/full/>

Content

Annex 1: supplementary material for Missed Opportunities for Vaccination (MOV) study, White Nile State (Sudan)_2023

Thematic Analysis of Interviews and Focus Groups

The qualitative arm of the study included interviews with health workers, focus group discussions (FGDs) with caregivers, healthcare workers, in-depth interviews (IDIs) with health administrators and managers from the state the Federal Ministry of Health. Interviews and FGDs yielded six themes as likely to contribute to MOVs and MOSVs. The six themes and insightful quotes from interviews with participants are summarised below:

1) Service delivery management system

- Shortages of vaccines and supplies, notably BCG and measles, and shortages of syringes, immunisation cards, and data reporting tools.
 - *“Vaccines should always be in stock in the hospital/health centre”* A mother interviewed at Kenana private hospital, Al-Jabalain locality.
 - *“Provide vaccines in an adequate quantity and avoid stock out of the vaccine as much as possible... avoid running out of other supplies... it is also important to conduct home visits and communicate to parents and trace defaulters also through sending. reminding to mothers and beneficiaries to keep vaccination card in safe place and bring it along during their visits to hospitals”,* A public health officer from Tandalti locality.
- Poor collaboration between hospital units, long waiting times, crowded sites, and health workers deferring vaccinations.
 - *“We need to coordinate closely with clinical departments, in-patient and emergency departments in the hospital, so that they can support us to review child's vaccination card and send those who are eligible for vaccination to the immunisation room so that they can be vaccinated before leaving the hospital.”* A public health officer of Um Ramtah locality.
 - *“We in the antenatal care unit, need to coordinate closely with the immunisation department”* A doctor from the Ante Natal department at Al-Deweim hospital.
 - *“A health worker in the immunisation team can visit the inpatient departments to review the health records of children who are planned to be discharged on that day, and identify their eligibility for vaccination”,* said the public health officer from Al -Jabalain locality health team.

2) Human resources and staffing

- Shortage of vaccinators for backup and the need to recruit more to open new sites. Lack of refresher training on immunisation and MOVs, including guidelines and tools.



- *“There should be more vaccination personnel. There should be more vaccination sites near where people live. There should be less of a wait time. Vaccination services should not be limited”* A mother at Al-Deweim public hospital.
- *“Inclusion of the topic of MOV and tools in the course for the immunisation training. Also, medical directors who check children when visiting clinics should check on MOV as well”,* A senior official from the Federal Ministry of Health, National Immunisation Programme

3) Access to services

- Long travel distances and costs, inconvenient service locations, and limited vaccination schedules and hours
 - *“I live far from here and it takes me time to reach the hospital and cost money as well, often travelling from far to reach the hospital”,* A mother from Guli locality.

4) Infrastructure

- Poor infrastructure, lack of seating, and inadequate ventilation in vaccination rooms.
 - *“The hospital management and the ministry should improve the condition in the vaccination centre and provide seating arrangements for mothers and children”,* a vaccinator from Al-Khojlabi private Hospital of Rabak locality.

5) Compliance and prioritisation

- Non-compliance with immunisation policies, negative beliefs, ignorance about timely vaccination, and competing priorities
 - *“Parents and caregivers have busy lives and vaccination hours may not be compatible with them”,* a nurse from Kosti educational hospital, Kosti locality.

6) Vaccine hesitancy and rumours

- Fear of side effects and reluctance to give multiple injections in one visit.
 - *“Even health workers may sometimes fear giving multiple injections to a child in one visit especially if the child is weak”,* A public health officer from Kosti locality.